

## Real Overview of Injuries Regarding Work Activities and Implementation of Health and Safety Law in Bitola Area

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### Abstract:

**Purpose and Originality:** The basic aim of the paper is to present a real overview of the spotted injuries in Bitola area into the year 2017 on one hand, and on the other to present a real picture about the injuries considering time frame years 2013 – 2017 in Bitola region. Actually the paper presents three key elements which are really an important thing from which we could see how the Health and Safety Law regulations are really implemented among business entities.

**Method:** Actually the paper presents three key elements which are really an important thing from which we could see how the Health and Safety Law regulations are really implemented among business entities. The same ones are: the spotted injuries, some key elements from spotted injuries regarding several key elements and also the correlation between the number of employees in Bitola area and the number of spotted injuries into the same ones (business entities). Having in mind that the Health and Safety Law regulations in Macedonia are in action from the year 2007 and that they really had the implementation since the year 2012 (among most of the entities) as a starting point we had a situation where we are expecting a significant reduction of the spotted injuries into Bitola area among business entities. And at the end of this section, we could also mention that the paper presents only a small part from an extensive research which could and will be presented into some future following papers.

**Results:** At this point we could say that the starting point while the research was done was to prove that the Health and Safety law regulations really work among business entities in Bitola. So in that way the presented data shown are a real proof that from year to year the numbers are lower.

**Keywords:** Integrated Management Systems, spotted injuries, business entities, Bitola, R. Macedonia, health and safety.

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## 1 Introduction

The labor presents only a small part from an extensive research done into Bitola area, R. Macedonia in which several key elements were under consideration. The same ones were: the implementation and real ussage of the Health and Safety Law regulations in Macedonia, spotted injuries into business entities regarding year 2017, correlation among the number of employees into Bitola area business entities and the spotted injuries, and finally a short overview of the total ammount of injuries and the total ammount od employees in Bitola area into the time frame years 2013 – 2017. Considering the fact that there are so much informations and so much business entities on one hand, but on the other that there are so much spotted injuries, so we could get a real information about the spotted injuries during the process of research we used three different sources of informations so we could get the real picture about the spotted injuries. On one hand we used the local laboyr inspectors as the basic source of informations from which we could get the informations about the spotted injuries in all of the business entities from Bitola area, having in mind that according to the Health and Safety Law regulations in Macedonia all of the business entities have the obligation to send all of the information about every single injury spotted into their business entity to the local labour inspectors. So that is the starting point from which we could get the real information, because if any business entity doesn't share that kind of information with the local authority (the loal labour inspectors) they will brake the law. On the other hand, so we could get a real information according the spotted injuries among the business entites in Bitola from the local National Health office as a relevant state institution, from which we got the informations about the spotted injuries. To be more precise the same ones (national health office – branch office in Bitola) are also the second key source, because every injured person who had a work injury during work activities should give an information to this institution, from one side to say that he had an injury, but on the other to get his legal right (to get an days off work regarding an injury). And at the end, the third source of real informations are the business entities. This was maybe we got a larger amount of information, but having in mind that this kind of a survay is done from year to year, many years, and also that we had a real conection to the local laboyr inspector and most of the business entities, we got the right and true informations. So we got three different sources from which we could compare the informations about the spotted injuries. At this stage, we could say that this was a real research but also a tricky one. So having that kind on informations, we considered several key criterias of research such as: the age of the injured person, the gender, the work experience, the part from the body which was injured, the aimed education of the injured person, lost working days, etc. Several of these key criterias are shown into some tabular views below but some of them could be used to produce some future published research papers. Also the most significant part so we could see if the Health and Safety Law regulations are implemented among business entities is also the part in which we could consider the corelation of the total ammount of work force in Bitola (employeeed people) and the spotted injuries. These statistical numbers will get us an real overview about the situation

with the Law implementation among business entities. In addition of this paper some of the results from the research are presented.

## **2 Presenting key elements from the survey**

In this part of the paper some of the key elements are presented, from which the readers could get a real information about the spotted injuries from one side into the business entities in Bitola regarding firstly the year 2017, but also the year frame 2013 -2017, and on the other hand also to get a real information about the law regulations and their real implementation among business entities. As we said before the same one as a law regulation for the business entities started the year 2007, but a real implementation among most of the business entities started maybe into the year 2012, having in mind that it was a new law for the business entities. Also even now there are business entities which haven't implemented the same ones (some of them aren't visited by the local labor inspectors, some of them are new ones – new business entities, and some of them from unknown reasons). But having in mind that three key sources of information's were used on one hand, and on the other regarding the number of total amount of employed persons all of the information's were used by the local state institution for employment, this paper is a real perspective and a real overview of the spotted injuries and how the law is implemented in business entities.

So, as we mentioned before several key elements and criteria's were used to divide the information's and to get a real picture about the real situation regarding the injuries into Bitola region. The paper presents only several of them, generating information about the spotted injuries regarding the year 2017, and several criteria's regarding the injuries into the same one, but also to generate a real picture about the situation with the number of employees and the number of employed people into the time frame 2013-2017 in Bitola. So having in mind all of the above mentioned information's the first starting point is to present some of the injuries spotted in Bitola's region, but also to confirm the starting hypothesis which actually is to demonstrate that the law regulations regarding Health and Safety are strictly implemented in every business entity. Actually one of the sub hypotheses was to prove with a real statistics that the amount of injuries from year to year is lower and lower, but on the other hand to compare the same numbers with the total amount of employed people in this period of time (which actually is higher and higher from year to year). So in other words when the research started we had in mind hypothesis which should prove that the total percent of injured people compared to the employed ones is lower from year to year. With this kind of information and having in mind that the law regulations should be strictly implemented in every business entity, the reduced numbers will be the prove that the laws are respected by the business entities and that the same ones are doing everything to keep the workers safe, during every day working activities.

So in addition of the paper several tabular views will be presented as a real presentation regarding the situation with injuries in Bitola region, firstly in the year 2017.

Table 1. Criteria – gender of the injured person – year 2017

Year	GENDER			RATIO Male / Female	Lost working days
	MALE	FEMALE	Total		
2017	196	69	265	2.8405	6022

After seeing the results presented into Table 1, the first thing that everybody will say is that the number of injured persons is really high, but having in mind that the previous years were more and more critical, we will conclude that business entities and the inspectors are on the right way to create safer work places. Still things should be done so we could see number which will be maybe under 180 injured persons per year (regarding that injuries could happen even if everything regarding safety is done), but seeing the data presented into the Table 2 where we could get a perspective regarding the injuries in a higher time frame, we could conclude that everybody is on the right track. The data presented into the Tabular view number 2 are maybe the real comparison regarding the things which are done from year to year regarding health and safety among business entities.




Table 2. Criteria – overview on injuries into time frame 2013 -2017

Year	Total Amount of injuries
2017	265
2016	286
2015	311
2014	323
2013	351

Seeing only the Tabular view number 2, we could conclude that from year to year the numbers of injuries is in a reducing mode, and from there that the safety measures into companies are effective, but the research done also get the official information about the number of employed people in business entities in Bitola so we could compare the same ones and to get even a better overview about the situation. In this stage it's important to say that all of the gathered data regarding the total amount of employed persons in Bitola are from a relevant source – the state agency for employment (local branch office Bitola). So having in mind that every employed person should be registered into the same one, the data presented into the Tabular view number 3 are more that reliable. Also this tabular view presents prove for the starting hypothesis that the law regulation regarding the health and safety is more and more effective among business entities. Firstly we should consider that there are some entities in which you could do anything regarding safety but still injuries will happen, but also that injuries are a part of everyday work and every person could be injured (regarding gender, age, work position, work experience, safety measures). Reasons are different, but the tabular views presented prove that health and safety officers (employed into the companies) with a constant cooperation with the local inspector are doing everything they can to prevent accidents. Still they happen. But the numbers gives us a real picture that thing are on the right track. In

addition the tabular view number 3 presents a correlation between the spotted injuries and the total amount of employed people in Bitola into the time frame 2013-2017.

Table 3: Criteria – correlation between the spotted injuries and the total amount of employed people in Bitola in the time frame 2013-2017

Year	Total Amount of injuries	Total Amount of employed	Percent (%)
			
2017	265	14.875	1.78%
2016	286	12.938	2.21%
2015	311	15.121	2.06%
2014	323	13.694	2.36%
2013	351	12.891	2.72%

Seeing the presented data, and actually seeing the percent of injured persons we could conclude that the numbers from year to year are lower and lower, regarding the increased number of employed people into business entities. Still regarding the nature of the paper and the part of the conducted research and having in mind that these numbers are about real injuries and real injured persons (work injuries), we could conclude that this numbers could be even better. Actually the law regulations implemented in Macedonia are in a correlation with the EU standards and the main goal is to prevent injuries and to achieve safety measures which will bring the companies to a total amount of 0 injured persons during the working year. So seeing these numbers, the conclusion is that the implementation of the law regulations in Bitola area is on the right track, but still there is a lot that could be done. In this moment also having in mind that the presented data are only a small part of an extensive research, we could also conclude that 49 % of the spotted injuries into the year 2017 are into the age stage between 45-65 years old, but also that most of them are the so-called most experienced workers or workers before retirement. Having in mind that we had that kind of a situation and that even half of the spotted injuries are the so-called most experienced workers (which actually know maybe everything regarding working processes, the safety measures etc.) there are a lot of things that could be done in the next period which will bring the business companies to a situation where the number of spotted work injuries will be less than 180 during the year 2019. On the other hand relevant information which should be presented at the moment is also the situation where there is an active industrial zone in Bitola, which only into the year 2018 employed more that 2000 new employees (with a total amount of employed persons around 6400 people). So having in mind that the main author (prof. Ivo Kuzmanov) is dealing with this kind of a research years and years and that he will continue to follow the situation and the safety

measures, several future papers should be published as well with additional information about the actual situation regarding injuries in Bitola area.

On the other hand, but also worth to mention, is that this paper presents only a small part from an extensive research which at first stage was dealing with injuries into the time frame 1999-2016 into Bitola area, but also during the year 2017 the same one was even more extensive one. The year 2017 was maybe one of the key ones, having in mind that at the moment the information about the injuries regarding year 2018 are gathered so far, because the information's and the gathered data weren't seen only as numbers divided in several key criteria's (age, gender, education, day of the week when the injury was spotted, time frame etc.), but also key conclusions were made. For example for each entity several future key steps were created - which will bring to the situation where from year to year the business entity will have less and less injured persons. Also special point of view was made to the "so-called" larger employers (and we have three such companies in Bitola – with more than 2000 people), having in mind that there is a bunch of people which are working there on a daily base, but also having in mind that these three capacities are working in shifts (day and night). At this stage a key point is also that only in one of them (from the previously mentioned business entities) has more than 100 spotted injuries only in the year 2017. So it's a thing which will bring a new perspective, but also a new way of dealing with potential future injuries into the same business entities, where the health and safety officers employed into the companies will be the persons in charged for future activities dealing with potential risks. But the thing is that from this stage, health and safety officers, will have a new perspective on things having in mind data from the past (not only as a data, but as a useful data considering several key criteria's and future recommendations).

### **3 Conclusion**

The paper presents unique segment from a conducted research, systematically done in a point of view considering the injuries into the enterprises from Bitola region. The same one was done with an aim to get first of all a real picture about the spotted injuries, at first stage for the year 2017, on second to compare the data with the previous period (2013-2016), but also to compare the collected data with the total amount of employed persons in Bitola so we could get a clear view of the percent regarding injured persons on work. On other hand the starting point and the presented data could also be a prove for the real implementation of the health and safety law regulations and its real benefits among companies. So we could get a real information about the spotted injuries, during the research we used three relevant key sources: the companies where the injuries were spotted, the informations from the local laboyr inspetors (each injury regarding the law should be sent as an information to the local inspectors within 48 hours) and finally the data from the state health fond (every injury also should be sent as an information here as well). Seeing the data sources and having in mind that this was not the first time in which we had a cooperation with these institutions we could conclude that we have a real overview of the spotted injuries in Bitola area. On the other hand so we could compare the data with the total amount of employed people in business entities in Bitola, we used a real overview as a data from the state employment agency – branch

office in Bitola. So the presented data are a real and relevant picture of what really is happening in Bitola regarding low regulations in a matter of health and safety, regarding the companies efforts to make even safer work places and finally to present how things in this area really are from year to year. At the end, we should say that the paper presents only a small part from a research which is an ongoing one, and that the paper presents only a small part from the same one. So future similar publications are expected.

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### **Povzetek:**

### **Realni pregled poškodb, ki se nanašajo na delovne aktivnosti in izvajanje Zakona o zdravju in varnosti na območju Bitole**

**Namen in izvirnost:** Ključni namen prispevka je predstavitev dejanskega stanja zaznavanja poškodb na območju Bitole v letu 2017 in ga v istem geografskem okviru primerjati z podatki za obdobje med 2013-2017. Raziskava predstavlja tri ključne elemente, ki prikazujejo implementacijo Zakona o Zdravju in zaščiti pri poslovnih subjektih v omenjeni regiji.

**Metoda:** Trije ključni elementi, ki jih prispevek obravnava v luči spoštovanja zakonodaje s področja zdravja in varstva s strani pravnih oseb so vezane na zaznane poškodbe, razmerje med zaposlenimi v regiji ter zaznanimi poškodbami. Pri tem se upošteva da je bila zakonodaja s področja zdravja in varstva pri delu v Makedoniji sprejeta šele v letu 2007 in dejansko implementirana v 2012. V tem letu je torej šele mogoče pričakovati učinke v smislu zmanjševanja zaznanih delovnih poškodb.

**Rezultati:** S temi podatki poskušamo dokazati da je zakonodaja s področja varnosti in zdravja pri delu na območju Bitole doprinesla k zmanjšanju tveganj ter manjšemu obsegu delovnih poškodb, kot je razvidno iz večletne primerjave..

**Ključne besede:** integralni menedžerski sistemi, zaznane poškodbe, pravne osebe, Bitola, Makedonija, zdravje in varnost.

