#### Businessplan for a Pizza restaurant

#### Description and current market situation



Pizza restaurants in Jülich, the arrow points at the planned location of our pizza restaurant

We observed that there is no pizza restaurant situated near the campus in Jülich. The next ones are found downtown (about 20-30 min walk) and sell pizza at prices between 4 and  $10 \in$ . For students and staff of the university a pizza restaurant at the campus would be a fantastic alternative to eating in the canteen. Moreover, warm dishes would be available at relatively low prices and quite fast near to the students' hostels, also in the evening when the canteen is closed. A pizza restaurant could also become a meeting place for the inhabitants of the students' hostels. The fact that there are more and more appartments constructed will lead to an even higher demand in the future.

### **Business idea**

We will offer pizza at relatively low prices in a friendly environment. The offering will be very flexible because no pizza with a certain name and preset ingredients will be offered but customers can choose their favourite pizza topping from a list of ingredients. The price for one pizza will increase with the number of ordered ingredients.

We employ students as casual employees so that they can advertise the restaurant in their social environment.

The name of the restaurant will be "Pizza Palace" and it will be located right next to the FH buildings. There will be space for about 20 people in the restaurant and the offer to order pizza and take it with you or get it delivered.

A piece of land of 120m<sup>2</sup> will be needed for a kitchen and storage of 70m<sup>2</sup>, toilet of 10m<sup>2</sup> and a main room of 40m<sup>2</sup>. The piece of land will be bought and a building constructed on it.

The licence for restaurants given from the municipality will cost about 500€.

The restaurant will be opened every day from 11am until ca. 11pm.

Down payment will be done as equal amounts from Max Müller and Timo Löher.

# Calculation of costs for land and building

Description	number	price per unit/€	Investment	Depreciation(years)	Depreciation costs
estate (m²)	120	105	12600	0	0
building	1	150000	150000	50	3000
TOTAL			162600		3000

# **Calculation of fixed costs**

Description	number	price per unit/€	Investment	Depreciation (years)	Depreciation costs	
baking oven	1	3640	3640	10	364	
dishwasher	1	1500	1500	10	150	
refrigerator	1	800	800	10	80	
tables	5	60	300	10	30	
chairs	20	40	800	10	80	
workbench (m)	5	66,67	333	10	33	
shelves	5	50	250	10	25	
knives	100	5	500	10	50	
forks	100	5	500	10	50	
glasses	100	2	200	5	40	
cutting boards	4	5	20	5	4	
mixing bowl	4	10	40	10	4	
plates	100	10	1000	5	200	
pizza spatula	2	30	60	10	6	Depreciation costs are calculated for one year here.
pizza cutter	2	30	60	5	12	Depreciation for $e_{\sigma}$ glasses and plates is taken as 5
lamps	10	10	100	10	10	instead of 10 years because they are assily broken in
telephone	1	25	25	10	3	doily use first aid hits have to be repeated after
transport box	2	30	60	10	6	ually use, first and kits have to be reliewed after
menu cards	5	3	15	10	1,50	about 3 years because of the expiration date of some
cash register	1	180	180	10	18	sterilized products.
first aid kit	1	21	21	3	7	
licence	1	500	500	0	0	
TOTAL			10904		1173	

# Total investment and financing

goods	investment	depreciation costs
land and building	162600	3000
furniture and equipment	10904	1173
unexpected	10000	0
circulating capital	5000	0
TOTAL	188504	4173

40% will be paid from the own capital of the owners, for 60% a bank loan will be needed, running for 10 years with an interest rate of 7%.

Total investment	100%	188504€
from own capital	40%	75401,60€
from bank loan	60%	113102,40€

The financing plan looks like this:

year	Balance of dept	interest rate	interest costs/a	refunding bank loan
1	113102,4	0,07	7917,17	11310,24
2	101792,16	0,07	7125,45	11310,24
3	90481,92	0,07	6333,73	11310,24
4	79171,68	0,07	5542,02	11310,24
5	67861,44	0,07	4750,30	11310,24
6	56551,2	0,07	3958,58	11310,24
7	45240,96	0,07	3166,87	11310,24
8	33930,72	0,07	2375,15	11310,24
9	22620,48	0,07	1583,43	11310,24
10	11310,24	0,07	791,72	11310,24
sum	interest		43544,42	
sum	repayment			113102,4

## **Personel costs**

Description	number	brut € per month	labour costs per month/€		
baker	2	1800	4293		
book keeper	1	2500	2981,25		
stand-in	4	450	2386,62		
TOTAL	7		9660,87		

The three full time workers will be occupied 8 hours per day on average, the casual employees will work 10 hours a week and do jobs like waitressing, delivering pizza, cleaning etc.

The labour costs of the full time employees include 14% on salary for health insurance, 19,5% for retirement insurance and 5% for unemployment insurance. The taxes on their salary will be shared equally between them and the owners.

Labour costs for casual employees include 13% on salary for health insurance, 15% for retirement insurance and 4,59% other taxes which have to be payed by the employer completely.

Example:

a pizza baker gets 1800€/month

(0,14+0,195+0.05)\*1800\*0,5+1800 =2146,5€ labour costs for one baker per month.

# **Consumption costs**

Costs for the ingredients are calculated as average values per customer.

Description	number	costs/unit	unit	costs per customer/€
pizza boxes	1	0,16	1 piece	0,160
gloves	4	0,08	1 piece	0,320
oil	0,01	3,99	11	0,040
flour	0,125	0,32	1 kg	0,040
yeast	0,003	14,98	1 kg	0,045
eggs	0,06	3,5	1 kg	0,219
ham	0,03	1,45	1 kg	0,048
salami	0,03	1,2	1 kg	0,033
cheese	0,11	10	1 kg	1,111
spinach	0,02	2	1 kg	0,044
tomatos	0,04	3,8	1 kg	0,169
pineapple	0,02	4	1 kg	0,067
corn	0,02	1,7	1 kg	0,038
artichokes	0,01	7	1 kg	0,078
jalapenos	0,01	4,8	1 kg	0,053
broccoli	0,01	5	1 kg	0,044
mozzarella	0,03	6,7	1 kg	0,223
mushrooms	0,02	3,22	1 kg	0,054
tuna	0,03	4,81	1 kg	0,160
bacon	0,04	1,5	1 kg	0,067
potatoes	0,03	0,99	1 kg	0,033
onions	0,02	0,4	1 kg	0,009
ketchup	0,01	3,8	1 kg	0,042
barbecue sauce	0,01	10	1 kg	0,056
cola	0,11	0,78	11	0,087
sprite	0,11	0,78	11	0,087
fanta	0,11	0,78	11	0,087
water	0,13	0,78	11	0,104
TOTAL				3,517

## Self cost calculation

The calculation of self costs per average customer was done for the first 10 years assuming a 100% capacity of 15428,52 pizzas per year. (The capacity of the baking oven we planned to buy could be 103680 pizzas per year but a utilization of that kind would be a non-realistic assumption.)

year	1	2	3	4	5	6	7	8	9	10
% of capacity	70	80	90	100	100	100	100	100	100	100
customers quantity	10800	12342,84	13885,68	15428,52	15428,52	15428,52	15428,52	15428,52	15428,52	15428,52
costs										
depreciation	4173	4173	4173	4173	4173	4173	4173	4173	4173	4173
financing	7917,17	7125,45	6333,73	5542,02	4750,3	3958,58	3166,87	2375,15	1583,43	791,72
labour	9420,75	9420,75	9420,75	9420,75	9420,75	9420,75	9420,75	9420,75	9420,75	9420,75
consumption	37987,57	43414,31	48841,04	54267,78	54267,78	54267,78	54267,78	54267,78	54267,78	54267,78
sum	59498,49	64133,51	68768,52	73403,55	72611,83	71820,11	71028,40	70236,68	69444,96	68653,25
costs per customer	5,51	5,20	4,95	4,76	4,71	4,66	4,60	4,55	4,50	4,45

One pizza could be sold for a base price of 4€ and 0,30€ for every added ingredient, a soft drink will cost 1,20€.

For example a customer buying a pizza with cheese, barbecue souce, onions, potatoes and bacon pays

4,00€ + 5\*0,30€ = 5,50€

Compared with the price range of other pizza restaurants in Jülich (4-10 $\in$ ) this is quite a low price but still profitable. Buying a soft drink (1,20 $\in$ ) additionally to the meal the customer would even enlarge the profit.

## **Calculation of turnover**

Taking a pizza with 4 ingredients as an average and assuming that every second customer also buys a soft drink.

year	price per customer	quantity customers	turnover
1	5,8	10800	62640
2	5,8	12342,84	71588,472
3	5,8	13885,68	80536,944
4	5,8	15428,52	89485,416
5	5,8	15428,52	89485,416
6	5,8	15428,52	89485,416
7	5,8	15428,52	89485,416
8	5,8	15428,52	89485,416
9	5,8	15428,52	89485,416
10	5,8	15428,52	89485,416

## Cash flow calculation

year	1	2	3	4	5	6	7	8	9	10
sales profits	62640	71588,43	80536,94	89485,42	89485,42	89485,42	89485,42	89485,42	89485,42	89485,42
costs										
depreciation	-4173	-4173	-4173	-4173	-4173	-4173	-4173	-4173	-4173	-4173
labour	-9660,87	-9660,87	-9660,87	-9660,87	-9660,87	-9660,87	-9660,87	-9660,87	-9660,87	-9660,87
consumption	-37987,57	-43414,31	-48841,04	-54267,78	-54267,78	-54267,78	-54267,78	-54267,78	-54267,78	-54267,78
financing	-7917,17	-7125,45	-6333,73	-5542,02	-4750,3	-3958,58	-3166,87	-2375,15	-1583,43	-791,72
loss carried forward		0	0	0	0	0	0	0	0	0
profit before tax	2901,39	7214,80	11528,30	15841,75	16633,47	17425,19	18216,90	19008,62	19800,34	20592,05
taxes (40%)	1160,56	2885,92	4611,32	6336,70	6653,39	6970,08	7286,76	7603,45	7920,14	8236,82
profit after tax	1740,83	4328,88	6916,98	9505,05	9980,08	10455,11	10930,14	11405,17	11880,20	12355,23
cash-flow	5913,83	8501,88	11089,98	13678,05	14153,08	14628,11	15103,14	15578,17	16053,20	16528,23
repayment credit	14137,80	14137,80	14137,80	14137,80	14137,80	14137,80	14137,80	14137,80	14137,80	14137,80
dividend	-8223,97	-5635,92	-3047,82	-459,75	15,28	490,31	965,34	1440,37	1915,40	2390,43

With the assumptions we made our pizza restaurant would be profitable from the fifth year on.

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