

# **CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE**

Faculty of Economics and Management

*Department of Economics*



**Bachelor Thesis**

## **ECONOMIC ANALYSIS OF RESTAURANT SECTOR IN PRAGUE**

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In Prague, .....

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# Economic Analysis of Restaurant Sector in Prague

## **Summary**

The restaurant sector in our country had been already mentioned in many historical documents and ancient chronicles. At present there are 14,444 casual - dining restaurants in the Czech Republic and 2,397 in Prague.

The goal of the thesis is to provide appropriate information about restaurant sector and to assess the current trends, affecting the economy of restaurant sector in Prague in order to prevent the potential business failure.

Theoretical part of the thesis introduces the general information, principles and key characteristics of this sector performance. The analytical part has been divided into two main sections. There have been many factors influencing the economy of restaurant sector in Prague lately. Hence the main objective of the analytical part is to examine the current trends and its influence on the economy of restaurant establishments in Prague. First section is focusing on trends, which are supposed to have a positive effect on the restaurant sector in Prague. As factors suitable for the verification can be considered the presumption for year 2013 about unification of lowered and normal value added tax to the rate 17.5 % and the tourism intensity in Prague. Second section is concerned with the negative effect of selected factors on the restaurant sector in Prague. The monitored current trends are in this case the customer's requirements to obtain tap water in restaurants for free and the present situation in restaurant sector connected with value added tax.

## **Keywords**

restaurant sector, economic analysis, cost - benefit analysis, hypothesis, value added tax, consumer behaviour, tourism, tap water

# Ekonomická analýza restauračního sektoru v Praze

## Shrnutí

Existence restauračního oboru je v naší zemi velmi stará a zmínky o něm lze nalézt v mnoha nejrůznějších historických dokumentech a kronikách. Dnes dosahuje počet restauračních zařízení 14,444, z toho 2,397 v hlavním městě Praha.

Cílem práce je poskytnout veškeré vhodné informace o sektoru restaurací a zhodnotit aktuální trendy, které ovlivňují ekonomiku odvětví restaurací v Praze a tím zabránit případnému neúspěchu v podnikání.

Teoretická část práce se zabývá obecnými informacemi, principy a ústřední charakteristikou tohoto sektoru. Analytická část práce je rozdělena do dvou základních sekcí. Poslední dobou je možné nalézt plno faktorů, které ovlivňují ekonomickou stránku restaurací v Praze. A proto hlavním cílem analytické části je prošetřit současné trendy a jejich vliv na ekonomiku restauračních zařízení v Praze. První část se zaměřuje na aktuální trendy, které by měly mít pozitivní dopad na odvětví restaurací v Praze. Za faktory vhodné pro ověření můžeme považovat předpoklad pro rok 2013, kdy by mělo dojít ke sjednocení snížené a základní sazby daně z přidané hodnoty na jednotnou sazbu 17.5 % a také intenzitu cestovního ruchu v Praze. Druhá část se týká negativního vlivu vybraných faktorů na odvětví restaurací v Praze. Sledovanými současnými trendy jsou v tomto případě požadavek zákazníků získat v restauraci vodu z kohoutku zadarmo a nynější situace v odvětví restaurací spojená s daní z přidané hodnoty.

## Keywords

restaurační sektor, ekonomická analýza, analýza nákladů a benefitů, hypotéza, daň z přidané hodnoty, chování spotřebitele, cestovní ruch, voda z vodovodu

# CONTENT

List of shortcuts .....	7
1. Introduction .....	8
2. Objectives and methodology .....	9
2.1.1. Objectives .....	9
2.2.1. Methodology .....	10
3. Theoretical part.....	13
3.1. The Gastronomy .....	13
3.2. Czech Gastronomy .....	13
3.3. The Restaurant Sector.....	14
3.1.1. The History.....	15
3.2.1. Conditions for Operating a Restaurant.....	16
3.3.1. Types of Restaurants .....	19
3.4.1. Factors influencing the demand for restaurants .....	20
4. Analytical part .....	23
4.1. Factors influencing the restaurant sector in Prague positively .....	24
4.1.1. Value added tax .....	24
4.2.1. Tourism .....	31
4.2. Factor influencing the restaurant sector in Prague negatively.....	36
4.1.1. Tap Water .....	36
5. Conclusion.....	49
Sources.....	50
List of tables.....	55
List of graphs .....	56

# LIST OF SHORTCUTS

CVVM – The Public Opinion Research Centre (Centrum pro výzkum veřejného mínění, Sociologický úřad AV ČR)

CULS – Czech University of Life Sciences Prague (Česká zemědělská univerzita v Praze)

UNWTO – World Tourism Organization

GFK – Market Research Agency in the Czech Republic (Agentura pro výzkum trhu v ČR)

CZ – Czech Republic

s. r. o. – Limited Liability Company (Společnost s ručením omezeným)

a. s. – Joint-Stock Company (Akciová společnost)

CZK – Czech Koruna (currency)

EUR – Euro

VAT – Value Added Tax

g – Gram (the unit of weight)

l – Litre (the unit of volume)



# 1. INTRODUCTION

*“The Hospitality Sector mainly focuses on the services that are provided to the customers.”* (MAHAR, 2010) It includes all businesses providing an accommodation, entertainment, food, and beverages to its purchasers such as restaurants, pubs, bars and clubs, catering, hotels, tourism, retail, culture, recreation, gaming, etc.

Hospitality industry creates benefits to the economic growth of Prague and the state, contributing in generating increased visitation, enabling longer stays with more spending, and better experiences from the Czech Republic. (Enterprise Melbourne, 2012)

The thesis is designed to provide appropriate information, principles and key characteristics of the restaurant sector in Prague and to evaluate the proposed assumptions. All data which are being analysed throughout the thesis are based on the current situation showing both the positive and negative conditions for making a restaurant business at present. Hence the main objective is to examine the current trends and its influence on the economy of restaurant establishments in Prague and to prove or disapprove hypotheses related to the issue, arising from previous assumptions. The provided information about positive or negative aspects should lead to the persuasion of each reader to make his or her personal judgement.

The topic of bachelor thesis has been chosen because of my own interest in the results. My father is the owner of one restaurant in the historical centre of Prague focusing on both the foreign clientele and Czech customers. I work occasionally, every time when my father needs a relief, at this restaurant as a waitress therefore I could have derived from my own experiences and knowledge.

The restaurant sector has been threatened by the tax burden, expensive raw materials, high labour costs and the increasing energy costs lately. And Veolia Voda has been trying to convince the restaurant entrepreneurs to offer free or low-cost tap water to its customers. These facts call for testing many hypotheses.

## 2. OBJECTIVES AND METHODOLOGY

### 2.1.1. OBJECTIVES

The aim of the thesis is to accept or reject selected economic hypotheses related to the current trends in Czech hospitality industry, especially the city of Prague by using appropriate methods.

On the beginning of the theoretical part, the term gastronomy, Czech gastronomy, and its history is introduced in order to give at least the basic idea about the restaurant sector to the reader. Secondly it is necessary to define the main types of restaurant and the conditions for its operation. The question of what do influence the demand for restaurants and beneficially leads to the success is the most significant.

Thirdly the restaurant sector in Prague has been evaluated on micro-level and key characteristics of this sector performance in Prague have been determined. All data which are being analysed throughout the thesis are based on the current situation showing both the positive and negative conditions for making a business at present. Hence the main objective of the analytical part is **to examine the current trends and its influence on the economy of restaurant establishments in Prague**. There are many criterions which can be taken into account such as the changed rate of VAT and the presumption for year 2013 about unification of lowered and normal value added tax rate to 17.5 %, the lowered spending of tourists visiting Prague and even dropped number of Czech people eating out of home. Restaurants are threatened by high rents, the price of food has been steadily risen, and the tax benefit vouchers take highly part in the restaurant's income and are supposed to be revoked. Therefore there are set the hypotheses as follows:

H<sub>1</sub>: The current situation connected with value added tax, being set at 14 % lowered VAT and 20 % normal VAT, is unfavourable for restaurant businesses.

H<sub>2</sub>: The presumption for year 2013 about unification of lowered and normal VAT rate affects positively the restaurant sector.

With sufficient knowledge of restaurant sector in Prague it is necessary to move to the core of the research. Cost – benefit analysis is applied as a tool for **investigating the weight of expected costs** each restaurant pays as a tax on the input and subsequently has to cover in the price of meal in order to earn some profit. One analysis is focused on the current year 2012 whereas the second one reflects the presumption for year 2013 about unification of lowered and normal VAT rate.

H<sub>3</sub>: The tourism intensity in Prague does affect the restaurant revenues.

Last year there was a worldwide growth of the tourism and even the number of incoming tourists visiting Prague rose. Nevertheless, the restaurant turnovers of the Czech Republic do not seem to grow simultaneously with the tourism. Tourism can be still considered as a factor influencing the revenues of restaurants. Hence the true dependency of both variables is being verified.

*“Veolia Voda has launched a campaign to promote tap water as a healthy and economic alternative to bottled waters.”* (Delbos, 2009) Hence the next hypothesis reads as follows:

H<sub>4</sub>: Providing of tap water for free affects negatively the economy of restaurant establishments in Prague.

The consequences for restaurant establishments are certified through the **cost analysis of goods** and other research was performed by the personally created **questionnaire**.

### **2.2.1. METHODOLOGY**

The bachelor thesis comprises of two parts. First, a theoretical part is mainly built on the general approaches with the aim of processing the necessary information, while the analytical part contains not only the statistical processing of data but also more theoretical approaches.

Theoretical part of the thesis is based on the critical thinking. *“Critical thinking is the intellectually disciplined process of actively and skill-fully conceptualizing, applying, analysing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.”* (Scriven, 1987)

Analysis takes part throughout the whole thesis. It is the method used for investigation of the complex topic by its decomposition into smaller parts in order to study the relations between them (Webster, 1581). The official definition is as follows: *“The process of breaking up a concept, proposition, linguistic complex, or fact into its simple or ultimate constituents.”* (Audi, 1999)

Synthesis serves as a literature search of the thesis, based on idea and data coming from a variety of sources. The importance is put on the ability to connect all analysed parts together with the information in order to compose something original. (Reichenbach, 2001 p. 25) The exact definition is: *“The composition or combination of parts of elements so as to form a whole.”* (Webster, 1589)

Deduction and Induction from relevant materials are also involved under the theoretical part of the thesis. *“Inductions are often questionable as they are usually very broad, general statements, but they provide useful starting points for experiments. Deductions are more often correct because they make specific claims based on sound principles. To deduce is to draw a specific conclusion from a general principle. To induce is to derive a general principle from specific observations.”* (Grammarist, 2012)

The analytical part is based on the analysis of gathered data, using the most appropriate tools and methods, in order to achieve sufficient results and prove or disapprove the hypotheses stated. The most common method for evaluating the results is testing of statistical hypotheses. Hypothesis is considered as *“a supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation”*. (Oxford University Press, 2012)

Cost – benefit analysis is applied in the analytical part as a tool for investigating the weight of expected costs each restaurant pays as a tax on the input and subsequently has to

cover in the price of meal in order to earn some profit. The cost analysis is defined as *“the review and evaluation of the separate cost elements and profit or fee in an offeror’s or contractor’s proposal to determine a fair and reasonable price or to determine cost realism. Cost analysis includes the application of judgment to determine how well the proposed costs represent what the cost of the contract should be, assuming reasonable economy and efficiency.”* (ACQuipedia, 2010)

Regression and correlation analysis is presented in order to find the relationship between variables. In regression the changes in dependent variable are explained by changes in independent variable whereas correlation states the strength of the relationship. The exact definition of Regression is *“a statistical measure that attempts to determine the strength of the relationship between one dependent variable (usually denoted by Y) and a series of other changing variables (known as X - independent variables).”* (Investopedia, 2012)

While *“correlation is a statistical technique that can show whether and how strongly pairs of variables are related”*. (Creative Research System, 2010)

The coefficient of correlation shows an association between two variables. *„The value -1 represents a perfect negative correlation (when one increases, the other decreases in exactly the same proportion. The value +1 represents a perfect correlation (when one increases, the other increases in exactly the same proportion. The value 0 represents a lack of correlation“*. (Sunilcare Group , 2008)

“The Method of Least Squares is a procedure to determine the best fit line to data; the proof uses simple calculus and linear algebra.” (Miller, 2012)

“Time Series Analysis is the branch of quantitative forecasting in which data for one variable are examined for patterns of trend, seasonality, and cycle.” (Venture Line, 2011) Among its main goals is considered to analyse the trend, *“an average increase or decrease over time”*. The result allows us to forecast the future development at some probability level. Time Series itself is defined as *“A Time Series is a sequence of observations on a single entity reported or measured at regular time intervals.”* (Box, 2008 p. 467)

## **3. THEORETICAL PART**

### **3.1. THE GASTRONOMY**

Gastronomy can be characterized as the study of relation between food and culture. The term “gastronomy” originates in Greek history and was firstly mentioned in the poetry name of Joseph Berchoux, *La Gastronomie* (1801). Gastronomy works with the sociological value of food connected with other sciences such as anthropology, psychology, philosophy, and it also studies the cultural influence on food. It is an art which should satisfy people’s taste and wants and also delight them with the food appearance. The roots of modern gastronomy go back to the 19<sup>th</sup> century to France, whereas the cooking itself has really rich history. Fruits, roots, small animals, and fish have been already eaten for many years. For example pastry, pizza, or noodles come from the ancient times and even cutlery came with the Byzants Empire. With the coming time, the techniques in preparation of food were getting better and better. Since then, the development rapidly accelerated and resulted in the contemporary modern gastronomy. (Nicks Wine Merchants, 2012)

### **3.2. CZECH GASTRONOMY**

The Czech cuisine firstly appeared with the formation of the Czech nation. At that time, people used their own domestic raw materials produced by hunting, farming, cattle breeding, etc. The basic nutrient was bread served with cheese and milk, then fruits, legumes, millet, mushrooms, and for example oat porridge. Roasted, or smoked meat such as beef, pork, poultry, game, and fish, was also very popular. In 1826, the *Household Cookery Book* of Magdalena Dobromila Rettigová, the well-known Czech chef, was published. At that time, onion, spices like pepper and red pepper, and goulash or meat in breadcrumbs played the main role in the gastronomy. Porridges were exchanged by grease and today’s traditional dumpling was adopted from Tyrolean shepherds.

At present, the Czech cuisine is influenced by its position in central Europe, mostly by Germany and Austria. Meals are typically characterized by fat, but the amount

of calories is comparable with other countries. Soups, meats, sauces with dumplings, filled dumplings with fruit, and various cakes, etc., those all is considered to be Czech cuisine. (Jenerálová, 2010)

The Czech typical dish is marinated beef sirloin (svíčková na smetaně). “*Svíčková is made from beef with a vegetable sauce made from carrots, celery, onions, mustard and wine. It also contains sugar, and it is kind of like a sweet and sour sauce. It’s served with dumplings.*” (Maurer, 2009) Whereas, the Czech national dish is fried chees with mayonnaise. According to the research of the Public Opinion Research Centre (CVVM) made in 2003, 80 % of asked people see roasted pork with sauerkraut and dumplings as a traditional Czech meal, 45.2 % voted for svíčková and 23.3 % for steak in breadcrumbs with potato salad. (Rezková, 2003)

The typical beverage for the Czech Republic is beer, Pilsner Urquell and Gambrinus rank among the best beer brands. There can be also found high amount of small breweries across our country. For instance Prague offer wide selection of brands, Suchdolský Jeník from CULS, Klášterní pivovar Strahov, Pivovarský dům, Staropramen Smíchov, etc. Wines, brandy made out of many kinds of nuts or fruit; mostly plum, herb liquor “Becherovka”, or Mattoni mineral water are also very popular.

### **3.3. THE RESTAURANT SECTOR**

Cooking is a very popular hobby for many of us, but the moment when meal is served on the table, smelling unbelievably good, is usually appreciated by everyone; because eating is a pleasure. The restaurant is defined as a place where people pay to sit and eat a wide selection of foods and drink beverages. It specializes in the preparation of quality food and serves it up to the customers to satisfy their needs and wants. (Oxford University Press, 2012) Typical restaurant order is when customers sit at tables, their orders are taken by a waiter, who also brings the ready meals, and lastly the customers pay the bill before leaving. (Sudan, 2002)

The Restaurant sector is highly competitive industry where there is difficult to make high profits and the rate of a business failure is also very high. “*During the first*

*year of operation, slightly over one-quarter of all restaurants closed or changed ownership. By the end of their third year, just short of 60% of all restaurants closed or changed ownership.” (White, 2011)*

### **3.1.1. THE HISTORY**

The term restaurant arises from the French word *restaurer*, to restore. It firstly appeared in the 16<sup>th</sup> century and meant “*a food which restores*”. First restaurant in the world was opened in Paris in 1765 where only one dish was served, specifically it was soup. The name of this restaurant was *Boulangier* and customers came there primarily to eat, not just drink alcohol or coffee as they could in taverns or inns already known from antiquity. At that time people were used to eat meals only at home but soon new restaurants rapidly spread across France. The modern style of dining, where customers are given a plate with the food arranged on it was introduced to France by the Russian Prince Kurakin in the 1810s, from where it spread beyond. The first restaurant in the United States was opened in 1827 in New York and prospered for almost 100 years. More precisely, the cafe was opened in 1827 and then, in 1830, the same entrepreneur opened a "restaurant francais" in the building next to the cafe. (O’Connell, 2003)

The hospitality industry in our country was closely connected with the development of tourism. The Czech country is an important crossroad, lying in the geographic and political centre of Europe since the prehistoric time. No worry that this sector was already mentioned in many historical documents, from ancient chronicles to the songs of the Middle Age students. Pubs were possible to be found behind the city walls or at solitudes along the trade routes. The sign about is that even nowadays we can find many restaurants called by well-preserved names “*Kocanda, Na Kocandě*”, etc. When the domestic tourism became to be more propagated, restaurants were available only in large cities, while district towns offered only a little worse alternative of eating. Then there were breweries offering beer, lemonade, and cheap and poor-quality spirits. In seventies, the modern restaurant buildings and many hospitality facilities equipped with laminated furniture and tables made out of *umakart* were constructed. The Czech pub



served as the cultural and social phenomenon where guests regularly came to drink beer, healthy in the amount of one litre per day – vitamin B1, B2, B3, B6, cheap, and tasty drink with low percentage of alcohol, and discuss with other customers or listen to the live music. This tradition has also survived to the present time. (Gastroinfo, 2008)

### **3.2.1. CONDITIONS FOR OPERATING A RESTAURANT**

Such as every business activities, operating catering establishments also brings many rules and restrictions. It is necessary to have all permits to run a restaurant. There is no way to direct a business without proper licenses such as Building Permit, Trade Licence, Business Registration, Tax Office Registration, Social and Health Insurance, Employer Identification Number, Food Service License, Liquor License, Pronouncement from hygienic station, Sign Permit, Music License, Fire Certificate, etc. (Churchill, 2007)

On the beginning, it is important to consider the form of business organisation. The main types of legal forms are Sole Trader/Sole Proprietorship (one owner), Partnership (partners who share risks and profits), and Company/Corporation (*“a legal entity which has a separate legal personality from its owners”*). (Connecticut Licensing Info Center, 2012)

While setting up on Self-employed basis we have to apply for a Trade licence (Živnostenský list). Then a business holds its own name and is operating independently, with the purpose of making a profit. Whereas the Limited Liability Company (‘s. r. o.’) protects entrepreneurs if something goes wrong. (Meyer, 2008)

The conditions for obtaining a Trade license for hospitality trade are set as follows. The entrepreneurs under the age of 18 are not allowed to operate a restaurant business. He or she has to be criminally blameless with no debts to the financial, health, or social offices and speaks Czech or Slovak language fluently. Businessmen also have to fulfil one of these points, to complete an apprenticeship in the hospitality industry with 3 years long practice or in a familiar sector with 4 years long practice, a specialized school with the graduation and 2 years long practice, or university of business studies with 1 year practise. The last possibility is the participation in 6 years long practise in a restaurant business with no additional studies needed. (Alexio, 2012)

To be employed in restaurant sector, employee does not have to be well educated with the graduation. The only importance is to know the languages such as English, German, Russian, Spanish, etc. Many young people are searching for job opportunities in this business to earn some extra money during their studies or holidays, even abroad.

### **HYGIENIC CONDITIONS**

Most strict rules in restaurant industry are associated with the hygienic conditions. The hygienic regulations are designed to minimize all risks that could endanger the health of customers and enable restaurants to run more efficiently if subordinated. If not, it can mean a serious health and safety problems for everyone who has something to do with a business. This control is sometimes appreciated by restaurant managers because it can also help in discovery of potential food safety problems. Health and Food Ministry departments make health inspections regularly to ensure observance of regulations. Restaurateurs can be fined by inspectors for small violations and in case of major violations their restaurant can be shut down. These regulations include the cleanliness practices of facilities, the storage of certain types of food such as meat, food separation in order to avoid cross contamination, and also the appearance of employees and their appropriate clothes. (Smathers, 2012)

During the restaurant inspection, at least minimum sanitation and food safety standards have to be met. Safe and uncontaminated food should be provided to the customers. Close attention is paid to the temperature; also the measure of drinks and amount of food set in restaurant menu should not be broken. Then an inspector provides the restaurant with a written report in order to confirm the compliance with regulations. (Haupt, 2010)

### **HAACP**

Hazard Analysis and Critical Control Points is the method which identifies specific hazards for the control of food safety and leads to the ensuring of food safety during all activities related to their production such as processing, storage, handling, transport and sale to the ultimate consumer. The aim of this system is to eliminate all risks of products contamination and more likely prevent the biological, chemical, and physical

hazards than in the control of finished products. (FDA, U.S. Food and Drug Administration, 2011)

### **FOOD STORAGE**

It was already mentioned as the aim of HACCP, cross contamination can endanger both, customers and employees. All food items must be stored separately in order to avoid it. *“Cross contamination occurs when a contaminated food source comes into physical contact with another item, allowing bacteria to spread.”* (Smathers, 2012)

The stored food items include meats, seafood, vegetables and dairy products. It is important to know the delivery date of each item, provided by labels indicating when every food was received. The “first in, first out” rule must be followed implying that foods should be utilized according to the indicated date labels. (Shannon, 2011)

The refrigerator temperature must be below 3.33 degrees of Celsius. According to the Food Safety and Inspection Service, there is a “danger zone” of temperature between 4.44 and 60 degrees of Celsius, within food bacteria multiply rapidly and can thrive. All food should not be exposed to this zone, but in special cases the maximal time limit including storage, preparation and service cannot exceed 4 hours. Food in freezers should be kept below -17.78 degrees of Celsius but it is obvious that frozen foods lose usually its quality. Dry storage should keep food between 10 – 21.11 degrees of Celsius with 50 – 60% humidity. (Mealey, 2011)

### **EMPLOYEE HYGIENE**

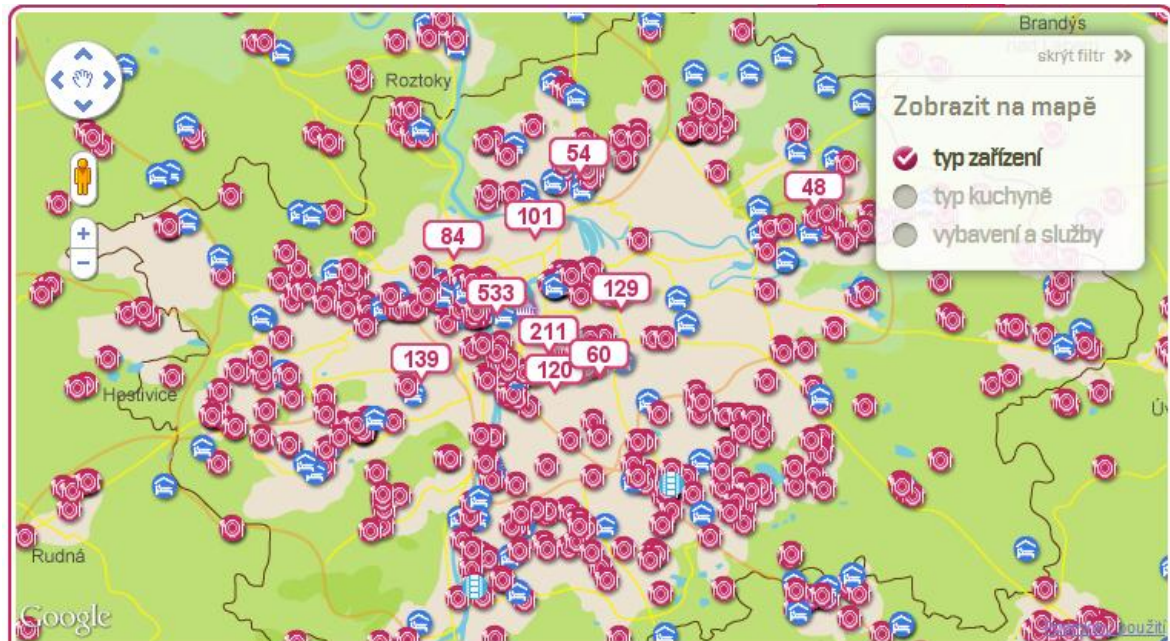
Every employee of restaurant should not arrive to work dirty, but fresh with clean and nice smelling clothes. Free hairs are not allowed, they are supposed to be tied back in case of falling into food and woman should also avoid nail polish because the chemicals of nail polish can contaminate meals. To be healthy is one of the most significant aspects, because bacillus such as laxation, fever, vomiting, etc. can spread swiftly between customers and other employees. (Smathers, 2012)

### **3.3.1. TYPES OF RESTAURANTS**

The majority of restaurants are categorized as small to medium size enterprises. Micro Enterprises employ fewer than 10 employees and the annual turnover and/or annual balance sheet total does not exceed EUR 2 million. Small Enterprises have fewer than 50 employees and the annual turnover and/or annual balance sheet total does not exceed EUR 10 million. Middle Enterprises employ fewer than 250 employees and annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million. Large Enterprises have more than 250 employees and the annual turnover exceeding EUR 50 million, and/or an annual balance sheet total exceeding EUR 43 million. (European Commission, 2012)

There are also three main divisions, Quick Service, Midscale, and Upscale. Quick Service is another name for fast-food restaurants or self-service, where menus are prepared quickly and its price is considered to be low. Customers can be also served by drive-thru windows. This type of business allows diners to purchase the order and receive it in their cars. Midscale restaurants offer meals at a medium price. It includes full service restaurants, buffets or self-service. Upscale restaurants have the high quality of service, and offer high quality of food for high prices. The full service is provided to the customers. (Jacquelyn, 2009 p. 34)

PICTURE 1: Restaurants in Prague



SOURCE: (HRUBÝ, 2011)

According to the internet research, there are 14,444 casual-dining restaurants in the Czech Republic and 2,397 in Prague (16.6%), how we can see on the enclosed picture. Actually there are more than half of restaurants offering different cuisine than Czech one. Czech's are willing to try new kinds of food, typical for other countries and also tourists coming to visit Prague can decide whether to try Czech cuisine like roasted duck, gain etc. or order meals which they know (Chinese, Sushi, Italian pizza, etc.). Even if they have eaten that food already, it can taste differently in different country and at the end there is still something new about that meal. (Fabricant, 2010)

Certain cultures deny some kinds of foods. For instance, Hindus do not eat beef and Muslims would not even touch the pork, because it is against their religion. Therefore restaurants should be able to make additional changes in the ordered food, according to the customer's wish.

### **3.4.1. FACTORS INFLUENCING THE DEMAND FOR RESTAURANTS**

#### **THE LOCATION AND INTERIOR**

The demand of restaurants depends on many factors. One of the most important factors is the location. Prague inhabitants use cars to get everywhere; hence the parking areas located closely to restaurants are really appreciated. The restaurants in the centre

of Prague are usually more expensive, however very attractive. What is important, a lot of people like the restaurants that detain from a first moment. The sound, life piano music or good atmosphere invites people. Or even if some restaurant is crowded and the next restaurant looks as good but there is only one couple. More people would choose the one full of customers, because more people attract other people.

The restaurant sector uses usually one truthful motto which is important for them to make a good business: “*Customers are our assets and satisfied customers are our source of wealth.*” (Teresa A. Swartz, 1999)

### **THE SMOKING CONDITIONS**

The restaurants demand is highly influenced either by smoking conditions. Many foreigners are used to non-smoking restaurants and do not have a problem to leave for a while, smoke the cigarette outside if they want to smoke and then come back. It is difficult to imagine Czechs to do so. The opinion of majority of Czech citizens is: “*If I have beer in one hand, I need to hold a cigarette in my other hand.*” It is obvious that these people should visit pubs or breweries, but a restaurant might be a relaxing place with nice smell. Some people look especially for non-smoking restaurant but there are still a lot of those, who will not even come in, if the restaurant is non-smoking. It is a manager’s choice, how the restaurant is fitted. It is really difficult to find the answer for what is more appreciated and more productive.

### **THE COMPETITION**

The hospitality sector is full of competition. The restaurants exaggerate each other about who has a better prices, better offer, friendlier atmosphere, etc. Potential customers can choose between many of substitutes. Let see, on Malá Strana, there are approximately 10 closely located restaurants. Restaurant U Kostela is my favourite, because it is the family restaurant. Restaurant U Fleků, U Mecenáše, U Schnellů, and Malostranská Beseda are the most rival. The trade-off arises when thinking about visiting restaurant or stay at home and cook. To visit a restaurant impels to order food and drink too, because these two are complements.

## **THE ADVERTISEMENT**

Restaurants can attract the potential customers by the advertisements, technology innovation, and better presentation. Advertisement of a restaurant is important for its operation. A lot of customers pay attention to the first impression, so the websites of restaurants should be attractive and unique. The biggest importance is put especially on the customers with the aim to persuade them in remaining loyal after they have visited the restaurant and left satisfied. If a business is promoted by its customers, it will have achieved the main goal of marketing. (Hi-Tec Sports, 2012)

People have massively started to buy restaurant vouchers throughout the internet which has become currently the most attractive method of advertisement. The sale portals, for example [slevin.cz](http://slevin.cz), allow people to buy cheap meals online or visit restaurants with unbelievably huge discounts. It helps impecunious people who cannot afford to visit restaurant to reach it.

## 4. ANALYTICAL PART

The goal of the analytical part of the thesis is to provide appropriate information about restaurant sector and to assess the current trends influencing the economy of restaurant sector in Prague. This part has been divided into two main sections, first one is focusing on the current trends, which are supposed to have a positive effects on the restaurant sector in Prague and second is directed to actual trends influencing the economy of restaurant sector negatively.

The positively harmonized part comprises of two actual current trends and its aim is to confirm their positive effects on the economy of restaurant sector in Prague. The monitored factors are the presumption for year 2013 about unification of lowered and normal value added tax to the rate 17.5 % and tourism intensity in Prague. Second section is concerned with the negative effects of two selected factors on the restaurant sector in Prague. As factors suitable for the verification can be considered the customer's requirements to obtain tap water in restaurants for free and the current situation in restaurant sector connected with value added tax.

The tax burden, high labour costs and the increasing energy costs are a big problem that is not going to be solved soon. Also employees demand their salaries to be raised, because the cost of living in the Czech Republic is also higher than ever. Entrepreneurs have to dismiss some employees in order to pay those remaining. Almost every restaurant has been struggling with the absence of customers, no usual income and no money to pay the employees. In 2010 the employment in this field of hospitality industry was at the lowest level in last 7 years. (Pospěchová, 2010)

It is obvious that this time is not a good time for running a restaurant business. This year's long and cold winter is not really appreciated by the restaurant entrepreneurs and almost all of them have had problems with high heating costs or when water froze because the outside temperature had been below zero degrees of Celsius. Restaurant's difficulties already appeared on the beginning of the economic crisis, when the number of tourists visiting Prague, the Czech Republic, lowered. At present the majority of tourists



are young, they are independent and tackling a question of money. The people from middle class do not travel as much as they used to. The structure of custom has been changed. Even the number of Czech people eating out of home dropped. It is assumed that existential problems threat basically every second restaurant. According to the research of Czech Association of Hotels and Restaurants, year to year comparison of the turnovers lowered in a year 2011 by 10 – 20 %. (Asociace Hotelů a Restaurací ČR, 2011)

Especially businesses dependent on the solvent foreign clientele have to fight against difficulties. For those restaurants located in the centre of Prague and focusing on foreign customers the situation get even worse. Entrepreneurs pay usually high rents, specifically in the historical centre of Prague it is around 250,000 CZK quarterly. These high rents cause that one tenant is being usually replaced by other tenant during only a few years, because owners are not usually willing to bring the price down and always find someone else to pay this rent. *“Some restaurants have already closed down in 2011, so we can't say that the situation is very optimistic. In particular, the turnovers of restaurants that were geared towards tourists are down between 30 % and 40 %. On the other hand, you can see a lot of restaurants who focus on local clients, and these restaurants are operating as if nothing has happened. They are full of people and they are doing well,”* (Maurer, 2009)

## **4.1. FACTORS INFLUENCING THE RASTAURANT SECTOR IN PRAGUE POSITIVELY**

In this part two factors and its influence on the restaurant sector in Prague are assessed. As the verified actual current trends can be considered value added tax and tourism intensity in Prague.

### **4.1.1. VALUE ADDED TAX**

At present the area of gastronomy in the Czech Republic is not really optimistic. The rate of VAT has been changed three times in last few years. In 2009 the Czech government ratified to lower VAT rate for restaurants. The restaurant business is a service-intensive work and that is why the VAT was shifted from 19 % to 9 % added tax.

According to this shift, even services became cheaper. From 2012 a government decided to higher the lowered added tax from 10 % to 14 %, maintaining the primary structure of goods and services. In 2013, 20% VAT and also lowered added tax 14 % should be united to 17.5%. (Běhounek, 2011)

Table 1 shows the situation of changes in VAT in the Czech Republic lately. The lowered VAT has been changed basically every one or two years and the normal VAT rose to 20 %. The idea for next year is also included in table.

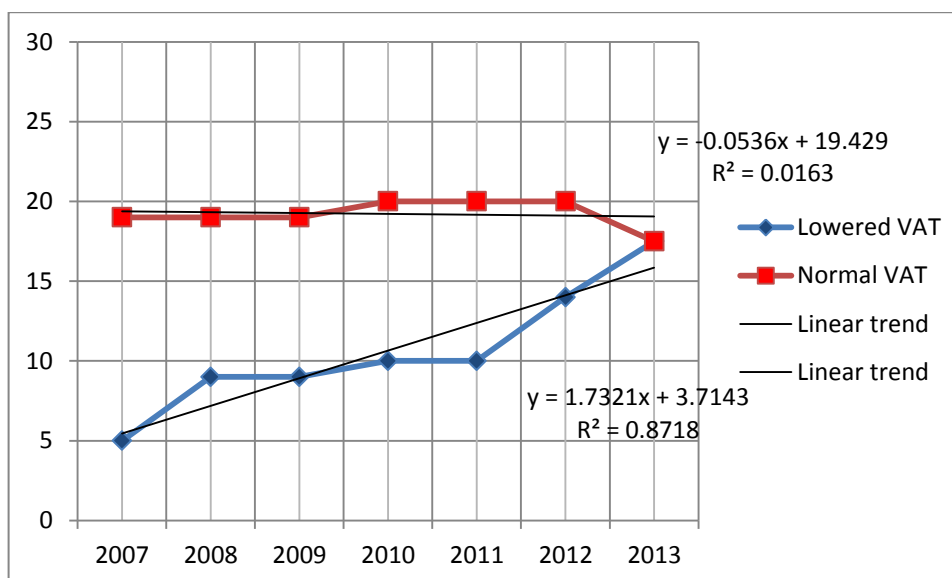
TABLE 1: Development of VAT in the CR (2007 – 2013)

Period	2007	2008	2009	2010	2011	2012	2013
Lowered VAT (%)	5	9	9	10	10	14	17,5
Normal VAT (%)	19	19	19	20	20	20	17,5

SOURCE: Own data processing

Graph 1 illustrates the values of lowered and normal VAT and its changes in the Czech Republic between years 2007 and 2012. Year 2013 is included and at present serves only as a prediction.

GRAPH 1: Development of VAT in the CR (2007 – 2013)



SOURCE: Own data processing

This year's change will have a negative impact on the restaurant sector for non-taxpayers because it resulted in price increase of raw materials. On the other hand, there are only few non-payers within Prague, because basically all businesses have the turnovers

over 1 million in the interval of 12 months. This change leads to the fact that domestic businessmen are disadvantaged against the competitors in neighbouring countries. For example in Germany, the lowered price remains at 7 %.

For taxpayers, this year's change will have more positive impact than previous changes. According to the entrepreneurs in the restaurant sector, the restaurants are threatened by tax burden. The VAT for this sector is stated wrongly, because basically every restaurant business is in loss. If every restaurant businessmen pay the taxes stated by our state, with all other energy costs, labour, and rent the businesses will have only low profit earned or will go bankrupt and many people will have to quit the business. It can be considered as one of many causations of bad situation in restaurant sector. Therefore the hypothesis is clearly established:

H<sub>1</sub>: The current situation connected with value added tax, being set at 14 % lowered VAT and 20 % normal VAT, is unfavourable for restaurant businesses.

For each group of costs the percentage ratio is set. The amount left out of 100 % will be the operating profit before tax and also before other accounting operations. For instance the values used in the next research are set as follows in Table 2. Each cost has its mark in order to make the orientation easier.

TABLE 2: The percentage ratio of each cost

COST	MARK	%
Raw materials	RM	35 %
Employees	EM	30 %
Energy	EN	5 %
- Gas and electricity	G, E	3 %
- Water and sewerage	W, S	2 %
Service	S	5 %
Rent	RE	10 %
Operating profit before tax	OP	15 %
<b>TOTAL</b>		<b>100 %</b>

SOURCE: (BOROŠ, 2009)

It is necessary to subsequently proceed to clarify the current situation in restaurant sector connected with value added tax. One item from a restaurant menu is divided into all the costs the restaurant pays for before it is served to the customer. The formula below represents all the costs a restaurant have to cover in the selling price of food.

$$[(35 \% RM * 1.14) + (3 \% G, E * 1.2) + (2 \% W, S * 1.14) + (30 \% EM) + (15 \% OP) + (5 \% S * 1.2) + (10 \% RE * 1.2)] * 1.2 = 210$$

One of the most favourite Czech meals is stewed beef meat with typical vegetable - cream sauce and dumplings (svíčková). In the centre of Prague, the price for this meal is 210 CZK (price 7.5 EUR is only orientational and varies according to the current exchange rate). First cost analysis is focused on the current year 2012 whereas the second one reflects the presumption for year 2013 about unification of lowered and normal VAT rate.

PICTURE 2: Menu



SOURCE: (RESTAURANT U KOSTELA, 2012)

$$(0.35x * 1.14 + 0.03x * 1.2 + 0.02x * 1.14 + 0.3x + 0.15x + 0.05x * 1.2 + 0.1x * 1.2) * 1.2 = 210$$

$$1.30536x = 210$$

$$x = 160.875$$

All the basic information is captured in Table 3. Table 3 contains of data showing the categorization of costs into the lowered or normal rate of VAT and according to its

place the formula was set. Among the previous information there are the total amounts of costs on one examined meal. Tax on the input states the amounts of money that have been already paid by a restaurant and tax on the output is calculated by 20 % out of the sum of x - outcome from a formula. The taxation duty is the amount of money the restaurant have to pay as a tax;  $35 - 12.61 = 22.39$  CZK.

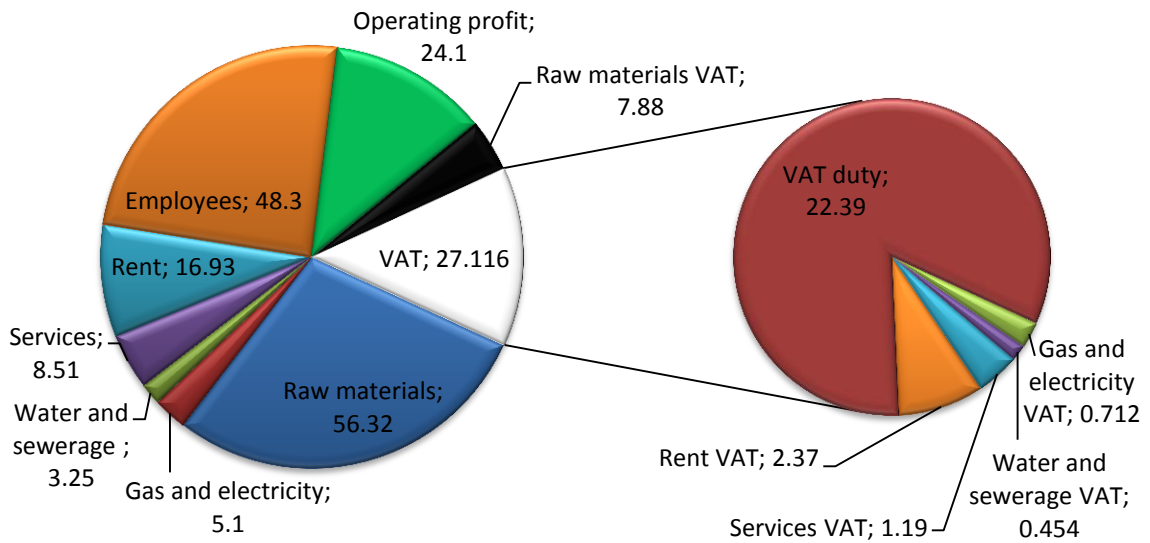
**TABLE 3:** COST – BENEFIT ANALYSIS IN YEAR 2012

<b>CZK (2012) Svíčková; 210 CZK</b>	<b>VAT</b>	<b>X - Outcome from a formula</b>	<b>Costs</b>	<b>Tax on the input</b>	<b>Tax on the output</b>	<b>Taxation duty</b>
<b>Raw materials</b>	14 %	64.2	56.32	7.88	-	-
<b>Gas and electricity</b>	20 %	5.8	5.10	0.712	-	-
<b>Water and sewerage</b>	14 %	3.7	3.25	0.454	-	-
<b>Services</b>	20 %	9.7	8.51	1.19	-	-
<b>Rent</b>	20 %	19.3	16.93	2.37	-	-
<b>Employees</b>	-	48.3	48.30	-	-	-
<b>Operating profit</b>	-	24.1	24.10	-	-	-
<b>Σx</b>	-	<b>175.00</b>	<b>90.11</b>	<b>12.61</b>	<b>35</b>	<b>22.39</b>
<b>Σy</b>	-	-	<b>72.40</b>	-	-	-

SOURCE: Own calculations

Visual representation in Graph 2 serves as a tool for clear display of costs which are mentioned and numerically verified above.

**GRAPH 2: COST – BENEFIT ANALYSIS IN YEAR 2012**



**SOURCE:** Own data processing

The presumption for year 2013 is reflected in Table 4 on the exactly same meal, taking into account the fact that the selling price of meal remains.

H<sub>2</sub>: The presumption for year 2013 about unification of lowered and normal VAT rate affects positively the restaurant sector.

The formula below represents all the costs a restaurant have to cover in the selling price of food in year 2013 taking into account the fact that the labour productivity and the percentage ratios remain the same.

$$(0.35x * 1.175 + 0.03x * 1.175 + 0.02x * 1.175 + 0.3x + 0.15x + 0.05x * 1.175 + 0.1x * 1.175) * 1.175 = 210$$

$$1.2878x = 210$$

$$x = 163.069$$

TABLE 4: COST – BENEFIT ANALYSIS IN YEAR 2013

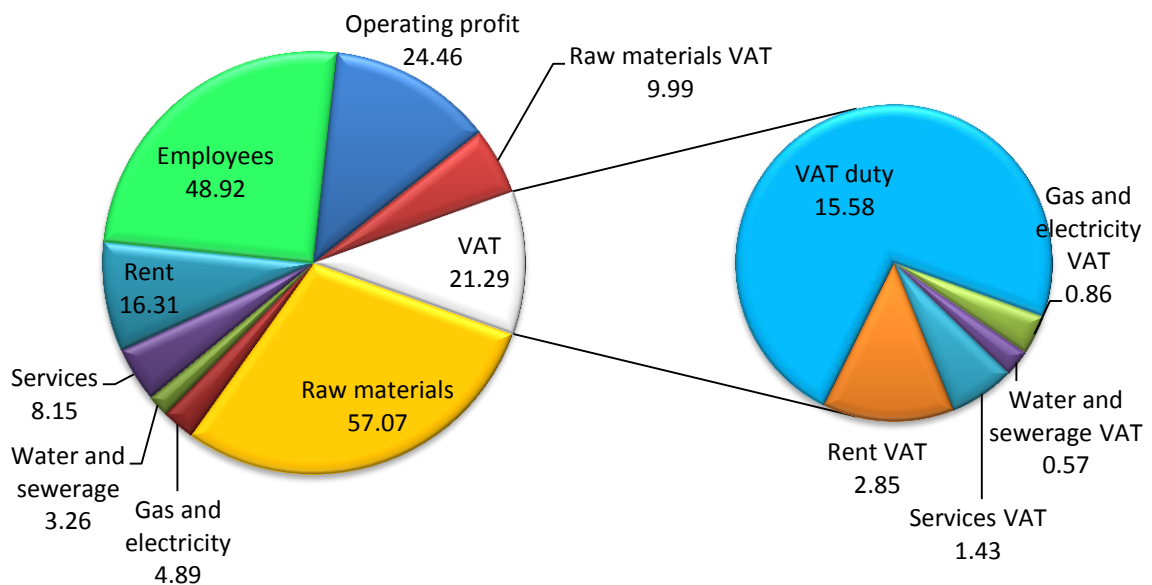
CZK (2013) Svíčková; 210 CZK	VAT	Outcome from a formula	Costs	Tax on the input	Tax on the output	Taxation duty
Raw materials	17.5%	67.06	57.07	9.99	-	-
Gas and electricity	17.5%	5.75	4.89	0.86	-	-
Water and sewerage	17.5%	3.83	3.26	0.57	-	-
Services	17.5%	9.58	8.15	1.43	-	-
Rent	17.5%	19.16	16.31	2.85	-	-
Employees	-	48.92	48.92	-	-	-
Operating profit	-	24.46	24.46	-	-	-
$\Sigma x$	-	<b>178.76</b>	<b>89.68</b>	<b>15.70</b>	<b>31.28</b>	<b>15.58</b>
$\Sigma y$	-	-	<b>73.38</b>	-	-	-

SOURCE: Own calculations

All the basic information is captured in Table 4. It contains of data showing new situation when all costs are categorized into the 17.5 % VAT. The taxation duty is the amount of money the restaurant has to pay as a tax; in this case 15.58 CZK.

Graph 3 clearly shows significantly lower proportion of VAT paid as a taxation duty than the current year 2012 requires.

GRAPH 3: COST – BENEFIT ANALYSIS IN YEAR 2013



SOURCE: Own data processing

It is evident that the current situation in restaurant sector connected with value added tax, being set at 14 % lowered VAT and 20 % normal VAT, was clarified as unfavourable, nevertheless the presumption for year 2013 about unification of lowered and normal VAT rate would affect the economy of restaurant sector positively if fulfilled. The cost – benefit analyses verified the fact that the presumption for next year seems to be more efficient for restaurant businesses, since the taxation duty is significantly lower than a current year 2012 requires;  $15.58\text{CZK} < 22.39\text{ CZK}$ , hence both null hypotheses  $H_0$  are rejected.

The gastronomy is a sector broken into many pieces, where there are entrepreneurs but no lobbyists who would influence the situation. Impartial solution would be to unite the lowered and normal taxes, for instance to 17.5 % as the prediction for year 2013 implies. At present the consequences of VAT in this sector causes the bankruptcy of many restaurants or it forces them into “the grey market”.

#### **4.2.1. TOURISM**

Hospitality industry creates benefits to the economic growth of Prague and the state, contributing in generating increased visitation, enabling longer stays with more spending, and better experiences from the Czech Republic. (Enterprise Melbourne, 2012) Despite the fact that restaurants struggle with difficulties, last year was for the Czech Republic very positive from the tourism point of view. The number of incoming tourists rose by 7.9 %. According to the CSU, the bumper number of 6.8 million foreigners visiting our country in 2011 was recorded. Last bumper record from year 2007 when 6.7 million tourists visited the Czech Republic was broken. The number of overnight stays increased by 8.1 % and reached 19.9 million. This result shows that tourists have extended their stays abroad. Russia is the country with the highest touristic demand for Czech Republic; 570 thousands. This number even exceeded the estimation from January 2011 by 70 thousands. And 1.42 million tourists came from Germany. Polish, Italians, Slovaks, and Asians visit our country also very often. No doubt that 65 % of incoming tourists visit Prague. It is the capital and largest city connecting both banks of the Vltava River, with the population of 1.3 million people.



Prague has been a political, cultural, and economic centre of central Europe. Many beautiful historical monuments decoy tourists all over the world. Prague can also offer the high standard of services and many cultural events every day.

According to UNWTO, last year there was a worldwide growth of the tourism by 4.4 %. Nevertheless, the restaurant turnovers of the Czech Republic do not grow simultaneously with the tourism. Our state would need to entice more solvent tourists from Western Europe. Last year, also the domestic tourism rose by 3 %, when almost 6.1 million of Czech inhabitants travelled across our country. (Czech Tourism, 2012)

Tourism can be considered as a factor influencing the revenues of restaurants and can have a significant effect. Tourism intensity is characterised as *“an indicator which shows the average distribution of tourists and gives a general indication of pressures on natural resources, with regard to a reference period (year) or during a peak season. Tourism intensity is defined as the number of overnights stays by tourists per 10 square kilometres per annum and in peak season. It is a regional indicator covering broad areas.”* (Desire, 2012)

**TABLE 5:** Progression of both variables in the CR

Period	Revenues	Tourism Intensity	Prague
2002	-12.5047	-14.0769	6,055
2003	12.05345	19.73576	7,250
2004	-2.15152	26.22069	9,151
2005	-1.08015	4.60059	9,572
2006	-1.82934	-0.29252	9,544
2007	3.593462	7.596396	10,269
2008	-12.1824	-2.19106	10,044
2009	-1.32065	-9.42851	9,097
2010	2.93227	6.672529	9,704
<b>Variable</b>	<b>Y</b>	<b>X</b>	

SOURCE: (EUROSTAT, 2012) (CSU, 2012)

According to the Table 5, the annual data of tourism intensity in Prague can be noticed. How was already mentioned, the high number of tourists visiting Prague in 2007 is obvious from a last column in the table and year 2011 even exceeded previously highest record but is not included in the table. The chart contains of rates of growth,

x – independent variable states the tourism intensity in Prague and y – dependent variable gives us the rates of growth of revenues of restaurant establishments in the period of years 2002 and 2010. Rate of growth is characterized as “*a year over year exchange expressed as a percentage.*” (Web Finance, 2012)

Due to the unavailability of data focusing only on the restaurant sector in Prague, restaurant revenues monitor the turnovers across the Czech Republic. On the other hand the city of Prague is undoubtedly the most significant.

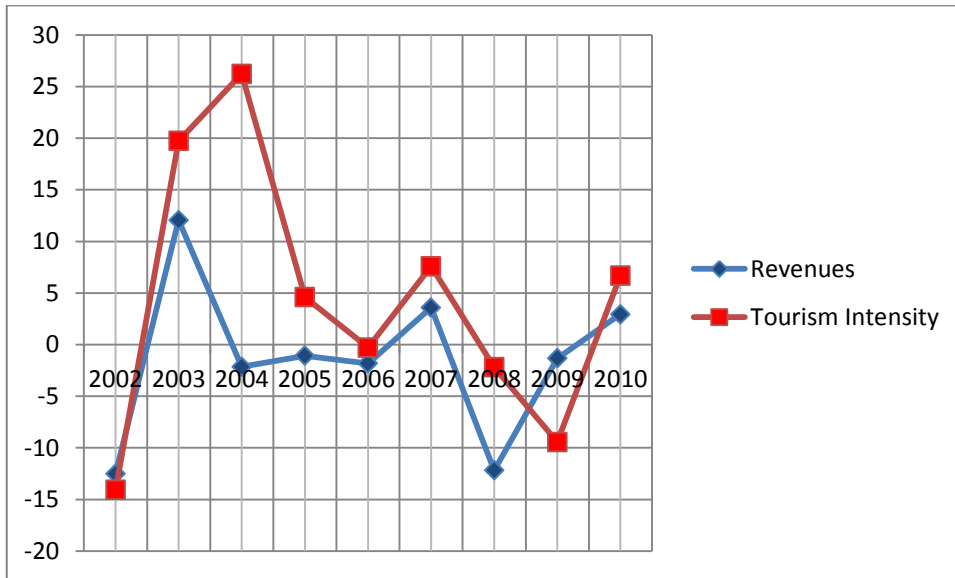
H<sub>3</sub>: The tourism intensity in Prague does affect the restaurant revenues.

Grounded on the provided information, there emerges the presumption about relation between the tourism intensity and revenues of restaurant. It is appropriate to use the regression analysis in order to prove the hypothesis. Firstly an assumption that there is a linear relation between the tourism intensity in Prague and the revenues of restaurant establishments is defined by model

$$\eta = \beta_0 + \beta_1 x + \varepsilon$$

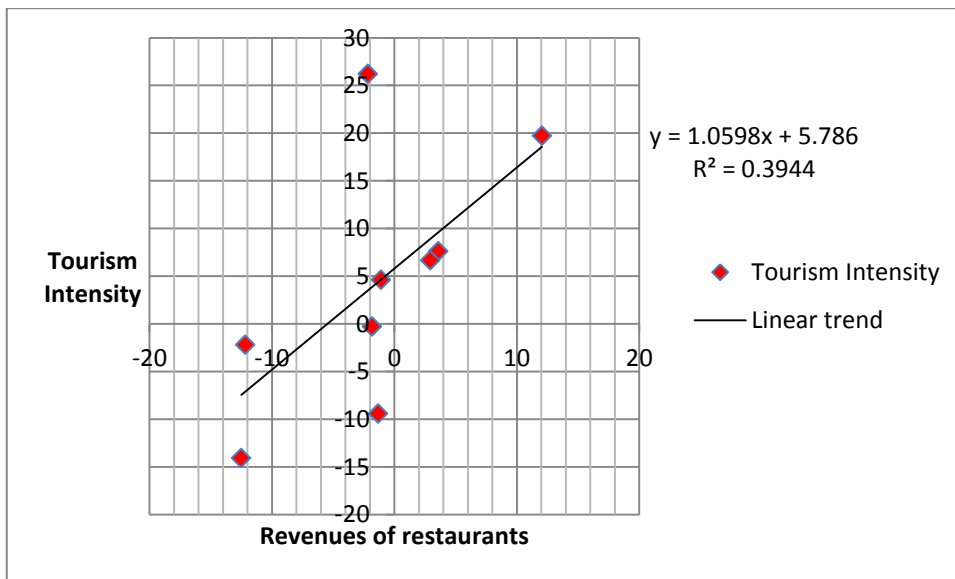
The chart below graphically illustrates the percentage change and time development of both variables between years 2003 and 2010. It is impossible to overlook how the restaurant revenues imitate the tourism intensity in its development.

**GRAPH 4:** Development of restaurant revenues and tourism intensity in the CR (2002 – 2010)



SOURCE: Own data processing

**GRAPH 5:** Linear trend



SOURCE: own data processing

The coefficient of correlation shows an association between two variables. The values range between -1 and +1, showing a great linear relationship. The coefficient of correlation in my case is  $r_{yx} = 0.628$  and indicates a passable influence, because there are surely more factors influencing the turnovers of restaurants. From the graph above emerges that with higher tourism intensity, the sales of restaurants slightly grows.

Therefore it is essential to calculate the parameter estimation by the method of least square; the equation of regression line is

$$y = -2.993 + 0.372 * x$$

To evaluate the true dependency of both variables and the quality of a model, the coefficient of determination is applied.  $R^2 = 0.394383$  showing that 39.4 % of changes are explained by the relation. In order to confirm that statement, the hypothesis of parameter  $\beta_1$  has to be tested.  $H_0 : \beta_1 = 0$

$$|t| = 2.135 < t_{0.975}^7 = 2.365$$

This result means that the  $H_0$  hypothesis is not rejected at the significance level  $\alpha = 0.05$  and the relation between tourism intensity in Prague and the revenues of restaurants is not confirmed.

$$F = 4.558 < F_{0.95}^{(2;6)} = 5.143$$

According to the F – test, the statistical significance of model and the relationship between tourism intensity in Prague and the revenues of restaurants is not confirmed.

Based on the previously provided information, the tourism intensity in Prague grows, nevertheless, the restaurant turnovers of the Czech Republic do not grow simultaneously with the tourism. Due to the fact that there are only few data available, the result cannot be considered as relevant.

**TABLE 6:** Summary output of regression statistics of development of restaurant revenues and tourism intensity in Prague

Multiple R	0.627999					
R Square	0.394383					
Adjusted R Square	0.307866					
Standard Error	6.343614					
Observations	9					
<b>ANOVA</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>Significance F</b>	
Regression	1	183.4387	183.4387	4.558452	0.070145	
Residual	7	281.6901	40.24144			
Total	8	465.1288				
	<b>Coefficients</b>	<b>Standard Error</b>	<b>t Stat</b>	<b>P-value</b>	<b>Lower 95 %</b>	<b>Upper 95 %</b>
Intercept	-2.99348	2.244306	-1.33381	0.224027	-8.30042	2.313464
Tourism	0.372113	0.174288	2.035153	0.070145	-0.04001	0.784238

Source: Own calculations

## 4.2. FACTOR INFLUENCING THE RASTAURANT SECTOR IN PRAGUE NEGATIVELY

This part is concerned with the negative effects of selected factors on the restaurant sector in Prague. As factors suitable for the verification can be considered the customer's requirements to obtain tap water in restaurants for free and the already examined current situation in restaurant sector, connected with value added tax.

### 4.1.1. TAP WATER

The issue of prohibiting smoking in restaurants can be discussed for ever and in my opinion the Czech Republic will not come up with any additional solutions soon.

At present, I assume that there can be find more interesting topics to focus on, for instance the problem of wanting tap water in Czech restaurants.

“Veolia Voda Czech Republic, a. s. is the largest water management company in the Czech water management market in the field of production and distribution of drinking water and drainage and treatment of wastewater. Veolia Voda provides its subsidiaries with water management infrastructure management know-how based on experience gained over more than 150 years.” It provides water to more than 40 industrial enterprises and 3.8 million inhabitants from wide range of Czech towns and urban areas.

*“Veolia Voda has launched a campaign to promote tap water as a healthy and economic alternative to bottled waters.” (Veolia Voda, 2007)*

Veolia Voda has been trying to convince the restaurant entrepreneurs to offer low-cost or free tap water to its customers. In pursuit of cooperation, Veolia has provided participating restaurants with glass carafes by Czech designer Daniel Piršč. They also promote tap water with regards to the fact that tap water in the Czech Republic is of excellent quality. *“Prague's drinking water comes from two quality-monitored water treatment plants. Tap water across the entire country is as drinkable as bottled water and is safe and normal,”* said Jakub Kašpar, a spokesman for the Environment Ministry. *“We recommend that people drink tap water normally and choose it [over bottled water], because they will save money as well as huge amounts of energy and waste needed to produce bottles,”* he said. (Delbos, 2009)

Hence the consumption of still and carbonated bottled water has been negatively affected by its higher price and as already mentioned with campaigns promoting wider consumption of tap water within home and foodservice establishments. On the other hand, in 2010 over 540 million litres of flavoured mineral water were sold in the Czech Republic, being ranked amongst the highest in Europe.

Vodovoda is another project, aiming to spread drinking and serving of tap water across the Czech Republic, showing its economical, ecological, and healthy aspects. The goal is to inform about “the water situation” in restaurants and discuss the aspects of tap and bottled water. Every restaurant is being evaluated according to the willingness of serving tap water with the order of meal. In Prague there are 233 restaurant establishments offering tap water as a menu commodity. Some restaurants have already adopted to recent trends in the society eco-friendly products, so this issue has also an environmental aspect.

At present tap water has been one of the most recently discussed issues within the Czech Association of Hotels and Restaurants. Table 7 serves as a visual representation of water prices in Prague (CZK/m<sup>3</sup>, incl. VAT) in last 12 years.

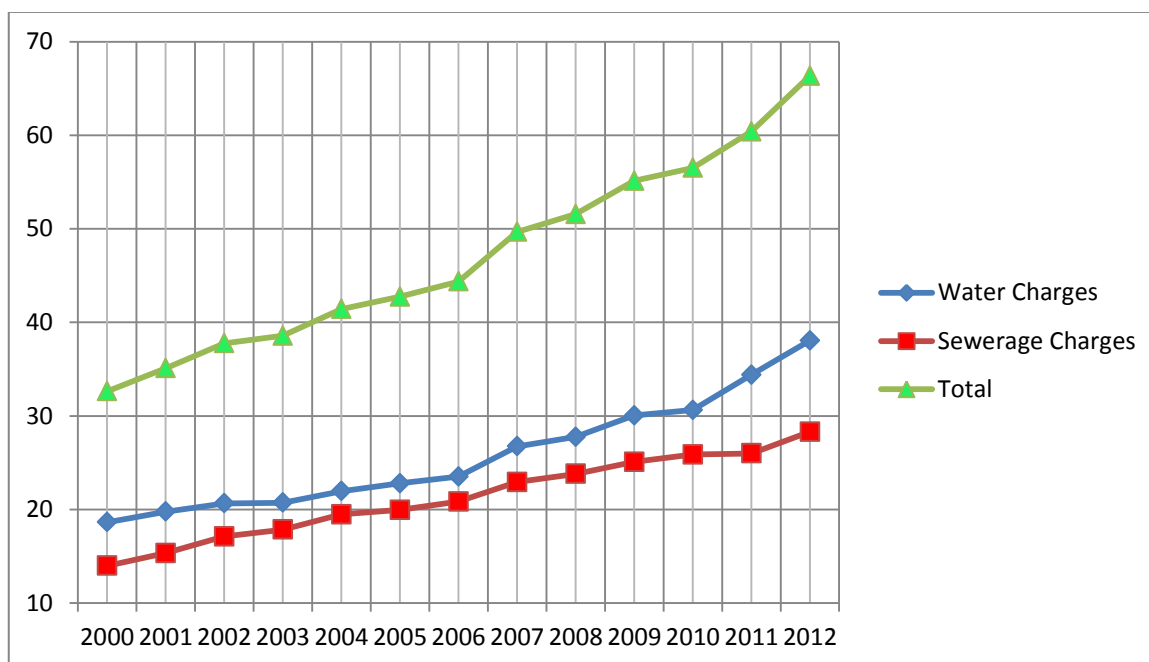
TABLE 7: Progression of prices of water and sewerage in Prague (2000 – 2012)

Period	Water Charges	Sewerage Charges	Total
2000	18,64	13,99	32,63
2001	19,77	15,33	35,1
2002	20,65	17,12	37,77
2003	20,72	17,85	38,57
2004	21,95	19,48	41,43
2005	22,79	19,96	42,75
2006	23,51	20,85	44,36
2007	26,74	22,93	49,67
2008	27,76	23,81	51,57
2009	30,04	25,08	55,12
2010	30,63	25,88	56,51
2011	34,39	26	60,39
2012	38,05	28,3	66,35

SOURCE: (VEOLIA VODA, 2012)

From January 1<sup>st</sup>, 2012 Prague inhabitants pay 66.35 CZK, including the 14% VAT for 1 m<sup>3</sup> = 1000 l of water. The charges of water and sewerage rose by 9.88 % compared to year 2011. One litre of tap water costs approximately **0.06 CZK (\$0.003)**. The Graph 6 clarifies recent development of prices.

GRAPH 6: Development of water and sewerage prices in Prague (2000 – 2012)



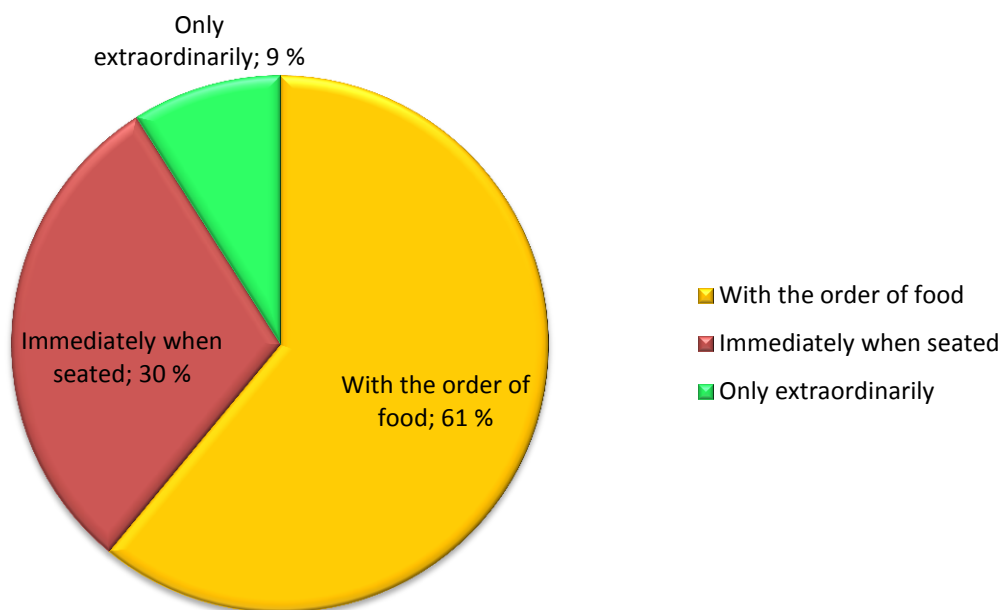
SOURCE: Own data processing

Is it a legal requirement to serve Tap Water in Restaurants for free or a small fee? Is it a good idea or it will bring a decrease in sales of drinks? Customers of restaurants in Prague are willing to substitute bottled water for tap water. My interest is focusing on opinions or reactions of the customers. The research was performed by the personally created *questionnaire* containing of 9 questions, but only some of them are going to be presented due to the vastness. A customer is supposed to choose the most suitable answer, closely related to the reality. The questionnaire was introduced to Prague restaurants in the period of fourteen days, specifically 12.-26. September, 2011. According to the Internet advices for Prague visitors, 15 restaurant establishments across the city were selected and approached. Each restaurant was visited at different time, at noon with the expectation that customers will rely on tap water with the order of lunch, and on evening. Surprisingly collected answers did not vary. Total amount of 150 questionnaires were distributed to 10 for each restaurant. 86.66% of asked customers filled in the answers, so the results could be made out of only 130 questionnaires.

One of the questions asks how do patrons consider the campaign for tap water in restaurants for free, if it is a regular requirement. Answers were stated such as *yes, with the order of food* and 61 % of customers answered so; *yes, immediately when seated* chose 30 %; and *only extraordinarily (for a medicine purposes)* appreciate 9 % of asked people. The visual representation is available in Graph 7.



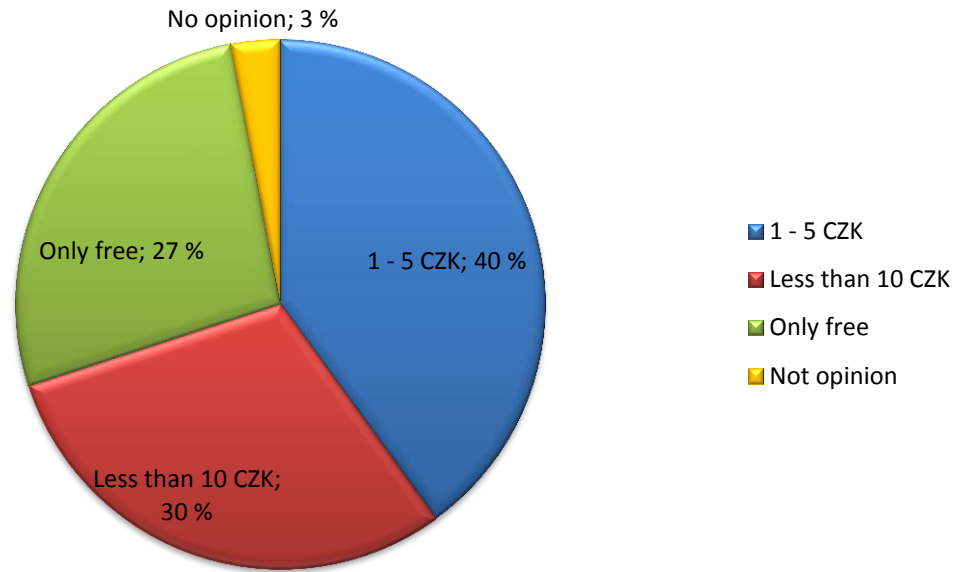
**GRAPH 7:** Questionnaire – How do patrons consider the campaign for tap water in restaurants for free, is it a regular requirement?



**SOURCE:** Own data processing

About the willingness to pay for tap water in restaurant establishments: “*Would you be willing to pay for tap water in restaurant just a symbolic amount of money?*” Choices are yes, 1 – 5 CZK; yes, 6 – 10 CZK; yes, more than 10 CZK; and no. The situation is obvious from the results below and also from Graph 8. 40 % of customers would be willing to pay only a symbolic amount of money; 1 – 5 CZK, 30 % would appreciate the price lower than 10 CZK, 27 % are not willing to pay for tap water at all and only last 3 % of asked customers do not care about the price of tap water since they came to the restaurant with the expectance of some spending.

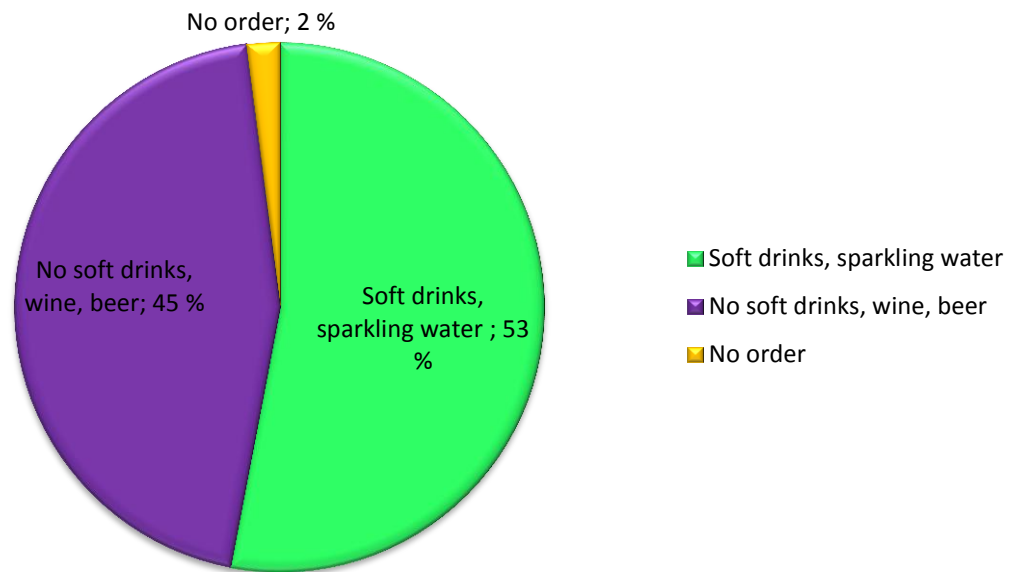
**GRAPH 8:** Questionnaire – Would you be willing to pay for tap water in restaurant just a symbolic amount of money?



**SOURCE:** Own data processing

The eligible price for tap water is considered to be 10 CZK for 0.2 l and even entrepreneurs agree. It is also interesting to refer the question focusing on fact that most of customers would not order any other drink if the tap water was served for free. 53 % of asked customers answered yes, meaning that they would order also different drink like Coca-Cola, Fanta, and even sparkling water. Nevertheless 45 % of customers would maybe order only coffee, wine, beer and spirits, no soft drink since they have already got water. Last 2 % of asked people answered strictly no, no willingness to order any other drink.

**GRAPH 9:** Questionnaire – Not all customers would order other soft drink if the tap water was served for free



**SOURCE:** Own data processing

Considering the statement above, the restaurant establishments would lose 45 % of their sales of goods sold because customers will cut down the order of drinks in case of serving tap water. There will also be no need for restaurants to spend as much money for the goods, because customers expect free water. Therefore the cost of goods sold can be also lowered by 45 % in order to prevent the remained goods. The following search estimates the situation for one selected restaurant in Prague, which name is not going to be published. The data were gathered from the records of profit and loss statement on the accessible web portal Justice.cz.

For each group of costs the percentage ratio is set. The amount left out of 100 % will be the operating profit before tax and also before other accounting operations. For instance the values used in the next research are set as follows.

TABLE 8: The percentage ratio of each cost

COST	MARK	%
Raw materials	RM	35 %
Employees	EM	30 %
Energy	EN	5 %
- Gas and electricity	G, E	3 %
- Water and sewerage	W, S	2 %
Service	S	5 %
Rent	RE	10 %
Operating profit before tax	OP	15 %
<b>TOTAL</b>		<b>100 %</b>

SOURCE: (BOROŠ, 2009)

TABLE 9: The records of profit and loss statement – selected restaurant

CZK (thousand)	I.	45%	II.	III.
Sales of goods sold	4,941	-111.73	3,829.3	-
Cost of goods sold	4,376	-984.6	3,391.4	-
Fixed costs	4,989	+81.63	5,070.63	-
Personal expenses	1,811	-	-	1,767.32
Sales revenues	5,302	-	-	-

SOURCE: (MINISTERSTVO SPRAVEDLNOSTI ČESKÉ REPUBLIKY, 2012)

The table above represents the sales of goods sold, cost of goods sold, fixed expenses and personal costs. The first (I.) column shows the selected general data from records of profit and loss statement. According to the questionnaire above, 45 % of customers would maybe order only wine, beer and spirits, no soft drink since they have already got water. The soft drinks cover one half of goods, so the sales of goods sold and also the cost of goods sold will lower only by 22.5 %. Second (II.) column demonstrates the already explained situation after serving tap water for free. As the explanation above indicates, the accurate value of energy cost has to be computed by  $5/55 \cdot 4989 = 453.5$ . It is the cost of energy, but the water and sewerage charges belong only to 40 % of energy cost meaning 181.4 CZK. The water and sewerage charges rise in price by 45 % to the price 263.03 CZK. Tap water is served to the customers for free

and it makes the fixed costs become higher. To state the price of fixed costs after the water utility, 81.63 CZK is added to the previously known fixed costs.

**TABLE 10:** Percentage ratios indicating the share of labor on goods

	70%	15%	15%	
<b>Goods</b>	Bar/place	Stock	Management	Drink

SOURCE: (BOROŠ, 2009)

**TABLE 11:** Percentage ratios indicating the share of labour on sales revenues

	45%	25%	15%	15%	
<b>Sales revenues</b>	Kitchen	Bar/place	Stock	Management	Food

SOURCE: (BOROŠ, 2009)

Table 10 represents the percentage ratios indicating the share of labour on goods. The percentage ratios indicating the share of labour on sales revenues is captured in Table 11. It is essential to calculate the share of goods; drinks on the restaurant revenues (sales revenues and sales of goods sold).

$$\frac{4941}{5302 + 4941} = 0.48237 \doteq 48.24\%$$

The rest is the share of food on the restaurant revenues.

$$\frac{5302}{5302 + 4941} = 0.5176 \doteq 51.76\%$$

Taking into account the fact that 1,811 CZK is paid for the employees as personal costs because of the drop of drinks sold, the restaurant can also consider lowering the amount of waiters by 10 %. Let's say that the labour productivity remains the same but one employee is going to be dismissed. This situation is depicted in Table 9, column "III". The calculated share of goods has to be lowered by 10 %; getting 4.824. But once again, the table contains of drinks which include non-alcoholic and alcoholic beverages. 2.412 % (4.824/2) out of the personal costs; 1,811 is equal to 43.68, this number signifies the cost of one employee and 1,767.32 is the outcome after

the performance was lowered. The sales of goods sold dropped to 3,829.3 CZK, the cost of goods sold to 3,391.4 CZK and fixed costs rose in price to 5,070.63 CZK. The water and sewerage costs rise constantly in price, but on the other hand this price is negligible between many other costs.

A beverage menu of selected restaurant in Prague was used to provide an accurate example with the aim to accomplish the fact that each restaurant will lose profit margin in case of serving tap water. The hypothesis can be said as follows:

H<sub>4</sub>: Providing of tap water for free affects negatively the economy of restaurant establishments in Prague.

TABLE 12: Menu

Non-alcoholic beverages		
0,5 l	Solán de Cabras ( Special Edition Mineral Water )	75,-
1 l	Solán de Cabras ( Special Edition Mineral Water )	150,-
0,33 l	Perrier	45,-
0,33 l	Mattoni	35,-
0,7 l	Mattoni	65,-
0,33 l	Coca Cola	45,-
0,33 l	Coca Cola Light (Diet Coke)	45,-
0,33 l	Fanta	45,-
0,25 l	Tonic	45,-
0,33 l	Sprite	45,-
0,25 l	Ginger Lemonade	40,-
0,25 l	Red Bull	85,-
0,33 l	Ice Tea (Lemon, Peach)	35,-
0,1 l	Juice (orange, apple, black Currant)	20,-
0,1 l	Juice multi-vitamin	25,-
0,1 l	Fresh Orange	40,-
0,2 l	Tomato juice	40,-
0,25 l	Bitter lemon	35,-

SOURCE: (RESTAURANT HLINĚNÁ BAŠTA, 2012)

In order to analyse the structure of costs, one or two drinks will be chosen out of the enclosed menu. Table 13 summarizes the structure of costs that are going to be explained below.

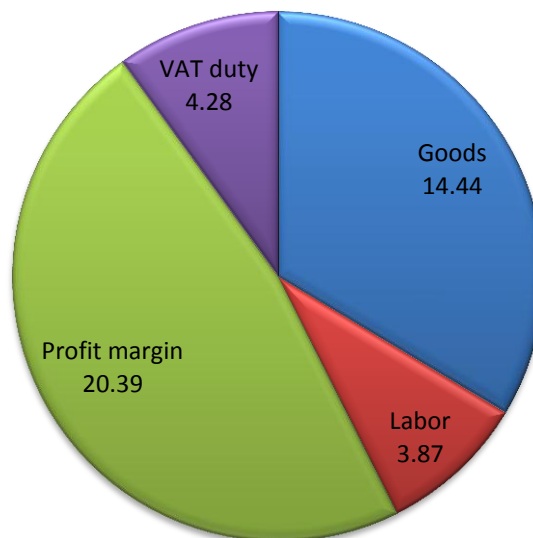
**TABLE 13:** Cost analysis – Coca-Cola

Goods	14 % VAT	Profit margin	Labour	14 % VAT
14.44	2.022	20.39	3.87	4.278
				<b>= 45,00</b>

**SOURCE:** Own calculations

The purchasing price of Coca-Cola 0.33 l in glass is 14.44 CZK excluding VAT (Nápojový servis, 2011). The 14 % VAT makes the price higher; 16.46 CZK is the price for which the restaurant has bought it. The cost for labour is set to be 10 % when we talk about beverages; otherwise labour costs cover 30 % of sales. The cost-benefit analysis of Coca-Cola is visually represented in Graph 7.

**GRAPH 10:** COST - BENEFIT ANALYSIS – COCA-COLA



**SOURCE:** Own data processing

The selling price of Coca-Cola is according to the chosen restaurant establishment 45 CZK. This price also includes the 14% value added tax, so the actual drink costs 38.7 CZK and 6.3 CZK is the tax paid by the customer. The labour cost covers 10 % out of the actual price of drink; 3.87 CZK. The margin is calculated by the difference between a selling price of Coca-Cola without tax and its purchasing price without tax. Finally, the labour cost has to be subtracted from margin to determine the profit margin.

The restaurant pays 4.278 CZK as a value added tax for one sold bottle of Coca-Cola and the profit margin is equal to 20.39 CZK.

As another example, Mattoni 0.33 l is tested. It is assumed that there will be nobody who would ever order bottled water such as Mattoni, if the tap water is served for free.

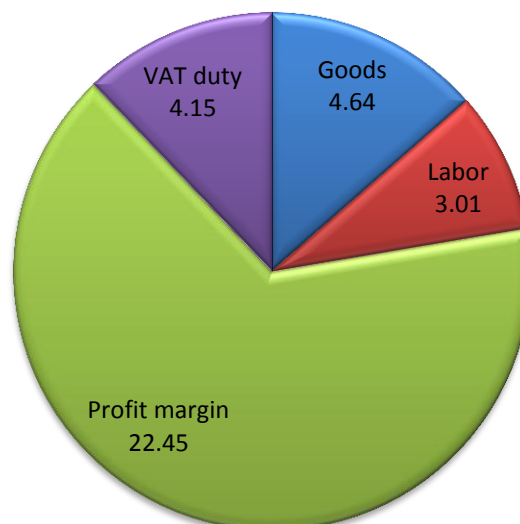
**TABLE 14:** Cost analysis – Mattoni

Goods	14 % VAT	Margin profit	Labour	14 % VAT
4.64	0.75	22.45	3.01	4.15
				=35

**SOURCE:** Own data processing

The purchasing price for Mattoni 0.33 l is 5.39 CZK including VAT (Shop Zdravá Voda, 2011). The selling price is 35 CZK, 30.1 CZK is the actual price and 4.9 CZK is the tax. The restaurant pays 4.15 CZK as a value added tax for one sold bottle of Mattoni and the profit margin is equal to 22.45 CZK. Graph 8 clearly shows all costs the restaurant covers in the price of drink and the depicted green part - profit margin would lose in case of serving tap water.

**GRAPH 11:** COST - BENEFIT ANALYSIS - MATTONI



**SOURCE:** Own data processing



It indicates that restaurants would lose its sales revenues. Hence the negative effect of serving tap water in restaurants was proven according to this research, the hypothesis  $H_0$  is rejected.

How was already mentioned, restaurants operate in order to make a profit, to be able to pay its employees, energy costs, high rents, purchase of inventory, maintenance, etc. Therefore tap water cannot be served for free, water and sewerage charges have been increasing every year, the usage of washing machine has its costs, and there also has to be someone who brings water to the customer. Tap water should be available, but for a small fee such as 10 CZK for 0.2 l or for free only with the order of bottle of wine or coffee.

## 5. CONCLUSION

The restaurant sector has been threatened by the tax burden, expensive raw materials, high labour costs and the increasing energy costs lately. Veolia Voda has been trying to convince the restaurant entrepreneurs to offer free or low-cost tap water to its customers. These facts call for testing many hypotheses, which conclusions are summarized below.

In the first section of analytical part the current situation in restaurant sector connected with value added tax being set as 14 % lowered VAT and 20 % normal VAT was clarified as unfavourable. Nevertheless the presumption for year 2013 about unification of lowered and normal VAT rate would affect the economy of restaurant sector positively if fulfilled. Cost – benefit analyses verifies the fact that the presumption for next year seems to be more efficient for restaurant businesses, since the taxation duty is significantly lower than a current year 2012 requires;  $15.58\text{CZK} < 22.39\text{ CZK}$ .

As another verified factor, the relationship between tourism intensity in Prague and revenues of restaurant establishments was rejected by the statistically insignificant regression analysis. Even if  $R^2 = 0.394383$  showing that 39.4 % of changes are explained by the relation, based on the results of test about parameters  $\beta_1$  and total F-test, the hypothesis about positive relationship between variables is rejected.

The cost analysis of goods and short questionnaire performed in last section of the analytical part aim to accomplish the fact that each restaurant will lose profit in case of serving tap water for free. Considering the campaign of Veolia Voda, the restaurant establishments forfeit the money usually acquired by sale of drinks to cover all the operating costs. Such an example can be presented one bottle of Coca-Cola, the profit margin on one bottle which restaurant loses with the providing of tap water is 20.39 CZK and 22.45 CZK is the profit margin on one bottle of Mattoni. It indicates that restaurants would lose its sales revenues. Hence the negative effect of serving tap water in restaurants was proven. Tap water should be available, but for a small fee such as 10 CZK for 0.2 l or for free only with the order of bottle of wine or coffee.

## SOURCES

**ACQuipedia. 2010.** ACQuipedia. *Cost analysis*. [Online] 2010. <https://acc.dau.mil/CommunityBrowser.aspx?id=416370>.

**Alexio. 2012.** Trade License. *Register a czech trade license and work freelance*. [Online] 2012. [http://tradelicense.cz/business\\_visa\\_for\\_trade\\_license.html](http://tradelicense.cz/business_visa_for_trade_license.html).

**Asociace Hotelů a Restaurací ČR. 2011.** Asociace Hotelů a Restaurací ČR. *Stanovisko AHR ČR k návrhu novely zákona o dani z příjmu - část stravování*. [Online] 30. 06 2011. <http://www.ahrcr.cz/cz/stanoviska-ahr/stanovisko-ahr-cr-k-navrhu-novely-zakona-o-dani-z-prijmu-cast-stravovani>.

—. **2011.** Asociace Hotelů a Restaurací ČR. *Tržby restaurací a hotelů klesají, příští rok bude kritický*. [Online] 10 11 2011. <http://www.ahrcr.cz/cz/tiskove-zpravy/trzby-restauraci-a-hotelu-klesaji-pristi-rok-bude-kriticky>.

**Audi, Robert. 1999.** *The Cambridge Dictionary of Philosophy*. Cambridge : Cambridge University Press, 1999. ISBN 9780521402248.

**Běhounek, Pavel. 2011.** Daňový poradce Běhounek. *Novela DPH č. 370/2011 Sb. od 1.1.2012 resp. 1.1.201*. [Online] 08 12 2011. <http://www.behounek.eu/news/novela-dph-2012/>.

**Boroš, Jan. 2009.** Gastro Profesor. *Variabilní náklady*. [Online] 02 2009. <http://www.gastroprofesor.cz/clanek/krize-penize-pomoc-profit/profit-boros-naklady38743129>.

**Box, George and Jenkins, Gwilym. 2008.** *Time Series Analysis: Forecasting and Control*. s.l. : John Wiley & Sons Inc, 2008. ISBN 9780470272848.

**Churchill, Mario G. 2007.** Ezine Articles. *Permits Needed To Start A Restaurant Business*. [Online] 04 09 2007. <http://ezinearticles.com/?Permits-Needed-To-Start-A-Restaurant-Business&id=717127>.

**Connecticut Licensing Info Center. 2012.** Connecticut Licensing Info Center. *Glossary of Business Structures*. [Online] State of Connecticut, 2012. [http://www.ct-clic.com/content/glossary\\_of\\_business\\_terms.asp](http://www.ct-clic.com/content/glossary_of_business_terms.asp).

**Creative Research System. 2010.** Creative Research System. *Correlation*. [Online] Creative Research Systems, 2010. <http://www.surveysystem.com/correlation.htm>.

**CSU. 2012.** Český statistický úřad. *Obchod, pohostinství, ubytování*. [Online] 2012. [http://www.czso.cz/csu/redakce.nsf/i/obchod\\_pohostinstvi\\_ubytovani](http://www.czso.cz/csu/redakce.nsf/i/obchod_pohostinstvi_ubytovani).

- Czech Tourism. 2012.** Czech Tourism. *Do Česka přijelo 6,8 milionu zahraničních turistů.* [Online] 2012. <http://vyzkumy.czechtourism.cz/633/do-ceska-prijelo-6-8-milionu-zahranicnich-turistu>.
- Delbos, Stephan. 2009.** The Prague Post. *Water company fights tap stigma.* [Online] Prague Post, 14 05 2009. <http://www.praguepost.com/business/1280-water-company-fights-tap-stigma.html>.
- Desire. 2012.** Indicators in the study sites. *Tourism intensity.* [Online] 2012. [http://www.desire-his.eu/wimba/WP2.1%20Indicators%20in%20the%20study%20sites%20\(Report%2066%20D211%20Mar10\)/page\\_76.htm](http://www.desire-his.eu/wimba/WP2.1%20Indicators%20in%20the%20study%20sites%20(Report%2066%20D211%20Mar10)/page_76.htm).
- Enterprise Melbourne. 2012.** Enterprise Melbourne. *Hospitality Strategy.* [Online] 2012. <http://www.melbourne.vic.gov.au/enterprisemelbourne/industries/hospitality/Pages/HospitalityStrategy.aspx>.
- Entrepreneur. 2012.** Entrepreneur. *Cost analysis.* [Online] Entrepreneur Media, 2012. <http://www.entrepreneur.com/encyclopedia/term/82116.html>.
- European Commission. 2012.** Enterprise and Industry. *Small and medium-sized enterprises (SMEs).* [Online] 02 02 2012. [http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index\\_en.htm](http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm).
- Eurostat. 2012.** Eurostat. *Tourism Intensity.* [Online] 02 2012. [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tour\\_int\\_tin2&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=tour_int_tin2&lang=en).
- Fabricant, Florence. 2010.** Economy Watch. *Czech Restaurants offer different cuisine than Czech one.* [Online] 05 11 2010. <http://www.economywatch.com/business-and-economy.html>.
- FDA, U.S. Food and Drug Administration. 2011.** FDA, U.S. Food and Drug Administration. *Hazard Analysis & Critical Control Points (HACCP).* [Online] 27 04 2011.
- Gastroinfo. 2008.** Gastro Info. *Česká hospoda v EU.* [Online] 2008. [http://www.gastroinfo.cz/index.php?content=gastroblog&topic\\_id=5&article\\_id=4](http://www.gastroinfo.cz/index.php?content=gastroblog&topic_id=5&article_id=4).
- Grammarist. 2012.** Grammarist. *Deduction vs. induction.* [Online] 2012. <http://grammarist.com/usage/deduction-induction/>.
- Haupt, Angela. 2010.** U.S.News. *Would Your Kitchen Pass a Restaurant Inspection?* [Online] 20 09 2010. <http://health.usnews.com/health-news/diet-fitness/infectious-diseases/articles/2010/09/20/would-your-kitchen-pass-a-restaurant-inspection>.
- Hi-Tec Sports. 2012.** businesscasestudies. *Using promotion to position a brand.* [Online] 2012. <http://businesscasestudies.co.uk/hi-tec-sports/using-promotion-to-position-a-brand/introduction.html>.

**Horáček, Filip. 2011.** iDnes/Ekonomika. *Na rušení výhod stravenek prodělá stát, firmy i lidé, tvrdí jejich zastánci.* [Online] 01 09 2011. [http://ekonomika.idnes.cz/na-ruseni-vyhod-stravenek-prodela-stat-firmy-i-lide-tvrdi-jejich-zastanci-1ly-/ekonomika.aspx?c=A110901\\_134513\\_ekonomika\\_fih](http://ekonomika.idnes.cz/na-ruseni-vyhod-stravenek-prodela-stat-firmy-i-lide-tvrdi-jejich-zastanci-1ly-/ekonomika.aspx?c=A110901_134513_ekonomika_fih).

**Hrubý, Jan. 2011.** Mraveniste Restaurace. *Restaurace.* [Online] 2011. [www.restaurace.mraveniste.cz](http://www.restaurace.mraveniste.cz).

**Investopedia. 2012.** Investopedia. *Regression.* [Online] Investopedia ULC., 2012. <http://www.investopedia.com/terms/r/regression.asp#axzz1oFVoDQ7L>.

**Jacquelyn, Lynn. 2009.** *Start your own restaurant and more: pizzeria, coffeehouse, deli, bakery, catering business.* Irvine, California : Entrepreneur Press, 2009. ISBN 978-1599183534.

**Jenerálová, Ivana. 2010.** Hello Czech Republic. *The history of Czech gastronomy.* [Online] 15 06 2010. <http://www.czech.cz/en/Discover-CZ/Lifestyle-in-the-Czech-Republic/Gastronomy/The-history-of-Czech-gastronomy>.

**MAHAR. 2010.** MAHAR. *Career in Hospitality.* [Online] 2010. <http://maharedu.com/placements/career-in-hospitality/>.

**Maurer, Pavel. 2009.** Český rozhlas. *Prague Food Festival highlights strength of Czech catering industry despite recession.* [Online] 03 06 2009. [http://www.radio.cz/en/section/spotlight/prague-food-festival-highlights-strength-of-czech-catering-industry-despite-recession?set\\_default\\_version=1](http://www.radio.cz/en/section/spotlight/prague-food-festival-highlights-strength-of-czech-catering-industry-despite-recession?set_default_version=1).

**Mealey, Lorri. 2011.** About Restauranting. *How to Advertise For a New Restaurant.* [Online] 2011. [http://restaurants.about.com/od/marketing/ht/Advert\\_New.htm](http://restaurants.about.com/od/marketing/ht/Advert_New.htm).

—. 2011. About Restauranting. *Food Safety Rules and Regulations.* [Online] 2011. <http://restaurants.about.com/od/foodsafetylaw/a/FoodSafety.htm>.

**Meta Quotes Software Corp. 2012.** Technical Analysis. *Moving Average Technical Indicator.* [Online] Meta Quotes Software Corp., 2012. [http://ta.mql4.com/indicators/trends/moving\\_average](http://ta.mql4.com/indicators/trends/moving_average).

**Meyer, Jacy. 2008.** Expats. *Tips on how to secure a trade license.* [Online] 15 09 2008. <http://www.expats.cz/prague/article/prague-business/czech-trade-licence/>.

**Miller, Steven J. 2012.** The Method of Least Squares. *The Method of Least Squares.* [Online] 2012. [http://web.williams.edu/go/math/sjmillier/public\\_html/BrownClasses/54/handouts/MethodLeastSquares.pdf](http://web.williams.edu/go/math/sjmillier/public_html/BrownClasses/54/handouts/MethodLeastSquares.pdf).

**Ministerstvo spravedlnosti České republiky. 2012.** Obchodní rejstřík a Sbírká listin. *Ministerstvo spravedlnosti České republiky.* [Online] 2012. <http://www.justice.cz/or/>.

**Morgan Stanley, Smith Barney. 2002.** Morgan Stanley, Smith Barney. *Dictionary of Financial Terms.* [Online] Lightbulb Press, 2002.

<http://morganstanleyindividual.com/customerservice/dictionary/Default.asp?letter=R#IDAY4P3C>.

**Nápojový servis. 2011.** Nápojový servis. *Coca-Cola*. [Online] 2011. [http://www.napojovyservis.cz/?lang=cz&sec=items\\_list&e\\_cat=193&title\\_string=limon%C3%A1dy+firmy+coca-cola&pos=10](http://www.napojovyservis.cz/?lang=cz&sec=items_list&e_cat=193&title_string=limon%C3%A1dy+firmy+coca-cola&pos=10).

**Nicks Wine Merchants. 2012.** Vintage Direct. *A History of Gastronomy*. [Online] 2012. [http://www.nicks.com.au/Index.aspx?link\\_id=76.764](http://www.nicks.com.au/Index.aspx?link_id=76.764).

**O'Connell, Joe. 2003.** Steak Perfection. *World's first restaurant*. [Online] 30 11 2003. <http://www.steakperfection.com/delmonico/FirstRestaurant.html>.

**Oxford University Press. 2012.** Oxford Dictionaries. *Restaurant*. [Online] Oxford University Press, 2012. <http://oxforddictionaries.com/definition/restaurant>.

—. 2012. Oxford Dictionary. *hypothesis*. [Online] Oxford University Press, 2012. <http://oxforddictionaries.com/definition/hypothesis?q=hypothesis>.

**Pecák, Radek. 2012.** Aktualně. *Turistů ze Západu u nás ubývá, naopak přijíždějí Asiaté*. [Online] 20 02 2012. <http://aktualne.centrum.cz/ekonomika/doprava/clanek.phtml?id=733831>.

**Pospěchová, Petra. 2010.** Hospodářské noviny. *V kůži Zdeňka Pohlreicha*. [Online] 10 09 2010. <http://hn.ihned.cz/c1-46355320-v-kuzi-zdenka-pohlreicha>.

**Reichenbach, Bruce R. 2001.** *An Introduction to Critical Thinking*. Boston : McGraw Hill Higher Education, 2001. 978-0073660271.

**Restaurant Hliněná Bašta. 2012.** Restaurant Hliněná Bašta. *Drinks*. [Online] 2012. <http://www.hlinenabasta.cz/en/drinks.php#Non-alcoholic beverages>.

**Restaurant U Kostela. 2012.** Restaurant U Kostela. *Menu*. [Online] 2012. [http://www.ukostela.com/menu\\_czenderu.pdf](http://www.ukostela.com/menu_czenderu.pdf).

**Rezková, Miluše. 2003.** Centrum pro výzkum veřejného mínění. *Tradiční česká kuchyně a my*. [Online] 15 08 2003. [http://www.cvvm.cas.cz/upl/zpravy/100255s\\_or30815.pdf](http://www.cvvm.cas.cz/upl/zpravy/100255s_or30815.pdf).

**Scriven, Michael & Paul, Richard. 1987.** The Critical Thinking Community. *Defining Critical Thinking*. [Online] 1987. <http://www.criticalthinking.org/pages/defining-critical-thinking/766>.

**Shannon, Mara. 2011.** eHow Health. *How to Date Food in the Fridge*. [Online] 2011. [http://www.ehow.com/how\\_5656571\\_date-food-fridge.html](http://www.ehow.com/how_5656571_date-food-fridge.html).

**Shop Zdravá Voda. 2011.** Shop Zdravá Voda. *Matonni*. [Online] 2011. <http://shop.zdravavoda.cz/katalog/market-on-line/ostatni-nealko/>.

**Smathers, Michael O. 2012.** eHow Money. *Restaurant Safety Regulations*. [Online] Demand Media, Inc., 2012. [http://www.ehow.com/list\\_6397535\\_restaurant-safety-regulations.html](http://www.ehow.com/list_6397535_restaurant-safety-regulations.html).

**Sudan, Amrik Singh. 2002.** *Restaurant Management*. New Delhi : Anmol Publications Pvt. Ltd., 2002. ISBN 9788126110650.

**Sunilcare Group . 2008.** Financial Statistics. *Coefficient of Correlation*. [Online] Sunilcare Group , 2008. <http://www.asset-analysis.com/stat/correl1.html>.

**Sykes, Alan O. 2010.** The Inaugural Coase Lecture. *An Introduction to Regression Analysis*. [Online] 2010. [http://www.law.uchicago.edu/files/files/20.Sykes\\_.Regression.pdf](http://www.law.uchicago.edu/files/files/20.Sykes_.Regression.pdf).

**Teresa A. Swartz, Dawn Iacobucci. 1999.** *Handbook of services marketing & management*. Pennsylvania : Sage Publications, Inc., 1999. ISBN 9780761916123.

**tn.nova. 2012.** tn.nova. *Potraviný zdražily v každém kraji jinak. Přehled cen*. [Online] 13 01 2012. <http://tn.nova.cz/zpravy/ekonomika/potraviný-zdražily-ktere-a-o-kolik-prehled-cen.html>.

**Venture Line. 2011.** Venture Line. *Time Series Analysis definition*. [Online] 2011. <http://www.ventureline.com/accounting-glossary/T/time-series-analysis-definition/>.

**Veolia Voda. 2012.** Veolia Voda. *Prices*. [Online] 2012. <http://www.pvk.cz/prices.html>.

—. **2007.** Veolia Water in Czech Republic. *Veolia Voda*. [Online] Veolia Eau, 2007. <http://www.veoliavoda.cz/en/veolia-water-czech-republic/>.

**Web Finance. 2012.** Business Dictionary. *Expense*. [Online] Web Finance, 2012. <http://www.businessdictionary.com/definition/expense.html>.

—. **2012.** Investor Words. *Growth Rate*. [Online] WebFinance, Inc., 2012. [http://www.investorwords.com/2261/growth\\_rate.html](http://www.investorwords.com/2261/growth_rate.html).

**Webster, Merriam. 1581.** Wordswarm. *Analysis definitions*. [Online] 1581. <http://www.wordswarm.net/dictionary/analysis.html>.

—. **1589.** Wordswarm. *Synthesis definitions*. [Online] 1589. <http://www.wordswarm.net/dictionary/synthesis.html>.

**White, Randy. 2011.** White Hutchinson. *he truth about restaurant failure rates*. [Online] 24 02 2011. <http://www.whitehutchinson.com/blog/2011/02/the-truth-about-restaurant-failure-rates/>.

# LIST OF TABLES

Table 1: Development of VAT in the CR (2007 – 2013) .....	25
Table 2: The percentage ratio of each cost .....	26
Table 3: COST – BENEFIT ANALYSIS IN YEAR 2012.....	28
Table 4: COST – BENEFIT ANALYSIS IN YEAR 2013.....	30
Table 5: Progression of both variables in the CR.....	32
Table 6: Summary output of regression statistics of development of restaurant revenues and tourism intensity in Prague .....	36
Table 7: Progression of prices of water and sewerage in Prague (2000 – 2012).....	38
Table 8: The percentage ratio of each cost .....	43
Table 9: The records of profit and loss statement – selected restaurant .....	43
Table 10: Percentage ratios indicating the share of labor on goods.....	44
Table 11: Percentage ratios indicating the share of labour on sales revenues .....	44
Table 12: Menu .....	45
Table 13: Cost analysis – Coca-Cola .....	46
Table 14: Cost analysis – Mattoni.....	47



# LIST OF GRAPHS

Graph 1: Development of VAT in the CR (2007 – 2013) .....	25
Graph 2: COST – BENEFIT ANALYSIS IN YEAR 2012 .....	29
Graph 3: COST – BENEFIT ANALYSIS IN YEAR 2013 .....	30
Graph 4: Development of restaurant revenues and tourism intensity in the CR (2002 – 2010) .....	34
Graph 5: Linear trend .....	34
Graph 6: Development of water and sewerage prices in Prague (2000 – 2012).....	38
Graph 7: Questionnaire – How do patrons consider the campaign for tap water in restaurants for free, is it a regular requirement? .....	40
Graph 8: Questionnaire – Would you be willing to pay for tap water in restaurant just a symbolic amount of money? .....	41
Graph 9: Questionnaire – Not all customers would order other soft drink if the tap water was served for free .....	42
Graph 10: COST - BENEFIT ANALYSIS – COCA-COLA .....	46
Graph 11: COST - BENEFIT ANALYSIS - MATTONI .....	47