

Prerequisites and needs for the automotive supplier industry to become established in Bosnia and Herzegovina

A Master's Thesis submitted for the degree of
"Master of Business Administration"

supervised by

Univ.-Prof. Prof. eh. Dr.-Ing. Dr. h.c. Wifried Sihn

Kenan Bilic

0225314

Vienna, 10. February 2016

Affidavit

I, **KENAN BILIC**, hereby declare

1. that I am the sole author of the present Master's Thesis, "PREREQUISITES AND NEEDS FOR THE AUTOMOTIVE SUPPLIER INDUSTRY TO BECOME ESTABLISHED IN BOSNIA AND HERZEGOVINA", 84 pages, bound, and that I have not used any source or tool other than those referenced or any other illicit aid or tool, and
2. that I have not prior to this date submitted this Master's Thesis as an examination paper in any form in Austria or abroad.

Vienna, 10.02.2016

Signature

Danksagung

Mein Dank gilt meinen Eltern Esad und Rasema, meinem Bruder Adelheid und meiner geliebten Frau Jasminka.

Acknowledgements

My thanks go to my parents Esad and Rasema, to my brother Adelheid and to my beloved wife Jasminka.

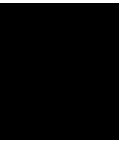
Abstract

The very high unemployment rate and the very high political problems in the country lead to this work. The main thematic of this master thesis is "The prerequisites and needs for the automotive supplier industry to become established in Bosnia and Herzegovina". This work contains information about the actual situation in Bosnia and Herzegovina and the actual automotive supplier industry in Bosnia and Herzegovina. Also a historical overview of the automotive industry in Bosnia and Herzegovina is provided. The work shows the actual problems and gives ideas and plans to overcome these problems. The objective of this work is to define preconditions and proposals, together with solutions, for Bosnia and Herzegovina to be able to establish a automotive supplier industry in the country and to gain more investors in that area. There will be defined a set of criterions which are relevant for investors for there decisions. It will be shown how these criterions must look like and how should they be fulfilled by the country of Bosnia and Herzegovina. We will see that the political situation and the corruption are the most problematic things which block the country to have more prosperity in the country.

Contents

Abstract	xi
Contents	xiii
1 Introduction	1
2 Actual situation in Bosnia and Herzegovina	13
2.1 Administration of Bosnia and Herzegovina	13
2.2 Political situation in Bosnia and Herzegovina	15
2.3 Law regulations in Bosnia and Herzegovina	16
2.4 Tax regulations in Bosnia and Herzegovina	17
2.5 Economical Situation in Bosnia and Herzegovina	18
3 History of the automotive industry in Bosnia and Herzegovina till 1992	21
3.1 History of companies in Bosnia and Herzegovina	22
3.2 Educational System in Socialist Federative Republic of Yugoslavia	26
4 Actual state of the automotive supplier industry in Bosnia and Herzegovina	29
4.1 Strong automotive supplier companies in Bosnia and Herzegovina	31
4.2 Automotive supplier industry in Bosnia and Herzegovina in numbers . . .	33
4.3 Political mismanagement of companies and corruption	33
4.4 Importance of the automotive supplier sector for Bosnia and Herzegovina	36
4.5 Competitiveness of the automotive supplier industry in Bosnia and Herzegovina	37
5 Criteria for decision making of the supplier industry in choosing there production and investment locations	43
5.1 Introducing location criteria	43
6 Prerequisites and needs for the automotive supplier industry to become established in Bosnia and Herzegovina	55
6.1 Mastering actual situation in Bosnia and Herzegovina	56
	xiii

6.2	How location criterions must look like in Bosnia and Herzegovina	64
6.3	Administrative unit for investors	71
6.4	Special company form and registration	71
6.5	Automotive Cluster and Government Support	72
7	Summary	79
8	Conclusion	83
	List of Figures	85
	List of Tables	87
	Bibliography	89



Introduction

Bosnia and Herzegovina is a small country in southeast Europe with 3,5 million citizens [fSoBH15]. Through the decades several empires have had control over Bosnia and Herzegovina (Ottoman Empire (1463 - 1878), Austro-Hungarian Empire (1878 - 1918))[Mal96]. **The First World War ended 1918 and from this time Bosnia and Herzegovina was part of the Kingdom of Yugoslavia (1918 -1941).** Beside the World War I, the period where Bosnia and Herzegovina was part of Kingdom of Yugoslavia, was a very catastrophic for Bosnia and Herzegovina, because of political plans and intentions to divide Bosnia and Herzegovina between Croatia and Serbia [Mal96]. In the period after World War II, Bosnia and Herzegovina was part of the Socialist Federative Republic of Yugoslavia (1945 - 1992).

The period, where Bosnia and Herzegovina was part of Socialist Federative Republic of Yugoslavia, was also not good. This problems are very good described in [Mal96], where the it is stated that Bosnia and Herzegovina was not trated as like other countries in Socialist Federative Republic of Yugoslavia according to tratemant of ethnic groups (todays Bosniacs(Ethnic group in Bosnia and Herzegovina[Bus13]) could not say that they are Bosniacs. They could only say that they are Serbs or Croatians with muslim religious confession. In this period Bosnia and Herzegovina gets industrialized. But again this was not planed to be done because of interests to help Bosnia and Herzegovina. It was due to Socialist Federative Republic of Yugoslavia was under fear from posible Soviet Union attacks. So they move the military industry and other important industry to Bosnia and Herzegovina[Mal96]. As Bosnia and Herzegovina has central geographic position within the Yugoslavian federation, Bosnia and Herzegovina was selected as a base for the development of the military defense industry within the Socialist Federative Republic of Yugoslavia. But according to Rusinow[Rus78] this industry have been build in total isolation to the market, roads and qualified workforce. From the 1948 very high efforts have been made to overcome this problems.

The time, where Bosnia and Herzegovina was part of Socialist Federative Republic of Yugoslavia, was more or less positive for this country. In this period good universities have been established, like "University of Sarajevo"[oS15a]. Positive trends like high employment rate, a strong industry with very high export rates, a solid education system together with a good social and medical system for everyone in Bosnia and Herzegovina[Mal96]. Very good cooperations with world brand companies have been realized. Cooperations like Volkswagen from 1972(Set up together with UNIS the Car Factory Sarajevo), Coca Cola from 1975, SKF Sweden from 1967, Marlboro, (U.S.) with a Tobacco factory in Sarajevo, Holiday Inn hotels, and after all, organization of Olympic Winter Games 1984 in Sarajevo [Gov15a], have been a sign for the wealth of the country and the will for more prosperity. This was also the period where in Bosnia and Herzegovina was placed a huge amount of heavy industry, which was not part of the military industry, like metal industries with machine constructions [Woo95]. Several companies have produced parts for the automotive industry, not only for the domestic market but also for the worldwide market. One huge example was UNIS [d.d15b], with his program in car production for the German Volkswagen company (We will see later more examples of successful companies from the automotive sector from this period).

In the early nineties (1992 – 1995) in BiH began a war [Mal96]. It was a very tragical period for the country. Many people have been killed or have been banished from their homes[Tot10]. The war destroyed a huge part of the industry. UNIS for example never managed to struggle out of the bad situation caused by the war. The situation of UNIS can be described very good through the annual reports of this company[d.d15a], which depicts a huge loss of the company through the years. Companies have lost their partnerships in the foreign countries, their machines have been damaged or stolen and transported to other countries. Not only the that the machines have been stolen also a huge amount of intellectual knowledge have been moved to foreign countries through the resettlement because of the war[Mal96].

After the war Bosnia and Herzegovina was politically set up in two entities, Republik of Srpska and the Federation of Bosnia and Herzegovina. In the Federation of Bosnia and Herzegovina also 10 cantons have been created with political and economical decision power [oB15]. Although the two entities build one state, the problems between them are also 20 years after the war visible [Mal96]. There are not only problems between this entities but there are also problems in the cantons and with the functionality of these. They create too much overhead and are very expensive[oV15]. Problems of the entities are not the biggest problem. The biggest problem are the political leaders. They are working only for their own well[WDR16](one such situation is about the Pavlovic Bank)[Eur16b]. In Bosnia and Herzegovina there are three presidents - one for each ethnic group (Croats, Serbs and Bosniaks) and they rotate every eight months [oFAoBH15]. Because there was a war between these ethnic groups, they have problems to find a solution for each small problem and sometimes it is in their own interest to not find a solution [Gua16]. The German Economical Association has stated that the problem of Bosnia and Herzegovina is the unstable political situation, low level of law, complicated administrates, stagnation

of reforms, high taxes, very high degree of corruption and the bad education system. Also the The European Progress Report for Bosnia and Herzegovina [Com15a] shows these problematic. It is stated:

The country remains at a standstill in the European integration process. There remains a lack of collective political will on the part of the political leaders to address the reforms necessary for progress on the EU path. There has been very limited progress on political and economic issues and on moving towards European standards [Com15a].

The issue which has a great impact, stated in the European Progress Report, is the corruption [Com15a]. Corruption is widespread in all areas of the state. Bosnia and Herzegovina can be happy to say that even with all that problems it has not scared away companies from abroad e.g. Germany to do business in Bosnia and Herzegovina [uH15] (In later chapters more information will be provided through the report from the Foreign Investment Promotion Agency of Bosnia and Herzegovina [oBH15b].

The war and the high unemployment rate (see figure 1.1) (one of the highest in the world, which can be seen in figure 1.2) lead to a very high resettlement of people to other countries (e.g. Germany, Austria, Sweden etc.).

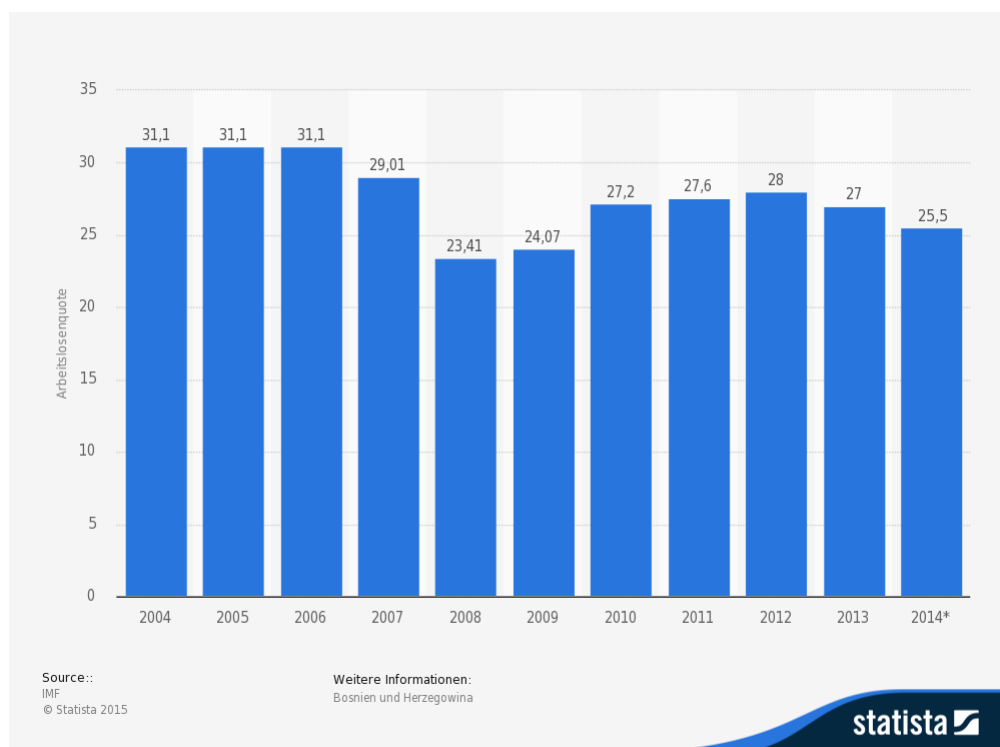


Figure 1.1: Unemployment in Bosnia and Herzegovina (Information got from interviewing people)[IMF15]

1. INTRODUCTION

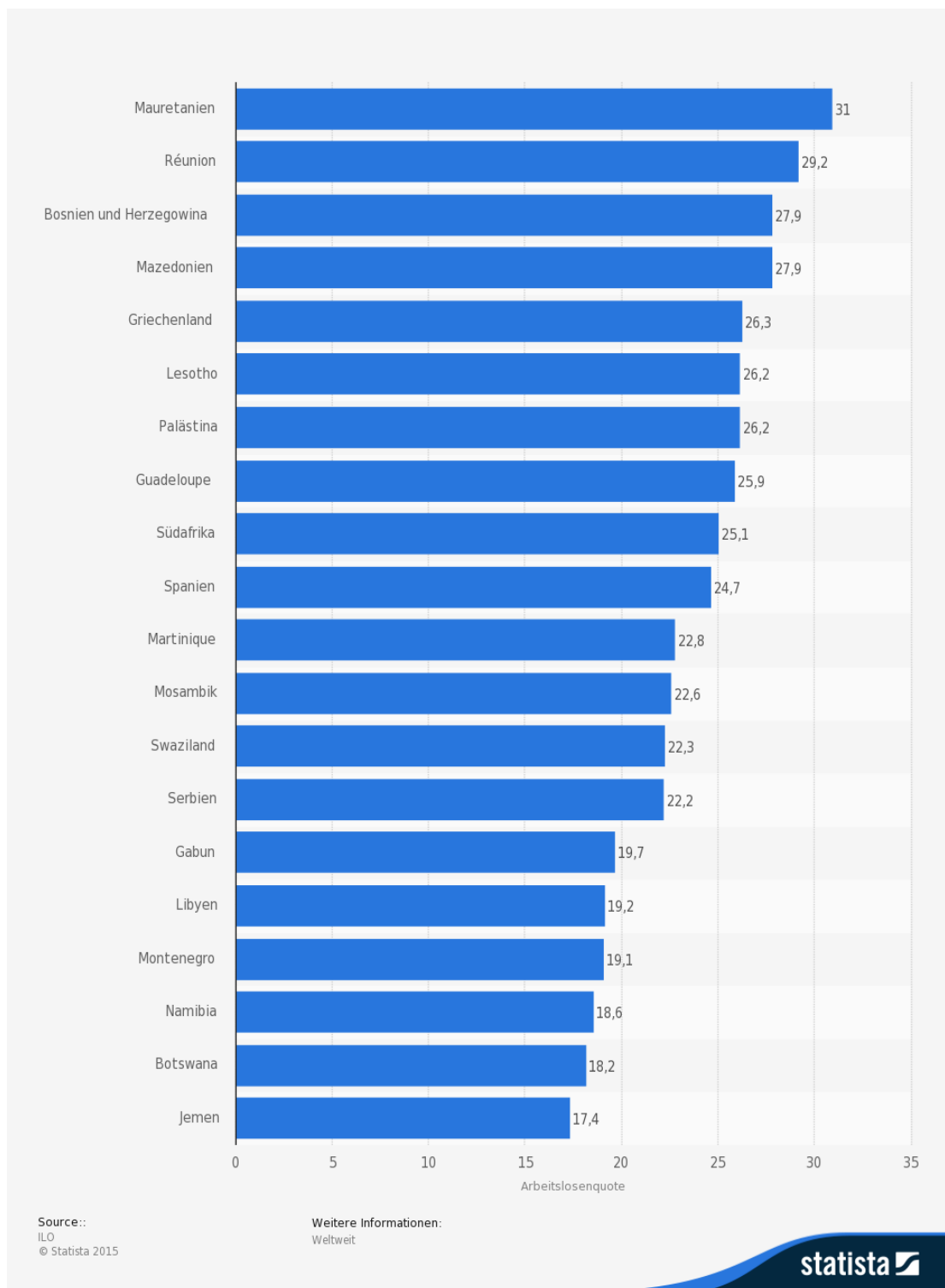


Figure 1.2: World wide unemployment ranking for year 2014[ILO15]

In the last years some cities lost a huge part of their population. Young people with a high degree of education can not find a job and leave the country. The Ministry for Human Rights and Refugees stated that in the year 2014, 68000 people left Bosnia and Herzegovina [fHRR15]. It is also stated that some cities became ghost towns. To cope with this situation and to provide a better situation, specially for young people, it is clear that the government has to put more energy to solve these problems.

One of the best ways to clear problems (political, social etc.) is that the residents have a solid workplace and that they can organize a life without having fear for the future. As said before Bosnia and Herzegovina had companies with a good reputation e.g. UNIS [d.d15b]. These reputations can be used to build up new companies or to convince investors that they can create added value for their business when producing in Bosnia and Herzegovina. The poor political situation brings problems in the investment and nobody wants to invest in Bosnia and Herzegovina. But there are also companies from Germany which are not scared about the situation in Bosnia and Herzegovina [uH15] and they would invest again in Bosnia and Herzegovina (e.g. Car Trim, MANN+HUMMEL etc.)[oBH15b]. This is a good signal from such companies in a country with such big problems. These companies which do such investments, even in a country with issues like in Bosnia and Herzegovina bring stability through industry factors [CBA00]. This means, the industrial production connected with a good salary for the employees can bring a stable political and social situation.

Knowing the Bosnia and Herzegovina industry, a good sector, where Bosnia and Herzegovina could be interesting for investors is the metal industry specialized for the automotive supplier industry (chapter 3 will provide more historical information). Another chance is the automotive IT Sector (Software and Hardware solutions for the automotive industry), where for example only for Embedded System (Software and Hardware) the needs are increasing due to more and more new electronic components are implemented in a car[Res16]. Knowing that the overall Embedded Systems market is expected to rise with 6.4% till 2016 (Global Embedded System Market is Estimated to Grow at a CAGR of 6.4% and Reach USD 233.13 Billion by 2021)[Res16], Bosnia should implement strategic ways to help such a industry to growth in the future. If we look on some numbers from the German automotive industry and the worldwide automotive market we will see why this sectors could be so important for Bosnia and Herzegovina.

The German automotive industry has about 750000 employees in the automotive sector 1.3, where about 300000 are working directly for the suppliers 1.4 and the others direct in car production.

1. INTRODUCTION

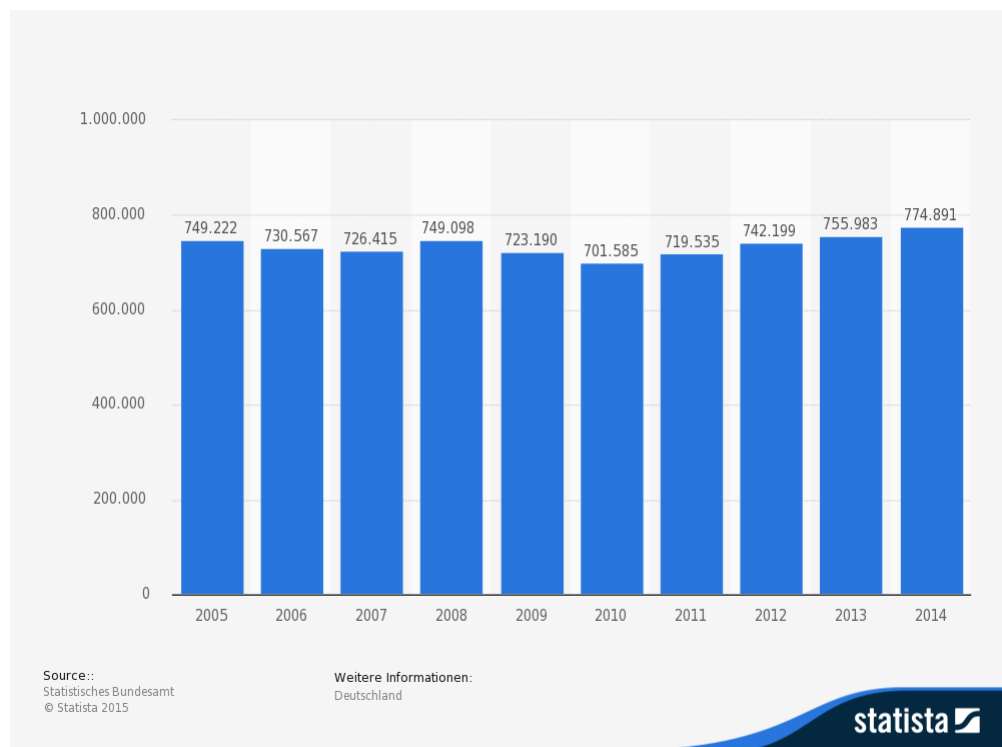


Figure 1.3: Employment in the German Automotive Industry[Bun15]

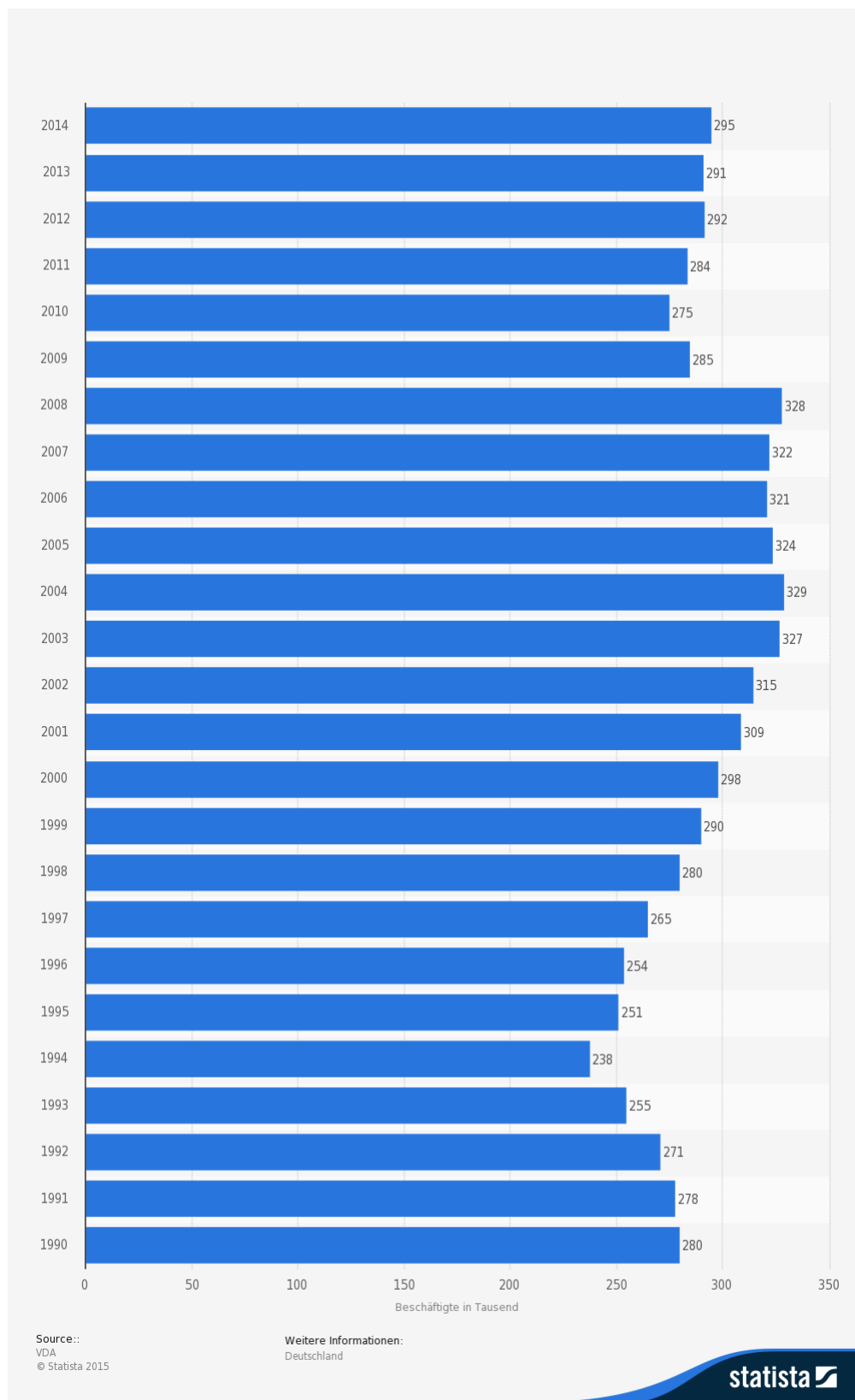


Figure 1.4: Employment in the German Automotive Supplier Industry[dAeV15]

1. INTRODUCTION

The German Federal Government states in the report [Gov15b] that in the past 5 years 100000 new jobs have been created in the automotive industry. The turnover in year 2013 was about 360 billion Euro and the prognosis for year 2018 is a turnover about 408 billion euro . In year 2015 the German automotive industry calculated with 4% more car productions then in the year before[Pro16]. Even the turnover is increasing in Germany the number of employees is staying in average about 750000. This is so because the turnover is made more and more in foreign countries because of the international integration, the globalization. This can be seen in the data that the German companies made 60% of their turnover in foreign countries. The investments in Germany in this sector are 100 billions Euro, which is 25% of all investments done in Germany[Gov15b]. In [fEER16] it is stated that the automotive industry is number one in employment, in value creation, export import and investment.

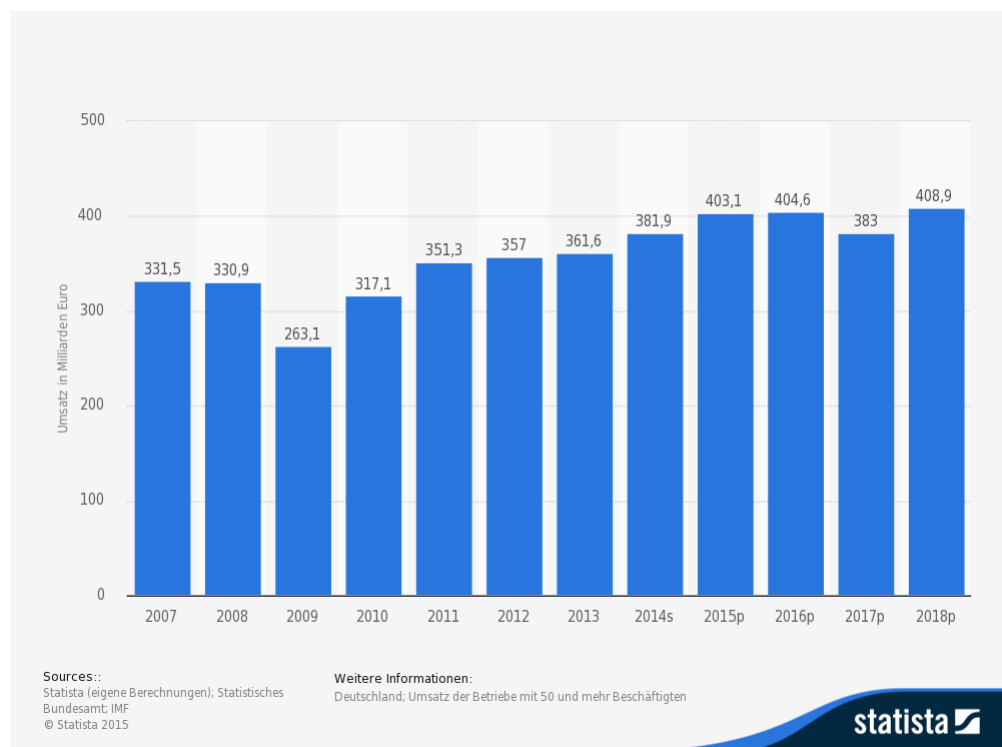


Figure 1.5: Turnover of the German automotive industry[Sta15b]

Not only in Germany but also in other countries like in the USA and China the production increases about 10%[FIP12b][Gov15b]. In the two last decades many changes in the worldwide automotive industry have been done. Especially in Europe this changes can be seen. If we look at Slovakia, we can now see that there are Kia, VW and the PSA Group, with a huge numbers of suppliers around them. Not only Slovakia but also the countries around managed to increase their production with 60% in the last 5 years [IMF16]. This was not the case 20 years ago. New huge markets have been developed in China, Russia,

Brazil and India (BRIC countries)[FIP12b]. These markets must be served with cars. Because of this reason the production increases in the BRIC countries [FIP12b](see figure 1.6). Also in the ASEAN area (Malaysia, Vietnam, Indonesia, Philippines, Thailand and Singapore) we have a growth of the car production in the last years which we can see in figure1.7.

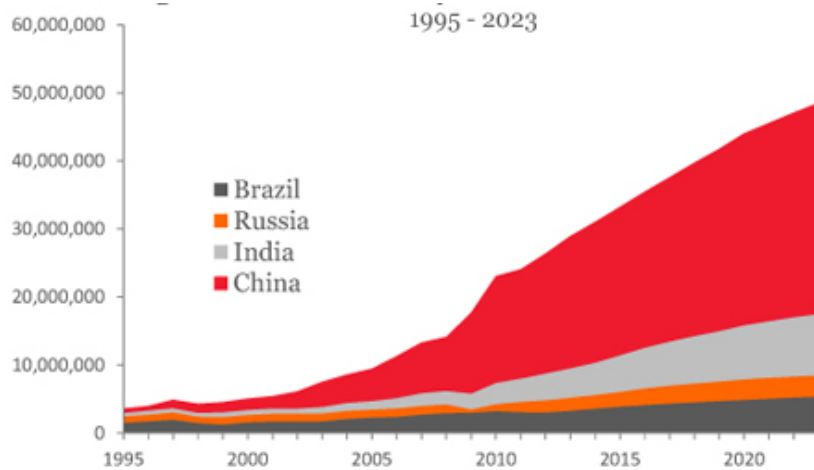


Figure 1.6: Emerging markets: Production growth in the BRIC area (number of produced cars)[FIP12b]

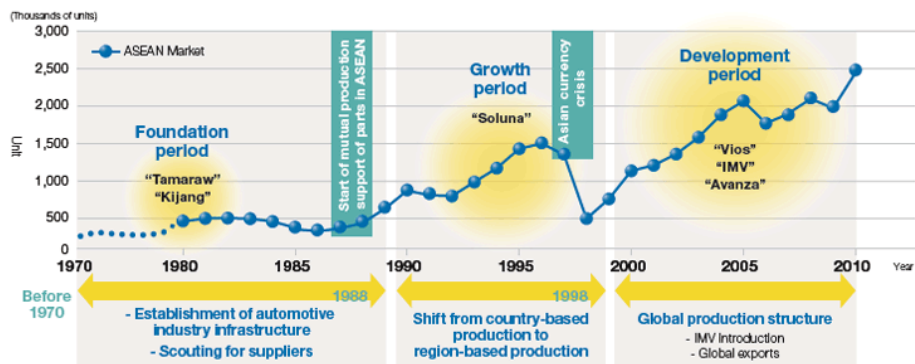


Figure 1.7: Emerging markets: Production growth in ASEAN area[FIP12a]

The numbers provided for the German and world wide automotive market are very promising. Due to this knowledge and due to more and more automotive products are made trough labor division in foreign countries [fEER16], for Bosnia and Herzegovina this would be of great interest. This means that industrialized countries, like Germany, make profit and create new value by producing in European Union countries which have lower production costs. This does not create only value for industrialized countries (e.g.

Germany) but will also create value for the country where the new plants have been located. Because of the tradition of the industry in the Bosnia and Herzegovina, Bosnia and Herzegovina can profit very much from the automotive industry sector, especially in the metal industry. As a supplier based country Bosnia and Herzegovina can use its potential in this area to create new workplaces. This would lead to more investment in the country, would lead to an economical benefits for the country and also to other sectors, like tier 2 to tier n suppliers, which will provide goods and services for the tier 1 suppliers. The automotive supplier industry would lead to a economical growth with very high interconnections across the industrial fabric of Bosnia and Herzegovina. Schools and Universities would profit from the cooperation together with the suppliers. The Gross Domestic Product of Bosnia and Herzegovina would increase and more tax revenues will be generated. Thousands of jobless and good educated people will find jobs. Also the people would have benefits from these new companies while having new monetary coming from outside the country. The quality of life would increase and many qualified people from Bosnia and Herzegovina would come back to their country to work there. Jobs from the automotive supplier industry would generate also new jobs in other sectors, because the earned salary will be spent for buying other goods. This circulation is one of the highest benefits. One good example comes from a company which is not an automotive supplier but will show the correlation. The company is Natron-Hayat which has around 900 employees [Sec16]. The calculated number of external persons who earn through Natron-Hayat (due to business done by the companies where they are employed) is about 1000 in Bosnia and Herzegovina (this information come directly from the economy department of the company Natron-Hayat [Sec16]).

Before automotive supplier industry can be established in Bosnia and Herzegovina, the country will have to do much to attract investors. This Master Thesis will state which are the prerequisites for the suppliers from European Union to come to Bosnia and Herzegovina and to establish an automotive supplier industry for the needs of the car producers in the European Union. Factors and areas, which have major roles for investor decisions will be defined and analyzed. In the next chapters first the actual situation in the country will be presented, we will see in chapter 2. The history of the automotive industry in Bosnia and Herzegovina will be presented (chapter 3), which covers the period from 1945 to 1992. This section will provide information on companies in this period, their size and composition with numerical background. We will look at the economical impact of the automotive industry for Bosnia and Herzegovina in this period. After that the actual situation of the overall automotive industry in Bosnia and Herzegovina will be presented with their size, composition with the actual meaning for economy of Bosnia and Herzegovina(chapter 4) also with numerical background. The criterions for the possible automotive supplier industry in Bosnia and Herzegovina will be presented in chapter 5. In chapter 6, prerequisites will be defined which have to be implemented in Bosnia and Herzegovina, so that automotive suppliers from European Union find Bosnia and Herzegovina attractive for investments and establishment of production plants. In chapter 7 a overview of the Master Thesis will be given. It will be a short description of the Master Thesis according to the central question "What are the prerequisites for the

suppliers from European Union to come to Bosnia and Herzegovina". The last chapter will be chapter 8, which is the conclusion with the results of the work. Questions like, which results have been obtained by the given topic and what was the aimed target of this Master Thesis, will be answered.

Actual situation in Bosnia and Herzegovina

This chapter will give an overview of the actual administrative configuration of Bosnia and Herzegovina, the political situation, the law and the tax regulations.

2.1 Administration of Bosnia and Herzegovina

The administration and the overall country state structure is complicated and big. For a small country like Bosnia and Herzegovina this is too much overhead. The Minister of Foreign Affairs of Bosnia and Herzegovina [oFAoBH15] has provided information on the actual administrative and territorial organization and in figure 2.1 we see the overview of Bosnia and Herzegovina after the Dayton Peace Agreement[Pro15].

In figure 2.1, we can see that Bosnia and Herzegovina was defined as a country with two entities and one district. The two entities are the Federation of Bosnia and Herzegovina (51% of territory) and the Republik of Srpska (49% of territory). In a later agreement (from these two entities) Brcko was defined as a separate district with own power as a self organized administrative unit in Bosnia and Herzegovina. (According to the The International Court of Justice [oJ15] the territory of Republik of Srpska was mostly cleaned from other ethnic groups and now there are living mostly Serbs.) Both entities have their own constitutions which have to be in a clear relation and confirm to the Bosnia and Herzegovina constitution.

The Federation of Bosnia and Herzegovina is set up from ten cantons. These are the Una-Sana Canton, Posavina Canton, Tuzla Canton, Zenica-Doboj Canton, Bosnia –Podrinje Canton, Central Bosnia Canton, Herzegovina-Neretva Canton, West Herzegovina Canton, Sarajevo Canton. Federation of Bosnia and Herzegovina has its own administration (has also a President, two Vice Presidents and a government) and each of the cantons has



Figure 2.1: Bosnia and Herzegovina after the Dayton Peace Agreement[Pro15]

also his administrative power, which blows up the overall administrative unit in this part of Bosnia and Herzegovina.

The Republik of Srpska has no cantons but has regions. These are Banja Luka, Doboj, Bijeljina, Pale and Trebinje. Republik of Srpska has als a govnrment and other administrative units (President and two Vice Presidents).

This is a small overview of the country and the problems lie in the detail. For every canton in Federation of Bosnia and Herzegovina there is also a government. This means that these cantons act as small countries which then are under the Federation of Bosnia and Herzegovina and then the Federation of Bosnia and Herzegovina is under the Bosnia and Herzegovina government. According to Federal Institute of Statistics every third person, which is employed, is working for the government[oS15c]. This is a huge number and the state is not able to get so much money together (taxes etc.) to pay all the people working for the overall big government. So they get money from International Monetary Fund to be able to pay the employees, the pensions and all other government expenditures.

Several years of living in Bosnia and Herzegovina and several years being in touch with all the administrative regulations the following can be said (the city administration in city will be taken as example). Every one who comes to the town hall, with any concern, has problems and ask for service or help, will not finish easily his task. There are small things which are standard and are really fast (e.g. marriage certificate and similar) but if you need to found and to register a company or to build a house then the problems

will begin. The administration will slow down your efforts that you have a feeling to never finish your tasks. The pain will pass if you are willing to pay some money to the processor of your concern or if he or she sends you to his boss where you can leave some money. The only fast way, is to have a lawyer who will finish the jobs for you.

Other problems of the administration is the time-consuming and with high effort connected procedure of many things in the administration. To found and to register a company, as example, will require a great effort. Too many documents are needed and too many official channels must be visited. To open a company it takes sometimes up to 40 days. According to the World Bank[Gro15], Bosnia and Herzegovina is on the last place in region concerning the administrative steps.

2.2 Political situation in Bosnia and Herzegovina

As stated in the introduction the political situation, which we have now in Bosnia and Herzegovina is not good (Also described by the European Union report in[Com15a]). Politicians from Republik of Srpska and some from Federation of Bosnia and Herzegovina hold the country in a painful situation. One thing why they do so, is their own interest and then the interest to not allow Bosnia and Herzegovina to be a preoperative country due to interest of Croatia and Serbia. The situation is from year to year poorer and the country is in a political blockade, which is additional destabilized through the poor economical situation in Bosnia and Herzegovina[Par15]. The following text is a summary of the European report for Bosnia and Herzegovina[Com15a]. It depicts absolutely the political situation in the country.

- No progress in establishing functional institutions which are fit for the future.
- Only small steps forward the European Union have been made.
- Cooperation between the entities and the and the politicians is very bad and they disagree to almost every item, which they need to implement.
- They do not show interests to solve the high youth unemployment rate.
- The judicial system is very corrupt and needs to have a good reform.
- The politicians build their own group where they can make illegal things.
- The corruption in all areas of the life is highly widespread and there is no will to clear all the corruption problems.
- High political pressure on the medias.
- Problems in the education and in the health system
- Goods can not be exported due to Bosnia and Herzegovina has not alligned the rules with the European Union.

- Very complex administrative structure.

It is true that the politicians are not willing do steps further. But the European Union must understand that Serbs and Croats are not willing to do any further steps to bring the country near to European Union because of other interests from Serbia and Croatia.

In Bosnia and Herzegovina there is a High Representative[otHRfBH15]. In Bonn, Germany he became the so called Bonn Power. With this power he is able adopt his own decisions when the local politicians have no will to implement clear needed agendas and when the violate the Dayton Peace Agreement. He could act and bring the country back on track. In the last year he has not done anything. He is trying to find a consensus between the parties but this will be very heavy to reach in Bosnia and Herzegovina.

The political parties are also very well connected together and they do not fight a lot again each other. This can be very well seen on each level in the country. In the report from a newspaper [D.S15] it very well described how this was done at what dimension this criminal has.

That politicians are very criminal can been see trough the situation the against some influence politicians the court is claiming their criminal doings. One such situation is the one against Fahrudin Radoncic [Rad16]. According to[Eur16c] also against other politicians there are investigations according to criminal backgrounds. Everybody in the country is asking himself where the huge richness of them an their family is coming from (The overall possession can been seen in [BiH16a]) . How they can have so much properties with their normal salary?.

Normally each good standing country staffs their needs of civil servants only with the best, which are most suitable for a kind of job. In Bosnia and Herzegovina this is not every time the case. According to the analysis of Transparency International in Bosnia and Herzegovina[BiH16c], 35% of the jobs which have been staffed in the civil area have been given either through political affiliation or through any other kind of corruption and not according to the best qualification for this kind of job. According to this it can not be expected that these persons can do their job with a good quality which is needed.

2.3 Law regulations in Bosnia and Herzegovina

As seen in section 2.1, Bosnia and Herzegovina has two regions and the courts are also divided in two regions. But there is one for the hole country [oBH15a], which is the last instance in Bosnia and Herzegovina. For the two regions there are supreme courts for Federation of Bosnia and Herzegovina and Republik of Srpska. Each region has then also regional courts where 10 cantonal courts are in Federation of Bosnia and Herzegovina and 5 regional courts in Republik of Srpska and one in the district of Brcko. On the local level there are 31 in Federation of Bosnia and Herzegovina and 19 in Republik of Srpska and one in the district Brcko. In the Republik of Srpska there are 5 courts for economy concerns and one higher court for economy concerns. In Federation of Bosnia

and Herzegovina there is no direct court which only has economy concerns. This concerns are treated through normal courts which are available in this administrative region of Bosnia and Herzegovina. For each of the regions there are also constitutional courts and one constitutional court for Bosnia and Herzegovina. ernannt In Bosnia and Herzegovina there is a Council of Ministers[oMoBH15], which has the Legislative Office.

The Legislative Office is responsible for rendering legal opinions on materials submitted to the Council of Ministers regarding the methodological uniformity in the approach to their development and regarding their consistency with the Constitution and laws of Bosnia and Herzegovina as well as for publishing decisions in the Official Gazettes of Bosnia and Herzegovina, Entities and the Brcko district of Bosnia and Herzegovina. The Legislative Office is governed by the director. The director of the Office is nominated and released by the Council of Ministers in accordance with the actual Law on Civil Service in the Institutions of Bosnia and Herzegovina [oMoBH15].

Even there are law regulations and courts in Bosnia and Herzegovina, sometimes it seems that the politicians made law for themselves. Courts are too much corrupt and with money you can solve much of the situations in front of a court. According to the American State Department the government has implemented many laws against corruption but laws are not executed. Through the actual administration there is too much space for nontransparent behavior and its very heavy to know all the law in Bosnia and Herzegovina. The institutions which have to execute the law are under political control and they act as politically ordered. There is a trend that the law is made softer in some cases[Dep15].

The corruption is dominating the life in Bosnia and Herzegovina. It is widespread in all sectors of political and social life. The influence of corruption has enlarged the risk and expenses of starting a business in Bosnia and Herzegovina. The complicated system to report corruption is vulnerable for corruption. The court doesn't fight against corruption even there is a special team for this reason[Dep15].

2.4 Tax regulations in Bosnia and Herzegovina

Taxes in Bosnia and Herzegovina are divided in the following basic taxation categories. **These informations are gained from Foreign Investment Promotion Agency of Bosnia and Herzegovina[oBH15b]:**

- Value Added Tax with unique rate of 17%.
- Corporate income tax with unique rate of 10%.
- Personal income is 10% on net salary (in accordance with gross model).

2. ACTUAL SITUATION IN BOSNIA AND HERZEGOVINA

- Property tax: Property tax is paid annually in a flat fee, for the building or apartment for relaxation and recreation from 0,50 to 1€/m², motor vehicles depending on the age of 5€- 100€for business premises renting houses: 1€/m² - 2.5€/m² for the tables in the casino, slot machines for gaming in the amount of 250€- 3.000€.
- Social security contributions paid by employers and employees in Federation of Bosnia and Herzegovina: Employee's share is divided in 17% for pension insurance, 14% for health insurance. Employer's share is divided in 6% for pension insurance, 4,5% for health insurance.
- Social security contributions paid by employers and employees in Republik of Srpska: In the Republic of Srpska contributions are paid by employer, on gross wage amount. For pension Insurance 18,5%, for health insurance 12%, for unemployment insurance 1.0%, the child protection 1.5%
- Excises, a special type of sales tax paid on some commodities like oil products, tobacco products, soft drinks, alcohol drinks, beer, wine and coffee.

The tax regulation in Bosnia and Herzegovina is a very solid regulation especially for foreign investors due to the low income tax. One special advantage is the 0% income tax when the revenue was done (30% of the overall revenue) in foreign countries. Comparing to other countries in region and also to countries in the European Union, Bosnia and Herzegovina has much better tax regulations, which was done to attract investors.

2.5 Economical Situation in Bosnia and Herzegovina

The economical situation in Bosnia and Herzegovina is very bad. If we look to the economical trends provided by the Parliamentary Assembly of Bosnia and Herzegovina then this situation will be more visible (see table 2.1)[oBH15d]. 550.000 people are without a job, which is 45% and most of them are young people(administrative information say 45%, interviewing people give a number of 27%, which means that 18% people are working in undeclared work), the debts rise above 30% of the Gross Domestic Product and the deficit of the bank account is about 300 million €[Com15a]. The stock exchange in Sarajevo and Banja Luka have very discouraging reports.

	2010	2012	2014
Nominal Gross Domestic Product in million €	17,78	18,7	19,1
Nominal growth in %	-0,2	-0,6	0,6
Citizens in million	3,843	3,836	3,836
Unemployment in million	0,517	0,543	0,549
Average net salary in €	400	415	420

Table 2.1: Economic trends in Bosnia and Herzegovina

The problematic year 2008 and 2009 in European Union had also a big influence to Bosnia and Herzegovina. We see on the chart 2.2 that the economic growth of Bosnia and Herzegovina is highly interconnected to European Union economical variations and their growth [Com15a].

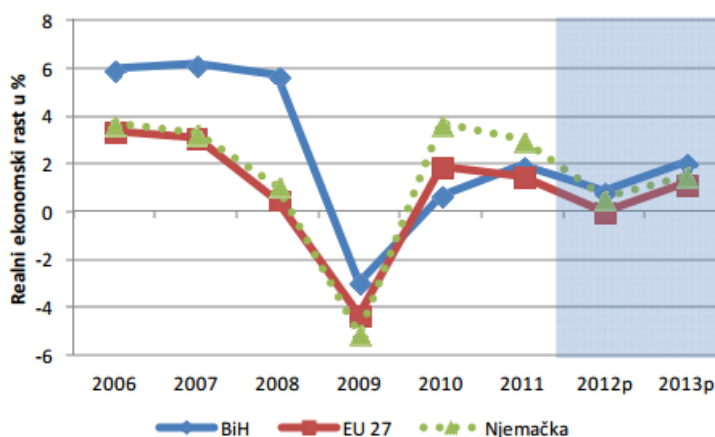


Figure 2.2: Economic growth in Bosnia and Herzegovina in relation to European Union and Germany[oBH15d] (Economic growth stated on the left)

The negative economic trend and the unwilling of the politic leaders to implement necessary reforms, have lead to stopping getting money from the International Monetary Fund. The only small positive trend in Bosnia and Herzegovina is the growth of exports and the industrial production. If we look in the parliamentary report[oBH15d] then we will see that this number is also very small. The industrial production (in year 2014) has a growth of only 0,1% comparing to year 2013. The production growth at the beginning of 2014 was 4,5% till the second half of the year. But the growth was only 0,1% due to the damage caused by floods in the second half of the year. Year 2015 will be for sure better than 2015 due positive trend in the industrial production.

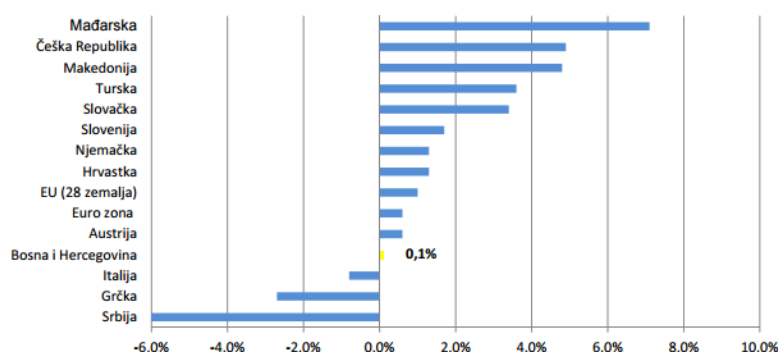


Figure 2.3: Industrial production growth in Bosnia and Herzegovina in relation to other countries in year 2014 comparing to year 2013[oBH15d]

2. ACTUAL SITUATION IN BOSNIA AND HERZEGOVINA

Bosnia and Herzegovina has many people abroad - the so called Diaspora. These people are sending money to their family in Bosnia and Herzegovina and according to investigations 25% of the Bosnia and Herzegovina Gross Domestic Product in year 2013 was made by the money coming from the Diaspora[DtG15]. This input in Bosnia and Herzegovina fakes the Gross Domestic Product because the money is not coming from the real sector.

History of the automotive industry in Bosnia and Herzegovina till 1992

In former Socialist Federative Republic of Yugoslavia, Bosnia and Herzegovina has grown from a agriculture country to a country with many industry sectors. Military industry, heavy metals, paper, textile have shaped the economy of Bosnia and Herzegovina. In this industry also automotive company has grown, which we will see later. Main centers of the metal industry in this period have been Mostar, Sarajevo, Zenica and Banja Luka[Bal15][Pav01].

After the year 1948, when Tito break up with Stalin[Mal96], Socialist Federative Republic of Yugoslavia starts to build their own industry. First the military indstry was moved to Bosnia and Herzegovina and also to Slovenia[Mal96] and then the automotive industry starts to be born in Socialist Federative Republic of Yugoslavia[Mil13]. The main partner in the beginning was Italy (e.g. with Fiat), which was the main agent in technology transfer between Socialist Federative Republic of Yugoslavia and the Western Countries. The first big Project was the Crvena Zastava in Kragujevac which was known for their car production[Mil13]. After Tito moved the military industry to Bosnia and Herzegovina(mainly metal industry and other heavy industries) this industry starts to change and also to produce for the automotive market. In the following such companies will be introduced.

In the time as Bosnia and Herzegovina was part of Socialist Federative Republic of Yugoslavia nearly each company was owned by the government. But there have been some examples where there was a company build up by investments from other countries like Tvornica Automobila Sarajevo where 51% was owned by the government and 49% by Volkswagen. In the period of Socialist Federative Republic of Yugoslavia several

companies have been set up to cover the needs of the Socialist Federative Republic of Yugoslavia market and have made also business with European Union countries. Because of the metalworking tradition in Bosnia and Herzegovina, we will see that most of the companies are related to the metalworking industry. The relation to the metalworking industry came mostly due to the existing military industry in this period[Mal96], where some companies like UNIS produced for the military and have established also productions for the normal industry[Com15d][UNI16].

3.1 History of companies in Bosnia and Herzegovina

In the year 1953 FAMOS[FAM15] (Fabrika Motora Sarajevo - Engine Plant Sarajevo) has bought an engine license from the Swiss company Saurer[BBS14][FAM15]. With this license FAMOS was able to produce motors for the FAP trucks[PRI15]. Together with Mercedes-Benz, 1973 FAMOS starts to build very sophisticated engines for trucks, buses and other vehicles[FAM15]. According to the company information (information gained directly from the company FAMOS[FAM15]), FAMOS has planed to be one of the biggest truck engine producers for the European Union market (see figure 3.1). This company had, till 1992, 12000 people working for this company. The net revenue was about 7,5 €, only by selling machines to Mercedes Benz[FAM15].

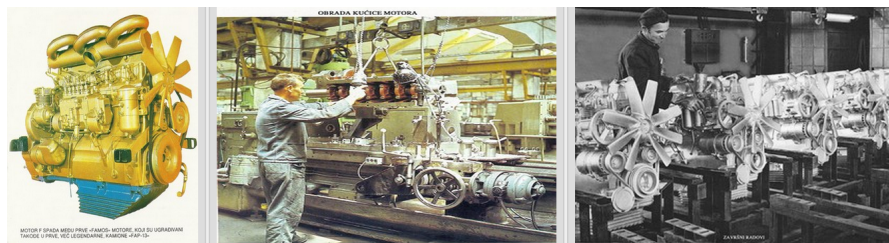


Figure 3.1: FAMOS engine production[FAM15]

Pretis[Pre15b] was established 1948 with main products for military industry. To extend their production they start in 1963 to produce the NSU Prinz[Sch97]. Beside cars, Pretis has also build motorcycles for NSU(see figure 3.2). This company had 5000 employees and partners around the world[Pre15b].

UNIS – Associated Metal Industry Sarajevo was set up on 9 May 1968 with an integration of companies Pretis - Vogosca[Pre15b], Igman - Konjic[Kon15], Slavko Rodic- Bugojno and Pobjeda - Gorazde, with the main purpose to produce for the military industry. As the production of the UNIS company was mainly concetrated on military products, they have decided (in the beginning of the 1970s) to extend the UNIS production plans with introduction the so called market program including cars and spare part, bearings, bicycles and other two-wheel transport means, office machines and equipment[UNI16].

UNIS and Volkswagen AG have established TAS (Tvornica Automobila Sarajevo - Car Factory Sarajevo) with the company headquarter in Vogosca near Sarajevo. Volkswagen



Figure 3.2: NSU Prinz from Pretis Sarajevo[Pre15b]

AG has been involved with 49% of TAS, the remaining shares owned UNIS[UNI16].

With this joint venture first the VW Beetle was produced in the TAS Plant (from 1970). In the beginning the VW Beetle was manufactured from parts made in Germany. Then in year 1973 a CKD assembly was introduced[Com15d][UNI16]. The production of the VW Beetle was done till 1976 and there have been produced 31.667 cars. Later also the GOLF I, GOLF II, VW JETTA have been produced.

In 1989, the production at TAS with 37,000 cars reached a peak, then the plant had about 3,500 employees. In 1992 the production had been stopped because of the Bosnian war. From year 1972 till 1992, 300.000 cars have been produced. The production has been stopped with the beginning of the Golf III production due to war in Bosnia and Herzegovina[Lin08]. After the war in 1998 Volkswagen has established a new company where some Volkswagen models have been produced which then ends the production in year 2008. Before the war started in Bosnia and Herzegovina in 1992 the plan was not only to produce the Golf III but also to produce other models from the Volkswagen company[UNI16].

UNIS, FAMOS, Pretis have been the biggest automotive companies in Bosnia and Herzegovina. Other companies from the automotive sector:

- FUSOL A.D. - Nevesinje (steering elements)
- SOKO - Tvornica transmisija, Mostar (transmissions)[Tra15a]
- UNICO Filter - Mann Hummel in Tesanj(filter systems)[Hum15]
- Pobjeda Tesanj (water and oil pumps)[Tes15]
- FAD Tesanj (various automotive metal parts, brake discs)[Inf15]

3. HISTORY OF THE AUTOMOTIVE INDUSTRY IN BOSNIA AND HERZEGOVINA TILL 1992

As seen from the companies, listed above, all of them have made their business in metal industry. All of them had business relations to western countries like Germany, France etc[UNI16][Pre16][Lin08].

Skilled workers from Socialist Federative Republic of Yugoslavia had a solid reputation in the world and have greater facility for integration or willingness to assimilate, especially in the second generation[US16]. It is stated in [Bau12] that was one of the big problems in Socialist Federative Republic of Yugoslavia that their experts and skilled workers leave the country to go to western countries to work and live there.

Most equipment was made in or bought in western countries or have been made in Socialist Federative Republic of Yugoslavia by local companies[Jav72]. According to the GDP Socialist Federative Republic of Yugoslavia was not on the level as Germany or France but much better than some countries which are now in the European Union^{3.3}(e.g. Yugoslavian neighbors like Bulgaria and Romania)[kus00]. During the war many of these skilled workers are now working in western countries[Mal96].

year								
1970	113.1	15.3	13.1	14.6	12.7	6.4	9	2.3
1980	475.8	81.9	56.8	70	36.5	25.4	11.4	2.2
1990	1177.8	166.1	97.9	92.4	40.6	37	20.7	2.2

Figure 3.3: Gross domestic product (GDP), current prices, bln. US dollars; Yugoslavia, comparison with the neighbors[kus00]

In [Wes12] it was written that Milovan Djilas wrote in a article (in 1948) that Yugoslavia will catch up Great Britain in ten years. But forty years later he recognized the illusion. Technologically in the 1980 the countries in Socialist Federative Republic of Yugoslavia have started to build better cars than the Yugo Skala and the other cars from Crvena Zastava, which have been selected as the worst car in world [Gai16]. Yugo Florida for example (1986 till 1992 see figure 3.4) was not inferior at all to the Dacia models in price and in quality[DK90](Yugo Florida was produced in Serbia, Kragujevac but some parts came from the above mentioned companies from Bosnia and Herzegovina).

FAP[PRI15] for example was a company in Serbia (see figure 3.6) but many parts came from Bosnia and Herzegovina like the engine from FAMOS. The models and engines have been very sophisticated in this time also due to the cooperation with Mercedes-Benz(see figure 3.5)[PRI15].

According to these companies (of course others also, but the metal industry was the key), in the 1960 and in the 1970, Socialist Federative Republic of Yugoslavia was one of the countries with the highest economical growth in the world. Socialist Federative Republic of Yugoslavia was the first country in the world where European Union have a trade agreement with. The companies in Socialist Federative Republic of Yugoslavia and also in Bosnia and Herzegovina made their business mostly independent and their investment decision have also been independent. Because of that the technology of production and



Figure 3.4: Yugo Florida[Nac15]



Figure 3.5: FAMOS engine mounted in a FAP truck[PRI15][FAM15]



Figure 3.6: FAP trucks with a license from Mercedes-Benz[PRI15]

the machines have been mostly oriented and bought from Germany and Italy. Everything was on the highest level of technology[Ziv15][Mar03][Geo82].

The Socialist Federative Republic of Yugoslavia education system was divided in eight levels of vocational education and five types of education for teachers. There have been also military academies which have the same rank as a university[Geo82].

3.2 Educational System in Socialist Federative Republic of Yugoslavia

The school system was divided into three phases. The first eight years have been mandatory for all. All students have completed these eight years and it got no separation between talented and less talented pupils. This school was called Elementary or Primary school[Cla15].

After the eight years (based on the notes) you could decide which school you want to continue (This so called secondary education was not compulsory[Geo82]). Depending on the notes pupils could attend different courses (three years) or to go to a technical school (for four years). The three year school and the technical school was oriented and the surrounding industries and it was possible to collect very good practical experience in the companies[Geo82]. As already described, the technology was at a high level and thus the students were able to early learn the technology, processes and equipment. Another way was to visit a gymnasium (high school for four years)[Mar03]. This school one could only visit if he or she had good grades. But without studying behind this school it would be without a value for the future[Cla15][Geo82]. According to the studies from [Geo82] 60 to 63 percent have decided to visit the secondary school in the eighties.

With a technical school or a gymnasium (both high schools for four years) then you could study (the so called higher education). In Socialist Federative Republic of Yugoslavia there was a number of higher education centers like university, high schools, higher

schools, academies, workers and peoples universities (this are the main, others are also existing)[Geo82], which mostly exists also toaday in the new republics[oca16]. The entrance exams and studying were very strictly interpreted and the tests were at a high level. Very good students were sponsored to a large extent by the company [Cla15][Geo82].

In Socialist Federative Republic of Yugoslavia it was known that the educational system was very solid. Workers have been very good skilled and the metal industry had a very good reputation. Because of a huge numbers of companies the education of skilled workers was made in school and also in companies. Companies like FAMOS have their own scholarship holders, which have been trained also in the company beside the school (see figure 3.7). As said before, the education system in cities was made by the needs of companies available in 25km around the city[Cla15].



Figure 3.7: Young scholars from the FAMOS company[FAM15]

Actual state of the automotive supplier industry in Bosnia and Herzegovina

According to the Foreign Investment Promotion Agency of Bosnia and Herzegovina report for the Automotive Industry this industry branch prospers year by year[FIP15]. In the last years foreign companies show more and more interests to invest in Bosnia and Herzegovina (consultant company Roland Berger make studies for Japanese supplier industry to invest in Bosnia and Herzegovina). The output is not visible since there are no Japanese suppliers till now in Bosnia and Herzegovina which can be found in Foreign Investment Promotion Agency of Bosnia and Herzegovina list of Automotive Companies[oBH15b]. So the main partner of Bosnia and Herzegovina in the automotive supplier industry is Germany, Luxembourg and Slovenia[FIP15]. The production sector of the automotive supplier industry are: engines and gears and their parts, high-quality metal precision parts, drive shafts, brake parts and systems, clutches, steering parts and systems, pumps, filters, automotive electric parts (signals, relays, electronic switches), textile and leather products, plastic injection parts, aluminium wheels, car batteries and various small parts such as springs, screws, hoses, and components of metal, rubber or plastic[FIP15]. The main part of the production (70%) is from the metal industry where 15% are from the plastic industry and the others are from the electronics sector, textile and leather[FIP15].

Today's automotive industry in Bosnia and Herzegovina can be mostly divided in four kinds of companies/investors. Those which have the wish by themselves to invest in Bosnia and Herzegovina. One huge example is the company Prevent[Inf15]. This company produces seats and metal parts and have their production plants in Gorazde, Zenica and Visoko etc., and they have about 5000 employees [Inf15]. They have not been advertised by the government of Bosnia and Herzegovina. The second kind of companies are those kind of

4. ACTUAL STATE OF THE AUTOMOTIVE SUPPLIER INDUSTRY IN BOSNIA AND HERZEGOVINA

companies who had before made business in Bosnia and Herzegovina. One example is Mann Hummel [Hum15], which made business with Unico Filter[BiH15]. Unico Filter was established 1974 and made their production of automotive filter systems (oil filter, air filter etc.) under license from Mann Hummel. After the war, Unico Filter was bought by Mann Hummel. Mann Hummel has recognized the potential of the company due to business relations before and after war. The third kind of companies which are those who have been created from private capital from people who worked before in European countries and then established their own business. Becto [Com15c] is this example. Becto is located in Gorazde and has 400 employees. This company managed to growth from a small company with 10 employees to over 400 employees. The fourth kind of company are those companies which are still owned by the state Bosnia and Herzegovina. One example is FAMOS[FAM15], which was first divided in FAMOS belonging to the Federation of Bosnia and Herzegovina and the other part of the company belongs to the Republika Srpska. This is done because after the war the border between this entities was in the middle of the area where the company have there production plants. Figure 4.1 depicts this situation. On the left, red marked, the part belonging to Federation of Bosnia and Herzegovina and on the right the part belonging Republik of Srpska.

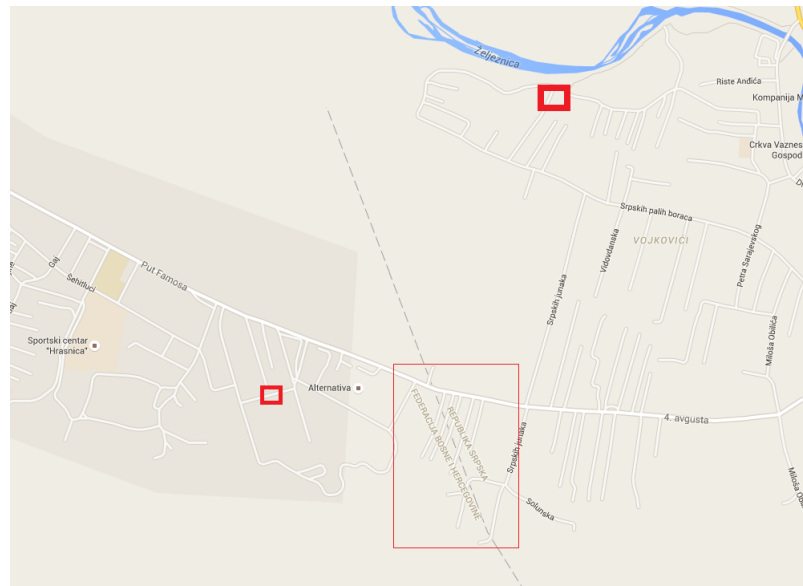


Figure 4.1: FAMOS in Republika Srpska and in Federation of Bosnia and Herzegovina (500m between the companies)[Map15a]

None of the entities take to much care about the companies which lead nearly to the crash of the companies. FAMOS in Republik of Srpska was partly sold to Paul B.(a company from Germany)[Gmb15]. The part in Federation of Bosnia and Herzegovina is now sold to the CIMOS Group from Slovenia[Cim15]. A huge number of companies have been poorly managed to bankruptcy or nearly to bankruptcy (we will have later more information about this in section4.1).

4.1 Strong automotive supplier companies in Bosnia and Herzegovina

In the following chapter an overview of strong automotive companies from Bosnia and Herzegovina will be given. Strong doesn't mean that they are world leaders in their business but it means that they make a good business and are not in danger to be closed. We will first look at the region Tescanj[oT15]. The region Tescanj is known for their very good business environment[TRA14]. This is mainly because of the good price of land, the geographical location of the city, and the city governance[oT15]. According to the Business Development Agency TRA in Tescanj[TRA14] the economy is constantly growing between the years 2010 and 2014. Between 2010 and 2012 the GDP growth with 6% and the investment in this small city was 11 million €[TRA14]. In Tescanj several numbers of companies managed to renew the production and have been privatized very well (Mann-Hummel [Hum15][Pre15a], Pobjeda[Tes15]), which is an exception in Bosnia and Herzegovina (we will later see why this is so). In this city we can find a group of good suppliers. Only short information's will be given to get an overview of companies which have a secure future and which are a good identifier for a very possible automotive supplier growth in Bosnia and Herzegovina.

As mentioned before Mann Hummel in Tescanj is a company with positive economic outcomes. This company produces a very wide range of filters systems for the automotive industry. They managed to increase their turnover from year to year. Their last half year report (2015) shows a net profit from above 30% (2.7 million €) comparing to the last year (2014)[Fil15]. The number of employees grows from year 2005 till 2015 from 400 employees to 550. According to the information from the company this number will grow for sure in the next years (Information gained by the company Mann Hummel directly[Hum15]).

Pobjeda Tescanj[Tes15], which is owned now by the workers, is economically seen also a positive privatization. Their yearly turnover is increasing from year to year and the actual turnover is about 9,5 million €. The company makes business with 25 European countries and has customers like Mercedes, Iveco, Scania, Volvo etc. They have actual 400 employees with a potential growth because of new contracts for the year 2016.

Other companies in Tescanj are Enker which produces spark plugs for the automotive market[Tes06]. This company was established in 1974 and the turnover in 2006 was 14 million €. In this company 93% of the products are exported to 25 countries in the world[Tes06].

Prevent FAD which produces brake discs for Volkswagen. According to the company information the first brake discs for the Volkswagen Golf are coming from this company[Inf15]. Prevent FAD was first known as FAD (Fabrika AutoDijelova). In year 2003 FAD was bought by the Prevent Group. Since these days Prevent FAD has 165 employees and produces parts for the European market[Inf15].

The Prevent Group (mentioned before) is the biggest automotive supplier in Bosnia

and Herzegovina. They have over 5000 employees all over Bosnia and Herzegovina with a turnover over 500 million euro. Their main business in Bosnia and Herzegovina is the production of seats. According to the information of the company 15% of the cars produced in Europe have seats produced by Prevent[Inf15]. From year to year Prevent is growing in Bosnia and Herzegovina and extends his production of seats and other goods.

Becto is a company located in the city of Gorazde. It is a family company which produces industrial tools for plastic and non-ferrous metals, as well as a combinations of metal-plastic and other plastic components for the automotive industry and other industries. Becto injects numerous plastic parts for BMW, AUDI, PORSCHE, MERCEDES etc.

From the CIMOS Group[Cim15] there are several subsidiaries in Bosnia and Herzegovina. The CIMOS Group is located in Slovenia, Koper. In the city of Gradacac in Bosnia and Herzegovina Cimos has established a production of parts for accessory equipment for cars. A very important part of their production are the parts for turbochargers. In Novi Travnik, in the old BMT factory (producer of military systems), Cimos has established a factory for steel parts (the most important part of their work is the hot forging of steel parts). Beside the automotive industry they also doing business for the shipping and energy industry. In Sarajevo the FAMOS part in Federation of Bosnia and Herzegovina was sold to Cimos and the principal activity of the company is machining of turbo components. In Zenica Cimos produces grey cast iron, nodular casting and alloyed nodular casting. Parts are used mainly for assembly in cars, particularly for chassis and for the power train system. The annual production tops app. 60.000 tons of products for the European automotive industry[Cim15].

The analysis of the Cimos Group show us that this company bought a very high number of former Yugoslavian companies. In Serbia for example they bought Livnica Kikinda, FAM Secanj etc. and in Bosnia it is FAMOS in Sarajevo and BNT in Novi Travnik, which have been bought by Cimos.

Saraj Komerc is located in Gornji Vakuf and was founded 1983 by private capital. They have managed to establish a company from a small private founded company. They have specialized their production in metal working (stamping, CNC machining, cold forming, bending etc.). They produce filter parts, spring, tubes etc. The company employs 300 employees.

Panaflex[Pan15] produces flexible hoses and shafts. Their main product for the automotive industry are exhaust pipes. The company is established 1955 and was part of UNIS till 1991.

Excel Assemblies[Exc15] is a new company in located in Maglaj. The head quarter is located in the United Kingdom. The subsidiary in Maglaj was established 2011 and since then this subsidiary has a continuous growth from 2011 till 2015 and has know 400 employees. The turnover can not be seen for this company. The money which is coming from the head quarter is only for the payments of the employees and other expenditures. This company is a huge example for success in investments in Bosnia and Herzegovina.

TMD Group[Gra15] is a company located in Gradacac and is a association of metal companies from Gradacac and Brcko district with a continues tradition in producing automotive parts with their main product inside and outside bearings. Their main partner is the Schaefer Group. From year 2005 till 2015 TMD Group has grown from 50 employees to more then 200 employees.

In the last 10 years these companies (and other not stated before) managed to increase continuously (even some of them have a smaller grow). 90% of their products are exported to 30 countries worldwide (mostly European Union). All companies fulfill standards (e.g. ISO standards).

4.2 Automotive supplier industry in Bosnia and Herzegovina in numbers

We have seen before some companies from the automotive supplier sector. We have also seen some economical numbers of these. Here we will se more overall economic details from the automotive supplier industry.

The main leaders in the production are Prevent BH, FAD and Mann-Hummel where we have the following economical information from year 2015[FIP15]:

- **Prevent BH:** 175 million €in sales with a strong annual growth of 11.5%
- **FAD (Part of Prevent Group):** Increased sales by 55.8% (48.12 million €)
- **Mann-Hummel:** Increased sales per year is 12% with a net profit from 2.7 million in the first half of 2015€

According to Foreign Investment Promotion Agency of Bosnia and Herzegovina the exports of the automotive supplier industry is the fastest growing sector by doubling their export increase in year 2013 with 26.3% increase compared to year 2012. An if we look at figure 4.2 we can see that the export from the automotive supplier sector are growing from year to year.

As sad also before the main business partners for the automotive supplier industry are Germany, Slovenia and Luxembourg but others like Slovakia and Czech Republik are also rising (see figure 4.3).

4.3 Political mismanagement of companies and corruption

Trough history of the automotive industry in Bosnia and Herzegovina we saw companies like FAMOS, UNIS, SOKO but these companies are not any more alive or they have been bought by other foreign companies after bankruptcy. There a lot of companies

4. ACTUAL STATE OF THE AUTOMOTIVE SUPPLIER INDUSTRY IN BOSNIA AND HERZEGOVINA

Structure (%)	2010	2011	2012	2013
Aluminum joinery	10.6%	10.3%	10.1%	9.9%
Other base metals joinery (iron, steel etc.)		23.0%	25.8%	22.7%
Base metal joinery production	31.4%	33.3%	35.9%	32.6%
Metal construction elements	23.2%	21.6%	20.7%	19.8%
Other metal products	4.5%	3.9%	4.1%	4.1%
Machinery production	31.3%	31.1%	28.4%	30.1%
Metal products	59.0%	56.6%	53.1%	54.0%
Automotive parts	9.6%	10.1%	11.0%	13.4%
Total MP industry	100.0%	100.0%	100.0%	100.0%

Figure 4.2: Export indicators in the metal production[FIP15]

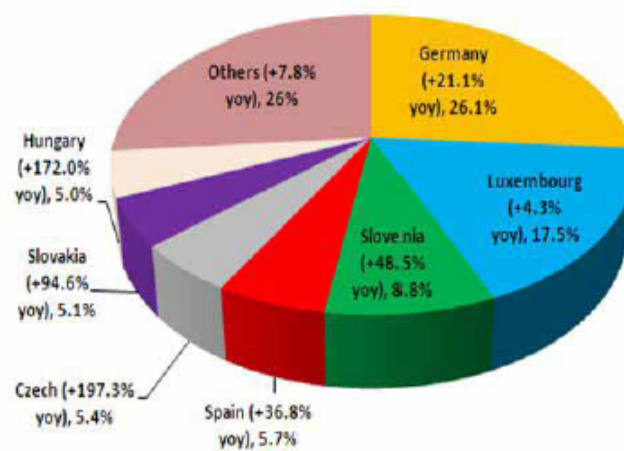


Figure 4.3: Automotive supplier exports by countries[FIP15]

which have been destroyed or sold like this named before. To provide all examples and analyze in detail what happen would lead to a more bigger work than this and would lead to a big number of prisoners.

After the war companies have been left to their own with a more and less small will to start the production again. People who worked in the companies before and who had a manager position have been killed through the war or they have been resettled. In most cases this happened in the Republik of Srpska where every one who had a position higher than a normal worker and was not a Serb have been killed or banished from his home. Which means that there was no more people who would lead the company. This very catastrophic behavior of the Serbs and and their leaders have been very well documented and their leaders are know in prison in Den Haag[oJ15].

So we have the situation after war that the management in most of the companies is not the same and that the new management was set up by political affiliation. We have the situation that the business which was owned before the war was destroyed. We have the

situation that the capital of the companies has been stolen in various ways.

Now some examples of companies with this scenario will be given. We will see what happened with them. Some of them are not automotive companies. In the region where this happened (e.g. Natron Hayat, Maglaj) every body knows what was done here, but there is no will to set up an investigation while everybody in the political life of this city is somehow involved in some crime so that everybody leave this like it is.

Natron Hayat was a very rich company before the war. The last manager took all the money which was in the company (German Marks) and left the country. After the war he set up a company in Slovenia and then moved to Austria (This analysis was done by the first mayor after war in Maglaj). After that another manager starts similar things to do. Machines have been taken out of the company and have been trashed and sold as scrap metal. Where of course the company which bought this metal gives money back to the manager. And then as there was nothing to take or to sell from this company, the company was sold. The manager who sold the company of course is not anymore in Maglaj and has number of real estates where in normal life he can not buy everything with his and his wife's salary. But Maglaj can on the other hand be really happy to say that the new owner invested a lot in the factory and is making a very solid business.

Another example is the steel company Zeljezara Zenica. Before war 25000 People worked there. According to the actual information from the labor union of this company now there are working 650 people. Big machines have been trashed to old steel and the privatization of the company was catastrophic[Zen15].

Many other examples have been analyzed by the Free Europe Organization [Zen15] and also many other have been analyzed by reporters in Bosnia and Herzegovina and it was also shown in television. But the political situation is so bad and the judgment is corrupt so that nobody has taken all the information given to solve the problems.

Since the old managers of the companies (which are owned by the government) are dead or are not on their position, through a various ways, the new political elite sets up their own squad of managers. Mostly these are political managers which have been set up to get out everything what has value[Tim15]. A small numbers of managers, which have been set up, had really good will to do good things for the company. The thought they could do a good job for the company. But they also failed. They failed because they think that they can lead a company just because they are smart[Tim15]. One point why they fail is because of not understanding the business. Some of them did not know what the company do in detail. To much of different examples could be given, why the managers fail to lead government owned companies[Tim15]. Another example how the politicians make profit for their own through government companies is to bring the companies to bankruptcy and then to sold them to companies which are willing to pay money to the leaders.

Here are some companies which have been mismanaged in various ways:

- FAMOS-Fabrika motora East Sarajevo

- FAMOS «Koran» Pale
- ODP FAP-Autodelovi
- CAJAVEC FSU A.D. - Laktasi
- FUSOL A.D. - Nevesinje
- SOKO - Tvornica transmisija, Mostar
- UNIS ZAP TESLA - Brcko

So much has been written, so much tv shows have been made till 2015 and nothing special has been done. Some politicians feel as untouchable. But in the actual trend is showing Bosnia and Herzegovina would like to be part of the European Union. According to this trend several things must change before the European Union will accept Bosnia and Herzegovina as a member. One of these changes is the revision of the privatization. This was also done in Serbia, where the privatization was declared as invalid for three quarters of 24 companies privatized[oS15b][Vla15a]. The revision of the privatization must and will be also done in Bosnia and Herzegovina before Bosnia and Herzegovina can be part of European Union. Not only the revision of privatization but also other reform must be done which will for sure lead to decriminalization of Bosnia and Herzegovina[Par15].

We see that the most of the criminal activities have been made in the sector where the companies have been owned by the government or where the government has influence. But there are also positive trends. Not all is bad. An example are cities like Tesanj, Visoko, Gorazde, Gradacac and Gracanica. In these cities most of the companies before the war have established their production again and have been privatized in a good way (examples are Mann Hummel, Pobjeda Tesanj etc.).

In the private sector the situation is very promising (we will see later more details in 5.1.1). The companies can work under the actual law without any big problems. It can not be said that everything is clear but in relation to the government owned companies it's much better. The European Commission has stated that Bosnia and Herzegovina is on fourth position in business corruption in the region.(Serbia on first, Albania on second and Croatia on third position)[Com15a] which means that the environment is better then the environment in the countries in the region.

4.4 Importance of the automotive supplier sector for Bosnia and Herzegovina

In the introduction a short overview (with statistical numbers) of the German automotive sector (also automotive supplier sector) was provided. We have seen how big the overall industry in Germany is. The German Verband der Automobilindustrie has stated that the overall automotive industry made 25% of the overall German economy turnover[dAeV15].

Also numbers of the overall unemployment rate in Bosnia and Herzegovina have been given in figure 1.1 and according to Federal Institute of Statistics the number is above 500.000[oS15c]. Not only that the number of unemployed people is high but there also people which are working for a very low salary.

It is clear that today (2015) Bosnia and Herzegovina is in a bad situation politically and economical. Through a good automotive supplier industry a wide range of this problems can be fixed. The overall automotive industry is known for value creation. People would find an interesting job with a salary which is above average. New investments would lead to more new jobs in other sectors. Employed people would be very satisfied, which would lead to more prosperity and stability in the country.

The actual automotive industry in Bosnia and Herzegovina is a very important sector, where metal goods made a big part of the products. 10% of the exports from Bosnia and Herzegovina are made by the automotive metal industry [oBH15c][Fir15a]. 133 million € have been made through the export of automotive parts to foreign countries [Fir15a]. The growth of this sector in year 2014 is more than 26%.

According to this numbers the government of Bosnia and Herzegovina should do more to help this industry to growth even more and faster.

4.5 Competitiveness of the automotive supplier industry in Bosnia and Herzegovina

Bosnia and Herzegovina is an interesting country. In a small region the satisfaction factor changes dramatically. For example in Vitez, Gorazde, Tesanj, Gradacac and Gracanica people are more satisfied than people living in Zenica, Maglaj, Vares. It's clear that the satisfaction factor can not be like in cities in Germany but for the conditions in Bosnia and Herzegovina they are very satisfied. They have a solid work and can earn money for a solid live. Similar is the satisfaction factor of companies making their business in these cities. Companies in Tesanj for example are very satisfied[dip15]. On the other side companies in Zenica and Vares are not so satisfied (in section 5.1.1 a more details will be given).

To give an overview of the competitiveness of the automobile supplier industry some core factors have been analyzed. In the next sections the educational system will be presented and the quality of workforce. The next sections are an analysis of the investor satisfaction in Bosnia and Herzegovina. The section economical environment and the industrial environment will give information of overall economic, regulatory and social conditions. The last section handles the international trading concerning to the possibility of Bosnia and Herzegovina to export into European Union countries(as the main focus).

4.5.1 Educational system in Bosnia and Herzegovina

The school system in Bosnia and Herzegovina is divided in three levels. Everyone in the country has to finish the first 9 years of main school. After that he can decide if he or she would like to go to middle school with three years, the middle school with four years or the gymnasium (a high school), which is also four years(see 4.4)[oCAoBH15].

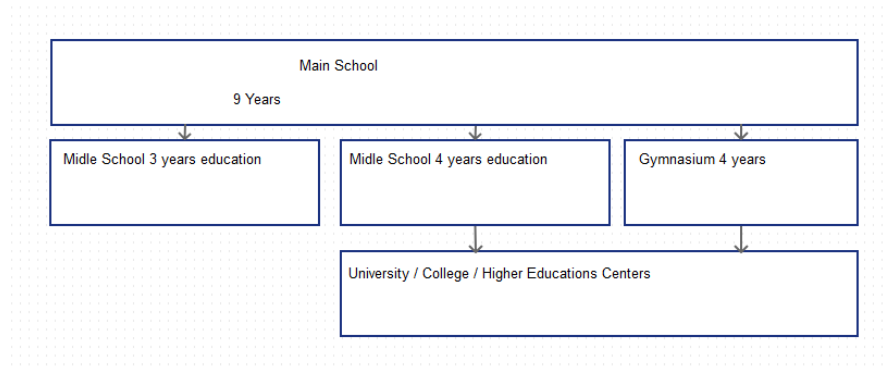


Figure 4.4: The main educational system in Bosnia and Herzegovina

As said the main school has nine years where all the children (in one class) are nine years together. This system is a key disadvantage of the overall system in Bosnia and Herzegovina. Because of the better learning children are underprivileged to the children which are not so good. This means all in all that the level of education in these years will not be so high which has a huge influence for the children with more will and with more wishes to learn more. Children which are willing to learn can not be encouraged because the teachers have to hold a lower level so that all children can come along (later a concept will be presented for possible changes, this will be done in section 6.2.2).

The middle school with three years is a education for those who do not want to study. With these three years of education they are also not allowed to study. To be able to study they must first re-educate to a higher level of education which is then equal to a four year middle school. The scholars can chose several educations from industrial education, technical education or commercial education like several metal worker schools e.g. machinist, tool pusher, welder, CNC worker etc. In Germany such school would be called "Ausbildung". According to the information from[oBH15b] the employers are satisfied with the employees which have good skills, which have a very high wish to learn and to show that they bring value for the company. The problem here is that after school too many of the people can not find a job or start to work in another sector where they have to learn again which brings cost for the employers to train the people. Also the state and the cities are not connected with the industry. From city to city there are schools where e.g. you can have a welder education and where you can not have welder education. It is also for other education. Another example is that only in Sarajevo you can have an education for a CNC worker. The problem here is that not only in Sarajevo there are CNC machines. This means the cities, the government are not connected to

each other to provide a more professional system to be able to react to the industrial wishes. In section 6.2.2 a concept will be provided for the actual situation in Bosnia and Herzegovina, which can be adapted for future use.

An overall problem is again the high unemployment rate. At the beginning of the school people didn't see any job chances for the future and start mostly with a three year middle school to finish something as fast as possible and then try to find a job in European Union countries like Germany or Austria. The others who have a four year school, and have no job, they start to study something which is overfilled in Bosnia and Herzegovina. This is just for the reason that they do not sit at home. The problem here is that they will not get a job at all. For example sociology and law, the country is full of them[LoBH15][oS15c]. How should they expect to get a job? This is a big fault of the government to allow such high numbers without information or regulations.

4.5.2 Labor Quality

People in Bosnia and Herzegovina ask Bosnians working in European Union countries, "how European employers look at the Bosnian employees working in their countries". The answer is mostly a very positive. Bosnian employees are known for their performance, ability and motivation at work and if they have a nice salary then there is no end of motivation.

According to the information of Federal Institute of Statistics no intensive and methodological analysis have been made on labor quality in Bosnia and Herzegovina like this made through the Organization for Economic Co-operation and Development[fECOD15][oS15c]. Organization for Economic Co-operation and Development uses a wide range of data and the BLS approach to measure the labor quality through years. As said this data is not available in Bosnia and Herzegovina and therefore another approaches have been done by interviewing companies with larger production plants.

In Bosnia and Herzegovina the situation is as follows. After school young people are trying to find a job. If they have very good luck then they start to work from 175€ to 250€. At the beginning they are lucky have a job and they work and work till they see that also after years and after being a professional the salary is not rising. Most of these people are then leaving the country. On the other hand, the one who can earn 600€ a month, feels happy. He can have a solid life. The worker with 600€ salary will for sure bring more value for the company. He will be more innovative through job satisfaction. They have a fine understanding of work and learn very fast. As said if they have a salary around 600€ they will have a motivation which can have more value than the salary given to them. This also the view of employers in Bosnia and Herzegovina[dip15]. Some of the employers stated they have better employees with lower salary than some of their subsidiaries in European Union countries[dip15].

The employers are telling that at the beginning they have to be as school for the employees. They would like to have more state interests in their needs, so that the schools can provide more quality to the employees and that the companies do need to invest a lot

of time in education. They know that the new employees will have to adapt to new work environment and learn but they would be much faster productive if the schools are more qualitative. Some of them are also willing to invest in schools to have employees for their future needs[dip15].

4.5.3 Certification

The Institute for standardization of Bosnia and Herzegovina is the certification instance in Bosnia and Herzegovina. They can provide all needed certifications and audits[ISB15]. Companies that make business with European Union have to fulfill standards and norms. All companies in Bosnia and Herzegovina are in the automotive sector have ISO certifications. Companies, in not automotive sectors, have a smaller chance on the market without certifications. For all future automotive companies it must be clear that without certification no business can be done with serious European Union companies.

4.5.4 Investor relations

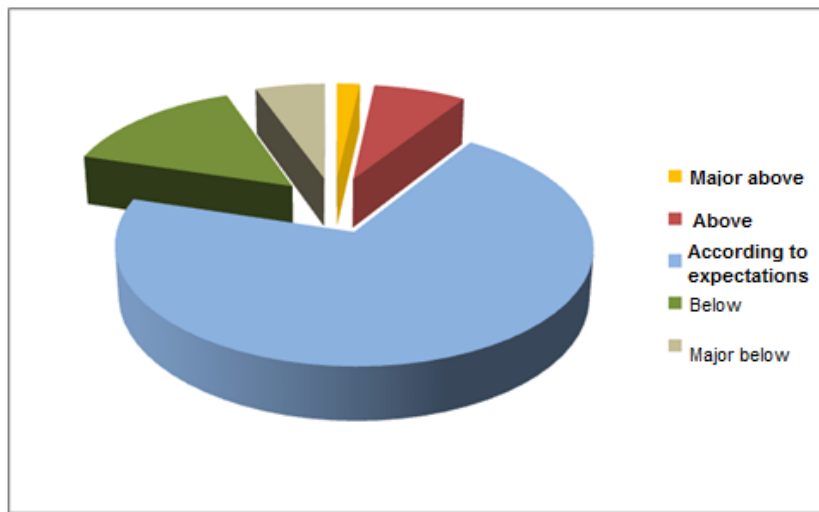
The relations with investors is a quite important for Bosnia and Herzegovina, because internally in the country there is no power for creating companies without external money. For that reason the Foreign Investment Promotion Agency of Bosnia and Herzegovina agency was established. The main tasks of Foreign Investment Promotion Agency of Bosnia and Herzegovina is to allure new investors and to higher the number of investments in the country. Their task is to act as a gateway between the private and the public sector, to improve the business environment.

Foreign Investment Promotion Agency of Bosnia and Herzegovina is continuously in contact with the investors and foreign companies which have their subsidiaries in Bosnia and Herzegovina. They have made an analysis about the business environment and the business results which they have[oBH15b]. This analysis is done in the beginning of 2015 for the year 2014.

According to the report 70,4% make business according to their expectations, only 9,3% of the companies make business over their expectations and 20,3% make business under their expectations. It is not clear how much of the 20,3% are companies from the automotive industry (see figure 4.5).

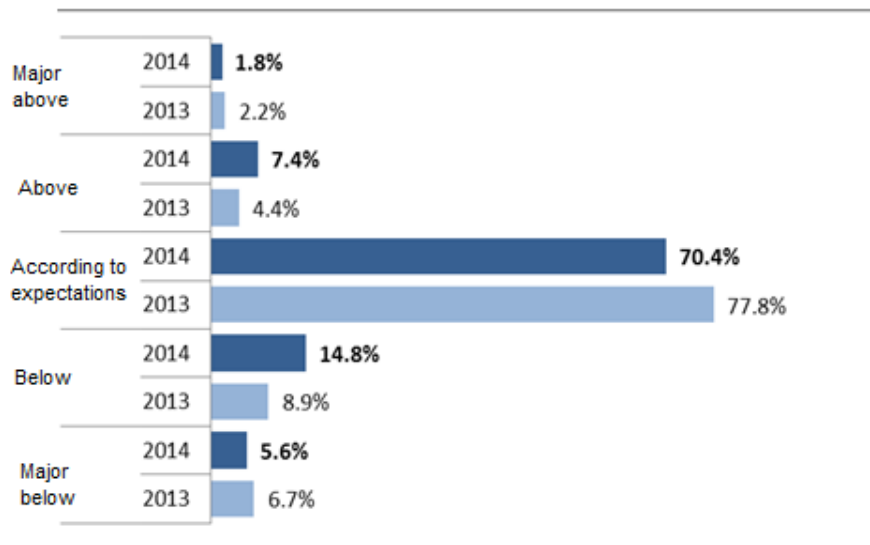
Comparing the year 2014 and the year 2013, we can see that the business expectation are poorer (see figure 4.6). This results is the reflection of the overall bad political situation in the country stated by the European Commission Report[Com15a].

According to the business environment the companies have also stated that in the year 2014 they have a poorer business environment than in year 2013 (see figure 4.6). In year 2014 25% of the companies stated that the business environment is bad and 4,2% have stated that the business environment is very bad. No one has stated that they are very satisfied with the business environment.



Aftercare program 2014, FIPA februar 2015.

Figure 4.5: Business results according to their expectations[oBH15b]



Aftercare program 2013. i 2014, FIPA februar 2015.

Figure 4.6: Business results according to their expectations in relation to the year before[oBH15b]

**Ocjena ukupnog poslovnog okruženja u BiH,
usporedni pregled odgovora u okviru posjeta za 2013. i 2014. godinu**

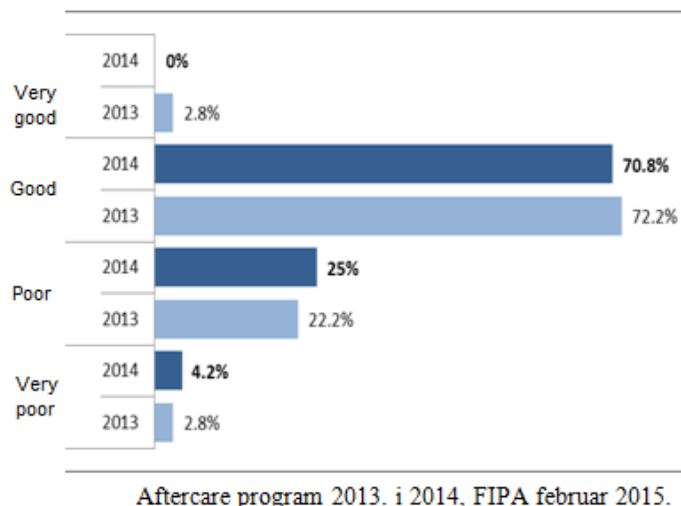


Figure 4.7: Satisfaction of the business environment in Bosnia and Herzegovina[oBH15b]

This analysis was done for through all companies with foreign investments. According to the financial numbers of automotive companies this number is in the automotive sector for sure smaller. All in all this is not a good sign for all industrial branches and this must be changed.

Criteria for decision making of the supplier industry in choosing their production and investment locations

Companies which have the plan to move their production to another location or to open a new plant, especially if the new plant is in another country where the company has no business before, has to plan it very well. They need to take care about a number of crucial factors. There are a variety of methods which can be used for this purpose. Consequently, any location advantage or disadvantage a specific area may have, which may influence the probable return on the proposed capital investment, automatically becomes an important consideration to management in determining the choice of a site[SL48]. In the following we will see a set of criteria which are relevant for decision makers.

In the following sections (5.1) we will have a short introduction to the criteria which are important and it will be described what the actual situation in Bosnia and Herzegovina. Of course there are many numbers of various criteria, which can be handled and have for sure influence in the success of a company in choosing their location, but we will focus on the one which are most important for Bosnia and Herzegovina.

5.1 Introducing location criteria

The main criteria in choosing a location for production include regional factors, site factors and community considerations together with cultural factors. For some of the

following factors already actual situations have been given in previous chapters. It will be referred to them and also new additional information will be given.

After getting aware of regional and site factors companies have to take care about the third factor which is the community factor. We will see this in the following sections.

5.1.1 Regional and Site Factors

The first very important factor is the **political situation** and **government regulations** which have the most influence to positive business. One big political problem could be for example corruption[Kob16][Goo85].

The political situation was described very well in section 2.2. To sum up it can be said that this is not very good. But it seems this only not very good for the people from Bosnia and Herzegovina, who are living in Bosnia and Herzegovina (see section 2.2) and not for the investors(mostly foreign), which come with money and have their production in Bosnia and Herzegovina. Foreign Investment Promotion Agency of Bosnia and Herzegovina has provided information about the satisfaction of the investors (see section). According to the Foreign Investment Promotion Agency of Bosnia and Herzegovina most of them would again do their business in Bosnia and Herzegovina. In section 4.5.2 information about the salary have been given. In Bosnia and Herzegovina its about 200€. This is currently the crucial satisfaction factor in Bosnia and Herzegovina.

According to government regulations the most important are tax and law regulations. Tax and law regulations are described in 2.4 und 2.3. For the Investors the highest importance has the tax regulation according to the corporate income tax which is a unique rate of 10% (see section 2.4). This is a very low rate and it is a guaranty for more profit. Important government regulations for the investors are the labor regulations. According to [WBG16b] these are so configured that the it is good for the employers but not for the employees. Various numbers of protests have been organized due to the problem in work regulations[Eur16a].

The World Bank Group[WBG16a], has set a wide range of assessments (The ranking is made in relation to the best ranked country in the various areas). This can been seen, beginning with figure 5.1, for Bosnia and Herzegovina. And in figure 5.2 we can see how long it takes to start a business in Bosnia and Herzegovina. Figure 5.3 shows the process of dealing with construction permits. Figure 5.4 and figure 5.5 show as how much taxes must be payed.

These three groups (Paying Taxes, Dealing with Construction Permits and Starting Business) are mainly listed because these are regulations form Bosnia and Herzegovina, which have the most critical ranking and bad regulations.

The **economical maturity** of a region, which means his economy, the industry, must be international competitive to be able to exists on the international market[Goo85][HS94]. If we look at the overall Bosnia and Herzegovina economy then there are not much companies which are producing goods (finished goods, not parts), which are internationally

Topics	DB 2016 Rank	DB 2015 Rank	Change in Rank
Starting a Business	175	165	↓ -10
Dealing with Construction Permits	171	170	↓ -1
Getting Electricity	119	131	↑ 12
Registering Property	97	95	↓ -2
Getting Credit	42	36	↓ -6
Protecting Minority Investors	66	64	↓ -2
Paying Taxes	154	151	↓ -3
Trading Across Borders	28	28	No change
Enforcing Contracts	66	67	↑ 1
Resolving Insolvency	38	35	↓ -3

Figure 5.1: Ease of Doing Business in Bosnia and Herzegovina[WBG16a]

Indicator	Bosnia and Herzegovina	Europe & Central Asia	OECD high income
Procedures (number) ①	12	4.7	4.7
Time (days) ①	67.0	10.0	8.3
Cost (% of income per capita) ①	14.8	4.8	3.2
Paid-in min. capital (% of income per capita) ①	28.0	3.8	9.6

Figure 5.2: Ease of Doing Business in Bosnia and Herzegovina, Starting Business[WBG16a]

Indicator	Bosnia and Herzegovina	Europe & Central Asia	OECD high income
Procedures (number) ①	15	15.9	12.4
Time (days) ①	179.0	176.3	152.1
Cost (% of warehouse value) ①	19.3	4.4	1.7
Building quality control index (0-15) ①	13.0	11.2	11.4

Figure 5.3: Ease of Doing Business in Bosnia and Herzegovina, Dealing with Construction Permits[WBG16a]

5. CRITERIONS FOR DECISION MAKING OF THE SUPPLIER INDUSTRY IN CHOOSING THERE PRODUCTION AND INVESTMENT LOCATIONS

Indicator	Bosnia and Herzegovina	Europe & Central Asia	OECD high income
Payments (number per year) ①	45.0	19.2	11.1
Time (hours per year) ①	420.0	232.7	176.6
Total tax rate (% of profit) ①	23.3	34.8	41.2
Profit tax (% of profit) ①	7.2	10.8	14.9
Labor tax and contributions (% of profit) ①	13.5	20.4	24.1
Other taxes (% of profit) ①	2.6	3.1	1.7

Figure 5.4: Ease of Doing Business in Bosnia and Herzegovina, Paying Taxes[WBG16a]

Tax or mandatory contribution	Payments (number)	Notes on Payments	Time (hours)	Statutory tax rate	Tax base	Total tax rate (% of profit)	Notes on TTR
Social security contributions	1	online	81	10.5%	gross salaries	11.84	
Corporate income tax	12		68	10%	taxable profits	7.16	
Forestry tax	5			0.07%	turnover	1.24	
Contribution for professional rehabilitation and employment of disabled persons	0	jointly		25% for every disabled person that must have been employed	average net salary in FBiH	0.92	
Tourist community fee	12			0.05%	revenue	0.88	
Local property tax	1			4 BAM	per square meter	0.46	
Contribution for protection against natural and other disasters	0	jointly		0.5%	net salaries	0.39	
Water protection	0	jointly		0.5%	net salaries	0.39	
Signage fee	1			200 BAM		0.02	
Fuel tax	1				included into fuel price	0.00	small amount
VAT	12		271	17%	value added	0.00	not included
Employee paid - Social security contributions	0	jointly		31%	gross salaries	0.00	withheld
Totals:	45.00		420.00			23.3	

Figure 5.5: Ease of Doing Business in Bosnia and Herzegovina, Details of Paying Taxes[WBG16a]

competitive. In future (till 2025) this number will not rise till crucial points are not solved. For know only companies like Prevent, Mann Hummel and other companies with foreign capital and foreign partners build parts or finished good which are concurrent on the market (concerning automotive companies). Companies like these, in the automotive supplier market, are competitive through their technology and price. They are mostly producing for tier 1 suppliers in Germany and other countries which have tier 1 suppliers (but most parts are going to Germany). Without special support Bosnia and Herzegovina's other companies are not able to make most of the products by them self (missing technology, missing machines, no money to to train people). According to the analysis a small number of companies are able to provide finished goods with a good quality, again these are Prevent and Mann Hummel.

Location of raw materials, the three most important reasons for a firm to locate in a particular region includes raw materials[HR11]. With the availability of raw materials in the near of the production the costs of transporting the raw materials would be lower and there is a smaller risk to get out of raw materials. Of course the price of produced goods would be lower. The location of raw material and Bosnia and Herzegovina is for the metal industry is very good. For example raw metal is available in the steel plant in Zenica[Zen16]. This is a very huge steel plant with good metal products. Aluminum is available in Mostar where a big aluminum plant is available[Mos16].

Transportation systems, infrastructures and costs of transportation is important for all companies which are producing goods. Transportation costs will be taken into calculations for goods costs and could have a effects on the location selection. **Infrastructure** considers the availability of reads, rail systems and all other fundamental facilities and systems serving a country, city, or area[Dic16][Sul15]. Because Socialist Federative Republic of Yugoslavia was a solid country there have been overall made infrastructures for the countries, which have been part of Socialist Federative Republic of Yugoslavia. For Bosnia and Herzegovina there was build up a sea port in Croatia. Most of the project, to build up the sea port, was financed by Bosnia and Herzegovina. For now Bosnia and Herzegovina has special rights to the usage of the sea port in Croatia. With this rights, companies can without a big effort transfer their goods(see figure 5.6).

But the problem lies here in the detail. The Croatian politic doesn't like a strong Bosnia and Herzegovina (as they have also participate in the war against Bosnia and Herzegovina to destroy the country in 1993 and 1994). So even Bosnia and Herzegovina has built up the port and even the port was built up for Bosnia and Herzegovina, Croatia make big pressure and blocks sometimes the usage of the sea port. To make this clear for all the time, Bosnia and Herzegovina has to set up a group of specialist which can solve the problem on a court level or the politicians should solve the problem. But if they do not solve it then Bosnia and Herzegovina will get special usage rights form the European Union when Bosnia and Herzegovina enter the European Union.

Most of the streets (95%) are ordinary road with one track in one directions. Not all of these streets are well done or are big enough. But the main roads, which connect the industry centers are good enough. But the streets are now too full. There is a high

5. CRITERIONS FOR DECISION MAKING OF THE SUPPLIER INDUSTRY IN CHOOSING THERE PRODUCTION AND INVESTMENT LOCATIONS

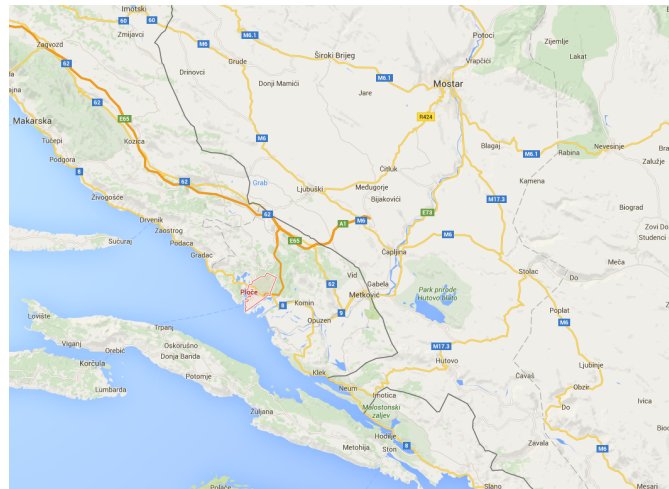


Figure 5.6: Sea port Ploče in Croatia[Map15b]

need for highways so that also transportation can be done faster through the country. Bosnia and Herzegovina has started 2005 the build of highways. Till today (2015) about 130km highway has been build. This number is too small and the process of building the highways is too slow(see figure 5.7).

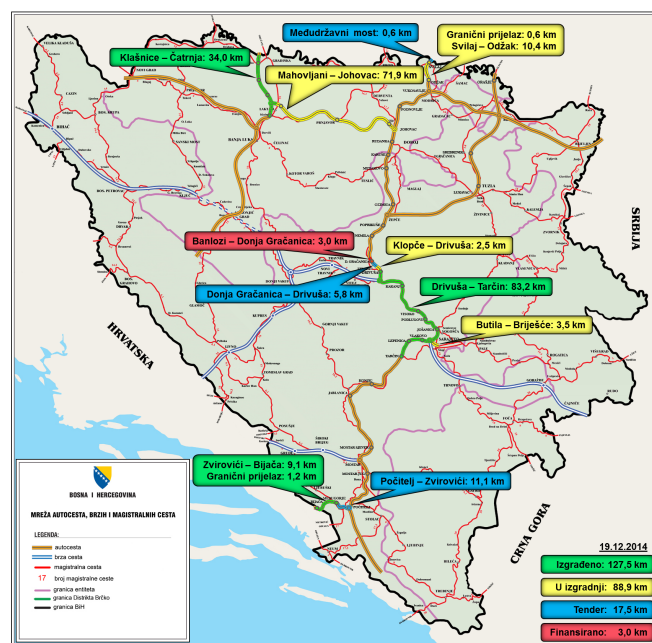


Figure 5.7: Highways and speedways in (future perspective)Bosnia and Herzegovina[www15]

In Bosnia and Herzegovina the transportation companies claim about 0.6€/per kilometer with the truck. This little more than the half of the European Union average which is about 1,116€/per kilometer[Sta15a]. The transportation costs are not connected to the price of the fuel (which is similar to the European Union price) but are connected to the lower salary. This price hold also when the truck is driving around the European Union(information got from a transportation company in Bosnia and Herzegovina[Tra15b]). Of course of the fuel price is to high this will lead to changes to the price per kilometer.

The rail network in Bosnia and Herzegovina is about 1031 kilometer long and connects all the main industry centers of the country with the rail network of other countries. The rail network has a connection to the sea port Ploče[oBH15e].



Figure 5.8: Main rail network in Bosnia and Herzegovina[Vla15b]

Since the actual rail network is not fully stretched there are there also small earnings in this sector. Because of that it is very heavy to have a stable rail transportation system. The possible automotive supplier industry can use this for there purposes to transport goods which would also lead to the stabilization of the rail system.

5. CRITERIONS FOR DECISION MAKING OF THE SUPPLIER INDUSTRY IN CHOOSING THERE PRODUCTION AND INVESTMENT LOCATIONS

The cargo transportation in Bosnia and Herzegovina is not very well developed. This is not the problem due to missing infrastructure. The problem is that there are no users of such service. In Bosnia and Herzegovina there are airports which can be used for this purposes (see figure 5.9) but there must be also companies which will use this service.

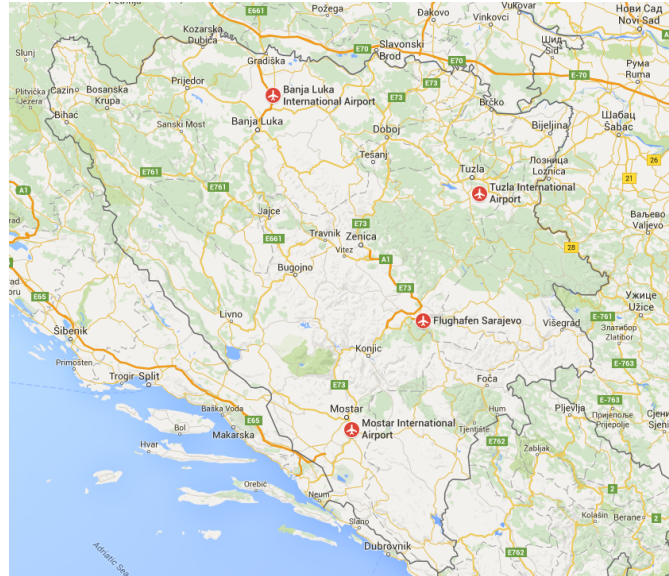


Figure 5.9: Airports in Bosnia and Herzegovina with cargo transportation possibilities[Map15c]

Due to having the infrastructure it will be also easy to extend the service and to extend the airport capacity for cargo transportation.

According to the analysis of transportation costs, we have seen that for example the transport with a truck costs 0.6€/per kilometer. For railways and cargo it is heavy to get the price from the companies. It depends on many factors e.g. how big is the sending, how often will the company transport etc.. But according to their information the price is 40% of the European Union price (and lower).

In that case the government can only help that the automotive supplier industry comes to Bosnia and Herzegovina, which then will find all their needs in transportation.

For other industries there are sea ports, road network and rail networks which can be used to transport the goods and raw materials to the companies which need them.

Location to markets means that companies would like to be located near markets that they want to serve as part of their competitive strategy[HR11]. We have seen in chapter 4 that the most companies, where Bosnia and Herzegovina automotive companies make business with, are located in the western European Union with a variety of distances from 500km to 2.500km and even more. But according to the good connection out from Bosnia and Herzegovina it can be approximately calculated that 100km needs 1 hour in

transportation. **Proximity to markets** is for some business very important because this is about the nearness to the buyers and to the clients with whom the companies making business with. The geographic position from Bosnia and Herzegovina is as it is and will not change at all. We can only say that the location is very good because the automotive supplier industry could very easily supply OEM's and TIER 1 in Western and Eastern Europe. As sad before 100km needs about 1 hour of transportation time. If we consider the situation that Bosnia and Herzegovina has (see transportation part before) four airports in four regions (Banja Luka, Mostar, Tuzla and Sarajevo), these airports can be used to ship goods more faster then with trucks.

Climate is sometimes a consideration because to much tempests can disrupt operations and too much snow would bring problems in transpiration. In Bosnia and Herzegovina the climate is Mediterranean with hints of Central European, it is hot in summer and cold in winter. In winter its sometimes a problem to drive because the snow can be very high and even is there are cleanings on the road, they can not manage all the much snow on the street.

Technological possibilities which can be used for the purposes of production. In Bosnia and Herzegovina the most companies use machines from Western European countries. Companies with foreign investment use mostly new machines Western European countries and new companies from private capital from inside Bosnia and Herzegovina use mostly used machines from Western European countries because they are not able to buy new machines. All these companies which make business with Western European countries must proof, according to various certifications, how they produce and which technology they use. Also they have to proof that they have organized standards like ISO in their companies.

Trading which contains trade costs, transportation and trade convention and trade agreements with the buyer country[Bru98]. According to the government[oMoBH15], in the beginning of 2016 Bosnia and Herzegovina will ask for a membership in the European Union. According to the European Union parliament[Par15], Bosnia and Herzegovina could be part of the European Union in the year 2020. With this the overall trading would be very easy between Bosnia and Herzegovina and other European Union countries.

Besides this, the actual state for trading is also not bad. Of course there are borders and the trucks must wait a while but the are no taxes which should be paid for goods imported from Bosnia and Herzegovina. Also today we can say that Bosnia and Herzegovina is a fully integrated trading partner of the European Union. This is also regulated through the trading agreements and other agreements(like CEFTA [CEF16]). The **Stabilization and Association Process**[Par15] of the European Union is one of those agreements. Of course this agreement covers much more than the trading but it allows Bosnia and Herzegovina to import goods to the European Union without paying taxes for it.

This is very important to the possible supplier industry in Bosnia and Herzegovina. In year 2020 when Bosnia and Herzegovina will be hopefully part of the European Union the trading process would be much more efficient for the companies so that they could

5. CRITERIONS FOR DECISION MAKING OF THE SUPPLIER INDUSTRY IN CHOOSING THERE PRODUCTION AND INVESTMENT LOCATIONS

save more money in that area and have more turnover.

Costs, benefits and increasing return describes how big are the costs for production in a specific area/country, what are the benefits together with the possible increasing returns. **Ability to growth** describes the possibility of the location to secure growth of the company by means of geographical and economical growth of the company.

Beside the political situation and the corruption in the country, the government has done some topics which are positive for the investors. In some regions investors get building land for free to build their plant in this region.

If we look at the costs then we can say that these are very low in the country. The salary is much lower then in European Union countries, the energy costs are also very low. According to the Eurostat[Eur15], the energy price is one of the lowest in European Union (only Kosovo has a lower price). The salary depends on the for a new worker starts at 250€till 500€depending on qualification(example from Natron Hayat[Sec16]).

The salary, the energy costs and the transportation costs (which wee have seen in section 6.2.1) are the very promising for investors. This is the highest benefit for them. Through this alo the return for investments would be much higher than in other countries. Another example where investors can have benefit is for example in Zenica. In this city there are production halls (empty), which are owned by the city, which will be given for rent for 0.5€till 1€per square meter. Concerning this information it is very heavy to find a country which would give more possibilities to earn money. The growth factor depends on the company and not so on the country Bosnia and Herzegovina. If the company plans the production very well then it is of course possible in Bosnia and Herzegovina to find regions where it can be arranged that the land around the company will be reserved for future growth needs of the company.

Banking and finance sectors have to be established well so that facilities are available for raising capital. **Monetary policy** by having trust in the currency and to have stability in the pricing. According to the information from Foreign Investment Promotion Agency of Bosnia and Herzegovina[oBH15b]:

Bosnia and Herzegovina is the first country in South Eastern Europe that has completely reformed its banking system. Foreign banks have invested significantly. Unicredit Bank, Raiffeisen Bank, Intesa SanPaolo Bank,Hypo Alpe-Adria-Bank, Nova Ljubljanska banka, ProCredit Bank, Turkish Ziraat Bank, Volksbank, Zepter Commerce Bank are all present in the country. Currently, according to the Central Bank of BiH, foreign banks own 86% of the banking sector, ensuring employment for 10.270 people. Bosnia Bank International is the only bank operating in BiH under Islamic banking principle.

Based on their analysis, on September 27, 2013, the Agency Standard and Poor's has confirmed sovereign credit rating on Bosnia and Herzegovina at „B with stable outlook". The international rating agency Moody's Investors

Service has announced on 10 July 2012 that the credit rating of Bosnia and Herzegovina remains B3. What has been changed compared to the previous rating assessment is the Outlook, as the Negative Outlook has been replaced with the Stable Outlook[oBH15b].

5.1.2 Community factors

Community factors refers mainly to the **labor factor** which includes labor availability, wage rates, productivity, attitudes towards work, and how unions can influence their work in this region or country[HR11]. Also **innovativeness** is important, which defines the employees positive thinking, the active and under high personal effort, the search and realization of new ideas. **Facilities for education** where it is possible to educate the actual and new labor. We have seen in section 4.5.2 (and we will see it later also in section 6.2.3) that the labor force in Bosnia and Herzegovina is willing to provide a good job and to satisfy the employer. But all the will is not enough for the investors. They would like to have innovative workers which have good common knowledge so that they could be innovative from the beginning. In section 4.5.1 we have seen how the actual school system is set up in Bosnia and Herzegovina. It is clear that the education has huge influence to the society and to the economy.

Availability of energy and water defines how the energy sector is build up and how much energy production this region has. Also the water distribution and management is considered. The local government collects also charges for energy and water. This prices and the future development of this prices must be considered. The energy system in Bosnia and Herzegovina is regulated through The State Electricity Regulatory Commission[Com15b]. We have seen before in section ?? that the energy costs in the country are very low. As seen in the previous sections, Bosnia and Herzegovina has so much corruption, also the corruption is also present in the energy sector. Not in the pricing definition of the energy but mostly in the section of new energy plants. The Center for Investigative Reporting[fIR15b] has investigated some of these cases. But they told also that these things have to be analyzed more in detail. This means there are much more corruption problems in this area.

According to the availability of coal in Bosnia and Herzegovina there are a number of coal power stations (e.g. Tuzla, Kakanj) and also according to the availability of water there are also hydroelectric plants (e.g. Jablanica, Mostar). Bosnia and Herzegovina exports his power also to the neighbors.

Taxes a very important factor because at the end of the year the taxes can change the net earnings very dramatically. Taxes also will have influence of the earnings and the price of the produced goods. The tax regulations have been described in section 2.4 and also in section 5.1.1.

Environmental regulation could highly have influence on the production possibilities. Not in every country it is possible to produce every good because of their regulations for environmental safety. Even in Bosnia and Herzegovina there is an institution, which treats

5. CRITERIONS FOR DECISION MAKING OF THE SUPPLIER INDUSTRY IN CHOOSING THERE PRODUCTION AND INVESTMENT LOCATIONS

water and environmental regulations(Federal Institute for Tourism and Environmental Safety [fTS15]), it seems that in Bosnia and Herzegovina only small companies have to fulfill government restriction according to environmental regulations. The air pollution in some cities in Bosnia and Herzegovina is very high. For example in the city of Maglaj the company Natron Hayat pumps very sulfuric concentration in the air. But this happens only in the night, so that nobody can see the darkness out of the funnel. Also the cars in the morning are covered with a thin sandy layer which comes out of the funnel. Another example is the steel company in Zenica. In time when the funnel pumps his materials in the air, then you can not see the city from far. These companies are big and can pay to the local politicians.

So the conclusion here is that the regulations (water and environmental in Bosnia and Herzegovina)are not taken strictly. For some companies this is of course good. They don't have to pay too much for special systems to filter this gases but for the people living around this is catastrophic.

5.1.3 The Cultural Factors

We have seen factors before. These are the most important factors. Beside this, managers must also take into consideration the cultural shock when moving a part of the production or a complete factory to another country. Managers and workers from other countries can sometimes not understand or could not arrange them with the culture of other regions. In that case the production will have very high problems.

People from Bosnia and Herzegovina are people who are European Union people through all their being. They are oriented to the European Union, they make business with the European Union and a huge number of people from Bosnia and Herzegovina live and work in the European Union. These people who work and life in the European Union bring also the culture and the work style of European Union countries to Bosnia and Herzegovina. Everywhere in the world where Bosnia and Herzegovina's people are working they have been respected because they are willing to work and provide very high quality.

In Bosnia and Herzegovina the industry will find the same people willing to work. The only thing where the industry can influence them, to the better or to worse, is the salary. If they provide them a good salary they will work really hard. When provide them a small salary, they will work but would not be so satisfied.

In Bosnia and Herzegovina many people can speak English or German. If someone comes to Bosnia and Herzegovina, he of course feels the same like in any other European Union country. Of course he will see that Bosnia and Herzegovina has not so much money but the people in the country would not have some special cultural behavior other then in European Union countries.

Prerequisites and needs for the automotive supplier industry to become established in Bosnia and Herzegovina

We have seen in previous chapters that the political situation in Bosnia and Herzegovina is not good and that there is a lot of corruption in the country (see chapter and sections 4.3, 2.2). We have also seen the actual overall situation in Bosnia and Herzegovina (administration in section 2.1, as sad the political situation in section 2.2, law and tax regulations in section 2.3 and section 2.4 and the economical situation in section 2.5). Through out this information we can see that in Bosnia and Herzegovina not much good things are happening. We have also seen that there are investors which have been very happy with their business in Bosnia and Herzegovina (see section 5.1.1). But it is for sure that Bosnia and Herzegovina will have to do more to be able to attract more investors. This will need efforts inside the country and will also need efforts outside the country like this from the European Union to help Bosnia and Herzegovina, as a European Union country to struggle out from his problems. In this chapter we will see what has to be changed.

In chapter 5 we have seen criterions which are relevant for location selection. We will take this criterion's and see how this criterion's look in Bosnia and Herzegovina and what Bosnia and Herzegovina has to do to be more attractive for investors from the automotive supplier industry (see section 6.2). After that a focus will be given to the automotive supplier industry in detail (in section 6.5). But first some crucial things in the country must be changed.

It will be first started with the a section which will go back to the chapter 2 and give

6. PREREQUISITES AND NEEDS FOR THE AUTOMOTIVE SUPPLIER INDUSTRY TO BECOME ESTABLISHED IN BOSNIA AND HERZEGOVINA

possible solutions to resolve the grievances mostly in the administration and in the political configuration.

6.1 Mastering actual situation in Bosnia and Herzegovina

We have seen in section 2.1 how Bosnia and Herzegovina is set up. The first problem here is the too big administration and too many employees in the civil service. The huge administration consumes too much money for the employees, which on the other side could be used to invest in building up a automotive supplier industry[BiH16c][BiH16b] (section 6.5 will give more details about this possibility). In figure 6.1 we can see this in detail. On the left there is a income with about 990 million KM, which is about 500 million €, and on the right, we have a expenses 910 million KM. About 627 million KM are spent on the salary of the employees, which is nearly $\frac{2}{3}$ of the budget income.

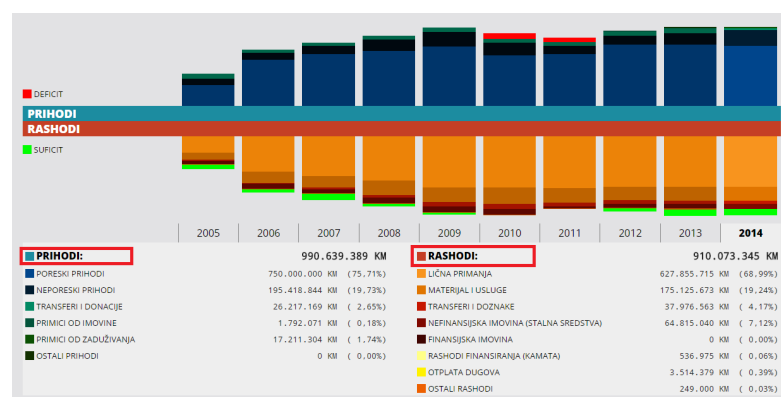


Figure 6.1: Bosnia and Herzegovina budget usage through the years[BiH16b]

To be able to shorten the numbers of employees first the political configuration of the country must change. After that the administration has to be set up faster, effective and must behave dynamically (we will see later more details). The following points are also crucial for the following section 6.2.

6.1.1 Checking the ownership of politicians and private persons Bosnia and Herzegovina

In Bosnia and Herzegovina its very we can see, mostly politicians, with I high degree of ownership. The question is how this ownership was financed. Where is the money coming from? A good revision of the overall ownership must be made. The first phase would be the control of the ownership of the politicians and then the control of private persons. This must be supported by foreign specialist and the OHR which is located in Bosnia and Herzegovina. The OHR is the office of the High Representative in Bosnia and Herzegovina.

6.1.2 Political configuration and administrative changes

The country is to much in problem due to much power in parts of the country. These are the entities Federation of Bosnia and Herzegovina, Republik of Srpska, the cantons, plus the district. These configuration must be changed. But this is easier said than done. The regions as there are know, have been done through the Dayton Agreement[Pro15] and the Dayton Agreement was the result of more then three years of war. Every side has influence in the actual configuration of the country. To change the political configuration and to set up another configuration will be a hard way which must be done(like this was in Belgium, where years and years have been past to have a agreement between all parties[Wil98]). Every ethnic group must be satisfied in this process to have the country which will be functional. But for sure also tradeoffs must be there to reach the goal. There must be a so called Dayton 2 which will change the political structure of Bosnia and Herzegovina.

Before the war Bosnia and Herzegovina had four economical regions (see figure 6.2)[Ber15]. A new proposal would be to set up five economical regions as given in figure 6.3[da15].

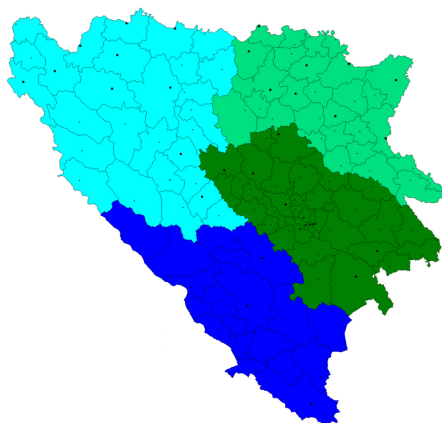


Figure 6.2: Bosnia and Herzegovina in four economic regions[Ber15]

With this model the country would have a better possibility then now but of course all ethnic groups must be considered equal and no one of the groups should have any disadvantages. None of the regions would have there government. The only level would be urban districts, which is the city and the region around the city. The highest level would then the state level in the capital Sarajevo. Because of the complicated situation with the ethnic groups this model with five regions must be very good studied so that every ethnic group can be happy with this model. This change would lead to a smaller number of employees in the civil service, which would lead to more money which then again could be invested in regional projects to open new jobs so that the unemployed people can find jobs.

According to [fSoBH15] and the analysis in [Dep16] the number of employees in the state sector is growing by 50% faster the in the private sector. For such small country with

6. PREREQUISITES AND NEEDS FOR THE AUTOMOTIVE SUPPLIER INDUSTRY TO BECOME ESTABLISHED IN BOSNIA AND HERZEGOVINA



Figure 6.3: Bosnia and Herzegovina in five economic regions[da15]

such high unemployment rate leaves the question open, how and from where to pay the people in the state sector. In the figure 6.4 we also see that the number of employees in the state sector is also growing even in the years of European Union crisis in 2008 and 2009. Comparing to that we see in figure 6.6 we have a number which changes according to the economical situation.

The state has employed new employees in the state sector even if there was a crisis 2008 and 2009. Who is paying that? Of course this is a credit from the world bank. We can see this through the dept of the country through the years in figure 6.6.

In figure 6.7 we can also see how big the net salary is in the private sector and in the state sector. The salary of the private sector is lower then in the state sector. This other countries like in Germany not the case [Cor16]. In the private sector a employee can earn more money[Cor16]. So it is a fact that students after the University search a job with higher salary. An so there are not enough people for the private sector. To many analysis must not be done. The salary of the state sector mus be lower as in the private sector.

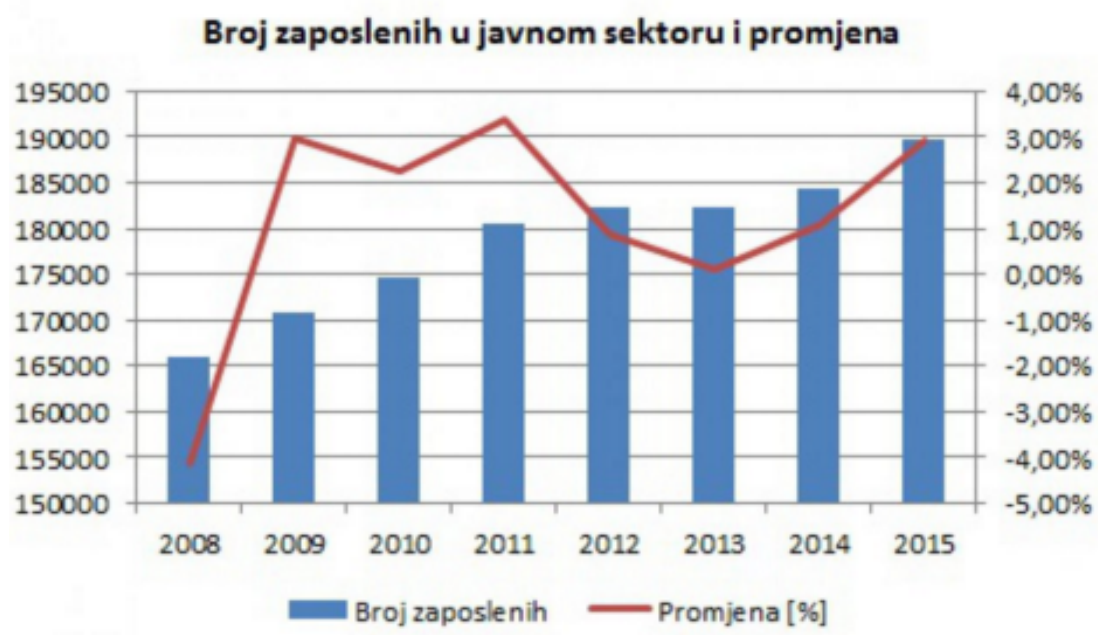


Figure 6.4: Number of employees in the state sector (BLUE: Number of employees in the state sector, RED: Changes to the year before[Dep16])



Figure 6.5: Number of employees in the private sector (BLUE: Number of employees in the private sector, RED: Changes to the year before[Dep16])

6. PREREQUISITES AND NEEDS FOR THE AUTOMOTIVE SUPPLIER INDUSTRY TO BECOME ESTABLISHED IN BOSNIA AND HERZEGOVINA

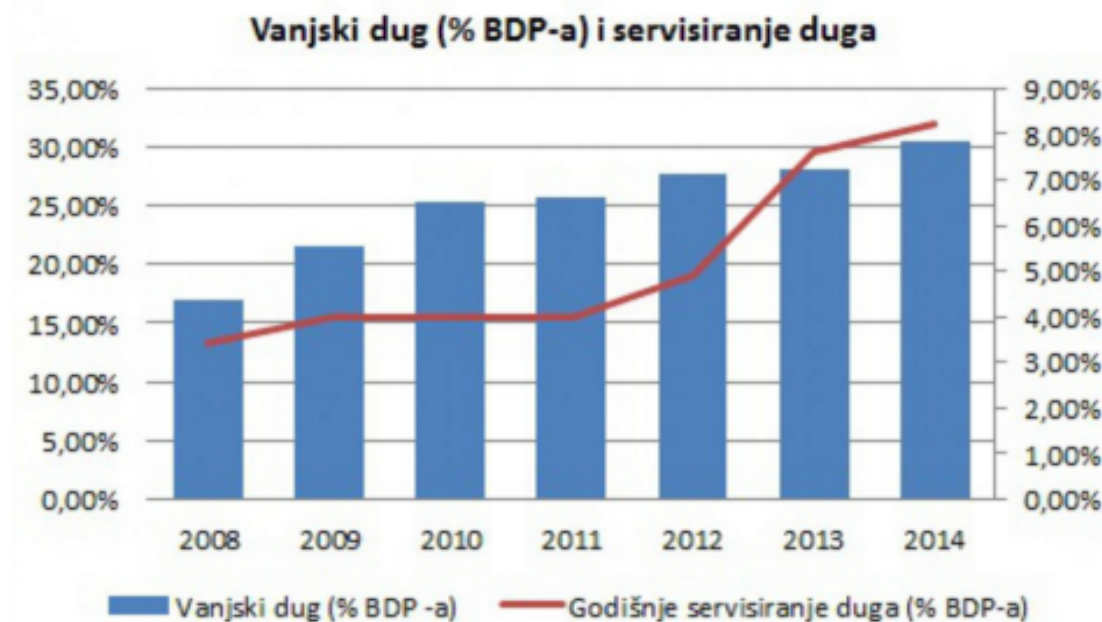


Figure 6.6: (Dept of Bosnia and Herzegovina through the years BLUE: Dept as % of the Gross Domestic Product, RED: Servicing of the dept in % of the acldgp[Dep16])

But the politicians in Bosnia and Herzegovina would heavily accept a smaller salary and would fight against this for sure.

To be able to lower the salaries in the state sector a law must be defined, where the salary should be defined to be in average 10% lower than in the private sector. According to the section 2.2 it is scarcely to be expected that the politicians would do that by themselves. The only solution is that the High Representative makes a law which must be followed by the politicians.

Another big problem which has influence to the development of the private sector is the information that 16% of the overall population are tax payers and the other are tax consumers (see figure 6.8). According to this number and according to the dept of the country it is very heavy to expect that the state Bosnia and Herzegovina can make influences by themselves to help to establish an automotive supplier industry. Only with money from external this can be done.

We will see in section 6.5 how the money of a possible employee reduction in the state sector can be used to improve the private sector.

As said before the administration in Bosnia and Herzegovina is currently very big. The five regions will for sure smaller the number of employees in civil service. But how much is then enough for the country. In figure 6.9 there is an overview of some countries in the world where proportion of government employees in the total number of employees is

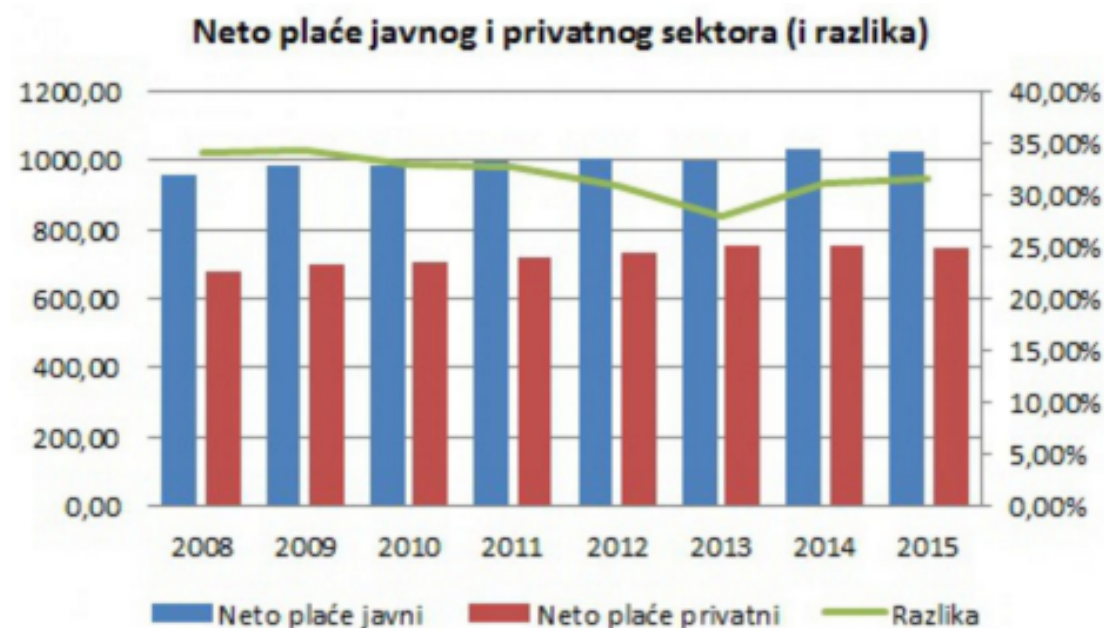


Figure 6.7: Debt of Bosnia and Herzegovina through the years BLUE: Debt as % of the Gross Domestic Product, RED: Servicing of the debt in % of the acldgp[Dep16]

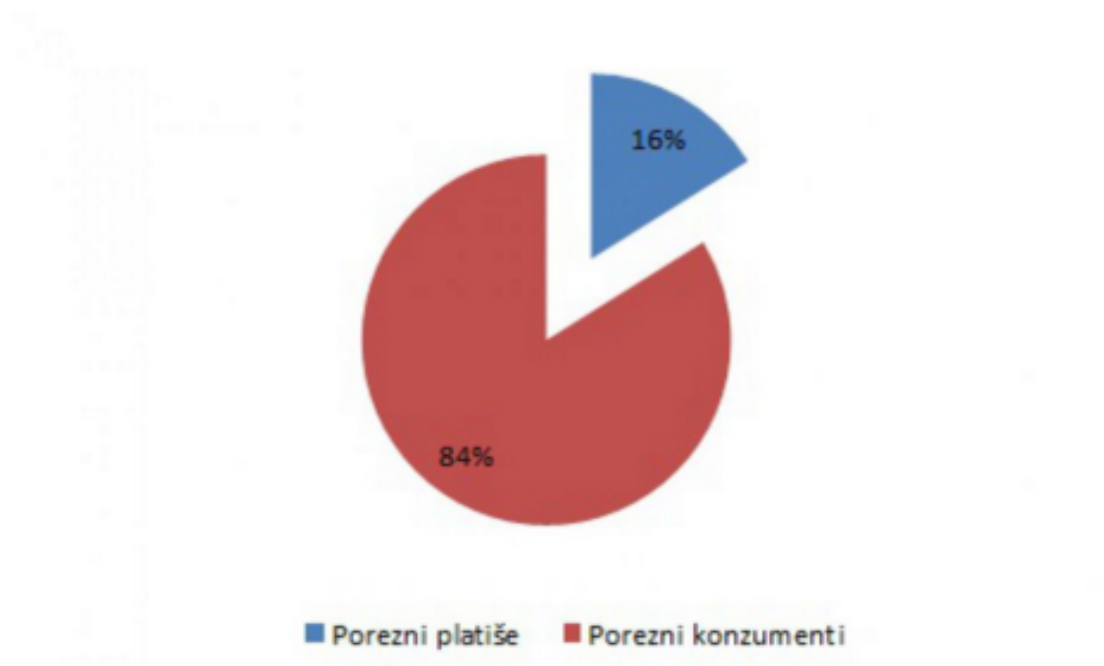


Figure 6.8: Tax payers and tax consumers in % of the overall population BLUE: Tax payers in, RED: Tax consumers[Dep16]

6. PREREQUISITES AND NEEDS FOR THE AUTOMOTIVE SUPPLIER INDUSTRY TO BECOME ESTABLISHED IN BOSNIA AND HERZEGOVINA

given.

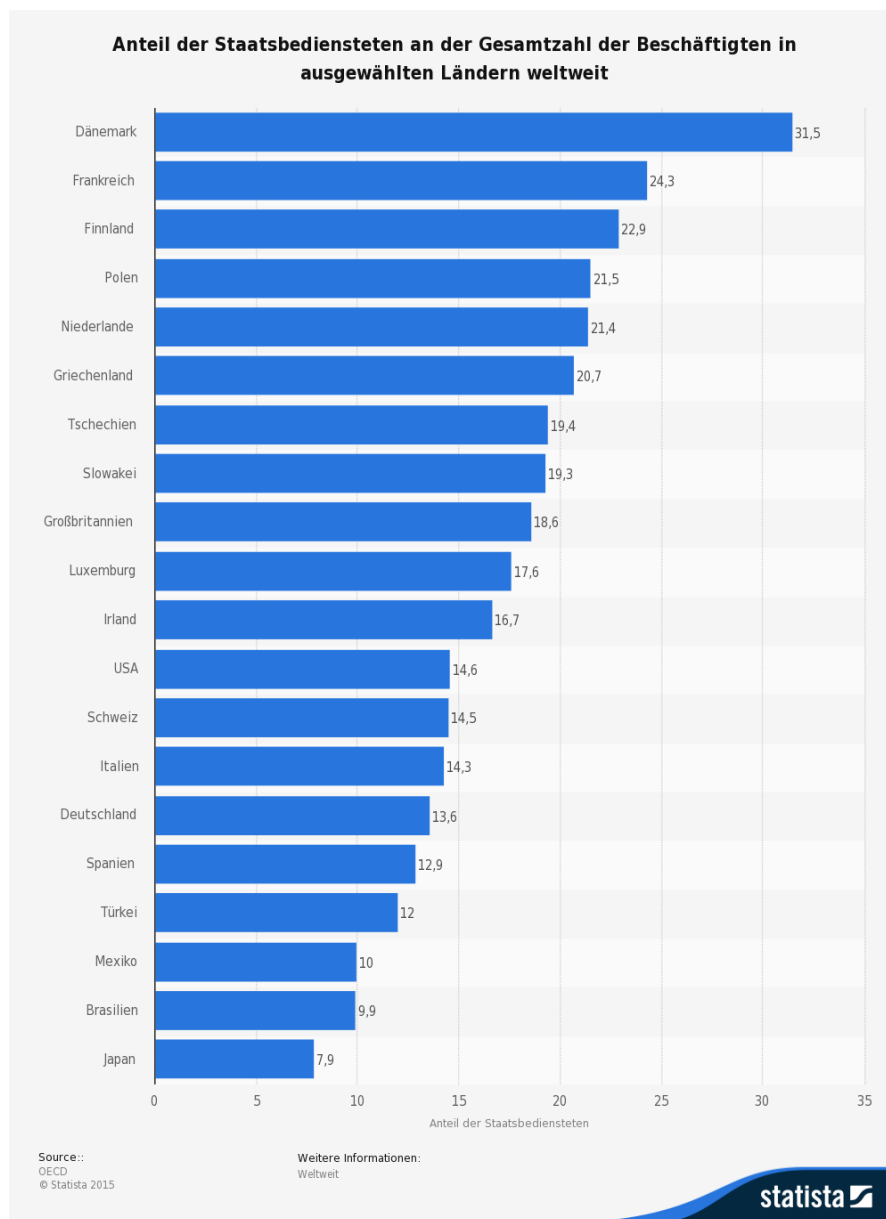


Figure 6.9: Proportion of government employees in the total number of employees in selected countries worldwide[OEC12]

We see that there are big differences in the countries and in the numbers. It is not strictly depending on the countries size. For Bosnia and Herzegovina a good number would be 10% with a maximum of 100.000 people working in the civil service at all. This can be also reached through informatics infrastructures with automats which would e.g. provide

standard documents by the identification card. This would make the administration more effective and the processes would be more faster.

The saved money in this sector could be used to organize a automotive cluster, which could a leading contact for the needs and purposes of the automotive supplier industry in Bosnia and Herzegovina. This will explained more in detail in section 6.5.

6.1.3 Law and anti corruption strategies

To go back to law and anti corruption strategies again a small input from the European Union progress report must be included[Com15a]. In this document it is stated that the reform in the judicial system saw a small progress. It is stated that the judiciary needs good people, very well defined disciplinary mechanisms and very well defined regulations to overcome the problems in the country. As one of the biggest problem, where the whole community suffers from, is the corruption. It is wide spread at the entire public sector. Also due to the high unemployment rate the corruption is widespread in the employment area. The politicians have their own people so that they can hold their power in the country and these people are making most of the corruptions in the country. According to that there is of course a small political will to fight against corruption.

In last years in European Union and abroad there was a call for improvements in the legislative power and to have good laws. In Bosnia and Herzegovina we saw that the laws are not such good. The overall process for legislative power is not working as it should.

To improve the legislative power a first step could be to define a checklist which will be used to go over all laws defined and laws which should be defined. With this list a systematic failures in the law can be found and eliminated. This checklist and the content must be defined by international specialists of law. This checklist would then be a standard a could be a first step to have good laws.

As said for the checklist, already defined laws and new laws which should be defined, must be checked. The legislative power should go over the laws and improve the law to be more essential, to make the law simpler and to make it more flexible. But as in all areas, if this is not used, than all that would be for nothing. It must be used for the actual law and for new laws. Groups must be defined which is doing this things. In Bosnia and Herzegovina this would lead to a very wide checking of the actual and new law.

For each new law which is done a new process should defined which states in what way, which steps and in which phases the target for good laws can be reached. The process must define in detail and has to be built up from component processes, which then all together build an overall process for good laws. It is crucial that the processes are transparent so that the decision for a new law can be critically reviewed[iGM15].

Another problem is the corruption which is very widespread in all institutions in the country. We have seen that there are some laws but the court and the institutions are not willing to fight the corruption with the defines laws. As given by [MM16] an anti-corruption strategy will fail if the strategy is not based on a country own specification

and characteristics. So for Bosnia and Herzegovina a very specific anti-corruption must be defined which must be very well evaluated through results checking and the through the PDCA[Bul15] (Plan Do Check Act) method. All these methods which could be implemented are for nothing if the institution, which will track all the results, has no power. The power in Bosnia and Herzegovina must go through the High Representative in Bosnia and Herzegovina[otHRfBH15].

Transparency International has provided a document which describes good methods in designing and implementing anti-corruption strategies[MM16]. In Bosnia and Herzegovina strategies have been defined but the biggest problem is the implementation. Due to there is no political will and a high number of politicians is corrupt the High Representative in Bosnia and Herzegovina[otHRfBH15] must implement institutions which are independent to the government and highly supported by the European Union. This support should cover also the monitoring and evaluation process.

6.1.4 Tax regulations

It was seen in section 5.1.1 how big the taxes in Bosnia and Herzegovina are and also the ranking according to the World Bank Group[WBG16a], which is the 154 place in year 2016 (out of 189 economies world wide). We can see in figure 5.5 that the overall taxes are 23.3% and comparing to OECD high income countries this is about 20% lower (see figure 5.4). The question is why the ranking is so bad. The answer is only the high complexity and time which is needed to pay all these taxes. It should be made very easy for the companies to pay their taxes. It should take mostly one document for various tax payments and mostly five documents at all. The number of payments should be 12 payments. Online system should be available to help the companies to upload the taxation documents.

6.2 How location criterions must look like in Bosnia and Herzegovina

We have seen in chapter 5 relevant criterions for location selection. We will now look how these criterions must look like and what has to be in Bosnia and Herzegovina to attract investors from the automotive supplier industry. We will first cover regional and site factors. After that we will look at the community factors together with the cultural factors.

6.2.1 Proposals for regional and site factors

In this section we will find a set of proposals which are relevant for Bosnia and Herzegovina to be attractive for investors from the automotive supplier industry.

Political situation and government regulations

We have seen through the report from the European Union report[Par15] and from the state department[Dep15] that there are crucial political problems in Bosnia and Herzegovina. To solve them will be a tedious process, which can not be solved only from inside the country. Through the sections 6.1.2, 6.3 and 6.1.3 we have seen some possible ways to solve political problems and corruption in the country. But as the country was satisfied through the peace agreement from Dayton[Pro15], which was only a good plan to end the war and nothing else, it will not be able to solve all political problems by his own. There must be a clear international will and support especially from European Union and United Nations Of America.

The first big problem which must be solved is to stop the wishes to divide the country. There must be a clear constitution change with help from European Union and United Nations Of America where no entities are available in Bosnia and Herzegovina(see section 6.1.2). All politicians and the courts are connected together. The big politicians feel as untouchable. A big influence to this is the administrative configuration. When the political configuration of the country is managed (see section 6.1.2) then a professional team, with high power, must be established which would investigate political and corruption crimes from top of the country down to the smallest political and corruption crime. The power and protection must be granted by the European Union, United Nations Of America and also possibly Turkey, which has more and more political influence in the country.

But to have an such team, they must first have a training, in the countries which have good methods to fight political crimes and corruption. The team must know the methods and how to proceed all the cases which have been possibly found. The team must be untouchable from inside criminal in the country and there must be an unknown instance in the European Union which would track the work of the team and all the moves and there ownership. Because they could not have more then their salary can buy. The fear of such a team would to smaller corruption in all areas. Politicians would think twice if they would do some crime.

To have a better political situation also the politicians must have an education which is adequate to hold an office or to be a politician in the country. There must be a clear way, a process, description and law in which stands what education a politician must first have to be able to be a politician at all. On state level he must have university degree plus a administration degree from an educational institution which has accreditation from two institutions from European Union and United Nations Of America. On local level there must be a four year school minimum with one year additional local administration school. This would lead to more professional politicians which could do more for the country. This must be done because the level of knowledge in Bosnia and Herzegovina is not on a high level.

In the last years a huge number of young people are leaving the country. The politicians see this situation but they do nothing to manage this. The do not nothing handle the very high youth unemployment rate. The citizens have socio-economic needs but the

6. PREREQUISITES AND NEEDS FOR THE AUTOMOTIVE SUPPLIER INDUSTRY TO BECOME ESTABLISHED IN BOSNIA AND HERZEGOVINA

politicians do not deal with this problems and their needs. It is clear the their mind must change and they must implement strategies for solving this problems.

Government regulations and strategies for the country are on a very low level and they relay don't know how the country should look like in 2025. As provided by the European Union report[Par15] in section 2.2 there is a huge lack of countrywide strategies.

This concerns in particular the areas of movement of persons and labor force, freedom to provide services and right of establishment, the free movement of goods, consumer protection, employment and social policies, education, culture and research, the area of industry and SMEs, environment and climate fields and the area of transport. In a number of areas further progress is hampered by a lack of countrywide strategies[Par15].

Not in all areas but in a huge number, like employment and social policies, education and culture and research there is no strategy to be found (we will see later that these areas are very important for the automotive supplier industry for their locations selection).

To have a better government a revision of this must take place. Specialists inside and outside the country must do this and must make plans what the government has to change. They should make a plan and they must provide information and evidence that their plans and strategies will work. This plans and strategies must be reviewed by the European Union. Someone would say that these should also be reviewed by the institutions in Bosnia and Herzegovina. But this will not work because they are under review. But strategies which have been made must be international. This means they must think beyond the country borders, to attract investors, to think which help they need etc. For example the government give money to companies which employ a worker from the employment agency. The worker is mostly not educated and he will be fired after a small period and again the company gets a new worker from employment agency where the company gets again money for them. Here another strategy must be introduced. For example this money could be given to a private company (only then when the private company have finished the job according to the wishes which will be controlled again by a professional team) which should plan the investor movement to Bosnia and Herzegovina with the investor directly. With this money they will send the people to the investor to be trained and then they will come back with the investor back to Bosnia and Herzegovina.

Again a revision of the government must take place where all parts of the government must be checked on their operations. How efficient this operations are, how educated the people are etc. The block of useless employees in the government must be broken. The revision team must also introduce a grading paper which will be used to grade all the employees of the government.

For example a revision of transparency of the government has been done in year 2015. This was done by the audit office in Bosnia and Herzegovina[ootioBH15]. It is stated that

there is a huge lack of transparency in the institutions. Sometimes no informations come out from the institutions and sometimes they do not allow to get some information's.

But not all regulations of the government are bad. The Foreign Investment Promotion Agency of Bosnia and Herzegovina institution is for example a good way to bring investors to the country. But Foreign Investment Promotion Agency of Bosnia and Herzegovina has no power and their area of operations is too small to be a productive institution. For that reason Foreign Investment Promotion Agency of Bosnia and Herzegovina should have more operations and more decision power in the government regulations.

The government must ensure, together with Foreign Investment Promotion Agency of Bosnia and Herzegovina and another organization, that in the next 10 years 45% of the companies make business over their expectations. The other 55% should make their business with normal expectations and not of the automotive supplier companies should make business under their expectations. But it must be also clear that not all is depending to the government.

Location of raw material

The location of raw material in Bosnia and Herzegovina is for the metal industry is very good. For example raw metal is available in the steel plant in Zenica. This is a very huge steel plant with good metal products. Aluminum is available in Mostar where a big aluminum plant is available.

Transportation systems, infrastructures and costs of transportation

The government should find investors from all over the world, which must use Bosnia and Herzegovina companies, to build up the highways more faster than now. They can use the highways for years to make profit and then provide the rights back to Bosnia and Herzegovina. The idea how Bosnia and Herzegovina is building up the highways is some point not so bad. Because they are giving the job to local companies, but again is too slow.

The possible automotive supplier industry would not find bad streets. It is only about time in that case. With highways the transportation is of course faster and time is money.

The government must invest and find investors, which will help to build more highways and to build them faster.

One possible strategy is to get money from the European Union, because the European Union will need these highways for transporting goods over the Adriatic to other countries.

Another strategy was already introduced. Find investors which will build the highways and use them for a period and then the state will use them again. How long the investor should use these highways must be very well calculated so that the country will have also something from that. Possibly they can share the income and then the investor will have more years the rights to get money from the toll.

6. PREREQUISITES AND NEEDS FOR THE AUTOMOTIVE SUPPLIER INDUSTRY TO BECOME ESTABLISHED IN BOSNIA AND HERZEGOVINA

Location and proximity to markets

The geographic position from Bosnia and Herzegovina is as it is and will not change at all. We can only say that the location is very good because the automotive supplier industry could very easily supply OEM's and TIER 1 in Western and Eastern Europe.

Banking and monetary sector

This information is very important for the country and for the possible automotive supplier industry in Bosnia and Herzegovina. Another very important thing is that the currency in Bosnia and Herzegovina (the KM, convertible mark) is hard connected to the euro. Which means that the conversion between euro and convertible mark is every time the same.

In section 5.1.1 we can see that the banking system in Bosnia and Herzegovina is very good and can be used for world wide business.

Climatic conditions

In Mai 2014 Bosnia and Herzegovina had huge problems caused by floods. Some cities like Maglaj and Doboj have been two meters under water. Many companies had problem with this situation because their productions plants have been damaged well (see picture 6.10).



Figure 6.10: Floods in the city of Maglaj

Such floods have not been seen for 100 years. The complete country was not prepared for such problems according to the floods.

According to this knowledge the country has to prepare safe areas for plants so that these can not be damaged in any next floods in the country.

They must understand the possible problematic and make programs which would possibly resolve problems with the rivers and the water at all. But if this could not be done only by Bosnia and Herzegovina. All countries in the region where rivers like the Bosna can make problems should make a strategy to eliminate possible floods risks.

Bosnia and Herzegovina has continental climate with hot summers and cold winters. In the winter months Bosnia and Herzegovina has sometimes huge problems with the snow. This is because the country has not too much money to buy machinery which would help to clean the roads. But even with available machinery it is not possible to clean all roads because of too much snow. Nevertheless a good strategy can and must be developed so that main roads for industrial needs are clear.

6.2.2 Proposals for community factors

In the previous section we have seen some regional and site factors and how they look like in Bosnia and Herzegovina and what has to be done so that an automotive supplier industry can be established in Bosnia and Herzegovina. In this section community factors will be discussed.

Providing better education system

After analyzing some school system in European Union (Germany for e.g.) it came out that Bosnia and Herzegovina has to change the system to have better scholars, workers and students.

The main school, which lasts nine years, should divide better scholars from the one which are not so good. For that reason the following structure could be a good proposal.

In the first four years all children will visit the same class. After these four years the scholars will be divided in two classes. The class where good scholars are in (class A) and the one with scholars which are not so good (class B). The scholars in the class A will have more to learn and the subject matter will be more heavy and detailed. In the next two years scholars from the class A can fall down in to other classes if they can not follow the subject matter. The scholars from the class B are able to learn more and to be switched in to the class A. After this two years nothing can then be changed. The last three years of the main school are fixed and changes from class B to class A can only or from class A to class B can only be done in special cases (to not lose a year of school (A to B) or if the scholar from B solid grades in year 5 and 6 and in the year 7 they are much better (B to A)).

After the main school the class A scholars can attend all the schools they would like. Which means they could chose the four year high school program (gymnasium or other technical school) or they can chose the three year school for workers. Class A scholars can then also make their studies after the four year school.

Class B scholars can only visit schools which take three years (this are the schools for workers). But it should not be blocked that class B student could not study at all. There

6. PREREQUISITES AND NEEDS FOR THE AUTOMOTIVE SUPPLIER INDUSTRY TO BECOME ESTABLISHED IN BOSNIA AND HERZEGOVINA

must be a defined way how to finish an add on schools, which would be enough, so that the class B scholars with a three year school are equal to the class A four years scholars.

The problem in this type of school is that possibly scholars from poor families will not have the same chances as scholars where the family has a higher graduation and is not poor. A strictly defined structure must be set up so that this case could not happens. All children have to have the same chances in their life.

The government has to rethink the teaching material in the three year and four years school. The material which is used is too old and has no touch to the actual situation. Not only that the teaching material is too old but also the environment and the systems are too old. The four year schools are mostly affected when its about the technical four year schools.

For the automotive supplier industry the most importance will have the three year school. Here the government and the schools must make a strategic effort. The government has to talk to the investors and if they say: "Yes we will come in five years to that location", then it must be immediately planned which schools at this location are available and which must be established. A plan can be set up with the investors so that the scholars can work for some months in the companies of the investors to get in touch with companies in the beginning.

The university study is in the fall. The quality has diminished, and the students learn only to complete the study as soon as possible. Too many students are studying subjects, which are already very crowded and where there are no jobs. The government must stop this till these people are not any more listed at the unemployment market.

There are also new private universities, which are just on the money down and have no value. Here the state has to push a bolt so that this kind of university is stopped. Each private college must be accredited by the Bosnia and Herzegovina government and one of the top 20 universities in the world. Without this they must be closed.

Providing better labor power for possible investors

We have seen in section 6.2.2, that the government has to put more effort in changing and adapting the education system so that the labor power will be more powerful than today.

A strategic plan has to be built up with investors. The government should cooperate with possible investors. They should make contracts together guaranteed by the European Union. This means that the European Union government will be integrated in this process.

The government should attract companies to send the workers to special trainings. If this trainings are in the own country then they should have double tax amortization. If in foreign countries that the classical normal amortization should take place. The government should also establish a unit where the education level of each can be controlled

through tests. One example in the school is that all the four years last exam is not controlled by the local teachers. This will be sent randomly to other schools which should check the exams. Each scholar should get his own exam. The exams should be printed 10 minutes before starting the examination. This will lead to more profession in the schools and the schools would do more to teach the scholars.

The country can do a lot if well educated people are making this plans. But the questions is whether Bosnia and Herzegovina does have well educated people working for and in the government.

Here we have the next step of labor education. Each who works for the government must, as said in section 6.2.1, have an administrative school. And for the special government department, they should make special tests.

6.2.3 Cultural factors

In Bosnia and Herzegovina the people must understand that they have to change by them self that the state should and could not do everything for them. They must do something also by them self and not only waiting that someone opens a job for them in a city where they life. They must also move from city to city. They must educate them self. Education can also be made through self learning and does not need to much money. Everybody in the country must understand that it is very hard to earn money and that the prosperity is only coming through hard work.

6.3 Administrative unit for investors

For investors a special administrative unit must be set up. Of course there is Foreign Investment Promotion Agency of Bosnia and Herzegovina[oBH15b], but this organization does not do the small things like registering the company, make all other administrative walk through for the investors etc. It is also possible that the administrative unit is also part of Foreign Investment Promotion Agency of Bosnia and Herzegovina[oBH15b]. The administrative unit should prepare all the documentations and give him proposals for the next steps. This unit should be controlled by the government and the government must guarantee that this unit will do the job according to investor's wishes. All steps and costs in the country for the administrative walk through must also be depicted. It must be a very high level of transparency in this unit so that the investor see that everything is prepared for him legal and with the wish to help him as much as possible.

With this unit a lot of corruption will be cut off and the investors would save a lot of time and could concentrate on more relevant things of their business.

6.4 Special company form and registration

It is not the intention here to explain the GmbH[Fra15] like in Germany, or the Ltd [Rec15] like in Great Britain, but it is the intention to form an new very cheap from from

start up companies with various risks.

Start ups and new companies often fail because of bad concepts [Fal12]. Because this a new company organization and registration form must be very well focused on the quality of the business plan which contains very detailed information about how the company will work.

For this reason a new form should be introduced, which have a similar legal framework as the German GmbH, but doesn't cost so much as the GmbH. The form can be called AGmbH, which means Analysed GmbH. The form AGmbH should cost only symbolic 1 € for all the expenses which must be given to the government. The people which would like to found this companies must provide the to government a business plan (a special institution can be founded for this reason, see later the section 6.5.2). This plan must be checked by the government. It is very crucial the the founder provide a high quality proof of how they will earn money in the first years. If the plan is fulfills government criterion's than the company can be founded as a AGmbH.

In the first year the company should have tax incentives. This means that only a small amount should be payed for insurance of the founders. The pension found will not be payed for the founders. For the workers the found will not be payed in the first year, but if the company gets bankrupt in the first year then the government have to pay the pension found for the workers. After the first year all, the founders and the workers, have the same risk.

In the second year, depending on the earnings, the companies should pay then normal taxation and insurances and also step by step they should cover they payments of the company registration, taxes and insurances for the first year. This should be spread through the second and third year.

6.5 Automotive Cluster and Government Support

We have seen in the chapters before that the expenses in the state sector are very high. Let us consider the case where this expenses are shorten by 50 million € yearly. This are about 15% of the overall salary expanses in the state sector. The idea is to use this yearly 50 million € and to organize a Automotive Cluster for the automotive industry and to set up a government supported Automotive Institution. In the following sectors we can see how a Automotive Cluster (see section 6.5.1) could look like. After that the government supported Automotive Institution will be introduced (see section 6.5.2).

6.5.1 Automotive Cluster

The automotive cluster would be a groupation of automotive companies (nerveless if OEM or TIER 1 etc. . The cluster will act as a mostly government founded group where all the producers from the automotive sector in Bosnia and Herzegovina can affiliate. A small part of the founds will be provided by the companies. Depending on the size

of the company and depending on how much income this company has, they will pay more or less to be part of the automotive cluster. Together they should build a strategic alliance for reliable growth and cooperation. They should actively share information and also act as a possible investor in new company creations. It is not the intention of this section to explain the detail meaning of clusters (a good explanation can be found in [Por00]) but it should be explained how a cluster should look like in Bosnia and Herzegovina.

The automotive cluster is only justified if the companies in this cluster can grow through the cluster. For this reason a number for value creation through the automotive cluster must be defined. This means that the employees of the automotive cluster must prove how much growth and value they bring to the automotive companies in Bosnia and Herzegovina. It is very crucial that a strategy is defined how the cluster should behave in case of Bosnia and Herzegovina.

Automotive Cluster Strategy

The first strategic question which is crucial, is the question which people should be the one which will lead the automotive cluster in Bosnia and Herzegovina. For the beginning a good number of employees is 20 people where one person is the overall leader and four of them are the management team. Very important is the choice of the leadership team. First they must have a very good knowledge about the automotive industry (10 years working experience in leading positions) and should have international experience. A committee out of three international known specialists should be chosen to make the selection of the leader and the management team. According to [HK99] this leader team of five persons must very well cooperate together. If the leadership is not in a good relationship that nothing will work as defined.

The first strategic task of the cluster would be to connect all companies in the automotive sector in Bosnia and Herzegovina. It will take time to connect them and to set up a common view and to define the tasks for the future. But the very first task would be of course to create a growth for existing companies in this area. Each of the companies must also have a plan what they would like to have from the automotive cluster. In between the cluster leadership should also make it possible to attract new companies to invest in Bosnia and Herzegovina. These companies should be integrated in Bosnia and Herzegovina so that the companies already available will not lose business and also not lose employees to other companies.

This strategy must be very well defined with the government. So that the government can create regions, where new jobs are needed, to make this region suitable for fast investment and fast building of production hall. The automotive cluster should in that case work with the possible future administrative unit (see section 6.3). This unit should prepare all the documents for investors. Very fast and very transparent so that everything is online visible for the investors. To create new value for companies and their needs also a connection to the universities must be done. Companies and universities should build

plans and projects together so that research and development can also be done by the universities.

Another huge thing is positive lobbying. Positive lobbying means not corrupting politicians or some one else (who can decide that a companies moves from some country to Bosnia and Herzegovina). Positive lobbying means speaking with specialist and hire experts from the industry so that they can speak with companies and make Bosnia and Herzegovina attractive to them. So that these companies can plan their future expatiation in Bosnia and Herzegovina and not in other countries.

After building the automotive cluster. Then government should create a support for company creations. We will see in the following chapter what does this means.

6.5.2 Government Support for Company Creations, The Automotive Institution

Considering the case where the government can save money, when not so much people work in the state sector, and considering the example with 50 million €, this money can be used to help start ups in the automotive sector to be build up. For this purpose a government support should be set up the so called Automotive Institution. This institution should work parallel to the automotive cluster but should have defined interfaces to the automotive cluster so that double work is not done. This institution should use the money and find specialist from the automotive sector which are suited to form a company for the automotive needs. One example how this can work is the following.

Find experts from the European Union and find very good skilled people in Bosnia and Herzegovina which can form together a company. This experts should be well known experts from the industry e.g. former managers from companies like Volkswagen and BMW. In the organization phase the planed managers should speak with the planed customers in European Union. If the customers are willing to buy future goods form the possible new company then the government owned automotive institution should give credits and other support to push this companies on the market. This companies will be for sure very connected to the buyer company, but the beginning could look like this.

Beside this the automotive institution should be very well connected to the European Union automotive industry and the European Union to analyze their needs in the automotive sector. They strategy and the planning should be discovered and also explain to them. Plans could be made together for future organization of the Bosnia and Herzegovina industry.

Another strategy, which must be followed in parallel, is also to build companies in Bosnia and Herzegovina which can growth through special credits for well skilled people from Bosnia and Herzegovina. This means possible owners would make plans for their company and the automotive institution will consider and finance the best. But the approval for such a company can only be done if experts from the world wide automotive industry give a positive assessment to the plan. This experts should be payed by the automotive

institution. Each expert who gives a positive assessment must support these companies in leadership and management till this company can work by itself.

The next section will provide possible companies sector, where new companies can have a good success. Also an example will be given how the government supported companies can be build up.

Automotive Inforamtion Technology Sector

The actual trend in the automotive industry show us that more and more electronics control units are available in a car [Zie12]. All these are connected through special communication protocols to exchange data between them. The growth of electronics control units needs also more engineers which would do the development and research, which is also stated in[Gie12] (this is a German example but could be mapped to each country with high automotive production).

The Automotive Institution could use this knowledge and define a strategic program in creating companies which should support the needs e.g. of the German market. Also here professionals from the industry should be used. They should have share of the companies but must guaranty a specific income for the company according to the strategies. The concepts of companies must very well defined according to needs of the industry. Possible joint ventures can be defined from e.g. companies from Germany and the new created in Bosnia and Herzegovina.

Automotive Spare Part Sector

In the region of Bosnia and Herzegovina in the countries like Croatia, Serbia, Montenegro the most cars a very old. Especially in Bosnia and Herzegovina the average age is 17 years [ava15]. According to [nVdPBiDnAdF12] (see also figure 6.11) in Germany about 50% of the cars are older then 5 years. This is the time where there is no more guaranty on the cars and where the owners must pay by them self everything what is broken. And after five years each cars begins to have mechanical problems which should be changed.

From Bosnia and Herzegovina site it should be analyzed what are the most important parts in the region which must be changed in this years so that companies can be build up to produce these spare parts. A good program can be made with OEMs so that they have a certification for their spare parts for the cars.

Automotive Supplier Sector

Bosnia and Herzegovina has trough the war and through their political situation a huge lack in technological advance. But god sector where Bosnia and Herzegovina could start is the production of not to much investment intensive economy of scale parts. This means that no much high end machines could be used and instead of that workers can work instead of cost intensive robots.

6. PREREQUISITES AND NEEDS FOR THE AUTOMOTIVE SUPPLIER INDUSTRY TO BECOME ESTABLISHED IN BOSNIA AND HERZEGOVINA

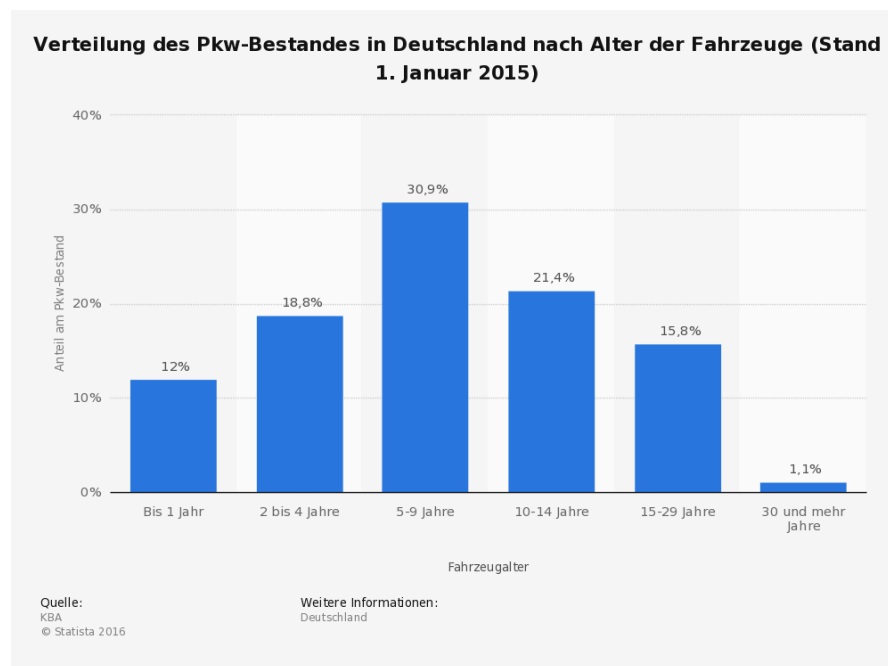


Figure 6.11: Cars in Germany according to their years

The Automotive Institution Supported Company Structures

The automotive Information Technology sector is huge and many technologies are used in developing the systems. For this reason creating companies must be done with specialist from the industry with high technological knowledge and also a leadership team must have knowledge in this area. The strategic organization and ownership could be similar to the one described in section 6.5.1. In this case five people would be owner of the company. One as the main leader would gain 30% of the company and the other four would have 17.5%. In the first three years these ownership is not real. This means that in the three years these leaders and managers could lose their ownership because of bad management. In the following one strategy is given for the first three years.

When the company is created and the first managers with their share have been defined, they have to manage the company in that way that this company will make a revenue of five times more than the investment in the company in the first four years. This means if the company would have a investment of 1 million € then in the first four years a revenue of 5 million must be made with a net income of minimum 30% of the revenue. In the first year the revenue must be minimum 30% of the investment. The Automotive Institution must track this companies and their revenue every three months through the revenue and through the actual state of the company according to future key performance indicators.

The ownership is given on three years, which is not static. After three years the ownership becomes static, which means then only after three years the managers would become

their part of the company as their ownership. But in the next three years they are not allowed to leave the company and after this three years they are not allowed to sell their ownership for the next three years where they must be a board member even if they are not in the company. After that they can do whatever they would like to do with their ownership.

In the first three years the management board, the Automotive Institution and the actual workers can decide if one of the managers should leave the company and lose their ownership. This means that the Automotive Institution has 40% decision power, the management board 40% and the workers have 20% decision power. When a manager leaves the ownership of the other managers changes. This means that according to the time when a manager should leave the ownership decision will be prolonged. If one of the managers should leave the company in the first year, because of bad management, then there will be no changes in the ownership time. If the manager should leave the company in the second year then the ownership time will be prolonged for one year. This means when a manager should leave after 1.5 years (between first and second year) then the ownership for the other managers will be prolonged for one more year. When the manager leaves between the second and third year then the ownership for other managers will be prolonged for 1.5 years. The new manager begins of course from beginning.

The salary of the managers will be in the first year will be fixed. After that first the salary is monthly decreased so that the salary will be only calculated by the revenue and their ownership percentage. This means a better revenue would bring them a better income.

The investment of the Automotive Institution must of course be paid back but with various exit situations for the company. One example is also that the company should give back five times more of the investment in twenty years.

This is a small concept how state supported companies can be built up and then switch to a private ownership after several years.

Summary

Bosnia and Herzegovina is a small country in southeast Europe with 3,5 million citizens [fSoBH15]. Through the decades several empires had control over Bosnia and Herzegovina (Ottoman Empire (1463 - 1878), Austro-Hungarian Empire (1878 - 1918))[Mal96]. **The First World War ended 1918 and from this time Bosnia and Herzegovina was part of the Kingdom of Yugoslavia (1918 -1941).** Beside the World War I, the period where Bosnia and Herzegovina was part of Kingdom of Yugoslavia, was a very catastrophic for Bosnia and Herzegovina, because of political plans and intentions to divide Bosnia and Herzegovina between Croatia and Serbia [Mal96]. In the period after World War II, Bosnia and Herzegovina was part of the Socialist Federate Republic of Yugoslavia Socialist Federative Republic of Yugoslavia (1945 - 1992).

In the early nineties (1992 – 1995) in BiH began a war [Mal96]. It was a very tragic period for the country. Many people have been killed or have been banished from their homes[Tot10]. The war destroyed a huge part of the industry. After the war Bosnia and Herzegovina was politically set up in two entities, Republic of Srpska and the Federation of Bosnia and Herzegovina. In the Federation of Bosnia and Herzegovina also ten cantons has been created with political and economical decision power [oB15]. Although the two entities build one state, the problems between them are also 20 years after the war visible [Mal96]. The biggest problem in Bosnia and Herzegovina is the political situation and corruption which is also stated in the European Union report[Com15a]. Not only the political situation but the overall administrative configuration of Bosnia and Herzegovina is very bad and to big. That's why also Bosnia and Herzegovina has huge problems to be a functional state.

One of the best ways to clear problems (political, social etc.) is that the residents have a solid workplace and that they can organize a life without having fear for the future. One good way where Bosnia and Herzegovina could have grate chances is the automotive supplier industry, especially the one in the metal sector.

Through the history of Bosnia and Herzegovina there has been a very good automotive industry, which was located around the whole country. There have been some examples where there was a company build up by investments from other countries like Tvornica Automobila Sarajevo where 51% was owned by the government (UNIS company) and 49% by Volkswagen. This company was called TAS. They have produce many Volkswagen cars for the Socialist Federative Republic of Yugoslavia market. In the year 1953 FAMOS[FAM15] (Fabrika Motora Sarajevo - Engine Plant Sarajevo) has bayed a engine license from the Swiss company Saurer[BBS14]. With this license FAMOS was able to produce motors for the FAP trucks[PRI15]. Together with Mercedes-Benz, 1973 FAMOS starts to build very sophisticated engines for trucks, buses and other vehicles. According to the company information FAMOS has planed to one of the biggest truck engine producers for the European Union market (see figure 3.1). This are the companies which have been very huge but have not been by far the only companies in Bosnia and Herzegovina.

The actual automotive industry has positive trends but this industry is by far not so big as in the eighties. The today automotive industry of Bosnia and Herzegovina can be mostly divided in four kind of companies/investors. Those which have the wish by them self to invest in Bosnia and Herzegovina. One huge example is the company Prevent[Inf15]. This company produces seats and metal parts and have their production plants in Gorazde, Zenica and Visiko etc. (cities in Bosnia and Herzegovina) and they have about 5000 employees [Inf15]. They have not been advertised by the government of Bosnia and Herzegovina. The second kind of companies are those kinds of companies who had before made business in Bosnia and Herzegovina. One example is Mann Hummel [Hum15]which made business with Unico Filter[BiH15]. Unico Filter was established 1974 and made their production of automotive filter systems (oil filter, air filter etc.) under license from Mann Hummel. After the war, Unico Filter was bought by Mann Hummel. Mann Hummel has recognized the potential of the company due to business relations before and after war. The third kind of companies which are those who have been created from private capital from people who worked before in European countries and then established their own business. Becto [Com15c] is this example. Becto is located in Gorazde and has 400 employees. This company managed to grow from a small company with 10 employees to over 400 employees. The fourth kind of company are those companies which are still owned by the state Bosnia and Herzegovina. One example is FAMOS[FAM15], which was first divided in FAMOS belonging to the Federation of Bosnia and Herzegovina and the other part of the company belongs to the Republik of Srpska. All companies in relation to the government are not in a good position. Some are bankrupted and some companies were sold for little money under very suspicious circumstances.

For the future of Bosnia and Herzegovina the automotive supplier industry could be very important. The people would have new jobs and the social situation could be better than today. For this reasons it is clear that Bosnia and Herzegovina has to do many things so that a respectable automotive supplier industry can be settled in Bosnia and

Herzegovina.

Every investor first looks at many criterions which are relevant for him to chose a country where he would like to produce. These criterions are regional, site, community factors and the cultural factors. Thes criterions have been listed and according to them prerequisites and needs for the automotive supplier industry to become established in Bosnia and Herzegovina has been analyzed.

All these criterions have been analyzed and proposals have been given how these criterions must look like in Bosnia and Herzegovina. The analysis has shown that the most critical problems (also stated by the European Union[Com15a]) are the political situation and the corruption in the country. Corruption is so widespread that this is to be found in all aspects of life. Also, the whole line of business is heavily burdened by corruption. Other problems are also the administration in Bosnia and Herzegovina which is too big and takes too much money to be able to work. Also the complexity of the administration is an important topic. When an investors comes to Bosnia and Herzegovina and looks at the procedure to open a company then he is a the beginning very upset and the chance is big that the chose another country.

To solve the actual situation and to attract investors proposals for locations criterions (regional, site, community and cultural factor's) and the actual situation has been made. For those a possible political and administrative configuration of the country has been provided. This solution provides Bosnia and Herzegovina as centralized country with five economic regions. An administrative unit will be introduced which has the task to take all the work (which normally should do the investor) from the investors and help them to finish everything. Proposals for government regulations have been done where its also stated that the whole government must be reviewed. Another regional and site factor's economical maturity, location of raw materials, transpiration system and costs, infrastructure, cost, benefits and increasing return analysis, banking system has shown that this infrastructure is very solid in Bosnia and Herzegovina and that these can create high value for the investors. Concerning the community factors currently the biggest problem is the education system. It is known that the education system is one of the most important factors of the country to have future growth. A proposal for the main school system has been done so that the school is divided between good scholars and scholars which are not so good. Proposals for the middle school have been given and also for the high school. Private high schools which do not have an accreditation from the government and a top 20 high school in the world should not be able to work.

Concepts have been made so that new possibilities for investors could be make. A cluster concept is defined which can be used for the actual automotive supplier industry and to support the new automotive supplier industries. New concepts for government support and company registration have been made which allows start ups to make a companies with very low amount of money.

This work does not analyze the corruption problem in detail. For the future a very critical work must be done about corruption and which methods to use to overcome

this problem. Another point which can not be done only by a work is the political and administrative configuration of the country. This very important problem can and must be solved by the European Union and the United Nations Of America. The entities must disappear and a new structure of the country has to be created. On every point which was analyzed as a problem a new work can be written.



Conclusion

The aim of this work was to show what has to be done in Bosnia and Herzegovina to establish a automotive supplier industry for and with the European Union market and companies. For this reason the actual situation of Bosnia and Herzegovina and the automotive supplier industry has been analyzed together with the historical overview of the automotive industry in Bosnia and Herzegovina. Several concepts have been defined which can be used to promote a better automotive supplier industry.

The administrative regulations and the political situation are on very low level and are to complex so that the country is trapped due to lacks in reforms and a professional will to implement changes. The country has to much state workers so that the overall income of the country is spent for salaries of this employees. A reduction plan can be used so that the money is used for economical purposes like supporting automotive supplier start ups. The law regulations are on not transparent and its not so easy to find the correct law description. Politicians make laws which are mostly good for them or their friends from the industry. It can for sure be stated that Bosnia and Herzegovina is not a state of law, because the law is not treated for everyone in the same manner. Based on this a very intensive research on corruption and the strategy of the county must be made. Professionals from Bosnia and Herzegovina are not enough to do that. There must be a team of foreign specialist which have good reputation and years of professional work. After solving the corruption problem and the political problems, Bosnia and Herzegovina should treat the education as a very important factor for the growth of the country.

The tax rate is not very big in Bosnia and Herzegovina and nearly the half of the tax rate in well developed western countries (e.g. Germany). But still the overall tax system is complex so that investors have to lose much time to pay all the taxes. Managing the tax payments and way walk troughs would for bring the country ranking to a better position because the taxes already are small.

Another big point is the ineffective set of institutions and also the missing institutions for providing professional services for investors and new. The complete way of registration of a company is quite long and is also not transparent. Investors are not willing to have to walk from one institution to the other and to lose time and money. For this reason a special administrative unit is defined which should do this job in a transparent and very fast way.

In Bosnia and Herzegovina some automotive suppliers are available, but this number is too small and has not a power as in the late eighties. Today this industry has a very positive trend but due to the lack of investments this industry has problems to grow. Historically seen Bosnia and Herzegovina has a good chance to make a solid automotive supplier industry. The power of Bosnia and Herzegovina could be mostly in the automotive metal industry because of the huge tradition in this industry. All companies from this sector could create a very huge value for them if producing metal parts in Bosnia and Herzegovina. The investors and the government could locate automotive suppliers in regions where this industry have been in the late eighties. There are workers which are unemployed but have huge knowledge of the metal processing.

The organization of the country is not oriented in the direction of supporting the automotive supplier industry through clusters or to support the new start ups through government institutions. For that reason concepts have been developed how clusters and how the government support can be defined in Bosnia and Herzegovina. Strategies have been defined which can be used to produce growth in the automotive supplier industry.

For a very poor country like Bosnia and Herzegovina start ups companies have not the chance to be build up easily. The biggest problem is the money which is needed for the business and the government payments which must be done. For this reason a new company form and registration have been developed to help start up to organize them in the beginning. Special government company sponsorship have been defined to support this start ups through funds (saved by a lower number of employees in the state sector).

In Bosnia and Herzegovina there is a infrastructure (workers, banks, roads, schools etc.) which is suitable to make business and to growth in the country Bosnia and Herzegovina. But it is clear that the government must do more effort to clear the politic problems and to stop the corruption. These are the most important problems which stop investors to come to the country. When these problems are fixed and when Bosnia and Herzegovina is in the European Union then there are no major barriers between investors and the state of Bosnia and Herzegovina.

List of Figures

1.1	Unemployment in Bosnia and Herzegovina (Information got from interviewing people)[IMF15]	3
1.2	World wide unemployment ranking for year 2014[ILO15]	4
1.3	Employment in the German Automotive Industry[Bun15]	6
1.4	Employment in the German Automotive Supplier Industry[dAeV15]	7
1.5	Turnover of the German automotive industry[Sta15b]	8
1.6	Emerging markets: Production growth in the BRIC area (number of produced cars)[FIP12b]	9
1.7	Emerging markets: Production growth in ASEAN area[FIP12a]	9
2.1	Bosnia and Herzegovina after the Dayton Peace Agreement[Pro15]	14
2.2	Economic growth in Bosnia and Herzegovina in relation to European Union and Germany[oBH15d] (Economic growth stated on the left)	19
2.3	Industrial production growth in Bosnia and Herzegovina in relation to other countries in year 2014 comparing to year 2013[oBH15d]	19
3.1	FAMOS engine production[FAM15]	22
3.2	NSU Prinz from Pretis Sarajevo[Pre15b]	23
3.3	Gross domestic product (GDP), current prices, bln. US dollars; Yugoslavia, comparison with the neighbors[kus00]	24
3.4	Yugo Florida[Nac15]	25
3.5	FAMOS engine mounted in a FAP truck[PRI15][FAM15]	25
3.6	FAP trucks with a license from Mercedes-Benz[PRI15]	26
3.7	Young scholars from the FAMOS company[FAM15]	27
4.1	FAMOS in Republika Srpska and in Federation of Bosnia and Herzegovina (500m between the companies)[Map15a]	30
4.2	Export indicators in the metal production[FIP15]	34
4.3	Automotive supplier exports by countries[FIP15]	34
4.4	The main educational system in Bosnia and Herzegovina	38
4.5	Business results according to their expectations[oBH15b]	41
4.6	Business results according to their expectations in relation to the year before[oBH15b]	41
4.7	Satisfaction of the business environment in Bosnia and Herzegovina[oBH15b]	42

5.1	Ease of Doing Business in Bosnia and Herzegovina[WBG16a]	45
5.2	Ease of Doing Business in Bosnia and Herzegovina, Starting Business[WBG16a]	45
5.3	Ease of Doing Business in Bosnia and Herzegovina, Dealing with Construction Permits[WBG16a]	45
5.4	Ease of Doing Business in Bosnia and Herzegovina, Paying Taxes[WBG16a]	46
5.5	Ease of Doing Business in Bosnia and Herzegovina, Details of Paying Taxes[WBG16a]	46
5.6	Sea port Ploce in Croatia[Map15b]	48
5.7	Highways and speedways in (future perspective)Bosnia and Herzegovina[www15]	48
5.8	Main rail network in Bosnia and Herzegovina[Vla15b]	49
5.9	Airports in Bosnia and Herzegovina with cargo transportation possibilities[Map15c]	50
6.1	Bosnia and Herzegovina budget usage through the years[BiH16b]	56
6.2	Bosnia and Herzegovina in four economic regions[Ber15]	57
6.3	Bosnia and Herzegovina in five economic regions[da15]	58
6.4	Number of employees in the state sector (BLUE: Number of employees in the state sector, RED: Changes to the year before[Dep16]	59
6.5	Number of employees in the private sector (BLUE: Number of employees in the private sector, RED: Changes to the year before[Dep16]	59
6.6	(Dept of Bosnia and Herzegovina through the years BLUE: Dept as % of the Gross Domestic Product, RED: Servicing of the dept in % of the acldp[Dep16]	60
6.7	Dept of Bosnia and Herzegovina through the years BLUE: Dept as % of the Gross Domestic Product, RED: Servicing of the dept in % of the acldp[Dep16]	61
6.8	Tax payers and tax consumers in % of the overall population BLUE: Tax payers in, RED: Tax consumers[Dep16]	61
6.9	Proportion of government employees in the total number of employees in selected countries worldwide[OEC12]	62
6.10	Floods in the city of Maglaj	68
6.11	Cars in Germany according to their years	76

List of Tables

2.1	Economic trends in Bosnia and Herzegovina	18
-----	---	----

bih Bosnia and Herzegovina

sfrj Socialist Federative Republic of Yugoslavia

mhrr The Ministry for Human Rights and Refugees

gdp Gross domestic product

koy Kingdom of Yugoslavia

eu European Union

fipa Foreign Investment Promotion Agency of Bosnia and Herzegovina

fbih Federation of Bosnia and Herzegovina

rsbih Republik of Srpska

tas Tvornica Automobila Sarajevo

fzs Federal Institute of Statistics

oecd Organization for Economic Co-operation and Development

ifs Institute for standardization of Bosnia and Herzegovina

mof Minister of Foreign Affairs of Bosnia and Herzegovina

imf International Monetary Fund

gdp Gross Domestic Product

usa United Nations Of America

it Inforamtion Technology

Bibliography

- [ava15] avaz.ba. Prosjecna starost automobila u fbih je 17 godina. <http://www.avaz.ba/clanak/219394/u-fbih-prosjecna-starost-automobila-17-godina?url=clanak/219394/u-fbih-prosjecna-starost-automobila-17-godina>, 2015. Accessed on: 10.1.2016.
- [Bal15] Al Jazeera Balkans. Privreda bih moze opet biti regionalni lider retrieved from. <http://balkans.aljazeera.net/vijesti/privreda-bih-moze-opet-biti-regionalni-lider>, 2015. Accessed on: 3.11.2015.
- [Bau12] I. Baucic. *The Effects of Emigration from Yugoslavia and the Problems of Returning Emigrant Workers*. European Demographic Monographs. Springer Netherlands, 2012.
- [BBS14] F. Betschon, S. Betschon, and Page 75 Schlachter, W. *Ingenieure bauen die Schweiz: Technikgeschichte aus erster Hand 2*. Ingenieure bauen die Schweiz : Technikgeschichte aus erster Hand. NZZ Libro, 2014.
- [Ber15] Ivan Bertic. Veliki geografski atlas jugoslavije, page 10 and 11, 1987, Accessed on: 15.11.2015.
- [BiH15] Unico Filter BiH. Company information retrieved from. <http://www.unico-filter.com/unico/>, 2012, Accessed on 15.11.2015.
- [BiH16a] CIN BiH. Imovina politicara. <http://imovinapoliticara.cin.ba/>, 2015, Accessed on 10.1.2016.
- [BiH16b] CPI BiH. Budzestki korisnici. <http://javnefinansije.cpi.ba/budzetski-korisnici/bosna-i-hercegovina.html#LIČNAPRIMANJA2014>, 2015, Accessed on 10.1.2016.
- [BiH16c] TI BiH. Korupcija u javnom sektoru. <http://ti-bih.org/publikacije-istrazivanje/>, 2015, Accessed on 10.1.2016.

- [Bru98] Marius Bruelhart. Economic geography industry location and trade. *The World Economy*, October 1998.
- [Bul15] Karn Bulsok. Pdca retrieved from. <http://www.bulsuk.com/2009/02/taking-first-step-with-pdca.html>, 2015, Accessed on: 22.11.2015.
- [Bun15] Statistisches Bundesamt. Beschaeftigte in der deutschen automobilindustrie in den jahren 2005 bis 2014 retrieved from. <http://destatis.de>, 2015. Accessed on: 15.11.2015.
- [Bus13] Adisa Busuladzic. *The Bosniaks: Failing Role Models for Muslim Europeans Retrieved from*. University of Sarajevo, 2013. Accessed on: 15.11.2015.
- [CBA00] Stefano Cavaglia, Christopher Brightman, and Michael Aked. The increasing importance of industry factors. *Financial Analysts Journal*, 56(5):41–54, 2000.
- [CEF16] CEFTA. Cefta. <http://www.cefta.int/>, 2015, Accessed on 07.1.2016.
- [Cim15] Cimos. Company information retrieved from <http://www.cimos.eu/>, 2015, Accessed on: 6.12.2015.
- [Cla15] Classbase.org. Yugoslav education system retrieved from. <http://www.classbase.com/countries/Yugoslavia/Education-System>, 2015. Accessed on: 3.11.2015.
- [Com15a] European Commission. European progress report for bosnia and herzegovina retrieved from. http://ec.europa.eu/enlargement/pdf/key_documents/2014/20141008-bosnia-and-herzegovina-progress-report_en.pdf, 2015, Accessed on: 6.12.2015.
- [Com15b] The State Electricity Regulatory Commission. Information about the comission retrieved from <http://www.derk.ba>, 2015, Accessed on: 20.11.2015.
- [Com15c] Becto Preciza Company. <http://www.bekto.com/V2/catalog/eng/BP%20Presentation.pdf>, 2015, Accessed on: 3.12.2015.
- [Com15d] UNIS Company. Company information retrieved from. <http://www.unis.ba/>, 2015. Accessed on: 15.11.2015.
- [Cor16] Giacomo Corneo. Die relative bezahlung der hochqualifizierten in staat und privatwirtschaft: Deutschland, 1977-2011. [http:](http://)

//www.wiwiss.fu-berlin.de/fachbereich/vwl/corneo/
Forschung/Bezahlung_hochqualifizierterFebruar.pdf,
2014, Accessed on 10.1.2016.

- [da15] Regional development agency. Economical regions in bosnia and herzegovina retrieved from. <http://rez.ba/?p=349>, 2015, Accessed on: 22.11.2015.
- [dAeV15] Verband der Automobilindustrie e. V. Wirtschaftsinformationen retrieved from. <http://www.unsere-autos.de/unser-standort/wirtschaft/>, 2015, Accessed on: 30.11.2015.
- [d.d15a] UNIS d.d. Anual report retrieved from <http://www.unis.ba>. <http://www.unis.ba/1/reports/25>, 2015, Accessed on: 6.12.2015.
- [d.d15b] UNIS d.d. History of the company retrieved from. <http://www.unis.ba/1/pages/6/4/historija>, 2015, Accessed on: 6.12.2015.
- [Dep15] United States State Department. Reports from bosnia and herzegovina retrieved from. <http://www.state.gov/r/pa/ei/bgn/2868.htm>, 2015, Accessed on: 3.12.2015.
- [Dep16] Depo.ba. Zaposleni u javnom sektoru. <http://depo.ba/clanak/135465/glomazni-javni-sektor-vodi-bh-ekonomiju-ka-potpunoj-propasti-16-gradana-izdrzava-ostalih-84>, 2015, Accessed on 10.1.2016.
- [Dic16] Dictionary. Infrastructure from dictionary retrieved from. <http://dictionary.reference.com/browse/infrastructure>, 2015, Accessed on: 10.1.2016.
- [dip15] Doc.dr.Ismar Alagic dipl.inz.mas. Zazto se svaka km uložena u tesanj visestruko vrati. <http://www.frontslobode.ba/vijesti/ekonomija/55485/zasto-se-svaka-km-ulozena-u-tesanj-visestruko-vrati>, 2015, Accessed on: 3.12.2015.
- [DK90] M. Dünnebier and E. Kittler. *Personenkraftwagen: sozialistischer Länder*. Transpress, 1990.
- [D.S15] Research by Irkinje Sheelagh Brady D.Savic. Kako se razvio organizirani kriminal u bih. http://www.slobodna-bosna.ba/vijest/3038/kako_se_razvio_organizirani_kriminal_u_bih.html, 2015, Accessed on: 22.11.2015.

- [DtG15] Free Europe / Diaspora and the GDP. <http://www.slobodnaevropa.org/content/novac-dijaspore-krpi-rupe-u-kucnom-budzetu/26799181.html>, 2015, Accessed on: 30.11.2015.
- [Eur15] Eurostat. Energy price statistic retrieved from. http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_price_statistics/de, 2015. Accessed on: 20.11.2015.
- [Eur16a] Free Europe. Protesti u sarajevu. <http://www.slobodnaevropa.org/content/u-sarajevu-protesti-zbog-novog-zakona-o-radu/27160282.html>, 2015, Accessed on 10.1.2016.
- [Eur16b] Free Europe. Bank owner arested retrieved from. <http://www.slobodnaevropa.org/content/bih-uhapsen-slobodan-pavlovic-vlasnik-pavlovic-banke/27545594.html>, 2016. Accessed on: 20.2.2016.
- [Eur16c] Free Europe. Saslusanje pavlovic, dodik, kriminal. <http://www.slobodnaevropa.org/content/pavlovic-ide-na-saslusanje-dodik-o-turcima-i-podmetanju/27547241.html>, 2016, Accessed on 20.2.2016.
- [Exc15] Excel. Company information retrieved from <http://www.excel-assemblies.com/>, 2015, Accessed on: 6.12.2015.
- [Fal12] G. Faltn. *Kopf schlägt Kapital: Die ganz andere Art, ein Unternehmen zu gründen - Von der Lust, ein Entrepreneur zu sein*. Carl Hanser Verlag GmbH & Company KG, 2012. Accessed on: 10.1.2016.
- [FAM15] FAMOS. <http://www.famos.ba/>, 2015, Accessed on: 3.12.2015.
- [fECOD15] Organisation for Economic Co-operation and Development. Growth in, euro area, labour quality retrieved from. <http://www.oecd.org/std/productivity-stats/37503969.pdf>, 2015, Accessed on: 3.12.2015.
- [fEER16] Centre for European Economic Research. Die bedeutung der automobilindustrie für die deutsche volkswirtschaft im eu kontext retrieved from. ftp://ftp.zew.de/pub/zew-docs/gutachten/AutomobEndBericht_final.pdf, 2015, Accessed on 10.1.2016.
- [fHRR15] The Ministry for Human Rights and Refugees. Mhrr retrieved from. <http://www.mhrr.gov.ba/>, 2015, Accessed on: 6.12.2015.

- [Fil15] Unico Filter. Half year report unico filter (mann hummel) retrieved from. <http://www.unico-filter.com/unico/?p=1003&lang=bs>, 2015, Accessed on: 3.12.2015.
- [FIP12a] FIPA. Progress of the automotive industry in the asean market. http://www.toyota-global.com/investors/ir_library/annual/pdf/2012/feature/images/feature_emerging_market.gif, 2012. Accessed on: 10.09.2015.
- [FIP12b] FIPA. Progress of the automotive industry in the bric market retrieved from. <http://blog.ihs.com/china-leads-world-in-global-light-vehicle-assembly-growth>, 2012. Accessed on: 10.09.2015.
- [FIP15] FIPA. Bosnia and herzegovina automotive industry retrieved from. http://www.fipa.gov.ba/publikacije_materijali/brosure/Automotive%20Industry.13.05.2015.pdf, 10.9.2015. 2015, Accessed on:.
- [Fir15a] Firmaproject.ba. *Izgledi BH Industrije u 2014 (Metalna i Drvena Industrija Retrieved from <http://firmaproject.ba>*. USAID, Sarajevo, 2015, Accessed on: 30.11.2015.
- [fIR15b] Center for Investigative Reporting. Reports retrieved from. <https://www.cin.ba/en>, 2015, Accessed on: 22.11.2015.
- [Fra15] IHK Frankfurt. Informationen zur gmbh. <http://www.frankfurt-main.ihk.de/existenzgruendung/rechtsfragen/idem/gmbh/>, 2015. Accessed on: 10.1.2016.
- [fSoBH15] Agency for Statistics of Bosnia and Herzegovina. Information about bosnia and herzegovina retrieved from. 2015, Accessed on: 6.12.2015.
- [fTS15] Federal Institute for Tourism and Environmental Safety. Information about the institute retrieved from <http://www.fmoit.gov.ba/>, 2015, Accessed on: 20.11.2015.
- [Gai16] John Gaines. Rise and fall of yugo. http://www.librarypoint.org/yugo_vuic, Accessed on 10.1.2016.
- [Geo82] Peter John Georgeoff. The educational system of yugoslavia. education around the world. retrieved from. <http://files.eric.ed.gov/fulltext/ED221454.pdf>, 1982. Accessed on: 3.11.2015.
- [Gie12] Georg Giersberg. Bedarf an ingenieuren in deutschland. <http://www.faz.net/aktuell/beruf-chance/>

- arbeitswelt/bedarf-an-ingenieuren-in-deutschland-veraendert-sich-13529808.html, 2012. Accessed on: 10.1.2016.
- [Gmb15] Paul Bernhardt GmbH. Information of company paul bernhardt gmbh retrieved from. <http://www.pbgermany.de/>, 2015, Accessed on: 3.12.2015.
- [Goo85] James D Goodnow. Developments in international mode of entry analysis. *International Marketing Review*, 2(3):17–30, 1985.
- [Gov15a] CIA US Government. Bosnia and herzegovina retrieved from. <https://www.cia.gov/library/publications/the-world-factbook/geos/bk.html>, 2015, Accessed on: 6.12.2015.
- [Gov15b] The Federal Government. Die automobilindustrie: Eine schlüsselindustrie unseres landes. <http://www.bundesregierung.de/Content/DE/Magazine/emags/economy/051/sp-2-die-automobilindustrie-eine-schluesselindustrie-unseres-landes.html>, 2015, Accessed on: 6.12.2015.
- [Gra15] TMD Group Gradacac. Company information retrieved from. <http://www.tmd-group.ba/>, 2015, Accessed on: 30.11.2015.
- [Gro15] World Bank Group. Report bosnia and herzegovina retrieved from. <https://www.worldbank.org>, 2015, Accessed on 15.11.2015.
- [Gua16] Jonathan Steele: The Guardian. Today’s bosnia: a dependent, stifled, apartheid regime retrieved from. <http://www.theguardian.com/world/2005/nov/11/warcrimes.eu>, 2005, Accessed on 10.1.2016.
- [HK99] Hans H. Hinterhuber and Eric Krauthammer. *Leadership — mehr als Management: Was Führungskräfte nicht delegieren dürfen*, chapter Leadership-Verantwortung: Organisation sowie Auswahl und Entwicklung der Führungskräfte, pages 117–140. Gabler Verlag, Wiesbaden, 1999.
- [HR11] J. Heizer and B. Render. *Principles of Operations Management*. Global edition. Pearson, 2011.
- [HS94] H. Hesse and H. Sautter. *Wirtschaftspolitik in offenen Volkswirtschaften: Festschrift für Helmut Hesse zum 60. Geburtstag*. Vandenhoeck & Ruprecht, 1994.
- [Hum15] Mann Hummel. Company information, retrieved from. <https://www.mann-hummel.com>, 2015, Accessed on: 3.12.2015.

- [iGM15] Prof. Dr. iur. Georg Mueller. Grundsätze und methoden der gesetzgebung retrieved from. http://ec.europa.eu/dgs/legal_service/seminars/ch_muller.pdf, 2015, Accessed on: 22.11.2015.
- [ILO15] ILO.ORG. World employment and social outlook retrieved from. <http://www.ilo.org>, 2015. Accessed on: 15.11.2015.
- [IMF15] IMF. World economic outlook database retrieved from. <http://www.imf.org>, 2015. Accessed on: 15.11.2015.
- [IMF16] IMF. The automobile industry in central europe retrieved from. www.imf.org, 2015, Accessed on 10.1.2016.
- [Inf15] Prevent Group Company Information. Company information retrieved from. <http://www.preventgroup.com/>, 2015, Accessed on: 3.12.2015.
- [ISB15] ISBIH. Institute for standardization of bosnia and herzegovina retrieved from <http://www.bas.gov.ba/>, 2015, Accessed on: 3.12.2015.
- [Jav72] Mihalo Javanovic. Yugoslav trade with eec and comecon countries retrieved from. <http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=3386&context=lcp>, 1972. Accessed on: 3.1.2016.
- [Kob16] Stephen J. Kobrin. The environmental determinants of foreign direct manufacturing investment: An ex post empirical analysis. <http://www.palgrave-journals.com/jibs/journal/v7/n2/abs/8490699a.html>, 1976, Accessed on 10.1.2016.
- [Kon15] Igman Konjic. Company information retrieved from <http://www.igman.co.ba/>, 2015, Accessed on: 30.11.2015.
- [kus00] kushnirs.org. Gross domestic product (gdp), current prices, bln. us dollars; yugoslavia, comparison with the neighbors retrieved from. http://www.kushnirs.org/macroeconomics/en/yugoslavia__gdp.html, 2000. Accessed on: 3.11.2015.
- [Lin08] Harald Linz. *Die internationale Automobilenzyklopaedie PC DVD-ROM; alle wichtigen Daten und Fakten zu 9.000 Marken; 125 Jahre Marken und Modelle*. USM, Munich, 2008.
- [LoBH15] Labour, Employment Agency of Bosnia, and Herzegovina. Analyses and research retrieved from <http://www.arz.gov.ba/>, 2015, Accessed on: 3.12.2015.
- [Mal96] N. Malcolm. *Geschichte Bosniens*. Fischer S. Verlag GmbH, 1996.

- [Map15a] Google Maps. Google maps, 2015. Accessed on: 15.10.2015.
- [Map15b] Google Maps. Sea port plove, 2015, Accessed on: 22.11.2015.
- [Map15c] Google Maps. Airports in bosnia and herzegovina, Accessed on 15.11.2015.
- [Mar03] Goran M. Marxist.com. Yugoslav state education retrieved from. <http://www.marxist.com/yugoslavia-state-education.htm>, 2003. Accessed on: 3.11.2015.
- [Mil13] Marko Miljkovic. The formative phase of the yugoslav automobile industry retrieved from. www.etd.ceu.hu/2013/miljkovic_marko.pdf, 2013. Accessed on: 3.1.2016.
- [MM16] Transparency Internationala Maíra Martini. Examples of national anti-corruption strategies retrieved from <http://www.transparency.org/>, 2013, Accessed on: 22.1.2016.
- [Mos16] Aluminij Mostar. Aluminij mostar. <http://www.aluminij.ba/>, 2015, Accessed on 07.1.2016.
- [Nac15] Zastava Nazionale. Zastava nazionale retrieved from. <http://www.zastavanacionale.com/>, 2015. Accessed on: 15.10.2015.
- [nVdPBiDnAdF12] KBA. n.d. Verteilung des Pkw-Bestandes in Deutschland nach Alter der Fahrzeuge. Verteilung des pkw-bestandes in deutschland nach alter der fahrzeuge. <http://de.statista.com/statistik/daten/studie/3438/umfrage/pkw-bestand-nach-alter-der-fahrzeuge/>, 2012. Accessed on: 10.1.2016.
- [oB15] Federation of BIH. Constitution of federation of bih retrieved from. http://www.ustavnisudfbih.ba/bs/dokumenti/ustav_precisceni_tekst.pdf, 2015, Accessed on: 6.12.2015.
- [oBH15a] Court of Bosnia and Herzegovina. Court of bosnia and herzegovina retrieved from <http://www.sudbih.gov.ba/>, 2015, Accessed on: 3.12.2015.
- [oBH15b] Foreign Investment Promotion Agency of Bosnia and Herzegovina. Fipa retrieved from. <http://www.fipa.gov.ba/>, 2015, Accessed on: 3.12.2015.
- [oBH15c] Foreign Trade Chamber of Bosnia and Herzegovina. Trade report retrieved from <http://komorabih.ba/>, 2015, Accessed on: 30.11.2015.
- [oBH15d] Parliamentary Assembly of Bosnia and Herzegovina. Parliamentary reports and information retrieved from <https://www.parlament.ba/>, 2015, Accessed on: 30.11.2015.

- [oBH15e] ZFBH Rail Network of Bosnia and Herzegovina. Rail network in bosnia and herzegovina retrieved from <http://www.zfbh.ba>, 2015, Accessed on 17.11.2015.
- [oca16] Mistry of civil affairs. Education in bosnia end herzegovina retrieved from. http://www.mcp.gov.ba/org_jedinice/sektor_obrazovanje/osnovne_inf/?id=2021, 2016. Accessed on: 3.1.2016.
- [oCAoBH15] Ministry of Civil Affairs of Bosnia and Herzegovina. Sektor obrazovanja retrieved from. http://www.mcp.gov.ba/org_jedinice/sektor_obrazovanje/osnovne_inf/?id=2021, 2015, Accessed on: 3.12.2015.
- [OEC12] OECD. Anteil der staatsbediensteten an der gesamtzahl der beschaeftigten in ausgewaehlten laendern weltweit. *Focus*, page 29, Focus, Nr. 7, 13.02.2012.
- [oFAoBH15] Minister of Foreign Affairs of Bosnia and Herzegovina. State model retrieved from <http://www.mvp.gov.ba/>, 2015, Accessed on: 3.12.2015.
- [oJ15] The International Court of Justice. Report for bosnia and herzegovina retrieved from. <http://www.icj-cij.org/homepage/>, 2015. Accessed on: 15.11.2015.
- [oMoBH15] Council of Ministers of Bosnia and Herzegovina. Information from the council of ministers of bosnia and herzegovina retrieved from. <http://www.vijeceministara.gov.ba/>, 2015, Accessed on: 3.12.2015.
- [ootioBH15] Audit office of the institutions of Bosnia and Herzegovina. Report retrieved from <http://www.revizija.gov.ba/>, 2015, Accessed on: 20.11.2015.
- [oS15a] University of Sarajevo. Unsa retrieved from. <http://www.unsa.ba/>, 2015, Accessed on: 3.12.2015.
- [oS15b] Privatization Agency Republic of Serbia. Pars retrieved from. <http://www.priv.rs/Privatization-Agency>, 2015, Accessed on: 30.11.2015.
- [oS15c] Federal Institut of Statistics. Federal institut of statistics retrieved from <http://www.fzs.ba/>, 2015, Accessed on: 3.12.2015.
- [oS148] Federal Reserve Bank of St. Louis. Monthly review: Plant location factors and the community retrieved from. https://fraser.stlouisfed.org/docs/publications/frbslreview/rev_stls_19481101.pdf, 1948.

- [oT15] City of TEsanj. Information of the city retrieved from <http://tesanj.net/>, 2015, Accessed on: 3.12.2015.
- [otHRfBH15] Office of the High Representative for Bosnia and Herzegovina. Ohr information retrieved from. <http://www.ohr.int/?lang=en>, 2015, Accessed on: 22.12.2015.
- [oV15] City of Visoko. Interview with prime minister of the zenicko dobojski kanton retrieved from. <http://www.visoko.co.ba/intervju-miralema-galijasevica-o-problemima-preduzecima-i-finansijskom-stanju-u-2015/>, 2015. Accessed on: 30.10.2015.
- [Pan15] Panflex. Company information retrieved from <http://panaflex-mv.com/>, 2015, Accessed on: 3.12.2015.
- [Par15] European Parliament. European parliament - policy retrieved from <http://www.europarl.europa.eu/>, 2015, Accessed on: 30.11.2015.
- [Pav01] Hic / Pavlic. Kratka povijest bih u sfrj retrieved from. <http://www.hic.hr/books/pavlic2/08.htm>, 2001. Accessed on: 1.2.2016.
- [Por00] Michael E. Porter. Location, competition, and economic development: Local clusters in a global economy. *Economic Development Quarterly*, 14(1):15–34, 2000.
- [Pre15a] Bosna Press. Uspjesna privatizacija mann-hummel. <http://bosnapress.net/uspjesna-privatizacija-mannhummel-ostvario-prihod-od-blizu-60-miliona-km/>, 2015. Accessed on: 30.11.2015.
- [Pre15b] UNIS Pretis. Company information retrieved from <http://www.pretis.com.ba/>, 2015, Accessed on: 3.12.2015.
- [Pre16] Pretis. Historija pretisa retrieved from. <http://www.nsumotor.onlinehome.de/pretis.htm>, 2016. Accessed on: 1.2.2016.
- [PRI15] FAP PRIBOJ. Company information retrieved from <http://www.fap.co.rs/>, 2015, Accessed on: 3.12.2015.
- [Pro15] Dayton Agreement / Uppsala Conflict Data Program. Dayton agreement retrieved from. <http://www.ucdp.uu.se/gpdatabase/peace/BoH%2019951121.pdf>, 2015, Accessed on: 22.11.2015.

- [Pro16] Automobil Produktion. Deutsche autoindustrie produktion anstieg. <http://www.automobil-produktion.de/hersteller/wirtschaft/deutsche-autoindustrie-rechnet-2015-mit-4-prozent-mehr-produktion-102.html>, 2016. Accessed on: 15.1.2016.
- [Rad16] Sud Fahrudin Radoncic. Rociste protiv fahrudina radoncica. <http://www.bhrt.ba/vijesti/bih/sud-bih-danas-rociste-o-odredivanju-pritvora-fahrudinu-radoncicu/>, 2016, Accessed on 20.2.2016.
- [Rec15] Europäische Rechtsformen. Die britische und nordirische private company limited by shares. http://www.europaeische-rechtsformen.de/europaeische_rechtsformen/britische_nordirische_Ltd.html, 2015. Accessed on: 10.1.2016.
- [Res16] Transparency Market Research. Global embedded system market growth. <http://www.prnewswire.com/news-releases/global-embedded-system-market-is-estimated-to-grow-at-a-cagr-of-64-and-reach-usd-23313-billion-by-2021-transparency-market-research-522937421.html>, 2016. Accessed on: 20.2.2016.
- [Rus78] D. Rusinow. *The Yugoslav Experiment 1948-1974*. University of California Press, 1978.
- [Sch97] P. Schneider. *Die NSU-Story: die Chronik einer Weltmarke*. Motorbuch-Verlag, 1997.
- [Sec16] Natron-Hayat Economy Sector. Natron-hayat business information retrieved from. www.natron-hayat.ba, 2014, Accessed on 14.1.2016.
- [Sta15a] Der Standard. Transportation costs per km in the european union retrieved from. <http://derstandard.at/2730134/Oesterreichs-Transportkosten-leicht-ueber-EU-Schnitt>, 2007, Accessed on 17.11.2015.
- [Sta15b] Statista. Branchenreport herstellung von kraftwagen und kraftwagenteilen retrieved from. <http://statista.de>, 2015. Accessed on: 15.11.2015.
- [Sul15] Arthur; Steven M. Sheffrin Sullivan. *Economics: Principles in action*, page 474, 2003, Accessed on: 10.11.2015.
- [Tes06] Enker Tesanj. Enker company information retrieved from. <http://www.enker.ba/cms/index.php?id=5,0,0,1,0,0.html>, 2006. Accessed on: 3.11.2015.

- [Tes15] Pobjeda Tesanj. Company information retrieved from <http://pobjeda-tesanj.com/>, 2015, Accessed on: 3.12.2015.
- [Tim15] IFI Times. Bih: Njemacko-britanska inicijativa u sjenci unutar i medjustranackih nadigravanja. <http://www.ifimes.org/ba/8928>, 2015, Accessed on: 30.11.2015.
- [Tot10] R. Toth. *Zwischen Konflikt und Kooperation: Fuenfzehn Jahre Friedenskonsolidierung in Bosnien und Herzegowina*. VS Verlag für Sozialwissenschaften, 2010.
- [TRA14] Agency TRA. Economoy of the city tesanj. <http://www.tra.ba/contents/499>, 2014. Accessed on: 3.1.2016.
- [Tra15a] Soko Transmisije. Company information retrieved from. <http://www.kardani-soko.com/>, 2015, Accessed on: 3.12.2015.
- [Tra15b] Neri Maglaj Transportation. Company information retrieved from <http://www.nerimaglaj.n.nu/>, 2015, Accessed on: 20.11.2015.
- [uH15] Wirtschaftsverein Bosnien und Herzegowina. Wv bih, retrieved from. <http://bosnien.ahk.de/>, 2015, Accessed on: 6.12.2015.
- [UNI16] UNIS. Historija unisa retrieved from. <https://web.archive.org/web/20071007210533/http://www.unis.ba/english/istorija.htm>, 2016. Accessed on: 1.2.2016.
- [US16] Country Studies US. Foreign workers in austria retrieved from. <http://countrystudies.us/austria/70.htm>, 2016. Accessed on: 1.2.2016.
- [Vla15a] Mera Vlade. Revizija privatizacije retrieved from. <http://www.meravlade.rs/revizija-privatizacija-3/>, 2015, Accessed on: 30.11.2015.
- [Vla15b] Vlakovi.com. Portal of rail system retrieved from <http://www.vlakovi.com>, Accessed on 17.11.2015.
- [WBG16a] Doing Business World Bank Group. Explore economies. <http://www.doingbusiness.org/data/exploreeconomies/bosnia-and-herzegovina/>, 2015, Accessed on 10.1.2016.
- [WBG16b] Doing Business World Bank Group. Labor market regulations. <http://www.doingbusiness.org/data/exploreeconomies/bosnia-and-herzegovina/labor-market-regulation>, 2016, Accessed on 10.1.2016.

- [WDR16] WDR. Financial crimes in bosnia and herzegovina retrieved from. <http://www1.wdr.de/radio/funkhauseuropa/pavlovic-banka-hapsenja-100.html>, 2016. Accessed on: 20.2.2016.
- [Wes12] R. West. *Tito and the Rise and Fall of Yugoslavia*. Faber & Faber, 2012.
- [Wil98] Robin Wilson. *New order? international models of peace and reconciliation*, 1998.
- [Woo95] Susan L. Woodward. *Socialist Unemployment*. Princeton University Press, 1995.
- [www15] www.skyscrapercity.com/. Picture european forums / future perspective. <http://i41.tinypic.com/bfmg3r.jpg>, 2015, Accessed on: 20.11.2015.
- [Zen15] Free Europe / Steel Company Zeljezara Zenica. Zenicka zeljezara od radnickog raja do strajkova retrieved from. <http://www.slobodnaevropa.org/content/serijal-privatizacijske-pljacke---zenicka-zeljezara-od-radnickog-raja-do-strajkova/25279640.html>, 2015, Accessed on: 30.11.2015.
- [Zen16] Zeljezara Zenica. Zeljezara zenica. <http://corporate.arcelormittal.com/sustainability/the-local-picture/bosnia>, 2015, Accessed on 07.1.2016.
- [Zie12] Michael Ziegler. Elektronik im auto die entwicklung. <http://www.automobil-industrie.vogel.de/elektronik-im-auto-die-entwicklung-a-367049/>, 2012. Accessed on: 10.1.2016.
- [Ziv15] Ivona Zivkovic. Istorijaska paralela: Privredni razvoj jugoslavije retrieved from. <http://www.ivonazivkovic.net/PARALELA%20PRIVREDNOG%20RAZVOJA%20JUGOSLAVIJE.htm>, 2015, Accessed on: 30.11.2015.