



**Aachen University of Applied Sciences
Jülich Division**

Master of Science in Energy Systems

Business Administration

Prof. Ulrich Daldrup

**Business Plan:
12 Gods**

**by
Chlempos Alexandros and Zisis Michail
Jülich, WS 2004-2005**

Table of Contents

Introduction:	
Description.....	1
Business Idea.....	1
Calculation of Fixed Costs	2
Total Fixed Costs.....	4
Personnel Costs.....	4
Supply Costs.....	5
Bank Loan Costs.....	6
Sales.....	7
Calculation of Cash Flow.....	7
Cash Flow Diagram.....	8
Conclusion.....	8

Business Plan for a Restaurant Start Up

Description:

Through surveys it has been proved that the last years there is a crisis in the field of gastronomy business in Germany. There are many reasons which have caused this situation. Two basic are the entrance of Euro and the increase of people's daily responsibilities. The first has caused an increase in the cost of living, making visits in restaurants, bars, nightclubs and cafes a "luxury". The second has lead to a lack of time. That is why people prefer to stay and eat at home or in the best case to visit a fast food restaurant with unfriendly environment.

Business Idea:

Our target is to operate a restaurant which will offer high quality in relation with low prices and a friendly environment. The marketing idea will be focused on the Greek style decoration in combination with female service. More specifically, there will be two to three female, attractive waitresses who will be dressed like ancient Greek goddesses.

The restaurant's name will be "12 Gods" and it will be located in the centre of Juelich. The capacity will be for 100 customers. The total area will be 285m², of which 180 m² will be the main room, 75 m² the kitchen, 20 m² the storage room and 10 m² the W.C. It is decided that the place will be rent. According to the law it is necessary to pay three rents in advance for caution, which will be returned the last three months of the rental period. The operation licence will be given from the municipality and will cost approximately 100€.

Rent of 285 m² building:	30.000 Euro/y
Caution:	7500 Euro
Additional Cost:	
Electrical Energy	
Gas Energy	24.000 Euro/y
Water	
Rubbish	

The restaurant will operate six days per week (except Monday), from 11am-2pm and from 5pm-11pm.

The down payment will be given by Zisis Michail and Chlempos Alexandros on equal amounts. The rest money will be taken from a bank as a loan with 7% interest rate.

Total investment	165.685 €
Down Payment	105.685 €
Bank Loan	60.000 €

Calculation of fixed costs

Description	Investment	Afa in years	Depreciation
Mashines:			
Kitchen			
Boiler	350 €	5	70 €
Dishwascher	2.000 €	5	400 €
2 Freezers	8.000 €	5	600 €
Refrigerator	2.000 €	5	400 €
Ben-Marei		5	
2 Fritters		5	
Cooker Hood	18.500 €	5	3.700 €
Oven		5	
Microvawe Oven		5	
Ventilation	10.000 €	5	2.000 €
Main Room			
Sound System:			
PC, Console, Loudspeakers	2.000 €	5	400 €
Ventilation	16.000 €	5	3.200 €
Multi-coffee mashine	2.500 €	5	500 €
TOTAL	61.350 €	5	12.270 €
Rest Equipment:			
Kitchen			
2 Workbenches	2.000 €	10	200 €
Shelves	1.500 €	10	150 €
Cooking Equipment			
4 Pots		2	
10 Frying Pans	1.000 €	2	500 €
20 Prof. Cokware		2	
Serving Equipment			

150 Forks	225 €	1	225 €
150 Knives	225 €	1	225 €
40 Spoons	60 €	1	60 €
200 Big Dishes	700 €	1	700 €
100 Small Dishes	200 €	1	200 €
50 Salad Dishes	125 €	1	125 €
50 Ice Cream Dishes	150 €	1	150 €
100 Wine Glasses	150 €	1	150 €
Main Room			
Furniture:			
Tables&Chairs	5.000 €	10	500 €
Wardrobe	1.000 €	10	100 €
Lighting Equipment	3.000 €	10	300 €
TOTAL	15.335 €		3.585 €
Engineering:			
Firing System	3.000 €	10	300 €
Decoration-Painting	12.000 €	10	1.200 €
Floors-Tiles-WC	7.500 €	10	750 €
Electrical, Gas&Hydraulic	5.000 €	10	500 €
TOTAL	27.500 €		2.750 €
TOTAL INVESTMENT	165.685 €		18.605 €

*Attention
depreciation
periods*

- The machines of the kitchen will consume gas instead of electricity. This results to an increase of the investment cost which will not only be ballanced but it will also be profitable in ten years time by the difference at the cost of gas and electricity respectively. For example, the oven of 4000W which will be installed, cost 2.300 € consuming N.G. The conventional one would cost 1200 €.
- We assume that the building will be inhabited over the restaurant. So we need approximately 20m of piping. The cost of the piping is included in ventilation of the kitchen.
- In the main room the ventilation cost is 16.000 €. 10.000 are for the mechanical equipment and the rest for decoration.
- It is assumed that the heating bodies already exist.
- The cost for the electrical, gas and hydraulic installations is 5.000 €. It is supposed that the hydraulic and the gas installations already exist. We have a cost of 1.000 € to connect with the N.G. grid. The rest 4.000 € is for the 3~A.C. installation in the kitchen.
- The depreciation cost in the previous table is calculated only for the first year.

For the machinery, the depreciation period is 5 years. The high quality of them warrants us 10 years of operation.

Serving and cooking equipment has 1 and 2 years of depreciation period respectively. The manager decision is to renew this equipment after the fifth year. In the table below, the depreciation cost is calculated for the whole ten year period.

Years	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Depreciation €	18.605	16.770	16.270	16.270	16.270	6.335	4.500	4.000	4000	4.000

Total Fixed Cost

Description	Investment	Afa	Depriciation
Rent&Nebenkosten	54.000 €	0%	0
Mashines	61.350 €	20%	12.270 €
Engineering	27.500 €	10%	2.750 €
Rest Equipmet:			
Main Room	9.000 €	10%	900 €
Kithen			
Furniture	3.500 €	10%	350 €
Cooking Equipment	1.000 €	50%	500 €
Serving Equipment	1.835 €	100%	1.835 €
TOTAL	165.685 €		18.605 €

The depreciation costs are referred to the first year.

Personel Cost

Personel	Number	Cost €/year
Chef	1	36.240
Kitchen Assistant	2	57.408
Add.Kitchen Assistant	2	28.704
Waiter	2	42.768
Add.Waiter	1	10.692
Cleaning Woman	1	3.516
TOTAL		179.328

- After decision between the owners, one of them will be present each day and will be responsible for the general management and marketing of the restaurant. Both of them are to have private insurance, so they will not be calculated in the personnel costs.
- The personnel will be occupied 8 hours per day.

- The additional personnel has been employed to work 3 days per week (Friday-Sunday) when the manager estimates that the needs will be higher.
- In the salary of each employee the following are included:
14% on salary for health insurance, 19.5% on salary for retirement insurance and 5% on salary for unemployment.

After agreement with the personnel the taxes on their salary will be shared equally between them and the owners, according to the tax system of Germany. To be more specific an example is given below.

Yearly cost of Chef:

Chef salary: 2000 €/month

$$+(0,14+0,195+0,05) * 2.000$$

$$+(0,5*0,25) * 2.000$$

$$= 3.020 \text{ €/month } (* 12 \text{ months}) = 36.240 \text{ €/year}$$

For salary 2.000€ corresponds 25% taxes.

Supply cost

Species	Cost €/Kg	Cost €/month
Meat:		9.500
Beef	7.5	
Pork	6.0	
Chicken	1.0	
Lamb	8.5	
Vegetables:	2.5	1.400
Cheese	4.0	
Oil	1.5 €/lt	
Ice Cream	6.0	
Tins	2.0	2.200
Spices	3.0	
Potatoes	1.5	
Past	1.5	
Sauces	2.5	
Coffee-Hot drinks	0.14 €/piece	280
Drinks:		
Wine	1.5 €/lt	750
Refreshments	1.2 €/lt	594
Beer	1.9 €/lt	1.520
Overhead Cost		756
TOTAL		17.000

Assumption: the supply cost is calculated for an average capacity of 130 customers per day for the first 2 years of operation. The next 5 years we expect an increase of our customers to 140 and the last 3 years to 150 per day. This assumption has been made with respect to high and low, week and

year periods. We considered as high seasons, summer and christmass periods, and Friday to Sunday high days of the week. The supply costs for the whole 10 years period can be seen in the next table.

Years	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
customers	130	130	140	140	140	140	140	150	150	150
supply costs €	17.000	17.000	18.308	18.308	18.308	18.308	18.308	19.615	19.615	19.615

- A contract with a beer company will be signed. This means that for the whole 10 years we are obliged to supply our drinks (beer, refreshments) from that company. In return, they are obliged to set up the whole bar (refrigerator and glasses included).
- A contract will be signed as well with an ice-cream supplier. They will be obliged to provide the ice-cream freezer.

Calculation of Bank loan cost

Financing	Rest Debt €	Interest	Interest cost €€	Settlement
1st year	60.000	7%	4.200	6.000
2nd year	54.000	7%	3.780	6.000
3rd year	48.000	7%	3.360	6.000
4th year	42.000	7%	2.940	6.000
5th year	36.000	7%	2.520	6.000
6th year	30.000	7%	2.100	6.000
7th year	24.000	7%	1.680	6.000
8th year	18.000	7%	1.260	6.000
9th year	12.000	7%	840	6.000
10th year	6.000	7%	420	6.000
TOTAL INTEREST			23.100	
TOTAL				60.000

Sales

- The most profit is expected to come from coffee, chocolate, beer, wine and the rest of the drinks. Additionally, from secondary species of food such as potatoes and pasta. For the meat consumption, the profit will be negligible because of the losses during preparation.

Typical examples: wine cost 1.5€/l ---> 8€/l selling

Beer cost 1.9€/l ---> 5€/l selling

Refreshments cost 1.2€/l ---> 3.5€/l selling

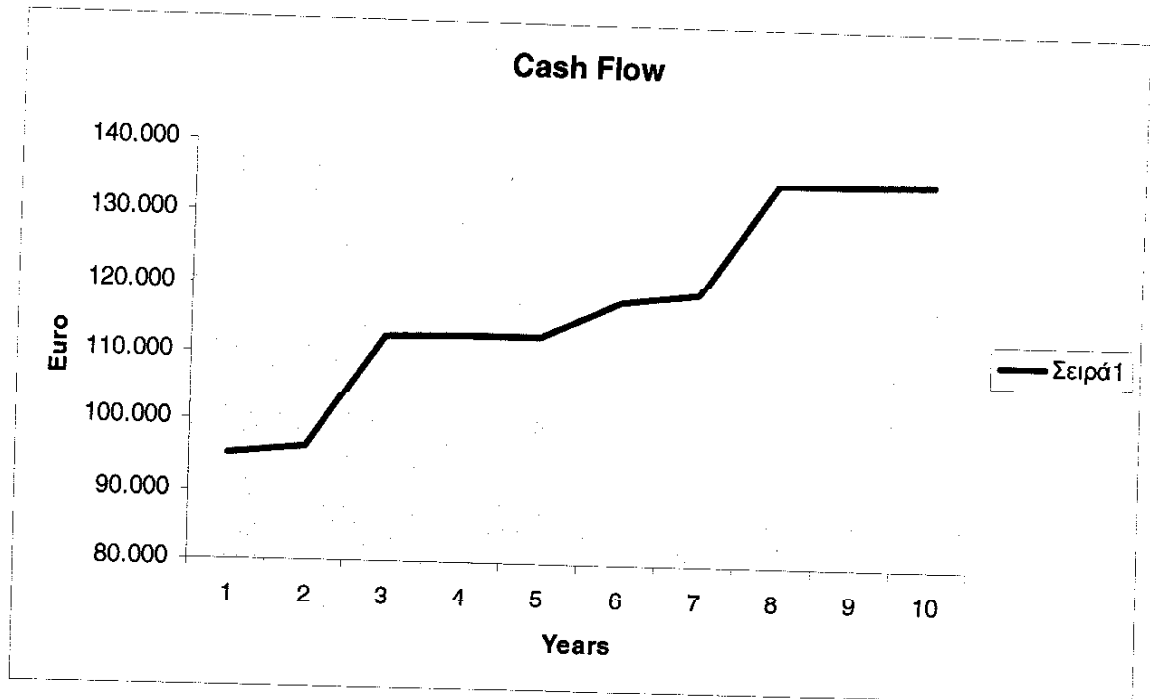
Coffee-hot drinks cost 0.14€/piece ---> 1.80€/piece selling.

- Assumption: for the ten years we calculated that each person will pay average 15€ .

Cash flow calculation

Years:	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Sales:	608.400	608.400	655.200	655.200	655.200	655.200	655.200	702.000	702.000	702.000
Depreciation:	18.605	16.770	16.270	16.270	16.270	6.335	4.500	4.000	4.000	4.000
Personel:	179.328	179.328	179.328	179.328	179.328	179.328	179.328	179.328	179.328	179.328
Supply:	204.000	204.000	219.696	219.696	219.696	219.696	219.696	235.380	235.380	235.380
Interest Cost:	4.200	3.780	3.360	2.940	2.520	2.100	1.680	1.260	840	420
Profit bef. taxes:	202.267	204.522	236.546	236.966	237.386	247.741	249.996	282.032	282.452	282.872
Profit after taxes:	101.335	102.261	118.273	118.483	118.693	123.870	124.998	141.016	141.226	141.436
Settlement:	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.000
Cash flow:	95.133	96.261	112.273	112.483	112.693	117.870	118.998	135.016	135.226	135.436

- The depreciation cost shows a significant decrease after the fifth year of operation. This is due to the machinery equipment. Although they lose their value after five years, they are estimated to function for the whole ten years period.
- The cash flow grows significantly at the beginning of the 3rd and 8th year. This happens because of an estimated increase in the average number of customers per day.



Conclusion

- Pay back period occurs during the 2nd year of operation.
- Despite the international crisis in the gastronomy business it seems that operating a restaurant can be really profitable.