1. Introduction

Most good programmers do programming not because they expect to get paid or get adulation by the public, but because it is fun to program. "Linus Torvalds"

Same was in our situation for the second semester's final project. Our task was to develop software for a company in real life situation. As it is not always easy to make an agreement with companies to allow students to use their information for study purposes, because they don't want to expose some important information, we tried different approach by searching for a company within circle of people that our group members where friends with or people we knew. This approach was successful and we found friend of Janis that founded his own bar / restaurant "Kad zebras deg" (When zebras burn) in 2014 and he agreed to provide us with necessary information.

(To be continued...)

2. Company description

"Kad Zebras Deg" is a small bar/restaurant which is situated in the capital city of Latvia in Riga. It's been founded in 2014 by Renars Bents. He is the only owner of the company and he has 6 employees. One cashier, 2 waiters / bartenders, 1 chef and 2 kitchen assistants. Renars is strongly involved in his bar/restaurant and is helping as much as he can to his employees. He is very friendly and fair to his employees as he doesn't fire anyone without a serious reason. Bar / restaurant is quite new so it doesn't have any IT system. He can't afford to have a lot of employees so he is in need of IT system to make his bar/restaurant more organized and efficient. At the moment everything is done by writing down on paper and using the computer to record the income and outcome with the help of MS Word or MS Excel. Every weekend Renars is organizing all kinds of events like music bands, stand-up comedians, game nights on Xbox witch has prizes at the end, in order to attract more customers. The usual customers are mostly his friends and young people from 16 – 30 years old as it was designed to follow up with current trends.

3. Problem description

The problem description gives us a better insight, why the project needs to be made, what is it for, what problems are needed to be solved and can be solved.

The main problem with the company "Kad Zebras Deg" Bar that it is newly founded and doesn't have an IT system yet. The processing of orders, bookings, the event handling and all service related processes are manually done (per say, written on a piece of paper).

A bar in 2015 has to have an IT system to show quality and prestige in front of the customers. With an IT system it is easier for the customers to reserve a table, it is easier for the employees to register and process orders and to keep track of them. Because there was no previous system existing, there is no previous experience, no software to update, therefore a brand new system needs to be implemented.

If the bar wants be competitive with the rest of the bars in the city it needs to develop and improve continuously in order to meet with modern day standards.

By completing the project and creating the IT system, the bar should have an easy system to use, facilitating the everyday work of employees and let the customers have better accessibility and engagement for the bar (easy and fast way of reserving a table or buying tickets for concert events for instance).

4. Mission / vision

Mission

The mission of "Kad zebras dag" is to ensure the high quality, delicious, remarkable food as well as professional and friendly service. Assure that clients are provided the fair price. Always work according to customer's expectations and believes.

Vision

We believe that friendly and wonderful service affects person's emotional and physical state. Our vision is to make people happy and deeply satisfied by giving them unforgettable taste and excellent service.

Mission / vision was made based on studies of [Bloisi].

5. SWOT analysis

"Kad zebras deg" bar / restaurant

<u>Strengths:</u>

- Popular among young adults.
- New and fresh
- Unique design

<u>Weaknesses:</u>

- Unexperienced management
- The lack of advertising
- The lack of "brand loyalty"
- Limited budget
- The lack of an IT system
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<u>Opportunities:</u>

- Expansion
- Hiring more experienced staff
- Demand for organizing bigger and better events

<u>Threats:</u>

- Many pubs in the city
- Economic situation (Crisis)
- The threat losing in a price competition

<u>Mission:</u> Provide high quality bar service for the middle class society.

"Kad zebras deg" bar / restaurant has been a very popular pub among young people ever since it's opening. This opinion was formed mainly because of the new design and the fresh look. A new and improved selection of drinks could also be considered an advantage.

Even though the pub is a popular place the lack of experience for the manager is a great disadvantage. Because of a small budget advertising is not an option. What makes it even hard to manage is the lack of an IT system which is needed in order to ensure a nice flow for transactions and very easy management.

Expansion is what every business need. This is a very important step in this case too as the pub needs more clients, more employees. With more clients also comes a bigger demand. The organization of more and bigger events is a clear goal for the near future.

The biggest threats are losing in a price competition against another pub which can afford to offer better offers or which has a bigger capital, an economic crisis and opening of a huge number of pub in the same area.

SWOT analysis was made based on studies of [Bloisi].

6. Porters Five Forces

This document is used to analyze all five Porter's forces to explain the connection between the new entrants and how their represent a threat for our business. This document also explain customers' power and what a substitute produce is.

Threat of new entrants

Easy to purchase a propriety and get started with a similar pub in a very short time.

New clubs, bars or restaurants can also be open nearby and it can affect the way the business is evolving.

Very difficult to predict or anticipate new entrants on the market.

It is important to create a brand and to maintain.

It is easy to gain permission from the authorities.

Determinants of supplier power

Multiple suppliers can be used to provide the same articles. Low influence.

High number of alternatives.

The liberty of ordering online or directly.

Working with global known brands.

Rivalry among existing firms

Medium rivals in the nearby area.

Bigger and better pubs or highly known competitors can open anytime.

Marketing partners and using customer to promote.

Innovation is very important.

Determinants of buyer power

Vast selection of drinks and foods available.

Buyers don't have bargaining power since prices are set.

Buyers determine the theme for parties/events.

Threat of substitute products

New and better events can be regarded as substitutes.

Difficult to stay in the top of all similar/substitute products.

The threat of new entrants is a very serious one. At any given moment a new pub or bar could open in the neighborhood since it's very easy to purchase a propriety and transform it into a bar. Most of the client could take advantage of this. Since is very hard to predict new entrants is it better to focus on creating brand and a very high stats since the very beginning.

The supplier don't have that much power since the products they deliver can be offered from more than one supplier. This way the manager can choose the supplier according to delivery and product quality, price and so on. A good advantage is having a brand and a very good reputation. The order can be done online or directly.

Innovation is very important regardless of area. The business needs to keep improving in order to keep the customers and acquiring new ones. Every small new entrants can be a threat. Existing rivals could also improve and the competition can become bigger is no measures are taken. The use of marketing partners and promoting using t-shirt or cups can help a lot.

 The customers have no influence regarding the price of the place. They are very influent when it comes to parties and events themes or singers. They can also influence the products in the menu.

Some substitute products can be specific food restaurants. They can appear any time and there is nothing to do to prevent their launch. Also, it's very difficult to predict they appearance. The only solution is to race with them and stay in top when talking about customer satisfaction and number of services offered.

Porter five forces was made based on studies of [Lauritzen and Krogager].

7. Stakeholder Analysis

A stakeholder analysis gives an overview about the interest groups in connection with the project. The two main groups are those who are interested in the success of the project and those who are interested in the failure of the project.

Those who are interested in the success of the project are:

- The owner of the bar: The owner wants to have a successful business.

- The employees of the bar: They want to have a solid workplace.

- The potential customers: They want to have a successful bar with good quality service.

- The suppliers: The more bar they supply to, the more order and income they can receive.

Those who have disinterest in the success of the project are:

- The other bars in the city (Competitors): There is a big competition in the city and they don't want new bars carrying away the customers.

- Possible old people living in the area (negative external effect): They don't want to have a noisy place at night and drunken people disturbing the area.

8. Business case for the system.

Almost every company and organization in 21st century has its own system no matter if its open source or custom made to meet all the necessary requirements in order to profit financially and to gain efficiency on daily operations. System that is proposed to "Kad zebras deg" will succeed in many ways. As it doesn't have any system at this particular time it will be custom made and

will cover all of the required operations. This company is not rich and can't afford a lot of staff so this proposal is vital to increase its efficiency by letting students to build it.

The system will be built as part of student project and will cost nothing except that the company will have to buy its own computers and acquire licenses for the necessary software. In this case it will require as a minimum of 4 computers in order to meet the minimum requirements for the system. 1 computer in the kitchen, 1 for the waiters, 1 for the cashier and one in the office. It might be expensive at first but in the long run it will profit much more than now. Considering that the company is still young and there is a lot of competition going on in this type of business, this system will help the company to be more organized and efficient as most of its competitors don't have any system. Resistance from staff is not expected as they are tired of doing everything in the old way of registering orders and booking the tables. This will save them a lot of time, they will avoid misunderstandings and dissatisfied customers because of the long waiting time before receiving their orders.

The kitchen and the waiters will be up to date with courses and their serving order. Table bookings will be organized manually by the staff or the system if it's a standard request, plus customers will be able to preorder courses that the chef will begin to cook as soon as they arrive to the restaurant and check in. In summary this system will gain satisfied customers and staff members to the company and will benefit in many ways. In the long run it might lead the company to grow and expand as the efficiency will rise.

Payback projection

Table below describes payback projection [Cadle and Yeates]. Research shows that the company will profit after the first year. Calculation of prices showed that company does not require high end PCs to operate with software proposed and as a minimum it requires 4 PCs and 1 external hard drive which will allow to back up data in case of accidents. Total amount for hardware is 2540 Euros. Hardware maintenance will cost 1000 Euros a year as there will be only 4 PCs. Only software that they need to acquire is antivirus (we chose Avast) to protect PCs from viruses and malwares that could harm data on PCs. Avast license cost 150 Euros a year for all computers and requires renewal every year. Another software that will be required is MS SQL Express for data base which is free. Staff savings per year will be at least 12000 Euros which means two extra employees. As described before Bar / Restaurant can't afford more employees so our software can save some money and increase efficiency. By paying extra 4690

Euros first year the efficiency will increase as there would be 2 more employees and save on those salaries 7310 Euros. Next year and in the future the profit will increase even more as the Bar / Restaurant won't need to buy hardware anymore. Only costs that will be required are hardware maintenance, software support and antivirus license renewal which sums up to 2150 Euros a year. The prices and salaries where examined based on the average wages and prices in Latvia [Trading economics], [X Net].

Item	Year 1	Year 2	Year 3	Year 4	Year 5
Hardware purchase	2540				
Hardware maintenance	1000	1000	1000	1000	1000
Software purchase	150				
Software support	1000	1150	1150	1150	1150
Cumulative total costs	**4690**	**6840**	**8990**	**11140**	**13290**
Staff savings per year	12000	12000	12000	12000	12000
Cumulative savings	**12000**	**24000**	**36000**	**48000**	**60000**
Cumulative savings less costs	**7310**	**17160**	**27010**	**36860**	**46710**

References

[Bloisi]   Management and Organisational Behaviour Chp 3, Wendy Bloisi

[Cadle and Yeates]   Project Management for information systems Chp 3, Cadle and Yeates (2008)

[Krogager]   Management accounting, financial measurement and planning, Volume 1, 2nd edition, Academica, Chp 1.3.6, 2006.

[Trading economics] http://www.tradingeconomics.com/latvia/wages (22.04.2015)

[X Net]   http://www.xnet.lv/index.php?menuid=11&mini=7&kas=Galda+datori (22.04.2015)

"Linus Torvalds"   Linus Benedict Torvalds is a Finnish American software engineer, who was the principal force behind the development of the Linux kernel that became the most popular kernel for operating systems.