

SINGIDUNUM UNIVERSITY
Department of Postgraduate Studies

BUSINESS SYSTEMS IN TOURISM & HOSPITALITY
MASTER STUDY PROGRAMME



Master's Thesis: “Economic and financial analysis
of planning the menu in "Aqua Caffe & Food"
restaurant”

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Content:

1. INTRODUCTION.....	2
1.1. SUBJECT OF RESEARCH.....	5
1.2. TASK.....	5
1.3. THE AIM.....	5
1.4. RESEARCH METHODS.....	6
1.5. HYPOTHESIS.....	6
2. TOURISM AND RESTAURANT BUSINESS.....	7
2.1. DANUBE.....	8
2.2. THE PETROVARADIN FORTRESS.....	8
2.3. THE OLD CITY CENTER.....	8
2.4. FRUŠKA GORA WITH MONASTERIES.....	8
2.5. MESSUAGES.....	9
2.6. NOVI SAD FAIR.....	9
3. TOURISM.....	11
3.1. THE ROLE OF TOURISM IN COUNTRY'S ECONOMIC DEVELOPMENT.....	11
3.2. TOURISM & INFORMATION TECHNOLOGY.....	11
3.2.1. INTERNET.....	13
4. RESTAURANT BUSINESS OF NOVI SAD.....	16
4.1. MAIN BRANCHES OF HOSPITALITY.....	17
4.2. TYPES OF HOSPITALITY FACILITIES FOR FOOD AND DRINK.....	18
4.3. QUALITY OF SERVICE IN RESTAURANT BUSINESS.....	20
4.4. DEPENDING ON HOW THEY DO BUSINESS, WE CAN DISTINGUISH TWO BASIC TYPES OF RESTAURANTS.....	23
5. AQUA CAFFE & FOOD.....	24

6. ECONOMIC AND FINANCIAL ANALYSIS.....	25
7. MENU CALCULATIONS.....	27
7.1. CALCULATIONS USING THE MARGIN.....	27
7.1.1. PANCAKES WITH PLAZMA AND WHIPPED CREAM.....	28
7.1.2. ESPRESSO.....	29
7.1.3. A BOTTLE OF COCA COLA 0.33l.....	30
7.1.4. TEQUILA- SHOT 0.03l.....	31
7.1.5. JELEN BEER 0.5l.....	32
7.1.6. SANDWICH ROLL WITH SMOKED HAM.....	33
7.1.7. BREAKFAST- THREE EGGS.....	34
7.1.8. BARBECUE- CHEESBURGER.....	35
7.1.9. SERBIAN SALAD.....	36
7.1.10. FRIED CHEESE.....	37
7.1.11. FAMILY PIZZA- VOJVOĐANKA.....	38
7.1.12. CHICKEN SPECIAL+GRATIS FRENCH FRIES.....	39
8. BALANCE SHEET.....	41
9. INCOME STATEMENT.....	45
10. THE BREAK-EVEN (VALUE BREAKPOINT).....	52
11. COST-VOLUME-PROFIT ANALYSIS (CVP ANALYSIS).....	54
12. NET PRESENT VALUE.....	57
12.1. FORMULA.....	58
13. RATIO ANALYSIS.....	60
13.1. INDICATORS OF (RATIOS) ACTIVITY.....	61
13.2. INDICATORS OF (RATIOS) PROFITABILITY.....	62
13.3. INDICATORS OF (RATIOS) ECONOMY.....	63
13.4. INDICATORS OF (RATIOS) LIQUIDITY.....	64

13.4.1. ANALYSIS OF LIQUIDITY.....	64
13.4.2. REASONS FOR CREATING A CASH FLOW BUDGET.....	65
13.4.3. CASH FLOW BUDGET - QUARTER OF THE YEAR.....	66
14. INFORMATION SYSTEMS IN THE HOSPITALITY AND RESTAURANT BUSINESS.....	67
14.1. IS IN HOSPITALITY AND RESTAURANT BUSINESS.....	67
14.2. PROPERTY MANAGEMENT SYSTEM&COMPUTER RESERVATION SYSTEM.....	70
14.2.1. PROPERTY MANAGEMENT SYSTEM - PMS.....	70
14.2.2. COMPUTER RESERVATION SYSTEM – CRS.....	73
15. FOOD & BEVERAGE SYSTEMS.....	74
15.1. FRONT OF HOUSE SYSTEMS.....	74
15.2. TRENDS IN POS DEVELOPMENT.....	75
15.3. RESERVATIONS AND TABLE MANAGEMENT SYSTEMS.....	76
15.4. BACK OF HOUSE SYSTEMS.....	78
16. GARSON.....	79
16.1. WHAT GARSON POS PROVIDES FOR RESTAURANT BUSINESS.....	81
16.2. BACK OFFICE.....	84
16.3. GARSON MOBILE SUITE – ANDROID APPLICATIONS FOR RESTAURANTS.....	86
17. CONCLUSION.....	88
18. CHARTS & PICTURES.....	92
19. REFERENCES.....	94
19.1. SOURCES.....	97

1. Introduction

In relation to the hospitality industry, which is also engaged in providing food services, restaurant business does not provide accommodation but it is organizational, functional and spacious and technologically customized nutrition sector. In plane words, it is preparation, production and serving of food and drinks (Kosar, 2002).

The main objective of restaurant business, if you concentrate only on the provision of services, is to fulfillment the needs of tourists and local people. Culture of “Dining in restaurants” is not typical of our land and tradition, but recently there have been some changes that have occurred as a result of accumulated daily tasks and adapting the European working time. Thanks to this, trend of dining at restaurants is more common, and it is no longer viewed as a status symbol, but as an everyday ritual. Restaurant business in Serbia has not been paid adequate attention and it is not precisely defined strategy for its development. It has always been associated with the development of tourism and hotel industry, which has undermined the independence of its existence and functioning.

However, due to continuous development, restaurant business branching is now more specialized and adapted to the needs of local residents, so that modern restaurant business today does not depend exclusively on tourists and travelers, but exists throughout the year.

Restaurant business in Serbia today finally has a chance to grab the right opportunity, because the global market is flooded offering "fast food" or already massively presented Italian, Chinese or Indian cuisine. As in tourism, mass is the hallmark feature of the past, and is a competitive advantage of Serbian restaurant business to the international scene in highlighting national cuisine. Restaurants, besides the expected market competitiveness, lately get competition and rising customer expectations based on their experience of quality service abroad. Therefore, the national gastronomic specialties and food quality are not necessary the only factor in the development and growth of the quality of restaurant service, but it also depends on the implementation of global standards of quality.

Restaurant "Aqua Caffè & Food" is a small, typical restaurant as many others in Novi Sad, which has an objective to unify the different menus in order to attract as diverse "clientele" and thus found the strength to cope with very strong competition in the city.

Successful Financial Management requires analysis of financial operations. The importance of analysis of financial reports is reflected primarily in terms of business management and development of enterprise. It precedes the governance process or, more precisely, it is preceded by the planning process, which forms an integral part of management. For good governance, planning is very important - it is the key for financial managers.

Also, in the past decade of 20th and first decade of 21st century, tourism is presented as a global and vital agriculture sector, which has rapidly developed and it is present in all countries and economies, and makes it one of the most dominant social-economic businesses of today. Information is very valuable for tourism. IT systems and Internet have a large role in improving competitiveness and successfulness of tourism and its destinations as well as in tourism demand overall (Bakić, 2003).

At the beginning of the 21st century, there are a number of trends in the catering industry that affect the management of information systems in the hotel and restaurant business. Today's contemporary business puts demands for organizations to lower their business expenses, as well as the pressure itself to respond to those demands of their customers/clients. The development of IT systems found use in touristic industry (hotel industry, restaurant business, traffic, rent-a-car organizations and touristic agencies) and it is very thankful for the development of the whole touristic industry today (Bakić, 2003: 319).

The challenges and opportunities created by the Internet and modern information technology are critical to the success of tourism enterprises and destinations. Information systems create an integrated part of modern organizational and business and are used to support all aspects of organizational functions and activities. Modern business requires type of manager who possess IT skills (Njeguš, 2010).

Industrial technology backs down and makes room for Information Technology and facilitated their application, which enables the creation of better conditions for production and service related. Working conditions become more favorable, while employees have greater participation in the management of company resources. This is emphasized in the case of restaurants that have to provide the service at a high level in order to survive in the market and gaining competitive position.

In addition to rapid spreading of tourism, which is slowly becoming one of the most dominant and most important industries, the upgrading of system transfers and tourist information transfer is necessary. The variety of informatics technology and its wide consumption also affect the touristic system. The term of electronic tourism is created, which digitalizes all processes and chain reactions in tourism, hospitality, restaurant business, travel and catering industries, , and tourism businesses are increasingly implementing various information systems to manage daily business operations in order to improve business efficiency (Njeguš, 2010).

Due to technical and technological information and evident progress, restaurants jostling for position service organizations with a focus on activities that enable their overall mental and physical pleasure. Contemporary surroundings characterize the dynamic and constant changes which have an important effect on frame managing. The changes can be sorted into five categories (Cvetkovski, 2004):

- * Rapid scientific-technological development
- * Competitive market confrontation
- *Larger user demands
- *Life changes
- *A need for constant self-evaluation, changes and adaption of organizations

In order for tourism businesses and organizations to fully exploit the advantages of intelligent and integrated information systems and new web technologies, they need to access the re-engineering of their business processes, to reconfigure the value chains and networks, as well as to continuously evaluate and redefine their business roles and relationships.

Today, developing an increasing number of information systems aimed at tourism businesses, no meter if we are talking about hotels, restaurants and travel agencies. These information systems are designed to improve business efficiency, and are especially important in the hotel and restaurant industry.

1.1. Subject of Research - The economic and financial analysis of making the menu in the restaurant "Aqua Caffè & Food" and how this restaurant meets the needs of their guests/consumers, and simultaneously meets its financial goals. In addition, we will discuss the business of the tourism of restaurant, its profit or cost-benefit analysis, calculation of menu, break-even point, net present value and also restaurant business and tourist offer of Novi Sad.

Also, we'll discussed the Information Systems, specifically "Garson", Information Technologies and Internet and the way they enhance productivity, efficiency, economy, and the way they make business and work much easier, for both restaurant and its staff.

1.2. Task - The analysis of the tourist offer of Novi Sad, analysis of restaurant business in Novi Sad, economic and financial analysis of business in the "Aqua Caffè & Food" restaurant and analysis of making the menu in the aforementioned catering facility, cost and revenue calculations of menu, break-even point, net present value and ratio numbers, the concept of modern information systems, IT and Internet, as well as their importance for the hotel and restaurant business.

1.3. The aim - The thesis is to show the method of making the menu and calculations of menu in the restaurant "Aqua Caffè & Food". Also, the thesis is to show how the mentioned facility operates and earns profits, its business results, the ratio of income and outcome, to make profit as the main goal of the enterprise, and thus meets all the needs of guests / customers. In addition, raising awareness about the benefits of the introduction of information systems in restaurants and their effects on the efficiency and effectiveness of the restaurant business.

1.4. Research Methods

The methodology used is very important in scientific research because it is the best guarantee to have applied the scientific method immanent to the case of research. In this paper, theoretical generalization and analysis of results, research emphasis is based on the developing and combining theoretical with practical. In accordance with the subject matter of research and set goals, during the preparation of this work the following methods were applied:

- * Economic and financial analysis
- * Theoretical and empirical analysis
- * The inductive and deductive methods
- * The comparative method
- * The method of verification
- * Application of synthetic method
- * Quantitative research
- * Systematic research

Taking into account all of the specificities of the studied subject of research, different methods were used to meet the basic methodological requirements-objectivity, reliability, generality and thoroughness. The study consisted of scientific-theoretical knowledge, relevant literature and contemporary business practices throughout mentioned methods.

1.5. Hypothesis

H1: Creating menus and successful business in Tourist Company, in this case the restaurant "Aqua Caffe & Food", reflects the ability of payments of its customers and an adequate offer of products and services that match the desires of the same, as well as the aims of financial manager/ owner. In plain words, it is necessary to establish and realize the relation:

QUALITY OF PRODUCT AND SERVICE ⇔ ACHIEVEMENT OF EFFECT OF
SATISFIED GUEST/CONSUMER ⇔ FULFILLED FINANCIAL AIMS AND GOALS
AND DESIRED INCOME

H2: By implementation of adequate information systems in the catering business, specifically in restaurant business, it achieves an increase in efficiency and effectiveness in decision-making process. Also, application of information systems increases productivity of operational activities in the catering industry.

2. Tourism and restaurant business of Novi Sad

PICTURE 1:

<https://sr.wikipedia.org/wiki>

Positioned on the Danube river, with the Petrovaradin fortress from the seventeenth century, at the crossroads of major roads, near Fruška gora, with 17 cultural and historically important monasteries, the farms in the immediate vicinity, attractive old town, numerous museums, prestigious Novi Sad Fair, and as the host of numerous World famous festivals and events, at the forefront with EXIT, city of Novi Sad has much to offer.



Geographical location of Novi Sad

In the area of Novi Sad and its immediate surroundings, two completely different geomorphological totalities encounter. On one side there is flat bottom of pannonian basin, presented with morphological rocks, the flood plain of the Danube river and terrace, and on the other hand, just above the Danube, raises the serpentine of Fruška gora. Long and sandy banks of the Danube are a magnet for many swimmers, and piers and backwaters are important fishing points, and therefore here are formed many resorts for fishermen, such as rocky terrain, Fishing Island, Arkanj etc. On the slopes of the Fruška gora are represented excursions and recreational tourism, and there are numerous recreational sites. All these sites can be divided into the traditional excursion with the contents of different character, and weekend wine-growing zone, as the basis used excursion resort stay on the mountain (Romelić, 2001).

Geographic features:

- Geographic coordinates: 45 ° 46 ' north latitude and 19° 20' eastern longitude
- Town area: 702.7 km²
- Population: 341 625 (RZS, 2015)
- Altitude: 0d 72 D0 80 m²
- Climate: moderate continental

Novi Sad has a favorable geographical position, because it is situated on important transport corridors, which provides a significant competitive advantage. It has road, rail and river link with environment. Also, the city is acquiring and connecting roads to the main land routes:

- Northeastern and Eastern Europe, the Middle and Far East
- Central and Northern Europe to the Adriatic ports.

2.1. DANUBE

From the aspect of tourism, Danube is very important for Novi Sad. It is especially well-known for promenade Belgrade Quay and beach "Strand", which extends to 10 hectares superficial with all facilities.

PICTURE 2:

<https://commons.wikimedia.org>



Belgrade Quay

2.2. THE PETROVARADIN FORTRESS

It covers an area of 122 hectares. It is a cultural and historical monument which was built in the 17th and 18th century. It obtains Museum of Novi Sad, Academy of Arts, observatory and archives of the city and EXIT music festival.

PICTURE 3:

<http://www.visitnovisad.r>



The Petrovaradin fortress

2.3. THE OLD CITY CENTER

PICTURE 4: <http://www.rtv.rs/sr>



Center of Novi Sad – Square of Svetozar Miletić

The architecture style of Novi Sad is quite diverse. The oldest house is "At the White Lion" and it was built back in 1740. City streets are adorned with several magnificent palaces of the late 19th and early 20th century: Tanurdžićeva, Menratova, Vatican, Klein, etc.; and numerous sacred objects belonging to different confessions.

PICTURE 5:

<http://www.new.visitserbia.or>



Monastery Ravanica

2.4. FRUŠKA GORA WITH MONASTERIES

Fruška Gora represents national park which extends on 25,000 hectares and obtains 17 Orthodox monasteries (created in the period from 15th to 18th century). It has many mountain homes, hotels, forested areas, rare plant and animal species, numerous lakes and that is why it represents one of the most comprehensive tourist sites in the whole Danube region.

2.5. MESSUAGES

Messuages and their authentic appearance retake us back in past, romantic times of Pannonia rural settlements. As such, they are very popular, both with tourists and locals. Messuage can be found on Čenej, Veternik, Begeč and Kač.

PICTURE 6: <https://www.flickr.com>



Messuages

PICTURE 7: <http://www.drustvo-termicara.com>

2.6. NOVI SAD FAIR



Novi Sad - Fair

It was founded in 1923. Covers an area of 22.6 hectares and it's annually visited by about 1 200 000 people. The largest is "International Agriculture Fair" with about 2000 exhibitors from Serbia and abroad.

Since 2006, Novi Sad is a member of the European Cities Tourism. During 2008, it was visited by 97,008 tourists. That represents 4.20% of country's tourists for that year. At the pier in Novi Sad, in 2008th alone, around 500 ships dock in the harbor, of which 250 were foreign, with around 35,000 passengers. In addition, the Agricultural Fair every year has about 300,000 visitors, while the EXIT music festival gathers 150,000, of which a significant part, too, are foreigners.

PICTURE 8:

<http://www.upoznajsrbiyu.co.rs>



Live music

Most tourists come to Novi Sad in spring (May and June) and autumn (September to December), depending on the business activities, the activities within the Government and other institutions, conventions, conferences, seminars, meetings and trade shows. Travel demand in July and August is low, due to the lack of quality resort, products and packages. Novi Sad is one of leading tourist destinations in Serbia with the share in the total number of visitors over than 15% and in the total number of nights spend by tourists with close to 10%. Basic indicators of tourist traffic structures indicate dominant share of foreign tourists

(RSO):

* In the total number of visitors in 2011, the ratio of domestic and foreign tourists is amounted to 35.1% in favor of foreign

* While in the same year in the structure of spent nights, the share of foreign tourists amounted to 30.1%, while domestic 26.9%.

Chart 1: Display of tourist arrivals and overnight stays in 2014. (RSO)

<http://webrzs.stat.gov.rs/WebSite/>

Region-area City – Municipality	Total area / km2	Tourist arrivals, I-XII 2014			Overnight stays, I-XII 2014		
		Total	Domestic	Foreign	Total	Domestic	Foreign
Јужнобачка област	4026	167044	71572	95472	361658	157649	204009
Град Нови Сад	699	140746	53872	86874	287167	103893	183274
Нови Сад	610	131353	46270	85083	267461	87791	179670
Петроварадин	89	9393	7602	1791	19706	16102	3604

Tourism in Novi Sad is characterized by relatively short stays, which sum at about two and a half days, which is shorter than the average stay in Serbia (2011, the average length of stay of tourists in Serbia amounted to three and a half days). In 2011, domestic tourists on average stayed in Novi Sad for three days, while the stay of foreign tourists was slightly shorter, two days (RSO).

As the year 2014 is concerned, the difference between arrivals of domestic and foreign tourists in Novi Sad is evident, and it is in favor of foreign ones. To be accurate, there were 24 thousand more. It can be said that only Petrovaradin was more interesting to the domestic tourists, which were four times numerous. When it comes to overnight stays in that year, the difference is even more striking in favor of foreign tourists, almost 50 thousand (RSO).

3. Tourism

3.1. The role of tourism in country's economic development

Domestic and foreign tourists represent the main carriers for the development of tourism as an economic activity, as well as for economic growth. Tourism, as a highly dynamic, turbulent and complex economic sector and activity in economic development, is viewed with two key aspects (Unković, 2007):

- * Macroeconomic aspect - means that tourism affects the socio-economic relations and that therefore requires solutions within the national economy, international politics of the country and the international community.

- * Microeconomic aspect - means the effective and efficient functioning of commercial companies which operate, either directly or indirectly, on the tourist market.

Tourism is a consumer movement that emerged in order to satisfy human needs (Unković, 2007).

The needs are basic demand of any individual or social group, no matter if in material, goods or services, in order to satisfy a sense of dissatisfaction and achieve an appropriate level of satisfaction and well-being of man.

Tourist traffic is recorded in all accommodation facilities. The largest share of tourist spending (over 50%) is realized in catering facilities for accommodation, the hotel facilities and restaurants for food and beverages. For these reasons, hospitality is regarded as the most important link in the chain of economic activities that are associated with tourism.

3.2. Tourism & Information Technology

Tourism accounts for the largest part of the global industry and continues intensively to expand. According to research by the World Tourism Council (World Travel and Tourism Council - WTTC), tourism contributes 10% of global GDP (Gross Domestic Product) and employs over 200 million people (Njeguš, 2010).

Also, tourism is one of the most dominant industries of today, which is, under the influence of modern information technologies, rapidly evolving. The compound of tourism and information technology provides powerful tools for economic warfare, strategic opportunities, the development of equality throughout the world and others.

Information technologies are widely accepted in the tourism, hotel and restaurant business. One of many advantages lies in possibility of improving service quality and customer satisfaction (Law, 2009: 599-623).

Information technology pervade almost every aspect of tourism and enable communication with business partners, distribution of products and the provision of information to potential consumers all over the world. In addition, consumers themselves rely on information technologies when it comes to travel planning.

*** IT encourages** (Njeguš, 2010):

- Globalization and the geographical and operational expansion of tourism
- An organization's ability to: manage its own resources, increasing productivity, developing partnership with its customers, suppliers, public organizations, interest groups and other stakeholders
- Organizations to coordinate their activities regionally, nationally and globally, and to geographical spread
- Develop and maintain the competitive advantage of the organization.

By investing in information technology, hotels and restaurants get not only new types of services and opportunities for additional earnings, but also the possibility of increasing the categories, and therefore prices, which entails a number of other advantages. Constant innovations in hardware, software, network computing enables dynamic organizations to efficiently and effectively respond to the demands of their stakeholders and in that way provide more long-term prosperity for themselves. Fledgling business environment due to the diffusion of IT, will inevitably affect the system of tourism. It occurs a new term - e-Tourism, which digitizes all processes and value chains in tourism, i.e. in hotel, restaurant business and other tourism and hospitality industries.

Information Technology and tourism are two key catalysts for (Njeguš, 2010):

- * Increase the efficiency of management and communication***
- * Improve the quality of products and services***
- * Provide new products and services***
- * Provide reengineering to new and innovative business practices***
- * They create new experiences through partnerships with local service***
- * Provide strategic options and powerful tools for economic growth***
- * Enhances interactivity between the dynamic and innovative community and professional organization***
- * Improve the distribution of tourism in the electronic market and others.***

3.2.1. Internet

Internet is the most important technical discovery of the 20th century. Thanks to the development of the Internet, information became easily accessible to many people. Today, millions of people around the world use Internet for different purposes: entertainment, socializing, performing, teaching, for financial transactions and trade and so on. Development of modern information and communication technology has changed current business environment by creating a new, global market increasing the competition. The term information and communication technology includes a wide range of technologies. These are above all: the Internet, the apps for mobile phones, computers, digital cameras, digital radio, GPS, wireless...

The emergence of the Internet in the field of tourism, namely hotel and restaurant business, achieved reducing costs in many aspects of their operations. In fact, there has been a direct marketing through its online websites, forums, blogs, social networks, which greatly contributed to reducing the cost required for other types of marketing activities, such as billboards, newspapers, radio, television, etc.

However, what is certainly the greatest extent influenced on changes in business of tourism and hospitality industry, including the changes brought by Internet, are social networks, websites, rapid flow of information, and easily accessible information. In fact, given that the Internet has become one of the primary means of human communication, therefore it made that information about a certain hotel or restaurant can easily be found and check. In addition to the Internet, the importance of social networks has also become immeasurable, because through them it is easy to find what are popular restaurants, which are expensive ones, and which are cheap, where is the best assessed food and where the atmosphere is romantic, and where is the "craziest"...

Some of the advantages brought by internet in to the hotel business (Barjaktarović, 2013: 240):

- *Increasing market - different forms of services that enable information coming very quickly from one to the other end of the world. The Internet has made it possible to users at any time to easily check verifiable and available information about many offers of hotels and destinations, and many cities have become popular thanks to the Internet*
- *Lowering costs is reflected in the fact that the information over the Internet is far cheaper, and usually free compared to other types of information*
- *Continuous and constant communication with potential customers around the globe*
- *Quality promotion of its products is of great importance, because only a good promotion can expect an increase of user's interest*
- *Sale without intermediaries can be made directly so that hotels can save money on commissions that provide booking systems*
- *Obtain detailed information online - all the necessary information can be obtained not only on the website, but also through social networks*
- *More efficient use of time of potential users - with wide range of options of booking and electronic payments. Nowadays, when there is no time, users are offered the possibility of efficient provision of goods and services, so that they do not have to waste time when booking and paying*
- *Providing more legal and complete information in a unit of time - the user does not need to go and ask for information, but they are given to him in one place*
- *More efficient control over the implementation of the objectives and actions of companies - the Internet made it absolutely possible for the hotels to have effective control of the implementation of the objectives of their business.*

In the digital age, which represents the basis of modern business, the hotel industry has undergone changes that complement and improve their business. This can be seen through the four most important factors that influence the positivity of hotel business (Popescu, 2013: 66):

- * **Digitization and connectivity via the Internet** - with its use and advantages, because it allows the conversion of sound, images, data and text in a single unit, which can be transmitted at high speed. This association contributes to the integration of people and the hotel industry, and thus the feedback that is critical for a successful hotel business

- * **The imperative of using the Internet** - without the use of the Internet is not possible to imagine a business in today's world, neither in hospitality

- * **Intermediary** - creating an intermediary with the help of the Internet brought a change in the way of the hotel industry which has greatly affected the relations between the participants in the distribution channels. In other words, now the main role in "tourism scene" play online systems. This means that tourists today around the world can book their own ticket, accommodation, rent-a-car, room, table in restaurants and so on.

- * **Customization to user's wishes and demands** - the internet, as a means to gather information and data about the client, enable the adjustment of the appropriate combination of marketing mix to those clients, giving them the chance to hoteliers and restaurateurs to have a competitive advantage. Knowing your customers and get information about them and their preferences is one of the most important goals in the hotel and restaurant business.

4. Restaurant business of Novi Sad

PICTURE 9:

<http://www.androidvodic.com>



Restoran: "Bela lada"

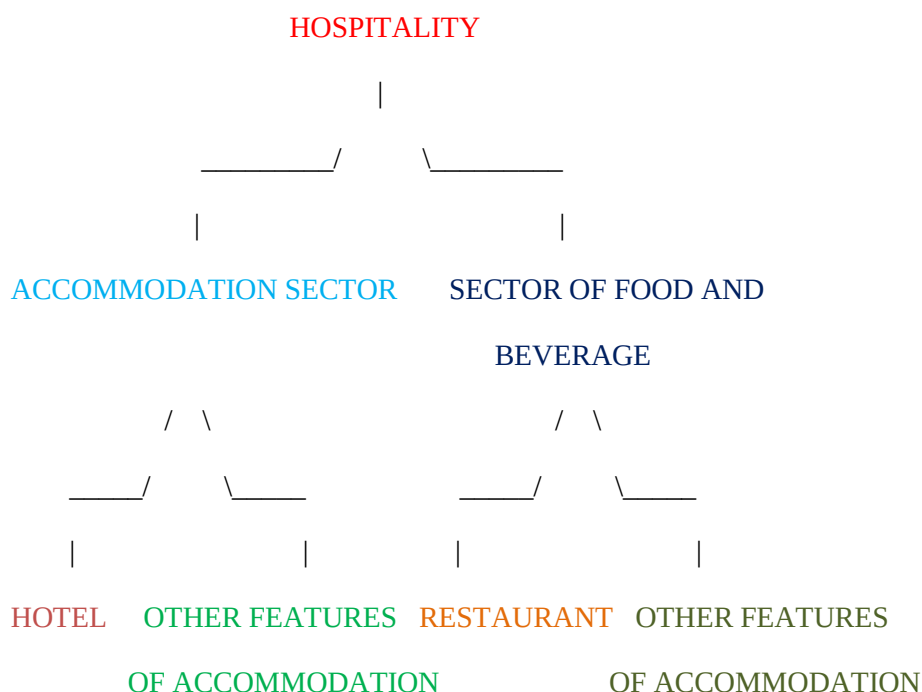
Catering industry is a broader concept of hospitality with which it is usually associated, as it involves the preparation and sale of food and drinks (in a specific way) and renting furnished rooms for the night (Nejkov, 1981). Therefore, it is a service economy activity whose main task is:

- 1) Providing accommodation services
- 2) Preparing and selling food and drinks

This activity includes two segments (sectors) of business (Barjaktarović, 2015):

- * Sector of accommodation and
- * Food and beverage sector (preparation, production, and food service and drinks).

The structure of the Hospitality industry (Barjaktarović, 2015):



4.1 Main branches of Hospitality

Based on the differences in the types of objects, types of services and the way in which they provide a common classification of catering, we have (Barjaktarović, 2015):

- 1) Hospitality
- 2) Restaurant business.

Hospitality is a narrower concept of catering industry and its principal activity is the provision of accommodation services (most often in combination with providing food and beverage services). From the standpoint of tourism, this part of the hospitality industry is considered to be a base of the tourist industry and has the status of a representative catering industry, specific according to the spatial and functional unification of the services of accommodation and food services in combination with other essential tourist's services (Barjaktarović, 2015).

Accommodation facilities represent one of the most important factors of tourist offer in Novi Sad and, together with capacity for consumption, had greatly impacted on volume of tourist traffic in city.

However, given that the focus of this work is closely linked with restaurant business and restaurants, further work will be based solely on them.

In relation to the hospitality industry, which is also engaged in providing food services, restaurant business does not provide accommodation but organizational, functional and spacious and technologically customized nutrition sector, its preparation, production and serving of food and drinks (Kosar, 2002).

Restaurant business includes all facilities that provide catering services food preparation and provision services and preparation and serving of drinks and beverages.

4.2. Types of hospitality facilities for food and drink (Barjaktarović, 2015):

- Restaurants (classic, specialized, self-service / express)
 - Among the specialized, according to its traffic and the importance, stand out restaurants based on fast food- quick service (fast food); Theme (national, regional, fisherman, hunter, vegetarian, religious profiled et al.) and exclusive restaurants.
- Other hospitality facilities for providing food and beverage services: café, bar, fast food, mobile and other objects, drive-in, tavern, restaurant, tavern, a national holiday, local cuisine, cafeteria, pizzeria, barbecue, grill, steak house, grill fish, chicken barbecue, pub, café-pâtisserie, pancake, coffee, tearoom, bar, bistro, cocktail bar, cafe bar, sandwich bar, salad bar, espresso bar, snack bar, night bar, disco bar, dancing bar, cabaret bar and others (Barjaktarović, 2015).

Defining the concept of the restaurant assumes the integrity of the production and utility, space and functional framework catering food services. Restaurant is considered the main and most complex representative of restaurant business, under which it is named that part of hospitality. The name of the restaurant comes from the Latin *restaurare*, which means enhanced. Thus, under the restaurant we may include a representative catering facility offering food and drinks, in technological, organizational and staffing terms staffed in a manner that provides spatial separation with simultaneous functional links between the process of preparation and production of food and beverage, with the process serving of prepared products (Kosar, 2002). Service process takes place at the table, mostly in the main meals. The restaurant's offer includes hot and cold appetizers, soups, main dishes, desserts, alcoholic and non-alcoholic drinks and beverages, and is presented to users via menus and drink tickets and wine charts, and the service will be charged at established prices (Kovačević, 1999).

Unlike from other hospitality features, restaurant implies a higher level of comfort, a special atmosphere and diverse offer in comparison to other types of facilities. Also, the restaurant should have open approach for guests, economic access and parking space for cars.

- Restaurants represent the segment of catering services, for which it is necessary ((Barjaktarović, 2015) :

1) Existence of proper construction totality, with a dedicated furnished and equipped interior for the preparation and storage of goods, preparation of food, the issuance of food and beverages, drinks and food, as well as appropriate premises in which to serve guests

PICTURE 10: <http://citymagazine.rs>



Restoran: “Piknik”

2) Functional connectivity between the manufacturing and service activities is the basic condition of business in the hospitality sector of food, where it is necessary to ensure their spatial isolation.

According to local regulations, restaurants are the only kind of facilities for the provision of food and drink, which is subject to categorization. Restaurants are categorized into four categories marked in stars; the meaning of the fourth (one star), the first (four stars). The process of categorizing the restaurant is identical to the appropriate procedure relating to the catering facilities for accommodation. In terms of implementing, the categorization is retained in the hands of the relevant ministry at the republic level.

Type of restaurant, depending on the organization of work and ways of serving: classical, national, regional, seafood, vegetarian, hunting, diet, macrobiotic, fast food, for festive celebrations, license ... In the world today there are quite a number of different types of restaurants, but if mentioned are excluded, all other kinds are represented in the negligible number. In Serbia, the most common restaurants we encounter are fish, hunting, fast food, regional and national kind (Barjaktarović, 2015).

- Users of restaurant services are divided into the following categories (Barjaktarović, 2015):

- 1) According to the demands (supporters of beautiful environment, gourmets, people on diet)
- 2) According to age (youth, adults and seniors)
- 3) By using the services of permanence (permanent, frequent, occasional and transient guests)
- 4) According to gender (women and men).

Restaurant business as large and widespread activity, itself is under the constant influence of universal social development, passing through the stages of development and the improvement and advancement of the industry. Thus, there are processes known as standardization and specialization, relating to the division within the objects of the same type of activity, according to various criteria, which significantly affect the type of their bid. In this regard, as most important criteria we have the range of offers, categories of consumers and working hours. Thus, according to the range of offers , we can distinguished: classic restaurants as typical kind, intended for the widest range of users, with the common and basic offer, and the specialized restaurants, characterized by a selective approach to the range of offers, which means that they are based towards certain foods, certain types of life foods, certain way of preparation.

PICTURE 11:
<http://www.mojnovisad.com>



Attractiveness of the food on the plate

This second group is very diverse and includes different types of restaurants such untraditional, national, fish, vegetarian, hunting, etc. The second group of criteria consists of consumer categories, according to which restaurants are divided into family, business, and other similar kinds. There is also a working time criterion, according to which restaurants are divided as the evening, daily or weekend restaurants and etc(Kosar, 2002).

4.3 Quality of service in restaurant business

Restaurant business depends on many factors that are constantly changing because of socio-economic and social changes. It is a service, based on the experience of dining that depends on interaction between the tangible and intangible elements, creating future attitude towards the restaurant service. Restaurant guests choose the restaurants depending on the different aspects (Barjaktarović, 2015):

- * Food and drink
- * Services
- * Hygiene
- * Value for money
- * Environment.

PICTURE 12:

<http://www.upoznaisrbiju.co.rs>



View from fortress

Excluding food and drink, which is the base of the restaurant's offer, an element of service in the restaurant is of the great relevance for achieving satisfaction on relation consumer-restaurant, which achieves high quality service which is reason for unique experience. Restaurant service as a complex category also includes the atmosphere and professional attitude of staff towards guests.

The quality of restaurant service is usually identified with the attributes of food quality, atmosphere and service. The physical environment is added to quality of services as an important part of the overall impression of serving. Quality of service in restaurant business has evolved over the years, but it can be precisely defined as experience and overall difference between consumer expectation and perception of serving (Parasuraman, 1990).

Guest satisfaction with the provided services is the only real way to create a brand and attract new guests and keep the regular ones. Guests will choose restaurants that meet their expectations and requirements of quality and service, while the management of the restaurant, which has ignored the wishes and requirements of our guests, will do the opposite by directing dissatisfied guests to competing restaurants (Stevens, 1995).

It is crucial that consumer/guest satisfaction reflects his subjective attitude on the generated consumer experience. There are numerous factors that affect the assessment of consumers about the quality of restaurant services (food, service and physical environment) (Dulen, 1999).

The physical environment is an extremely important factor. The first contact guests make with the restaurant is realized with the physical environment or the immediate appearance of the exterior of the restaurant, parking places, driveway and more. After that, restaurant guests get acquainted with interior and design of its interior, which may increase the enjoyment and pleasure of staying in the restaurant and affect employee productivity (Ryu, 2008).

On the other hand, the quality of food is one of the key elements of the experience of the meal in the restaurant. However, food quality is of the essence for fully experience of the restaurant, because the guests can quickly forget the poor service but poor quality food never.

The most important parameters that affect the final assessment of the quality of food are primarily sensory stimuli of taste, smell, appearance and temperature. Hygiene is another factor of extreme importance, which is often neglected by many, which is why the restaurant experience of foreign tourists in Serbia is most commonly identified with unhygienic toilets and dirty tablecloths and cutlery. Serbia has finally, after a long delay, officially started implementation of HACCP standards in the hospitality industry, with special emphasis on restaurant business (Barjaktarović, 2015).

Food safety and sanitary procedures become the basis of new consumer perception of service quality in restaurants. Intangible elements of restaurant service and atmosphere are classified as strong sensual and emotional impression, which has a special place in most categories in restaurants (Bienstock, 2003.).

Atmosphere as a quality include: the perception of space that can communicate a sense of intimacy and tranquility (Ching, 1996), the interior design that affect the length of stay in the restaurant and to the satisfaction of service, a color as an important visual irritation that triggers an emotional reaction and music as background for a pleasant feeling in the restaurant environment (Wakefield, 1996).

PICTURE 13: <http://srbijatop10.com>



Restoran: “Fontana”

Numerous restaurants of national cuisines (serbian, italian, chinese, indian, french, hungarian, bosnian etc.), pizzerias, fast food and grill bars are just a few of the largest representatives of tourist activities.

As restaurant business in Novi Sad specifically is concerned, it has recently undergone a major expansion. Of course, besides numerous newly opened restaurants, always happens that someone has to close or rename the old one. Given that Novi Sad is the second largest city in Serbia, when it comes to restaurant business, there is more than enough to justify the above mentioned roles.

Some of the most popular are: “Astal šaren”, “Atina”, “Ciganske noći”, “Galerija”, “Dukat”, “Caribic”, “Ciao”, “Čerčil”, “Fontana”, “Marina”, “Plava frajla”, “Piknik”, “Balkan Express”, “Aqua Cafe & Food”, “Ernesto”, “Bubi” etc... In addition to these restaurants and pizzerias, Novi Sad has a rich offer of pastry shops, cafes, bars, pubs...

PICTURE 14: <http://srbijatop10.com>



Restoran: “Plava frajla”

4.4. Depending on how they do business, we can distinguish two basic types of restaurants (Barjaktarović, 2015):

* Restaurant where the guests are served for main meals (lunch and dinner) with several ready-made dishes (menu), which are served by a common and established order, as well as a la carte dishes (a la carte).

* Restaurant where guests are served exclusively à la carte (a la carte).

Every restaurant operates according to certain principles that are in the foundation of quality serving and make a specific type. Types by which usually operate are "a la carte", "pansionski" and "table d'hôte". "Pansionski" type is applied in hotels, motels and similar establishments, which provide accommodation services and the type and quantities of food are known in advance and have a fixed price. One of the variants of serving meals in the restaurant of "pansionski" type is "table d'hôte", which is usually used in trains and airplanes.

5. “AQUA Caffè & Food”

"AQUA Caffè & Food" has existed since 2009. It deals with catering services, as well as organizing private parties, birthdays, graduation, births ... It is located in the city center at “Zlatne grede” 11, across Gymnasium "Jovan Jovanović Zmaj", and spreads over 2 levels and 180 meters squares. It employs three members of the kitchen staff, four waiters and two bartenders.

Considering the location, most of the guests are young people. Prime time during working hours, when the restaurant is the most visited, is the period from 12 to 16h. The number of guests is in the greatest influenced by school hours, especially on the end of the first and beginning of the second shift in the gymnasium, and the fact that in this time is period for lunch. As evening terms are concerned, they are reserved mainly for the night life of the young.

"AQUA Caffè & Food" operates partially as a fast food restaurant and partially by the "a la carte" menu. The basic characteristics of this “a la carte” type are (Barjaktarović, 2015):

- * Guests order by using the menus, wine chart and price lists of other services, the type and amount of food and beverages
- * Guests can reserve a table and service
- * Guests can sit at any free table
- * Guest is offered (menu, daily ticket, price list of drinks, wine chart)
- * Meals begin to prepare only when the guest has ordered them
- * The service is charged immediately after consumption.

Ways of serving, i.e. techniques of serving the food in this type of restaurant requires a special bond between service and personnel and they both have to possess a number of certain qualities.

Also, the customer can order a dish that is not on the menu and if it is known by the chef and if he has the ingredients to prepare it, it will be served to the guest. In addition, guest can ask if food could be more or less fried, spicy, salty, sour and sweet and served in a different way. Some dishes can be completed before the guests: flambéed, profiling, mixing etc.

6. Economic and Financial Analysis

The basis of the economic analysis in the tourist and hotel companies is the application of economics of enterprises. The concept of economic analysis can be seen as the legality of that act in the economy and the principles which ensure the achievement of the objectives of economics and accounting and analysis of the balance of its methods determined by the results of the economic effects of the laws and principles of economics (Čerović, 2014).

For the company it is significant the implementation of economic analysis and the realization of the objectives of the enterprise economy which are perceived through relationships of its results and investments, or through the achievement of competitive efficiency and reduced to the study of economic laws that affect the operation and performance of various economic entities in the hospitality and tourism. The aim of conducting economic analysis is, therefore, knowledge of the possibilities and the degree of implementation of the principles - to achieve maximum results with minimal investments. This involves maximizing profits and for the owners of capital it represents pure profit, i.e. net profit. After reducing net profit for the bonuses, equity holders are in the reach of the available retained profit that represents growth in net capital employed, which is the basic aim of the owner. Among the other objectives of business operations in the hospitality and tourism, we can mention: increasing profitability, improving the status and participation in the tourism market, increasing productivity, efficiency and profitability, improvement of material and financial resources, technological competitiveness, improving service quality, expand the product range sales, the development of management skills, development and motivation of employees, creating company's reputation, name and total "brand" (Čerović, 2014).

The achievement of the objectives of the economic analysis is provided by (Kisić, 2006):

- "Forming clear and logical assessment and performance about the nature and character of business of enterprises as a specific economic system;
- Identifying the principles which cause the behavior of enterprises, as well as principles or rules of which affect the company through conduct, all for achieving its economic and other goals
- Scientific basis for determining economic goals that company should achieve in order to justify the need for its existence and growth, to meet the needs of market and their needs,
- Scientific basis for the control of realization of the goals of the enterprise's economy, and for determining the degree of deviations in relation to the desired goals,
- Scientific basis for understanding the enterprise as a system or a unity that is in its own managing linked directly or indirectly with other companies and with the economy of society as a totality. "

The subject of economic analysis is only the company and its business, in this case the restaurant "Aqua Caffè & Food". Area and case studies of enterprise economy and the economic analysis are:

- Results of corporate affairs
- Investment in reproduction which are related to the achievement of these results,
- Relations between the achieved results and the necessary investments and
- Economic principles, norms and rules of business.

In addition to the economic analysis of major importance for the development of enterprises of the tourism industry has a financial analysis stemming from the overall complexity and specificity of the industry. The competitive position and success of the company depends on the speed and efficiency of the functioning of the technological, marketing and other changes. Restaurant company, as the main theme of this work, as well as other companies that fall under the tourism economy, business success can be achieved only if continuous and proactive work, constantly adapting to dynamic developments and turbulent changes. Its effectiveness is evaluated on the market, compared to the competition in capital market. That means companies in tourism market sell tourism products and services and thus generate some funds that are equivalent to products sold or services rendered. This way, the company achieves certain level of operating income. A company that is financially strong can easily overcome by changes in the environment and only this environment will have a small impact on its overall ability to adequately positioning (Čerović, 2014).

In addition to operating income, company of the tourism industry in its business achieves certain results and values in the form of income off funding or revenue from financial transactions. These are: income from financial investments, interest and other financial transactions; as well as extraordinary income in the form of: surplus, income from prizes and etc.

This way, in company is formed total revenue. For making total revenue, company in the field of tourism and hospitality creates certain operating expenses in mind of: cost of materials, inventory and energy; amortized cost of funds for the work; labor costs; as well as certain expenses that stem from the financial transactions of companies or financing expenditures or extraordinary expenses. All this together make the total expenses of the company. At the end, the most important thing is PROFIT enterprises. It is an expression of the results achieved and the main motive and objective of each company. The relationship between results and inputs invested expresses the degree of success in pursuing the objectives of enterprises in the tourism market that expresses the efficiency of operations, realization of income on total engagement of the material, financial and human capital (Čerović, 2014).

7. Menu calculations

7.1. Calculations using the margin (Čerović, 2014):

** Internal documentation of “Aqua Caffè & Food” restaurant*

7.1.1. Pancakes with plazma and whipped cream

On the primary norms (for 10 people) and the purchase prices of ingredients consumed, we shall calculate the selling price of one portion of pancakes with whipped cream and plazma, if the margin is 200%.

1 portion = 2 PANCAKES

PICTURE 15: www.renaissance.co.rs



Pancakes

Chart 2: Pancakes with plazma and whipped cream

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
flour	kg	0.5	40	20
egg	piece	6	10	60
milk	l	0.5	100	50
minral water	l	0.2	25	5
salt	kg	optionally	40	0
sunflower oil	l	0.2	100	20
plazma	kg	0.25	500	125
whipped cream	l	0.6	600	100
chocolate dressing	kg	0.3	1000	300
IN TOTAL:				680

* The purchase price for 10 people, with no margin and VAT:

10 portions = 680din

Given the planned margin of 200%, is calculated as follows:

10 portions + 200%margin = 680din + 1360din = 2040din

- Price of preparing pancakes with planned margin of 200% (20 pieces), excluding VAT, is 2040din for 10 people, which means that one portion equals:

2040din / 10 = 204din

- Price including VAT, one portion(2 pieces) pancakes with whipped cream and plazma, is:

204din + 204din20%VAT = 204din + 40.8din = 244.8din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

680 din + 200% margin (1360din) = 2040din + 20% VAT (408din) = 2448din

Price for 10 portions is 2448 dinars, which implies that the sale price for a portion servings of pancakes with whipped cream and plazma is 244.8 dinars.

It is recommended to prices being rounded up.

E.g. 240 or 250 dinars.

7.1.2. Espresso

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of one espresso, if the margin is 400%.

Chart 3: Espresso

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
espresso	kg	0.01	1000	10
sugar	kg	0.01	100	1
water	l	0.1	-	-
IN TOTAL:				11

* Purchase price of one espresso, without margins and VAT, amounts to = 11 dinars.

Given the planned margin of 400%, is calculated as follows:

1 espresso + 400%margin = 11din + 44din = 55din

- The price of an espresso with a margin of 400%, excluding VAT, amounts to = 55din.

- Prices including VAT, one espresso is:

55din + 55din20% VAT = 55din + 11din = 66din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

11 din + 400% margin (44din) = 55din + 20% VAT (11din) = 66din

Prices for one espresso is 66 din.

It is recommended to prices being rounded up.

E.g. 60 or 70 dinars.

7.1.3. A bottle of Coca Cola 0.33l

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of a bottle of Coca Cola 0.33l, if the margin is 150%

Chart 4: Bottle of Coca-Cola

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
Coca Cola	bottle	0.33l	40	40
			IN TOTAL:	40

* The purchase price of a bottle of Coca Cola 0.33l, without margins and VAT, amounts to = 40 dinars.

Given the planned margin of 150%, is calculated as follows:

1 bottle + 150%margin = 40din + 60din = 100din

- The price of a bottle of Coca Cola 0.33l with a margin of 150%, excluding VAT, amounted = 100 dinars.

- Prices including VAT, for one bottle of Coca Cola 0.33l is:

100din + 100din20%VAT = 100 din + 20din = 120din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

40din + 150% margin (60 din) = 100 din + 20% VAT (20din) = 120din

Price of one bottle of Coca Cola 0.33l is 120 din.

It is recommended to prices being rounded up.

E.g. 120 or 150 dinars.

7.1.4. Tequila - shot 0.03l

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of a cup of tequila 0.03l, if the margin is 300%.

One bottle of tequila has 23 shots of 0.03l.

Chart 5: Tequila shot

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
tequila	shot	033.1	800	24
lemon	kg	0.03	100	3
salt	kg	optionally	40	0
IN TOTAL:				27

* Purchase price for 0.03 shot of tequila, without margins and VAT, amounts to 27 dinars.

Given the planned margin of 300%, is calculated as follows:

1 cup + 300%margin = 27din + 81din = 108din

- The price of 0.03shot of tequila with a margin of 300%, excluding VAT, amounted = 108din.

- Prices including VAT, for one 0.03shot of tequila equals:

108din + 108din20%VAT = 108din + 21.6din = 129.6din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

27 din + 300% margin (81din) = 108din + 20% VAT (21.6din) = 129.6din

Price for single shot of tequila is 129.6 din.

It is recommended to prices being rounded up.

E.g. 130 or 150 dinars.

7.1.5. Jelen beer 0.5l

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of a bottle of "Jelen" beer 0.5l, if the margin is 100%.

Chart 6: Jelen beer

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
Jelen beer	bottle	0.5l	50	50
IN TOTAL:				50

* Purchase price for bottle of "Jelen" beer 0.5l, with no margin and VAT, amounts to = 50 dinars.

Given the planned margin of 100%, is calculated as follows:

1 bottle + 100% margin = 50din + 50din = 100din

- The price of a bottle of "Jelen" beer 0.5l with a margin of 100%, excluding VAT, amounted = 100 dinars.

- Prices including VAT, for bottle 0.5l of "Jelen" beer is:

100din + 100din 20% VAT = 100 dinars + 20din = 120din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

50 din + 100% margin (50din) = 100 din + 20% VAT (20din) = 120din

Price for a bottle 0.5l of "Jelen" beer is 120 dinars.

It is recommended to prices being rounded up.

E.g. 120 or 150 dinars.

7.1.6. Sandwich roll with smoked ham

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of a sandwich roll with smoked ham, if the margin is 200%.

Chart 7: Sandwich roll with smoked ham

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
roll	piece	1	10	10
margarine	kg	0.01	150	1.5
smoked ham	kg	0.03	500	15
cheese	kg	0.01	250	2.5
tomatoe	kg	0.02	30	0.6
lettuce	kg	0.02	50	1
mayonnaise	kg	0.02	200	4
IN TOTAL:				34.6

* Purchase price for a sandwich rolls with smoked ham without margins and VAT amount = 34.6 dinars.

Given the planned margin of 200%, is calculated as follows:

1 sandwich + 200%margin = 34.6din + 69.2din = 103.8din

- The price of a sandwich roll with smoked ham with a margin of 200%, excluding VAT, amounted = 103.8din.

- Price including VAT, for a sandwich roll with smoked ham is:

103.8din + 103.8din20%VAT = 103.8din + 20.76din = 124.56din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

34.6din + 200% margin (69.2din) = 103.8din + 20% VAT (20.76din) = 124.56din

Price for a sandwich roll with smoked ham is 124.56 dinars.

It is recommended to prices being rounded up.

E.g. 120 or 130 or 150 dinars.

7.1.7. Breakfast - three eggs

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of a breakfast - three eggs, if the margin is 200%.

Chart 8: Breakfast - three eggs

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
egg	piece	3	10	30
bread	kg	0.05	40	2
salt	kg	optionally	40	-
sunflower oil	l	0.05	100	5
IN TOTAL:				37

* Purchase price for breakfast - three eggs without margins and VAT, amounts to = 37 dinars.

Given the planned margin of 200%, is calculated as follows:

1 breakfast +200% margin = 37din + 74din = 111din

- The price of breakfast - three eggs with a margin of 200%, excluding VAT, amounted = 111din.

- Price including VAT, for breakfast - three eggs is:

111din + 111din20%VAT = 111din + 22.2din = 133.2din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

37 din + 200% margin (74din) = 111din + 20% VAT (22.2din) = 133.2din

Price for breakfast - three eggs is 133.2 dinars.

It is recommended to prices being rounded up.

E.g. 130 or 150 dinars.

7.1.8. Barbecue – Cheeseburger

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of a barbecue - Cheeseburger, if the margin is 200%.

Chart 9: Barbecue – Cheeseburger

Ingredients	Unit measure	of	Amount	Single price in dinars	Price spent in dinars
bun	piece		1	10	10
meet	kg		0.1	250	25
cheese	kg		0.01	250	2.5
pickles	kg		0.02	150	3
ketchup	kg		0.01	150	1.5
salt	kg		optionally	40	-
pepper	kg		optionally	700	-
sunflower oil	l		0.03	100	3
mayonnaise	kg		0.01	200	2
IN TOTAL:					47

* Purchase price for barbecue - Cheeseburger with no margins and VAT, amounts to = 47 dinars.

Given the planned margin of 200%, is calculated as follows:

1 cheeseburger + 200%margin = 47din + 94din = 141din

- Price for barbecue - Cheeseburger with a margin of 200%, excluding VAT, amounted = 141din.

- Price including VAT, for barbecue - Cheeseburger is:

141din + 141din20%VAT = 141din + 28.2din = 169.2din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

47 + 200% margin (94din) = 141din + 20% VAT (28.2din) = 169.2din

Prices for barbecue - Cheeseburger is 169.2 dinars.

It is recommended to prices being rounded up.

E.g. 170 or 200 dinars.

7.1.9. Serbian salad

PICTURE 16: www.restorandren.com

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of one portion of Serbian salad, if the margin is 200%.

Chart 10: Serbian salad



Serbian salad

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
tomatoe	kg	0.15	30	4.5
cucumber	kg	0.15	100	15
onion	kg	0.05	40	2
cheese	kg	0.02	250	5
sunflower oil	l	0.02	100	2
vinegar	l	0.02	100	2
salt	kg	optionally	40	-
pepper	kg	optionally	700	-
IN TOTAL:				30.5

* Purchase price for portion of “Serbian salad” without margins and VAT amount = 30.5 dinars.

Given the planned margin of 200%, is calculated as follows:

1 salad + 200%margin = 30.5din + 61din = 91.5din

- Price for portion of “Serbian salad” with a margin of 200%, excluding VAT, amounted = 91.5din.

- Prices including VAT, for portion of “Serbian salad” is:

91.5din 91.5din20% + VAT = 91.5din + 18.3din = 109.8din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

30.5 + 200% margin (61din) = 91.5din + 20% VAT (18.3din) = 109.8din

Prices for portion of “Serbian salad” amounts to about 109.8 dinars.

It is recommended to prices being rounded up.

E.g. 110, 120 or 150 dinars.

7.1.10. Fried cheese

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of one portion of Fried cheese, if the margin is 200%.

Chart 11: Fried cheese

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
cheese	kg	0.1	250	25
flour	kg	0.05	40	2
egg	piece	1	10	10
breadcrumbs	kg	0.05	100	5
sunflower oil	l	0.2	100	20
salt	kg	optionally	40	-
mayonnaise	kg	0.025	200	5
IN TOTAL:				67

* The purchase price of fried cheese with no margins and VAT, amounts to = 67 dinars.

Given the planned margin of 200%, is calculated as follows:

1 portion + 200%margin = 67din + 134din = 201din

- Price for portion of fried cheese with a margin of 200%, excluding VAT, amounted = 201din.

- Price including VAT, for portion is as follows:

201din + 201din20%VAT = 201din + 40.2din = 241.2din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

67din + 200% margin (134din) = 201din + 20% VAT (40.2din) = 241.2din

Price for one portion of fried cheese is amounted to about 241.2 dinars.

It is recommended to prices being rounded up.

E.g. 240 or 250 dinars.

7.1.11. Family pizza - Vojvodanka

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of a family pizza – Vojvodanka, if the margin is 200%.

Chart 12: Pizza Vojvodanka

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
cheese	kg	0.2	250	50
ham	kg	0.15	250	37.5
bacon	kg	0.05	300	15
sausage	kg	0.05	500	25
ketchup	kg	0.2	150	30
mushrooms	kg	0.1	150	15
olives	kg	0.05	200	10
flour	kg	0.5	40	20
salt	kg	0.02	40	0.8
yeast	kg	0.04	500	20
water	l	0.25	-	-
oregano	kg	0.01	200	2
sunflower oil	l	0.1	100	10
IN TOTAL:				235.3

* Purchase price for family pizza – Vojvodanka, without margins and VAT, amounts to =235.3 dinars.

Given the planned margin of 200%, is calculated as follows:

1 pizza + 200%margin = 235.3din + 470.6din = 705.9din

- Price for family pizza - Vojvodanka with margin of 200%, excluding VAT, amounted = 705.9din.

- Price with VAT for family pizza - Vojvodanka is:

705.9din + 705.9din20%VAT = 705.9din + 141.18din = 847.08din

Mathematical shown: The purchase price + target margin + VAT = SELLING PRICE

235.3din + 200% margin (470.6din) = 705.9din + 20% VAT (141.18din) = 847.08din

Price for family pizza - Vojvodanka is 847.08 dinars.

It is recommended to prices being rounded up.

E.g. 840 or 850 or 900 dinars.

7.1.12. Chicken special + gratis French fries

On the primary norms and the purchase prices of ingredients consumed, we shall calculate the selling price of a large portion of chicken special + gratis French fries, if the margin is 250%.

PICTURE 17:
<http://tummytyran>



Chicken special

Chart 13: Chicken special

Ingredients	Unit of measure	Amount	Single price in dinars	Price spent in dinars
chicken file	kg	0.15	300	45
onion	kg	0.015	40	0.6
mushrooms	kg	0.02	150	3
cheese	kg	0.025	250	6.25
sunflower oil	l	0.05	100	5
salt	kg	optionally	40	-
pepper	kg	optionally	700	-
potato	kg	0.1	40	4
soy sauce	l	0.01	1000	10
IN TOTAL:				78.85

* Purchase price for "Chicken Special" (large portion) + free fries without margins and VAT amount = 78.85 dinars.

Given the planned margin of 250%, is calculated as follows:

1 Special + 250% margin = 78.85din + 197.125din = 275.975din

- Price for "Chicken Special" (large portion) + free fries with a margin of 250%, excluding VAT, amounted = 275.975din.

- Prices with VAT for "Chicken Special" (large portion) + free fries is:

275.975din + 275.975din 20% VAT = 275.975din + 55.195din = 331.17din

Mathematical shown:

The purchase price + target margin + VAT = SELLING PRICE

78.85din + 250% margin (197.125din) = 275.975din + 20% VAT (55.195din) = 331.17din

Price for "Chicken Special" (large portion) + free fries is 331.17 dinars.

It is recommended to prices being rounded up.

E.g. 330 or 350 dinars.

8. Balance Sheet

Date 1. III 2016. year

SOURCE: Internal documentation of the "Aqua Caffe & Food" restaurant & <http://www.apr.gov.rs> - IN THOUSANDS OF DINARS -

Group accounts	POSITION	AD P	Note number	Amount		
				2015.	2014.	
					Closing balance ____ 20__.	Initial state 01.01.20__.
1	2	3	4	5	6	7
	ASSETS					
00	A. ENROLLED BUT UNPAID CAPITAL	0001			0	
	B. FIXED ASSETS (3 + 10 + 19 + 24 + 34)	0002			0	
01	I. INTANGIBLE ASSETS	0003			0	
02	II. PROPERTY, PLANT AND EQUIPMENT	0010		18000	0	
03	III. BIOLOGICAL RESOURCES	0019			0	
04. except 047	IV. LONG-TERM INVESTMENTS	0024			0	
05	V. LONG-TERM RECEIVABLES	0034			0	
288	C. DEFERRED TAX ASSETS	0042			0	
	D. CURRENT ASSETS (44 + 51 + 59 + 60 + 61 + 62 + 68 + 69 + 70)	0043		300	0	
Class 1	I. INVENTORIES	0044		300	0	
20	II. RECEIVABLES FROM SALE	0051			0	
21	III. Receivables from specific products	0059			0	
22	IV. OTHER RECEIVABLES	0060			0	
236	V. FINANCIAL RESOURCES TO BE MEASURED AT FAIR VALUE THROUGH PROFIT OR LOSS	0061			0	
23 except 236 & 237	VI. SHORT-TERM INVESTMENTS	0062			0	

Group accounts	POSITION	ADP	Note number	Amount		
				2015.	2014.	
					Closing balance ____ 20__.	Initial state 01.01.20__.
1	2	3	4	5	6	7
24	VII. CASH AND CASH EQUIVALENTS	0068			0	
27	VIII. VALUE ADDED TAX	0069			0	
28 except 288	IX. ACCRUED	0070			0	
	E. TOTAL OPERATING ASSETS (0001 + 0002 + 0042 + 0043)	0071		18300	0	
88	F. OFF-BALANCE SHEET ASSETS	0072			0	
	LIABILITIES					
	A. CAPITAL (0402 + 0411 - 0412 + 0413 + 0414 + 0415 - 0416 + 0417 + 0420 - 0421) ≥ 0 = (0071 - 0424 - 0441 - 0442)	0401		17900	0	
30	I. SHARE CAPITAL	0402			0	
31	II. ENROLLED BUT UNPAID CAPITAL	0411			0	
047 & 237	III. TREASURY SHARES	0412			0	
32	IV. RESERVES	0413			0	
330	V. REVALUATION ON RESERVES BASED ON THE REVALUATION OF INTANGIBLE ASSETS, PROPERTY, PLANT AND EQUIPMENT	0414			0	
33 except 330	VI. UNREALIZED GAINS FROM SECURITIES AND OTHER COMPONENTS OF OTHER COMPREHENSIVE RESULTS (credit balance accounts of group 33 except 330)	0415			0	
33 except 330	VII. UNREALIZED LOSSES ON SECURITIES AND OTHER COMPONENTS OF OTHER COMPREHENSIVE RESULTS (debit balance of the accounts of group 33 except 330)	0416			0	
34	VIII. RETAINED EARNINGS	0417		17900	0	
	IX. NON-CONTROLLING INTERESTS	0420			0	

35	X. LOSS	0421			0	
	B. LONG-TERM PROVISIONS AND LIABILITIES (425 + 432)	0424			0	
40	I. LONG-TERM PROVISIONS	0425			0	
41	II. LONG-TERM LIABILITIES	0432			0	
Group accounts	POSITION	ADP	Note number	Amount		
				2015.	2014.	
					Closing balance ____ 20__.	Initial state 01.01.20__.
1	2	3	4	5	6	7
498	C. DEFERRED TAX LIABILITIES	0441			0	
42 - 49 (except 498)	D. CURRENT LIABILITIES (443 + 450 + 451 + 459 + 460 + 461 + 462)	0442			0	
42	I. CURRENT LIABILITIES	0443		300	0	
430	II. ADVANCES AND DEPOSITS	0450			0	
43 except 430	III. BUSINESS DUTIES	0451		100	0	
44, 45 & 46	IV. OTHER CURRENT LIABILITIES	0459			0	
47	V. LIABILITIES FOR VALUE ADDED TAX	0460			0	
48	VI. OTHER TAXES, CONTRIBUTIONS AND OTHER FEES	0461			0	
49 except 498	VII. ACCRUALS	0462			0	
	E. LOSS OVER THE CAPITAL (412 + 416 + 421 - 420 - 417 - 415 - 414 - 413 - 411 - 402) ≥ 0 = (441 + 424 + 442 - 71) ≥ 0	0463			0	
	F. TOTAL LIABILITIES (424 + 442 + 441 + 401 - 463) ≥ 0	0464		18300	0	
89	G. OFF BALANCE SHEET LIABILITIES	0465			0	

IN Novi Sad

The legal representative

N. N.

C. S.

Date 1. III 2016. year

Form prescribed by Regulations on content and form of financial statements for companies, cooperatives and entrepreneurs.

9. Income Statement

For the period 1. I 2015 - 31. XII 2015. year

SOURCE: Internal documentation of the "Aqua Caffe & Food" restaurant & <http://www.apr.gov.rs> - IN THOUSANDS OF DINARS -

Group accounts	POSITION	ADP	Note number	Amount	
				2015.	2014.
1	2	3	4	5	6
	INCOME FROM OPERATIONS				0
60 - 65, except 62 & 63	A. OPERATING INCOME (1002 + 1009 + 1016 + 1017)	1001		7300	0
60	I. INCOME FROM SALE OF GOODS	1002			0
61	II. SALES OF PRODUCTS AND SERVICES	1009		6000	0
64	III. INCOME FROM PREMIUMS, SUBSIDIES, GRANTS, DONATIONS AND SIMILAR	1016			0

65	IV. OTHER OPERATING INCOME	1017		1300	0
	EXPENSES				0
50 - 55, 62 & 63	B. BUSINESS EXPENSES $(1019 - 1020 - 1021 + 1022 + 1023 + 1024 + 1025 + 1026 + 1027 + 1028 + 1029) \geq 0$	1018		3700	0
50	I. COST OF GOODS SOLD	1019			0
62	II. EVENUES FROM ACTIVATION OF GOODS AND EFFECTS	1020			0
630	III. INCREASE IN VALUE STOCKS OF UNFINISHED AND FINISHED PRODUCTS AND UNFINISHED SERVICES	1021			0
631	IV. DECREASE IN VALUE STOCKS OF UNFINISHED AND FINISHED PRODUCTS AND UNFINISHED SERVICES	1022			0
51 except 513	V. COST OF MATERIALS	1023		1090	0

513	VI. COST OF FUEL AND ENERGY	1024		700	0
52	VII. SALARIES, WAGES AND OTHER PERSONNEL EXPENSES	1025		1750	0
53	VIII. COSTS OF PRODUCTION	1026			0
540	IX. DEPRECIATION	1027			0
541 – 549	X. COSTS OF LONG-TERM PROVISIONS	1028			0
55	XI. INTANGIBLE COSTS	1029		160	0
	C. OPERATING PROFIT (1001 - 1018) ≥ 0	1030		3600	0
Group accounts	POSITION	ADP	Note number	Account	
				2015.	2014.

1	2	3	4	5	6
	D. BUSINESS LOSS (1018 - 1001) ≥ 0	1031			0
66	E. FINANCIAL INCOME (1033 + 1038 + 1039)	1032			0
66, except 662, 663 & 664	I. FINANCIAL REVENUES FROM RELATED PERSONS AND OTHER FINANCIAL INCOME	1033			0
662	II. INTEREST INCOME (FROM THIRD PARTIES)	1038			0
663 & 664	III. FOREIGN EXCHANGE GAINS AND POSITIVE EFFECTS OF CURRENCY CLAUSE (BY THIRD PARTIES)	1039			0
56	F. FINANCIAL EXPENSES (1041 + 1046 + 1047)	1040			0
56, except 562, 563 & 564	I. FINANCIAL EXPENSES RELATED PARTIES AND OTHER FINANCIAL EXPENSES	1041			0
562	II. INTEREST EXPENSES (BY THIRD PARTIES)	1046			0

563 & 564	III. FOREIGN EXCHANGE GAINS AND NEGATIVE EFFECTS OF CURRENCY CLAUSE (BY THIRD PARTIES)	1047			0
	G. PROFIT FROM FINANCING (1032 - 1040)	1048			0
	H. LOSS FROM FINANCING (1040 - 1032)	1049			0
683 & 685	I. INCOME FROM ADJUSTMENTS OF VALUE OF OTHER ASSETS CARRIED THROUGH THE FAIR VALUE EXPRESSED IN INCOME STATEMENT	1050			0
583 & 585	J. LOSS FROM ADJUSTMENTS OF VALUE OF OTHER ASSETS CARRIED THROUGH THE FAIR VALUE EXPRESSED IN INCOME STATEMENT	1051			0
67 & 68, except 683 & 685	K. OTHER INCOME	1052			0
57 & 58, except 583 & 585	L. OTHER EXPENSES	1053			0

	M. PROFIT FROM OPERATIONS BEFORE TAX (1030 - 1031 + 1048 - 1049 + 1050 - 1051 + 1052 - 1053)	1054		3600	0
	N. LOSS FROM OPERATIONS BEFORE TAX (1031 - 1030 + 1049 - 1048 + 1051 - 1050 + 1053 - 1052)	1055			0
69-59	O. NET PROFIT FROM DISCONTINUED OPERATIONS, THE EFFECTS OF CHANGES IN ACCOUNTING POLICIES AND CORRECTION OF ERRORS FROM PREVIOUS PERIOD	1056			0
59-69	P. NET LOSS FROM DISCONTINUED OPERATIONS, COSTS ACCOUNTING POLICY CHANGES AND CORRECTIONS OF PRIOR PERIOD	1057			0
	Q. PROFIT BEFORE TAX (1054 - 1055 + 1056 - 1057)	1058		3600	0

	R. LOSS BEFORE TAX (1055 - 1054 + 1057 - 1056)	1059			0
	S. INCOME TAXES				0
721	I. INCOME TAX EXPENSE	1060		540	0
part 722	II. DEFERRED TAX EXPENSE	1061			0
part 722	III. DEFERRED INCOME TAX	1062			0

Group accounts	POSITION	ADP	Note number	Account	
				2015.	2014.
1	2	3	4	5	6
723	T. EARNINGS EMPLOYER	1063			0
	U. NET PROFIT (1058 - 1059 - 1060 - 1061 + 1062 - 1063)	1064		3060	0
	V. NET LOSS (1059 - 1058 + 1060 + 1061 - 1062 + 1063)	1065			0

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10. The break-even (value breakpoint)

* Value-based break-even point (VPT) shows the value of production in which total revenues equal total expenditures, it is called dead point, above which company is in the profit zone, and if they had operated below that point, the company would move into the statement zone (Čerović, 2014).

* In calculating the value breakpoint, it is necessary to separate costs on a fixed and on a variable component (Čerović, 2014).

Variable costs → vary with the volume of production

Fixed costs → do not vary with the volume of production

TOTAL OUTCOME = Total fixed costs + Total variable costs (Čerović, 2014).

- **Total fixed costs** = Expenses (bills + salaries) = **2.5 million dinars**

- **Total variable costs** = Purchase of goods and drinks + each year expenditure on paintwork, inventory, advertising and other repairman interventions = **1.2 million dinars**

Total expenditures + 2.5 million dinars + 1.2 million dinars = **3.7 million dinars**

TOTAL INCOME = annual income from the operation of café around 6 million dinars + from renting 1.3 million dinars = **7.3 million dinars**

RATE VARIABLE COSTS = %

$$\frac{\text{Total variable costs} * 100}{\text{Total income}} = \frac{1200000 * 100}{7300000} = \mathbf{16.438356}$$

Break-even point expressed in value units (in RSD) is calculated using the following equation (Čerović, 2014):

- The possibility of sufficiently accurate identification of particular fixed and variable costs in particular,
- Proportional to the change in variable costs in comparison to the volume of business,
- Coincidence of the scope and range of production and realization (i.e. that the stocks of finished products at the end of an accounting period does not significantly differ from the stocks at the beginning of the period)
- "Time value of money" effect isn't taken into account.

$$\text{BEP} = \frac{\text{FC} \times 100}{100 - \%VC} = \frac{2500000 \times 100}{100 - 16.438356} = 2991803.27$$

Where is:

- BEP - the break-even point in dinars,
- FC - the amount of fixed costs,
- % VC - percentage share of variable costs in the sales price or total revenue (Čerović, 2014).

Break-even point expressed in quantity unit of measure (for example, in pieces) is calculated using the following equation:

$$\text{BEP} = \frac{\text{FC}}{\text{CI}} = \frac{2500000}{69.86} = 3578585.74 \text{ dinara}$$

Where is:

- BEP - a break-even point in the quantity unit of measure,
- FC - the amount of fixed costs,
- CI - contribution income per measure unit, represents difference between the selling price and variable costs per unit of product (Čerović, 2014).

*This type of analysis and calculation is not possible when we are talking about restaurant. This is just an example.

11. Cost-Volume-Profit Analysis (cvp analysis)

- Business decisions based on data accounting management are based on monitoring (Čerović, 2014):

- Cost
- Revenue/Volume
- Profit

- The main tool here is **Cost-volume-profit** analysis.

Costs (Čerović, 2014):

- 1. Fixed
- 2. Variable

* Fixed costs in a given period arise regardless of the company's activity, as the character of the costs as general fixed costs:

- A) primary costs (depreciation, insurance, external service providers, etc.), and
- B) secondary costs (services of utilities and facilities, administrative services, services of heating boiler rooms etc.).
- Provocateurs of costs: Organizational technical ability

- Fixed costs do not change when there is a change in the inducer.

* Variable costs- are associated with the performance of activities of company which are in proportion to the volume of activity of enterprise and they emerge as:

- A) individual VC (costs of basic and auxiliary materials and special charges - for example, costs of production preparation)
- B) general variable costs:
 - Primary VC
 - Secondary VC
- Provocateurs of costs: Production services and cost.

- Variable costs change proportionately with the change in the cost inducer (SCOPE PRODUCTION AND SALE).

- The cost behavior is the ratio of costs and activities that cause costs.

- Provocateurs of costs are measures of spending resources or activities (hours of work, the number of units produced, labor costs per hour, mechanical meter, etc.).

Business decisions based on data accounting management are mainly based on monitoring of the cost, revenue and profit. Therefore, as one of the basic tools used for planning managers benefit analysis of the cost-volume-profit (the so-called CVP analysis). To understand the relationship of income, expenses and profit we will briefly point out some of their characteristic proportions: at the beginning of the accounting period the company is faced with the amount of fixed costs that will arise in the accounting period, regardless of the level of activity of the enterprise. These fixed costs can be compensated only through generated incomes (Paunović, 2009).

With the realization of the product, generated income is proportional to the extent of implementation (the level of income directly depends on the level of sales prices and volume of realization).

However, it cannot be used the entire amount of income to cover fixed costs, because with performing the activity occur variable costs that are proportional to the scope of activities (the level of variable costs directly depends of the volume of business and the amount of variable costs per unit of performance).

If the selling prices are higher than the variable costs per unit of product company can through generated incomes cover all variable costs and use the remaining amount for compensation for fixed costs –if company will be able to reimburse all fixed costs depends on amount, difference between sale price and variable costs per unit of product and volume of realization (Paunović, 2009).

There are various situations. Some of them are:

- The company cannot achieve with sale price compensation variable costs per unit of product. Then the company presents loss (the company presents contribution loss as well)
- Difference between sale price and variable costs per unit of production isn't large enough or required number of products isn't sold so it isn't possible to cover all fixed costs and the company presents loss (amount of contribution margin of profit is less than amount of fixed costs)
- The difference between the sales price and variable costs per unit is large enough so that it can cover all fixed costs, so company realizes profit (amount of the contribution margin of profit is greater than the amount of fixed costs).

Analysis of the cost-income-profit entails a determination of the so-called breakpoint. Breakpoint particular accounting period is defined as the volume of production in which the amount of income equals the sum of fixed costs of the accounting period and variable costs incurred due to income - gain is on that extent of realization equal zero dinars (Paunović, 2009).

The above definition of breakpoints can conclude that it is:

1. Always determined for a certain period of time and
2. May be carried in:
 - Quantity unit of measure, as the volume of sales or
 - In value of unit (as the amount of income).

Break-even point can be carried in the unit of measure if the company produces and sells only one type of product or when it comes to increasing the number of products, the necessary condition is that there is a possibility that it demonstrates the conditional equivalent amount. When planning the break-even point, it is necessary to be acquainted with the following assumptions (Paunović, 2009):

- Constancy of sales prices of products and services of the company, as well as the immutability of input price factors of business,
- The possibility of accurate identification of particular fixed and particular variable costs,
- Proportional change in variable costs observed through the volume of business,
- Coincidence of the scope and range of production and realization (i.e. that the stocks of finished products at the end of an accounting period does not significantly differ from the stocks at the beginning of the period)
- "Time value of money" effect isn't taken into account.

The yearly income of cafe is about 6 million dinars and the expenditures of accounts, salaries and procurement of goods and drinks are amounted to 3.5 million. From renting, café achieves annual income of 1.3 million dinars. Every year there are expenditures that go on painting, inventory, advertising and other repairs and that sums about 200 thousand ... In other words, total income of "Aqua Cafe & Food" restaurant is 7.3 million, while total expenses of the Company are 3.7 million dinars. When the sum of the total income is reduced for the sum of the total costs, it comes up to the sum of around 3.6 million, which represents an annual profit of the restaurant.

12. Net present value

A very important thing, as finance is concerned, represents a net present value, NPV. This method is based on determining the net present value, which represents the difference between the current value and invested capital. The investment project is acceptable when the present value is positive, > 0 . The negative present value means that the implementation of this project has led to reducing the initial capital value, while the added value, which can be realized on the basis of investments in projects with positive NPV, affects the capital increase (Čerović, 2014).

The NPV is directly aimed at understanding the increase of own capital, and each investment project is evaluated on the basis of invested capital and the expected return cash in the future, which is always linked with a certain degree of risk. The current value is determined based on the cash flow that will be achieved in the future and the interest rates at which they can provide the necessary resources for investment. To determine the present value of the project, the procedures discounting all future cash flows on the basis of certain project (Čerović, 2014).

NPV – Net Present Value

$$\mathbf{NPV = PVNCF - NINV}$$

PVNCF - the present value of cash flows

NINV - net investments

12.1. Formula (Čerović, 2014).

$$NPV = \sum_{t=1}^n \frac{A_n}{(1+i)^n} - NINV$$

PV factor = df factor

PVC = Present value of future cash flows

A = annual net annuity cash flow

Given the (period, cash flow) pairs (n, A_n) where n is the total number of periods, the net present value NPV is given by:

PV - the present value of projected future cash flows.

$PV = 7\,300\,000 \times 1/1.05 = 7\,300\,000 \times 0.95238095 = 6\,952\,380.94$ dinars.

* At one-year bills the National Bank offers an interest rate of 5%.

Initial investment = 3 000 000 – I've used the sum from the Break-even analysis.

$NPV = PV - \text{initial investment} = 6\,952\,381 - 3\,000\,000 = 3\,952\,381$ dinars

Many tourism projects, particularly those involving hotels, will have the expected service life that extends to 10, 20 or more years, but the principle is the same. In the case of extended periods of time, it is necessary to see the need for periodic injections of capital for replacement or renewal. They will, however, simply to reduce the net inflow in the years when they occur, and can be easily inserted into the assessment procedures. Projects with a positive NPV should be accepted, but those with negative NPV must be refused. When discounting a rate of return which the company seeks (which is equal to its cost of capital), the prime NPV suggests that investors will not be on loss if private project, but will not increase your wealth. In that case, they would not care whether it accepts or rejects (indifference) and such a project is acceptable if it is necessary at other facilities provided to the project (Čerović, 2014).

Chart 14: NPV Source: Čerović, 2014.

	Meaning	Result
NPV > 0	project acceptable	investment gains value
NPV < 0	project is not acceptable.	investment subtracts value
NPV = 0	indifference	investment would neither gain nor lose value

Access via the net present value NPV is better than the traditional, overly simple methods such as the method of return period or the average rate of return because it takes into account the size and time of cash flows over the expected life of the project.

13. Ratio analysis

- Ratio analysis is the product of various financial statements, and its importance is reflected primarily in the fact that it summarizes the key relationships and results that indicate the financial performance of the company (Čerović, 2014).

- Ratio analysis is a practical way of control in the process of fund management of the company, as it provides the following. (a) Consideration of trends in the financial operations of the company; (b) Comparison of the various financial characteristics of different companies (c) Determining the interdependence of the factors that influence the financial success of the company (Čerović, 2014).

- Putting in relation to each other's balance sheet positions, regarding one financial parameter with the other, it is possible to consider certain financial aspects of the company, which in fact constitutes the fundamental essence of ratio analysis (Čerović, 2014).

The main purpose of determining the financial "ratio numbers" (indicators) is to provide "assistance" to enterprise management in planning, control and decision making. The result is the existence of so-called "universal ratios" that are determined and monitored in all businesses, regardless of the industry.

- Ratio numbers represent relation of one balance sheet to other, expressed in formula. These relations can be used to assess the financial position of the company as well as for the assessment of business management.

- Depending on the need, ratio numbers can be classified into several overarching group of financial indicators. In addition, there is generally accepted and uniform classification of ratio numbers.

- For the purpose of financial analysis, are commonly used the following main groups of financial indicators (ratio numbers) which are extracted from the balance sheet (Ivaniš, 2009):

- 1) Ratio of activities
- 2) Ratio of profitability
- 3) Ratio of economy
- 4) Ratio of liquidity

13.1. Indicators of (ratios) activity (Čerović, 2014)

Indicators of activities reflect the characteristics of the procurement and sales process. The most important indicators of this type are:

1. Velocity of customers.
2. Velocity of suppliers.

Velocity of customers- shows how much is the company's total income during the year towards one money unit of uncollected balances from customer demands.

Velocity of customers= total income/demands from customers

$$= 7\,300\,000/350\,000 = \mathbf{20.85714285}$$

* Demands from customers- cheques or open tap

Open tap - when someone drink or eats for free and then pays at the end of the month.

Average time of payment

$$= 360/\text{Velocity of customers} = 360/20.85714285 = \mathbf{17.26027397}$$

Velocity of suppliers - shows how one money unit of unpaid amounts of due to suppliers reflects total value of purchases on credit, and is determined by the formula:

$$\mathbf{\text{Velocity of suppliers} = \text{cost of purchase on deferred payment} / \text{average balance of supplier} = 300\,000 / 100\,000 = 3}$$

$$\mathbf{\text{Average time of payment} = 360 / \text{velocity of suppliers} = 360 / 3 = 120}$$

13.2. Indicators of (ratios) profitability (Čerović, 2014)

Analysis of profitability uses two sets of indicators. The first group consists of indicators that are used in the income statement, while expressing partial profitability. The most important indicators of this group are:

$$\text{Rate of business profit} = (\text{gross profit} + \text{interest costs}) / \text{total income} = (3\,600\,000 + 300\,000) / 7\,300\,000 = 3\,900\,000 / 7\,300\,000 = \mathbf{0.5342465}$$

$$\text{Rate of net profit} = \text{net profit} / \text{total income} \text{ (Ninemeier, 2000: 339)}$$

$$= 3\,060\,000 / 7\,300\,000 = \mathbf{0.41917808}$$

$$\text{Coefficient of efficiency} = \text{total income} / \text{total outcome} = 7\,300\,000 / 3\,700\,000 = \mathbf{1.97277297}$$

The second group consists of global indicators of profitability, and for their calculation we use data obtained from balance sheet and income statement. The most important ratios of this group are:

$$\text{Rate of income on total assets} = \text{net profit} / \text{average assets} = 3\,060\,000 / 3\,000\,000 = \mathbf{1.02}$$

$$\text{Rate of income on personal assets} = \text{net profit} / \text{average personal assets}$$

$$= 3\,060\,000 / 2\,600\,000 = \mathbf{1.17692308}$$

* Total assets = Average assets

Personal assets = Total assets – (suppliers + interest)

13.3. Indicators of (ratios) economy (Čerović, 2014)

The objective of the financial structure analysis is to assess the relationship of its own and borrowed sources of funding in total operating assets of enterprises. In other words, the ratio of basic positions of balance sheet liabilities.

The data on the financial structure can be obtained with the use of the income statement analysis. It is based on burdening the business income with fixed commitments on behalf of the interest.

The most important financial ratios of this type are:

The ratio of borrowings to total assets= total liabilities/ total sources of funding

$$= 3\,700\,000 / 3\,000\,000 = 1.2333333$$

The ratio of long-term and overall sources= (personal sources of funding + long-term loans)/ total sources of funding = = (2\,600\,000 + 300\,000) / 3\,000\,000 = 2\,900\,000 / 3\,000\,000 = 0.96666666

Coverage ratio interest costs = (gross profit + interest costs)/ interest costs = (3\,600\,000 + 300\,000) / 300\,000 = 3\,900\,000 / 300\,000 = 13

Because there is no borrowed funding, there are no interest costs, so we can't calculate the **Coverage ratio interest costs**.

13.4. Indicators of (ratios) liquidity (Čerović, 2014)

Liquidity, i.e. short-term financial security is the ability of enterprises to: 1) unconditionally 2) on time 3) in the required amount 4) pay outstanding liabilities 5) with the most appropriate means 6) and still have sufficient resources to continue to operate unhindered, without compromising its credit standing 7) provided that the liquid at any point in their business.

13.4.1. Analysis of liquidity (Čerović, 2014):

1. Cash Flow Analysis
2. Liquidity ratio numbers

The liquidity represents ability of the company to quickly settle its current liabilities. For calculating the liquidity ratio, items from the balance sheet relating to current assets and current liabilities of the company are used. Liquidity indicators (Čerović, 2014):

*** Current Ratio**

*** Net working capital**

*** Quick ratio**

Current Ratio can be obtained by dividing the total funds with total short-term liabilities. It shows with how much working capital covered every pennies short-term obligations. Formula to calculate the overall liquidity ratio (Čerović, 2014):

Current ratio = Current assets / Current liabilities

* Typically, the ratio of $2 : 1 = \text{current assets and current liabilities}$, is considered as a good indicator of adequate liquidity.

The net working capital is part of the working capital that remains after cover short-term obligations, and this is an indicator of long-term sources of financing of working capital. This indicator can be calculated (Čerović, 2014):

Net working capital = Current assets - Current liabilities

* Relations liquidity ratio and net working capital (Čerović, 2014):

Current ratio is $> 1 \rightarrow$ Net working capital is > 0

Current Ratio = 1 $\rightarrow$ Net working capital is = 0

Current ratio is $< 1 \rightarrow$ Net working capital is < 0

Net working capital represents an absolute indicator, but it is generally used to analyze trends in several of the observed periods. If there is a tendency of growth it is considered to be a positive change in the long-term sources of financing of working capital.

13.4.2. Reasons for Creating a Cash Flow Budget:

* *Accuracy*

* *Efficiency*

* *Effectiveness*

* *Productivity*

* *Transparency*

* *Simplicity*

* *Reliability*

* *Usefulness*

13.4.3. Cash flow budget - quarter of the year (Čerović, 2014):

Chart 15: Cash flow budget (Data received from financial records of “Aqua Caffè & Food” restaurant.)

Cash inflow	1.	2.	3.	4.
Beginning balance	3000			
Restaurant	15000	20000	10000	15000
Renting locale	2500	2500	1000	7000
Total inflow	20500	22500	11000	22000
Cash expenditures				
Food&Beverage	3000	3000	2000	3500
Wages	4100	4100	4100	4250
Bills	1750	2000	1750	2000
Inventory	200	100		150
Paintwork	150		150	
Advertising	350	250		400
Repairs		150		200
Liabilities	1000	1000	1000	1000
Total expenditures	10550	10600	9000	11500
Quarterly net cash flow	9950	11900	2000	10500
Cumulative net cash flow	9950	21850	23850	34350

Current ratio = Current assets / Current liabilities

CURRENT RATIO =	20500/10550=1.93	22500/10600=2.12	11000/9000=1.22	22000/11500=1.91
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14. Information Systems in the hospitality and restaurant business

14.1. IS in hospitality and restaurant business

In order of achieving product and service quality, adequate attitude towards guests and fulfilling their desire, this applies for all hotels, restaurants and other companies in the tourism industry, it is necessary to have adequate information system that would successfully implemented its operations and achieve success in the market.

The information system (IS) can be defined as a system in which the relationships between objects and connection of the system with the environment are realized by exchanging information. Detailed explanation of concept of information system is to represent basic and integrated set of data, process, interface, network, technology and people interrelated in order to solve problems and improve and support everyday business operations (planning, management, forecasting, decision-making and coordination) (Njeguš, 2010).

Information System represents set of interrelated components which collect, process, store and distribute information in order to support and control decision making in organization (Bagarić, 2010: 157).

General benefits of IS in the enterprise, including hospitality and restaurant business, are following: it provides more information per unit of time and thus increase productivity of appropriate functions in the company; allows to obtain the necessary information at a lower cost, which means that it increases the economy; it helps large and decentralized companies to effectively use feedback information divided in smaller organizational units, which provides more informative integration of large enterprises; allows optimal decisions and better control of the implementation of the plans and actions of companies and others (Čačić, 2010: 311).

The need for information technologies depends on numerous factors which characterize the hospitality and restaurant business. The bigger capacity, number of sectors, transactions, customer frequency, the greater is need for technologies that facilitate management of these processes.

Chart 16: Factors that influence the selection of the system for managing hotel operations

Source: Njeguš, 2010: 150.

Factors	Examples
Location	Urban / capital / peripheral / mountain / the sea / rural
Size	Small / medium / large
Property	Family / chain / State
Price	Exclusive / set / affordable / cheap
Activities	Sports / all-
Services	Hotels / self-service apartments and others.
The reasons for visit – travelers	Vacation / business / conferences / seminars
The reasons for visit – local	Special
Nearness to transport terminals	Airport / port / rail / roads
Market	Youth Youth / accommodation at universities and schools and others.

Many of these factors apply to restaurant companies also, with only small changes: instead of activities we could talk about the types of restaurants: the classic, self-service / express, specialized (national: Italian, Hungarian, Chinese, Japanese, Serbian cuisine, etc., fishing, hunting, vegetarian, etc., fast food, etc.); and as for the service: a la carte and Table d'hote - where guests are served for main meals (breakfast and dinner) with several ready-made dishes (the menu), which are served by a common and established order - and as.

When selecting a system to manage the hotel operations it should be taken into account that it needs to meet the strategic goals of the hotel, including (Njeguš, 2010):

- * Increase of productivity of staff and hotel service
- * Increase of Traffic of the guests and hotel services
- * Reducing operating costs of the hotel and others.

- All this is valid for restaurant business also!

Also, it is very important for IS to be modern and to provide: easy use, servicing clients, integration with other systems, functionality, stability and low cost of equipment and maintenance.

Chart 17: IT in hospitality

Source: Njeguš, 2010.

Infrastructure of the Company	Business Intelligent Systems, Revenue Management Systems, CRM systems, Property Management Systems - back office			
Human Resources Management	Information Staff Systems			
Information	e-Procurement (Electronics supply)			
	Internet (CRS/GDS), HRS, DMS (Interactive TV mobile business)	Enterprise Resource Planning (ERP)	PMS - Front office, Point of Sale systems, Systems for Restaurants Business	Client Database, Internet
	Marketing and distribution	Logistics	Operation services	Aftermarket activities

The modules of the IS for hospitality management and restaurant business, may be classified according to different focuses (Njeguš, 2010):

- Modules facing operations: revenue management, inventory, app for purchases and billing, planning, etc.
- Modules facing activities support: applications for human resources, financial applications, CRM solutions and others.
- Modules service: online booking, interface to the GDS systems and portals of interested parties (stakeholders) and others.
- Modules turn towards customers: booking, POS systems, customer loyalty program, check-in, Web portals, front-office systems etc.

14.2. Property Management System & Computer Reservation System

Two integral components of hotel systems are: Computer Reservation Systems-CRS and Property Management System-PMS. They play important role in market and in terms of cost, because they provide tracking guests, but also the revenue and expenditure positions in business. Both components are in fact parts of the intranet, i.e. internal system in enterprises.

14.2.1. Property Management System – PMS

Property Management System plays a significant role in revenue management of the hotel, monitoring information about guests, overnight stays, inventory management and others. They essentially cover the administration of general planning and specific functions such as accounting, marketing, research and planning, personnel management, centralized control at chain restaurants and others. PMS is one of two basic components for managing hotel operations. It should provide the necessary tools for hotel staff in everyday activities, such as provisioning, check-out guests, manage storage capacity, serving the needs of guests, accounting, control materials and others (Čačić, 2010).

The main functionalities of PMS are (Njeguš, 2010):

1. Operational management of the hotel business which includes:

- Operational planning and decision making (management of hotel operations, reports on transport of the guests, rooms, service, etc.)
- Central management and control of hotel's business (Hotel chain management, unified control, etc.)
- Monitoring hotel's warehouse business (tracking stock, reception and control of goods at the entrance, receipts, delivery notes, etc.)
- Operational maintenance (requisition of tools and materials, manufacturing and order fulfillment of the completed repairs and the calculation of the value of work, making the certificate and return a defective part, etc.)
- Self-directed construction and craft works (planning, realization is the follow-up work, keeping a journal papers, monitoring of material consumption, etc.)
- Maintaining hotel's hygiene (hotel cleaning and storage rooms, maintenance outside the hotel, washing and ironing, etc.)
- Facility Management (management of all devices and activities at the hotel, swimming pools, spa centers, golf, etc.)

2. Accounting and bookkeeping - include business hotel safes, material accountancy at the hotel, an integrated general ledger, support for work with different currencies, multidimensional analysis and others.

3. Front office - Front Desk, includes: serving guests at the reception (provisioning and updating individual, group or business deals), handling deposits, cancellation, confirmation, waiting lists, blocking room, reception and accommodation of guests, services and information, login out, defects, determining billing, printing and giving out receipts, invoicing, system provisioning other hotel activities, rental halls, sports facilities and equipment, tracking valuable goods, luggage and others. Self-service kiosks - check flight, departure, stay etc.

4. Sales&Marketing:

- Sales and orders of services and capacity
- Price Management (comparison and forecasting, statistics, etc.)
- Campaign Management (calendar, email client list, sending promotional material, information about new conditions, etc.)
- Catering and Events (scheduling, providing space and catering services, menu selections and customization, decorations, plan calendar, chronological overview of services, etc.).

5. Human Resources Management – includes tasks of recruitment, conducting seasonal and operational personnel, training of personnel and others. Reporting and business intelligence enables the integration of data from different sources, create reports, ad-hoc analysis, business performance, tracking statistics reservations, finance, guests, marketing, catering etc.

6. Gastro business – includes business of: management of POS (Point of Sale) terminals, orders management, staff, setting the price, type of payment, reporting and others.

14.2.2. Computer Reservation Systems - CRS

Computer Reservation Systems provide an overview of the status and availability of rooms, provision, track customer history (guest history), CRM, interface to the Global Distribution Systems - GDS and others (Čačić, 2010).

The main functionalities of CRS are (Njeguš, 2010):

- **Reservations** - handling all types of reservations (individual, group, business), an overview of availability, price, handling deposits, blocking rooms, changing reservations, canceling reservations, the possibility of provision of transport, restaurants, activities and the like.
- **e-Commerce** – possibility of booking 24/7 and paying electronically, online.
- **Customer Relationship Management(CRM)** – collects/manages information about guests (email, mobile, information about stays, statistics of income, needs, etc.), services pairings (the needs of guests with offers), room service, use of the mini bar, Web services, etc.
- **Global Distribution System** – GDS Interface - the ability to link hotel's databases and GDS system and Web Booking (allows tour operators, travel agencies, internet users and others, to make, change or cancel a reservation.)

15. FOOD & BEVERAGE SYSTEMS

Information systems (IS) management is perhaps the most dynamic field in business. Memory capacity is expanding at an extraordinary rate and new hardware and software systems are becoming available every day. Keeping up with the changes in this field is certainly more than any food and beverage outlet manager or owner can be expected to do. In today's business climate, the ability to use IS for in-depth analysis is essential, even for smaller operations. Where larger corporate or chain operations differ from small stand-alone restaurants is in their need to transmit their data to a wider audience. And while cost was once a major consideration for independent restaurants—especially startup operations—the functional ability of IS software has increased greatly in the past few years and the advent of cloud computing (essentially renting functionality stored on someone else's computer) has also contributed greatly to the availability of highly functional systems for relatively little cost. In any event, the amount of money to be saved by having functional IS is easily greater than the cost (Farrish, 2009).

15.1. Front of House Systems (Farrish, 2009)

Picture 18: Typical POS touch screen (Courtesy of MICROS Systems, Inc.)

Source: Farrish, 2009.

Food and beverage information systems may generally be broken down into two types of system: Front of house (FOH) and Back of house (BOH) systems. Front of the house systems are those that involve the maintenance of guest contact. Therefore, FOH systems include the POS system, table management systems, reservation/wait list management systems, and important parts of the labor management system (most often integrated into the POS). By far, the most important of these systems is the point of sale system. The POS system is core system for F&B operations. It manages ordering and delivery of all menu items in a restaurant. Every food and beverage information system must include a point of sale capability.



Therefore the POS must be able to handle multiple menus and pricing structures if a restaurant offers happy hour, early bird, lunch/dinner, or any other varied pricing and portioning options. The essential function is to allow servers to transmit guest orders to kitchen personnel for preparation. To maximize efficiency the POS must allow the server to quickly and concisely enter all information pertinent to the guest order, including side dish choices, salad dressing options, doneness, and any special requests the guest might have. The important thing to remember is that this system should work to keep conversation between cooks and servers to an absolute minimum.

To accomplish this both the server and the cook require hardware, of course. In the case of the server, this hardware is in the form of a work station, often a computer terminal placed strategically in the dining room. Often these stations utilize touch screen technology, although older systems are still in use that requires servers to enter numbers corresponding to menu items on a keypad.

The most important advantage to this technology, however, is that by allowing the POS to track the order from entry to completion (rather than from entry to the printing of the ticket on the cook's line) it gives management access to information they never had before, namely the amount of time it takes to complete each individual order. This makes it possible for management to effectively identify the causes of bottlenecks or items that take too long to produce to make them profitable.

15.2. Trends in POS Development (Farrish, 2009)

POS systems have developed substantially in the past few years, with the cost of hardware declining rather dramatically. The software systems themselves, through the use of platforms like Microsoft's .NET, XML, and other Web-based protocols, have become quite sophisticated and can handle essentially all of the functionality required of them. Greater ease of use is the driving force in the further development of these systems. This greater ease of use is not only important insofar as it facilitates the ability of line employees to complete their tasks more quickly and efficiently, it is important in allowing management the ability to interface with BOH systems to provide accurate (and possibly real time) assessments of costs and profitability.

Many restaurants have instituted curbside service to enhance their revenue streams. Wireless handheld credit card processors speed the payment function dramatically.

The next major trend is the use of the internet in all facets of the operation. On-line ordering has become ubiquitous; allowing customers to place takeout orders via the internet eases the process for them while eliminating many of the mistakes when order-takers have to write down oral requests. It also keeps customers from getting a busy signal or being placed on hold, losing patience, and going elsewhere. The internet has also, as mentioned previously, made credit card verification almost instantaneous.

15.3. Reservation and Table Management Systems (Farrish, 2009)

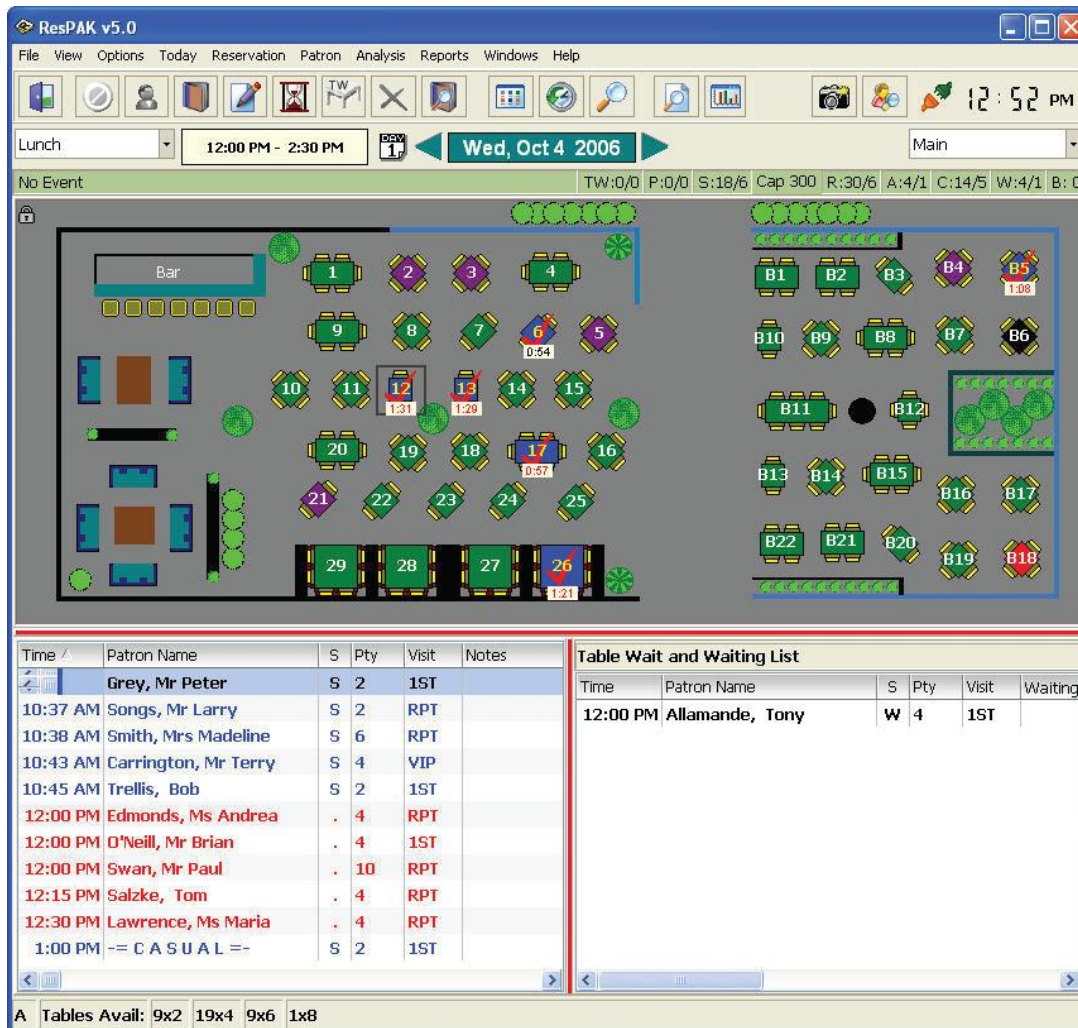
Reservation and table management systems have become more than simply vehicles for knowing who is coming in or knowing which tables have been seated and which are vacant. Reservations systems have developed into databases which can be used to track the purchase habits and other important information about guests. When making reservations guests provide restaurateurs with pertinent personal information like telephone numbers and birthdays or anniversary dates. This information can not only be used to recognize guests when they come in on special occasions, it can also be used to market them prior to those occasions.

Table management systems, when used properly, can allow restaurants to turn tables faster by making available up-to-the-minute table status information. In order to do this, the table management system must be integrated with the POS system and the reservation system (again, another good reason to use an enterprise system rather than buying systems piecemeal). By integrating the table management system with the POS, a host or maitre d' can see immediately on a video screen the status of each table; whether the entrée has been ordered or served, whether the check has been presented, etc.

Of course these capabilities only exist if the table management system is integrated with the POS, but if it is the table status updates will happen automatically. When the server enters a drink order the table status will change. When the cooks use their display terminal to note that the appetizers have been served the table status will change, and so on.

Picture 19: A Typical Table Management Video Display (Courtesy of InfoGenesis)

Source: Farrish, 2009.



Even if they are not integrated with the POS system (and in this day and age there is no reason they should not be), the table management and reservation systems should be integrated with one another. Doing so will allow managers to maintain lists of both guests with reservations and those who have walked in.

15.4. Back of House Systems (Farrish, 2009)

Back of the house (BOH) systems, as noted previously, are those systems that manage the restaurant functions that do not involve guest interaction. These systems include inventory management systems, purchasing systems, business intelligence and data analysis systems, and scheduling systems. The one thing these systems all have in common is that they help in controlling costs.

Cost control, of course, is not the glamorous portion of the restaurant business; it is only the essential part of the restaurant business. Restaurants run on such small profit margins that effectively managing costs is necessary for survival. In the past many operators, especially those in small standalone operations have operated essentially blind. They have not been able to generate the kind of data that allow for the timely and in-depth analysis of sales and costs. There is now no excuse for not having this information.

Further, before the rise of enterprise management systems, generating this data was a time-consuming process. Now it is possible to have this information in real time, allowing managers to react to problems as they arise and not have to wait until the end of the month to find out that the problem even exists.

16. Garson

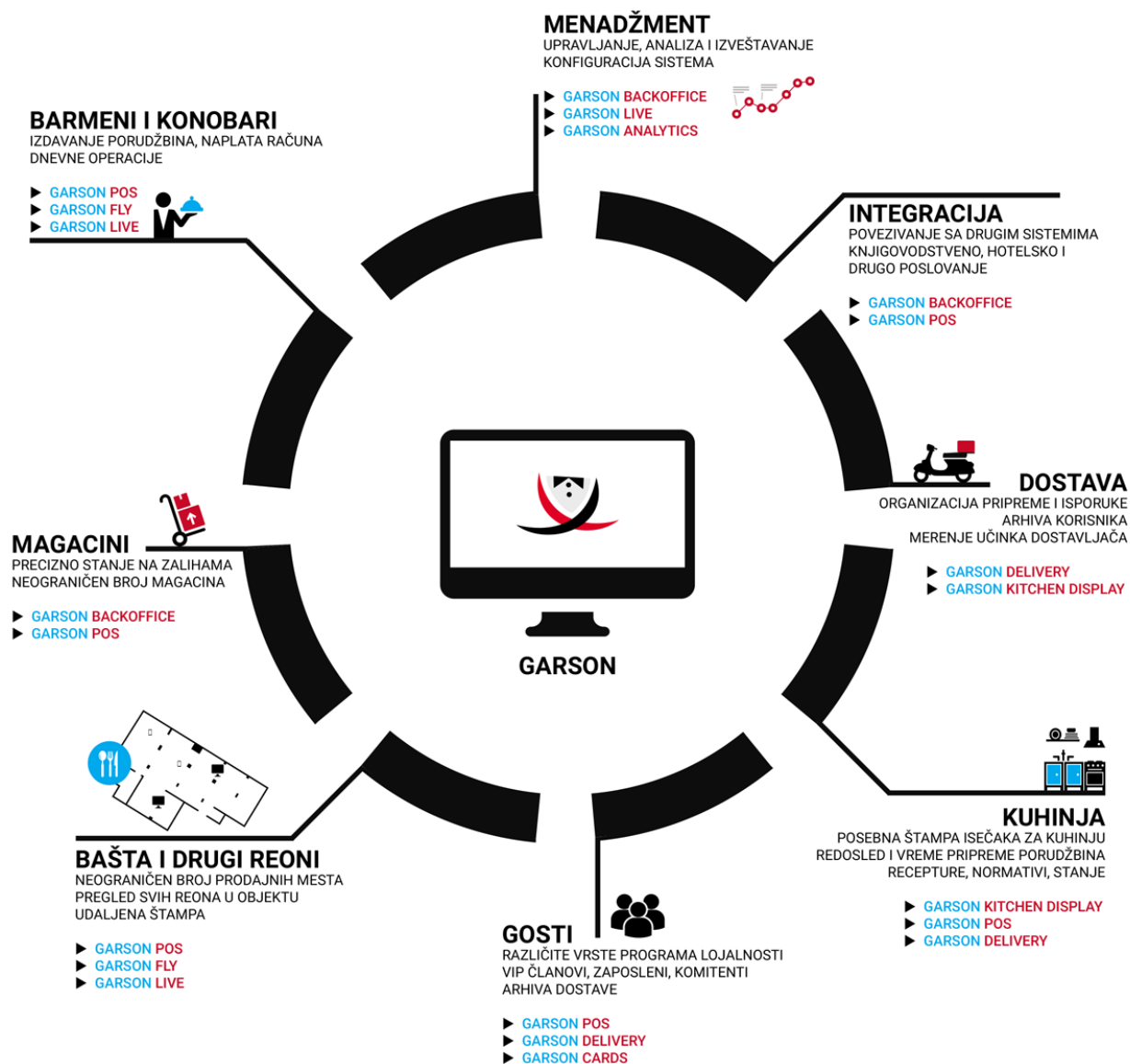
Garson POS is one of the most popular program for catering on the local and regional market. It is known for its modern graphic interface that is specifically configured for each object, so that Garson naturally fits into any existing environment. It is famous for its interface, advanced features and a variety of customization options. Garson is currently installed in more than 1,000 different objects, first of all: cafes, classical and fast-food restaurants, bakeries, clubs, spa centers, hotels. It is available and suitable for all types of touch screen devices. It provides: clear and simple interface, allows quick order taking, quick payment processing, balance insight and other daily operations to be performed at the POS location. It guarantees precise and efficient business by providing: accurate graphic display of the restaurant and table layout, intuitive icons, recognizable image of items, different ways of payment and printing of separate orders in bar and kitchen. No matter the complexity of the business and the back office procedure, in the end orders are placed, prepared and paid for in every single one of them – all performed by Garson POS.

Garson gives you control over:

- POS terminals
- Warehouse management
- BackOffice
- Reports and statistics
- Control staff
- A realistic view of the restaurant
- ID cards
- VIP guests
- Special price lists
- Networking
- Integration with hotel softwares
- Multilingualism

Picture 20: Garson

Source: <http://www.garson-pos.com/>



16.1. What Garson POS provides for restaurant business:

1. Faster orders and payment - Garson POS supports all operations needed by waiters and bartenders to enter orders, collect payments and perform other daily operations quickly, intuitively and accurately.

The interface is clear and simple. Options that are used often are separated and easily accessible. The buttons are arranged so that entry is as fast and ergonomic as possible, especially on touch screen devices. Items and corresponding groups are displayed using icons and pictures of products to make order taking easy.

2. Table, layouts and restaurant zones management - Tables are displayed by graphics on the screen, resulting in a realistic display of the zones and layout of the tables as they are in the establishment.

On the tables there is clearly visible information about orders, waiters and activities at individual tables (for example, order frequency).

Besides order creation, there are also options for joining or separating tables as well as transferring what is owed from one table to another.

3. Customer Loyalty – it has various options to help establish best possible relationship with customers:

- personal cards and special privileges for guests
- track and record VIP guests and club members
- special promotions
- discount approval

4. Large extent of applications, connected via desktop and mobile devices

5. Great user experience

6. Splitting orders for bars and kitchens - Optimizes and accelerates the preparation of food using only one display in the kitchen. Private displays can be set up in places where the food is prepared. Information on display helps to eject orders in the correct order, as quickly as possible. If mobile application Garson Fly is used then the waiter receives notification which informs him that the order is ready. This way we can shorten the time between the creation and delivery of orders. Garson Kitchen Display shows: the sequence of orders, related orders, the elapsed time and the remaining expected time of preparation with clearly visible notices and modifiers. The application is adapted to work on different resolutions so that it can be used on smaller dedicated displays.

7. Allows item modifiers, special requests, order notes

8. Large extent of different settings and options

9. Translatable

10. Security - Garson provides:

User login methods:

- username/password combination
- magnetic ID cards
- barcode ID cards
- RFID ID cards

Activities that are monitored:

- arrival to/departure from work
- invoicing
- cancellations
- waiter arrangement
- closing the working station

11. Delivery - Introduces control, remembers your customers and accelerates the process of ordering and facilitates all business users that are offering services of catering. Customers who have already in the past sent a message or called over the phone to order something are easily identified through a phone number so we can skip all double and unnecessary (and tedious for the client) writing of data (name, address, phone, floor, intercom, tips). After ordering, the courier is informed and the block with the necessary information is printed. It is possible to define zones of the city and restrictions on specific streets in which to deliver in order to avoid errors. In addition to speeding up the process, you receive analysis and statistics of the submitted orders as well as the effect of suppliers/courier.

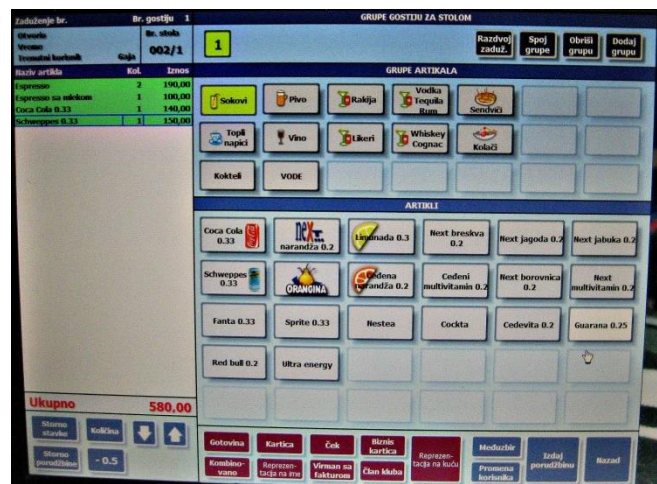
12. Extensive customization mechanisms

13. Fiscal devices & Printing that suits you

14. Free training for managers and staff

15. Recommends the use of all-in-one POS computers - It takes up much less space, Monitor or whole computers are resistant to pouring and dust, It has a built-in card reader, Can be mounted on wall, You can add another screen for guests, Can be adjusted through appropriate angles for comfortable operation, There is no mess with cables, Reduces the risk of integration of the various components, Improves impression on the local through compactness and design, It was created specifically for this industry (catering,) Has a guarantee.

Picture 21: Garson Menu Source: Café “Ernesto”



16. Connects the entire business

17. Technical Support

16.2. Back office

Garson Backoffice represents awesome tool for running and controlling restaurant. This separates Garson from other similar software. Thanks to fine-tuning it adapts any system so it fits restaurant business down to the very last detail. Garson Backoffice functions as a standalone application in relation to with Garson POS, so it can be installed in a any place: in office, in bar, owners or managers laptop, in company's head office or service provider. One part of the business, you can view on your phone.

Functionality:

- *WITHIN THE SAME COMPANY, THERE CAN BE DIFFERENT INDIVIDUAL VENUS, ALL HAVING CONFIGURATION SYSTEM*
- *IT OFFERS EASY AND DETAILED ADDAPTION OF PRODUCTS, SERVICES AND STANDARDS*
- *PROGRAMMES OF LOYALTY*
- *GIVES DETAILED SALES ANALYSIS*
- *IT MAKES WAREHOUSE OPERATIONS VERY FLEXIBLE*
- *GIVES FINANCES AND REPORTING OVERVIEW*
- *SECURES DATA AND ENTRY*
- *SEPARATION OF POINTS OF SALES, PRODUCTION AND MANAGEMENT*

When IS Garson is concerned, it offers a wide range of options, which refer to the economic and financial side of the restaurant business. To begin with, at any time it is possible to draw a daily, weekly, monthly or annual report on the work of the catering facility, i.e. an accurate status display. These reports are very detailed, and they can show precise sources of income (cash, checks, cards). Also, it is possible to do comparison of certain periods of time, because history data is always available.

That can be very important for comparing the acquired profits, in order to find the cause of a better or worse business results in a certain period of time. In addition, besides that statements

Picture22: Daily report 17. 2. 2017.

Source: Café “Ernesto”

Radni dan: 17.02.2017. 14:30:00

Radni dan

Parametri

Od datuma

17.02.2017

Do datuma

17.02.2017

Tip artikla

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Indeks

☐ Najnovija

☐ Najmanja

☐ Najveća

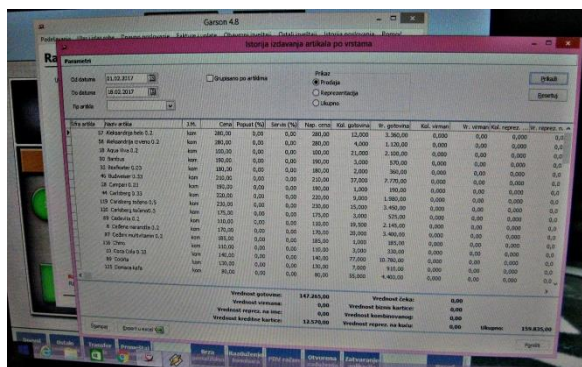
Print

Štampa

Sifra artikla	Ime artikla	Kategorija	M	Cena	Cena bez PDV-a	Popust	Servis	Cena	Ukupno
118	Svinjska glava		1	140,00	0,00%	0,00%	0,00%	140,00	280,00
1	Svinjska glava		1	90,00	0,00%	0,00%	0,00%	90,00	280,00
2	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
351	Svinjska glava		1	80,00	0,00%	0,00%	0,00%	80,00	280,00
352	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
353	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
354	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
355	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
356	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
357	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
358	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
359	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
360	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
361	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
362	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
363	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
364	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
365	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
366	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
367	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
368	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
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375	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
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377	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
378	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
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386	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
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464	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
465	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
466	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
467	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
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469	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
470	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	100,00	280,00
471	Svinjska glava		1	100,00	0,00%	0,00%	0,00%	10	

Also, when pricing products and services, it is necessary to enter accurate data, especially purchase price of every product that enters the range of restaurants (whether it is a product that is “solo”, like a bottle of beer, or a product that is a component of a dish, such as meat, vegetables , spices, pastries ...). In

“solo”, like a bottle of beer, or a product that is a component of a dish, such as meat, vegetables , spices, pastries ...). In



wants to "profit" from this dish. Usually, when forming a selling price, it is 2.5 or 3 times greater than the purchase price, although at more exclusive restaurants it can go even higher. Only fast food restaurants can afford to lower the selling price of "only" twice as much of the purchased price, as they are guided by the quantity of work, lower offer on the menu and a small number of employees.

Picture 24: Garson 4.8
Source: Café “Ernesto”

The screenshot shows a Windows 95 desktop environment. A window titled 'Radni dan je otvoren' (Working day is open) is the central focus. The window's title bar includes the text 'Carson 4.8' and standard Windows window controls. The window content displays the date 'Br. dana 2091' and a message: 'U toku dana su Vam dostupne nove evidencije kao i radne verzije izveštaja.' Below this, a 'Napomena' (Note) section states: 'Radni dan zatvaraš izlaskom od napravljenih medija.' The desktop background is a green grassy field with a blue sky and a large 'to' logo on the right. At the bottom, a taskbar contains icons for 'Internet Explorer', 'Otvorjeni dokumenti', 'Koristi se', 'Pretraživač', 'Baza podataka', 'Radni dan je otvoren', 'MS Word', 'Napredni', and 'Zaštita'. A large '2D Soft' logo is visible in the bottom right corner.

16.3. Garson Mobile Suite - Android applications for restaurants

Benefits:

- *FAST AND QUALITY SERVICE*
- *WHEN IT COMES TO PAYMENT, IT REDUCES CROWDING*
- *INACCURATE AND INCOMPLETE ORDERS ARE REDUCES TO MINIMUM*
- *IT MAKES WORK FOR WAITERS MUCH EASIER BY REDUCING THE NEED FOR WALKING*
- *KEEPS BUSINESS MODERN*
- *IMPROVES BRAND*

*** Garson Flay - Mobile POS** – Offers remote or mobile ordering directly at the table (phones, tablets and special devices). Waiter enters the order and kitchen and bar automatically receive it. This way everything is more efficient and productive and customer waiting time is reduced to minimum.

*** Garson Live** - Gives managers real-time insight into all important aspects of daily operations.

- **Rewards and turnovers:** by waiters, payment methods, individual or group items, best-selling items...

- **Summary of active orders**

- **Overview of important events**

*** Garson Analytics** - It makes possible to have insight into restaurant business and all happenings at any time, any place.

*** Garson Massec Inventory - automation, acceleration and greater accuracy in the inventory.**

Massec Inventory system is primarily designed to measure and control traffic drinks in the bar, but at the same time receives and records the possibility of portions of products and raw materials in kilos. Usage of this system significantly accelerates inventory and do not leave room for fraud and errors that can occur when drinking is recorded manually.

The work process: The database provides information on the exact weight of empty bottles, the exact weight of full bottles and the specific gravity of liquids that can fit into it for all the drinks that can be found in our market. Over barcode reader application recognizes specific drink and the type of bottle.

The scale, which has Bluetooth connectivity associated with the application, accurately measures the bottle and on the basis of this information the application calculates the exact amount of the remaining liquid.

**Precision balance + barcode reader + Android application +
database items = Fast and accurate records:**

- Portions of ARTICLES
- The amount of liquid in bottles
- WEIGHT OF ARTICLES ON THE MEASUREMENT

17. Conclusion

If you look at the initial hypothesis of this work, the economic and financial analysis shows that "Aqua Cafe & Food" restaurant succeeded in achievement of all important criteria, because, at the end, the profit has been made. In other words, it has composed a menu that attracts visitors/guests, both permanent and new, and at the same time achieves the desired profit, which represent ultimate goal of any restaurant manager. Also, because the business is profitable and restaurants guests keep coming back, it implies that the customers / restaurant guests are happy with its offer, both in gastronomy, as well as in financial sort of way. In other words, the restaurant possess quality, guests have realized that and therefore, again and again they are coming back to use services of "Aqua Cafe & Food" restaurant. In simple words, everybody is happy and satisfied!

Also, the use of information systems, proved to be inevitably. Here we have "Garson", that showed how much can be done only through a "CLICK!" All financial reports (daily, weekly, monthly and yearly), all in one place, help with pricing (selling price to be precise), tracking stocks... These are only few examples, which represent a crucial help in the restaurant business. In other words, the use of adequate information systems encourages efficiency, productivity, profitability and, most importantly, it makes a profit!

At first glance, planning the menu in the restaurant looks like a job related solely to the gastronomic gourmets and future selection of dining options. Fortunately, this is not so and in this case it would be a disaster because the lifespan of the restaurant would be measured in days or weeks and successful restaurants could be counted on the fingers of one hand.

Through economic and financial analysis of planning the menu in the restaurant, specifically in "Aqua Cafe & Food", it is clear how certain principles, i.e. analysis, are important and how much influence they have for the successful functioning and financial operations of the restaurant and that without adequate support from professional staff and detailed and systematic planning of restaurants, primarily as a company, and its economic and financial goals it would be impossible achieving them.

Economic and financial analysis directly affects the economic and financial targets set by managers, i.e. restaurant owners and their aspiration to maximize profit.

The subject of economic and financial analysis is the company itself and its business, in this case the restaurant "Aqua Cafe & Food" and that is why we are interested how some targets were achieved:

- The results of business operations,
- Investment in reproduction which are related to the achievement of these results,
- Relations between the results achieved and the necessary investments and
- Economic principles, norms and rules of business.

For these results to be authoritative and accurate, it was necessary to use adequate analysis and principles, such as: analysis of costs and incomes, menu calculations, break-even point, net present value and the ratio numbers.

When the menu calculations are concerned, it should be noted that, as regard to price relationships, the food margin is from 200 to 300%, coffee and tea from 400 to 700%, non-alcoholic drinks around 150%, alcoholic beverages from 300 to 800% and for beer from 100 to 150%. The menu is divided into several categories: hot drinks, juices, alcoholic drinks, beer, sandwiches, breakfast, pancakes, barbecue, salads, fried meat, pizzas and grilled chicken. From each category one item was chosen and calculated with margin. Results show, if you take into account the economic situation in the country, that the margins in this restaurant are similar or lower than in the objects of the same type. Also, prices of food and drinks are average and affordable and quite sufficient to achieve a decent income and attract regular guests.

In the analysis of costs and incomes, the basic facts and data were used provided by the owner. Annual incomes from the labor of the restaurant are about six million, while expenses with bills, salaries and procurement of goods and drinks are about three and a half million dinars. Inventories of goods and drinks are about three thousand euros. In addition to these expenses, every year it is invested about two hundred thousand dinars on paintwork, inventory, advertising and other repairs. Also, to the mentioned income should be added the earnings from issuing space, which annually amounts to about a million and 300 thousand dinars. Although it is not involved in any calculations, it is important to note that the current overall value of the building is about 150 thousand, and the value of the interior, the bar and the kitchen is about 30 thousand euros.

From all of this follows the conclusion that the annual total profit is about seven million and 300 thousand dinars (6 million + 1.3 million), and the annual total outcome of about three million and 700 thousand dinars (3.5 million + 200 thousand). Also, this means that the annual net profit is about three million and 600 thousand dinars (7.3 million - 3.7 million), which further implies that the net monthly salary gained from restaurant is somewhere about 300 thousand, and therefore it is considered to be excellent monthly salary, taking into the account that the calculated average monthly salary in Serbia is about 40 thousand dinars.

If you look at the break-even point, we know that value-based break-even point (VPT) shows the value of production in which total incomes equal total outcomes and it is called dead point above which we are in the profit zone, and if the company operates below this point, it's losing money. The calculated break-even point expressed in value units (in RSD) equals the sum of 2991803.27 dinars. This sum represents the amount of income with which the total expenses should be covered, i.e. restaurant in that case operates at break even. If the realized annual earnings surpassed the breakeven, the restaurant would gain profit equal to the difference of these two sums, while operating below the point of profitability meant that the restaurant has been operating at a loss.

We used the break-even point in the calculation of NPV. It's assumed that it represents initial investment, and on this occasion we circled on three million. The result of the net present value amounts to 3 952 381 dinars, which, all things considered, is the figure > 0 , and therefore the whole project makes sense and is worth investing in it.

Finally, the ratio numbers. The main purpose of determining the financial "ratio numbers" (indicators) is to provide "assistance" to enterprise management in planning, controlling and decision making. In this project we analyzed indicators (ratios) of activity, profitability, efficiency and liquidity. They are here to "help" us calculate and realize on how the certain things have the impact on the restaurant business: turnover ratio of buyers and suppliers, borrowings, own funds and interest (if there is any), operating profit margin, net profit rate and efficiency ratio, return on total and net assets ...

Also, it was shown how the great importance and help for business has a making of Cash flow budget, which was made on a quarterly basis, and gave us a clear and transparent picture of how the restaurant "Aqua Cafe & Food" did its business.

In the end, when all things are considered, it can be concluded that the restaurant "Aqua Cafe & Food" is very successful company, which certainly meets the initial hypothesis:

QUALITY OF PRODUCT AND SERVICE $\Leftrightarrow$ ACHIEVEMENT OF EFFECT OF SATISFIED
GUEST/CONSUMER $\Leftrightarrow$ FULFILLED FINANCIAL AIMS AND GOALS AND DESIRED
INCOME .

One of the biggest impacts on hospitality industry was the development of the Internet, by which is the whole world connected in one big network, where sharing information is very fast. Thanks to the expansion and development of telecommunication networks, global trends and megatrends have an increasingly high impact on the development of tourist industry, both in the hotel industry and restaurant business. The globalization of business with the help of the Internet has opened many opportunities: the market is expanding, the costs are lower, the offer is in direct communication with the demand, control business is more efficient and productive, capability of interactive communication with the potential clients, guests and business partners, and thanks to the software, more complete database are created that support the contribution of marketing in the tourism business.

When it comes to monitoring financial operations and business development, the role of IS is the most important factor. Implementing sophisticated technology in restaurant management is an expensive, but payable process. It should be borne in mind that the savings in energy and raw materials can be said to be relatively small compared to the savings that are achieved in the field of management, control, records, accounting, procurement, storage, sales, service, marketing and other operations.

Also, when we are talking about F&B management, it should also be borne in mind that it is going to be even more complex in the future. People need to save their creativeness, so they could set the atmosphere for people-focused managers to provide excellent guest service and to keep a motivated, guest-focused staff happy and productive. The industry has reached the point where the use of information systems is a necessity, and that these systems must be integrated to provide management with the tools necessary to compete effectively in a drastically constricted economy. The slim profit margins by which restaurants normally operate have become razor thin.

It is absolutely essential that information systems be utilized effectively to create as much value as possible. If so, they will represent powerful tool and creative and professional manager will take full advantage of them to maximize both guest satisfaction and profits.

The main advantage of using information technology is a direct contact with tourists and customers, faster and more efficient operations, lower costs and higher profits. Also, the development of information technology, the Internet and the creation of internal systems, has opened up the possibility of far cheaper and possibility of faster operating business, as well as to efficiently and boldly meet the growing fads of demand. With the help of using IS in catering industry, in a short period of time, we get the information from various sectors of business operations and thus it eases to facilitate daily operations. Here, first comes in mind, above all, the recording and monitoring of operations, analysis, decision making and insight into current operations.

In the upcoming years, development and expansion of information systems and technology is expected to continue, which means that their impact on the world, and therefore the catering and restaurant business, will be even more crucial. It is, therefore, necessary that the restaurant company keeps pace with the development of the Internet, IS and technology and keeps constant monitors of development trends and innovations in this area.

CHARTS	PICTURES
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CHAPTER 18.

NO.	NAME	SOURCE	NO.	NAME	SOURCE
1.	Display of tourist arrivals and overnight stays in 2014.	http://webrzs.stat.gov.rs/WebSite/	1.	The geographical location of Novi Sad	https://sr.wikipedia.org/wiki
2.	Pancakes	source *	2.	Belgrade Quay	https://commons.wikimedia.org
3.	Espresso	source *	3.	The Petrovaradin fortress	http://www.visitnovisad.rs
4.	Bottle of Coca-Cola	source *	4.	Center of Novi Sad – Square of Svetozar Miletić	http://www.rtv.rs/sr
5.	Tequila shot	source *	5.	Monastery Ravanica	http://www.new.visitserbia.org
6.	Jelen beer	source *	6.	Messuages	https://www.flickr.com
7.	Sandwich roll with smoked ham	source *	7.	Fair	http://www.drustvo-termicara.com
8.	Breakfast- three eggs	source *	8.	Live music	http://www.upoznajsrbiju.co.rs
9.	Barbecue- Cheesburger	source *	9.	“Bela lađa”	http://www.androidvodica.com
10.	Serbian salad	source *	10.	“Piknik”	http://citymagazine.rs
11.	Fried cheese	source *	11.	Attractiveness of the food on the plate	http://www.mojnovisad.com
12.	Pizza Vojvođanka	source *	12.	View from fortress	http://www.upoznajsrbiju.co.rs
13.	Chicken special	source *	13.	“Fontana”	http://srbijatop10.com
14.	NPV	source *	14.	“Plava frajla”	http://srbijatop10.com
15.	Cash flow budget	Data received from financial records of “Aqua Caffè & Food” restaurant	15.	Pancakes	www.renaissance.co.rs
16.	Factors that influence the selection of the system for managing hotel operations	Njeguš, 2010: 150.	16.	Serbian salad	www.restorandren.com
17.	IT in hospitality	Njeguš, 2010.	17.	Chicken special	http://tummytyrants.blogspot.rs

			18.	Typical POS touch screen (Courtesy of MICROS Systems, Inc.)	Farrish, 2009.
			19.	A Typical Table Management Video Display (Courtesy of InfoGenesis)	Farrish, 2009.
			20.	Garson	http://www.garson-pos.com/
			21.	Garson Menu	Café "Ernesto"
			22.	Daily report 17. 2. 2017.	Café "Ernesto"
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***source - link to the place in the document where you can find the required source**

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