ShopBuddy

Software Business Start-Up TX00CO28-3002

Project A

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Executive Summary **3**
The Market 3
Positioning 3
Keys To Success 4
Service Offerings 4
Team 5
Maria Syed 5
Benedikt Benz 5
Patrick Puritscher 6
Thanh Do 6
Financials 7
Costs and prices 7
Fixed costs 7
Personnel 7
IT operations 7
Marketing 8
Additional costs 8
Variable costs 8
Prices 8
Evaluation 9
Key performance indicators 10
Total costs 11
Outlook and breakeven 13

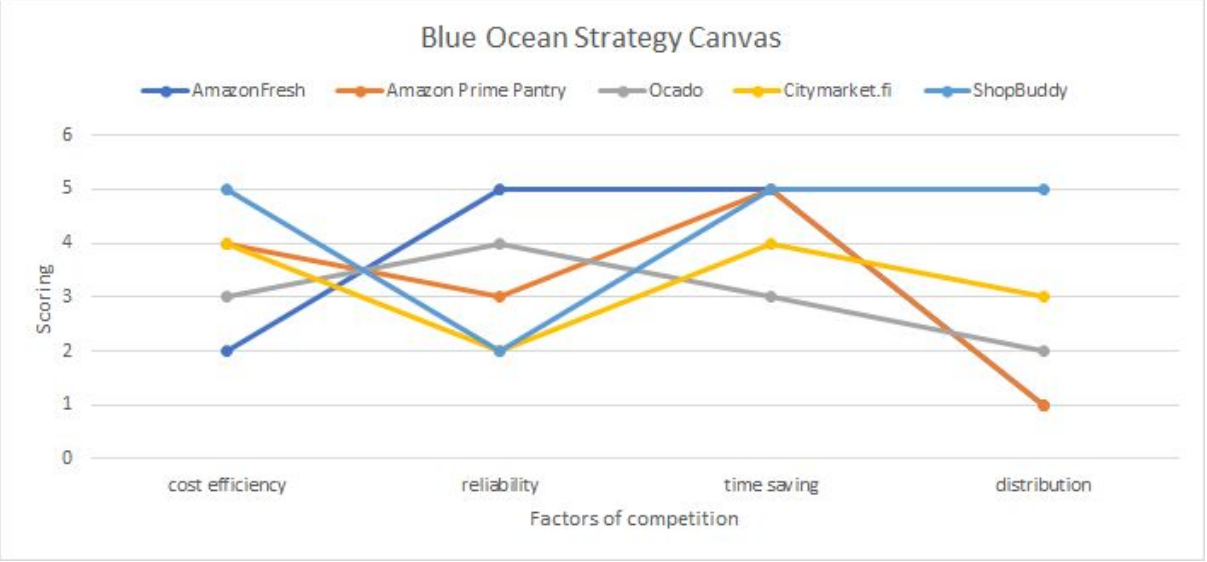
Executive Summary

Our service is about creating a platform that allow people, who go to a grocery to bring groceries to people in their neighborhood. This service allows elderly people to stay at home as long as possible. We did ask several elderly people if they would like to use such a service, in form of a mobile app, that provides them such a functionality. The result was pretty clear. When this app can help them to life longer at home, then they would really like to use it. As the target group for delivering customers we are focusing on students. Because many students go to the grocery regularly and most probably would like to earn some additional money.

The Market

Online grocery shopping could grow five-fold over the next decade, with American consumers spending upwards of $100 billion on food-at-home items by 2025. Global eCommerce is making deeper inroads across a broad swath of products, but online grocery is set to be one of the biggest winners this year. Around the world, more than a third of online shoppers expect to buy groceries over the Internet in 2016—34% vs. 21% in 2015 - according to a new AlphaWise survey from Morgan Stanley Research.
Supermarket giants Wal-Mart Stores and Kroger already draw sales from their online efforts and compete with Amazon and other e-commerce challengers. ShopBuddy will help to establish a delivery service in rural areas. Areas where it may not be sufficient for players, like Amazon Fresh to setup a cost intensive delivery network.

Positioning



Blue Ocean Strategy Canvas

With Blue Ocean strategy, innovators are able to systematically think through ways to create value for their target customers versus the competition. Obviously with each idea generated,

more analysis would be necessary to validate whether those specific ideas were valuable to customers but the Blue Ocean Strategy approach provides a fast and analytical approach to ideation and innovation.

Keys To Success

ShopBuddy's USP is to be a cheaper alternative to commercial delivery services, especially in rural areas. Because everyone needs to go shopping, it is a good chance for people to earn some extra money and at the same time helping other people. For the future it is possible to add some gamification, like a reward system or even a ranking for people who deliver to others a lot.

The platform will be rolled out by region. The first region is to be Helsinki capital region. This area is not even as close to the supply of services as other major cities in Finland. It is therefore particularly expedient to open up rural areas from regions such as the greater Helsinki area as quickly as possible. This approach is to be maintained in the course of the ongoing expansion and always proceed from smaller agglomerations with a strategic location to a rural environment. This approach is also to be linked to empirical surveys on the average age of the population.

The capital region of Helsinki has about 1.1 million inhabitants. Assuming there are 50,000 people who are restricted in their personal mobility and potentially 1 million suppliers. If only 1.5% of the potential users place an order regularly (once a month) in the first year, stable growth is to be expected and in the second year the region can be expanded and a new region opened up. To illustrate the potential of ShopBuddy, up-to-date accounts are made up to the seventh year after the foundation. These extrapolations were carried out to the best of our knowledge and are based on current demographic statistics.

Service Offerings

The mobile app should be easy to use. Think about an elder women who needs some milk, but has problems to get to the grocery store. Neither can she walk that good anymore nor can she use the bus. So she opens the app, or calls our hotline and orders the milk she wants and tell us the store she prefers. Our service will then calculate a fair delivery price, based on the weight and size of the products. Shortly after a student walks into that particular store and receives a gps based push notification, with the offer to buy some additional milk and deliver it. Our service has some information about the delivery customers, so it is possible to target only the customers, who are probably live nearby the ordering people.

Team

Maria Syed

Maria is a bachelor's degree student in Software Engineering at Metropolia UAS. She is a young, ambitious individual with a genuine enthusiasm for learning and strongest at Picking up new skills and working with new technologies. She is experienced in Javascript, Java and Python and already worked with React, Node.js and Angular.

Education	2015 - Present : Helsinki Metropolia University of Applied Sciences. B. Eng. Information Technology major: Software Engineering minor: Mobile Solutions
Working experience	02/2017 - Present: Solinor Oy (Software Developer) Mobile & web development (React Native & React) 05/2016 - 08/2016: Luxus Worldwide Oy (Developer Intern) Creating & maintaining landing pages on different platforms while learning new technologies and software

Benedikt Benz

Benedikt is a 2nd year Master's degree student in business information systems at Stuttgart Media University currently studying at Metropolia University of Sciences due to a semester abroad. He worked in different software companies with focus on C# and web programming, as well as IT security for ASP .NET based web applications.

Education	2nd year Master's degree student in business information systems at Stuttgart Media University
Working experience	12/2016 - 07/2017 Working Student - Infoman AG Germany Software Development C# 12/2014 - 05/2016 Travel & Work 05/2014 - 09/2014 Bachelor's degree candidate in IT division - RBS wave GmbH IT Security 08/2013 - 01/2014 Student internship - acteno energy GmbH Software Development C#

Patrick Puritscher

Patrick is a 2nd year Master's degree student in business information systems at Stuttgart Media University currently studying at Metropolia University of Sciences due to a semester abroad. He started working as a freelance software developer in Highschool. Since then, he worked in different software companies with focus on web and mobile programming. As part of his latest employment he is a founding member of the development team and helped to lay the groundwork for the development activities.

Education	2nd year Master's degree student in business information systems at Stuttgart Media University
Working experience	since 04/2017 Working student at Porsche Digital 10/2015 - 09/2016 Lead developer at Landesamt für Besoldung und Versorgung Baden-Wuerttemberg 10/2012 - 09/2015 Student at Landesamt für Besoldung und Versorgung Baden-Wuerttemberg 05/2010 - 09/2012 Freelancer

Thanh Do

Thanh is a Bachelor's degree student in Software Engineering at Helsinki Metropolia University of Applied Science. While his studies, he successfully participated in a number of web projects and gained experience with React, Redux, Java, Javascript and HTML. His focus is backend programming and REST implementation.

Education	Bachelor of Engineering, Software Engineering, Helsinki Metropolia UAS

Financials

ShopBuddy's financials are quite promising. Once they are up and running and people start using the service, ShopBuddy will quickly gain momentum due to the networking effect and generate impressive sales.

Costs and prices

This chapter takes a broad look at the cost structure. A distinction is made between fixed costs and variable costs. After that, a clarification of the pricing is given. The subsequent chapter, the return on investment, provides a forecast of these figures.

Fixed costs

The fixed costs are made up of expenses for personnel, marketing, IT operations and additional costs. Costs for development environments and the office space are declared as additional costs. In order to simplify the calculation, depreciable assets are fully valued for the year of acquisition. The fixed costs are estimated at 261.600 € for the first year, including the development of the Minimum Viable Products (MVP).

Personnel

The full development of an MVP is carried out by the founder team. The basis for the salary was based on the Exist-Gründerstipendium and stated that a founder costs 4,200 € gross, including employer's fees. This means that every employee is available for 40h / week and, with the exception of holidays and illness days, 18 working days per month are expected. While two employees are almost completely concerned about the development of the application, the others are responsible for further tasks. This includes, among other things, marketing, agreements for partnerships with commerce and additional administrative tasks. Support is provided by all employees. The costs for the development of the MVP can be seen in table 1. The development of a first version claims 75 per person. Accordingly, two to three months of development time and pure development costs of € 17,500 are expended.

Component	**Estimated expenditure in man-days**
Mobile app buyer iOS	15 man-days
Mobile app buyer Android	10 man-days
Mobile app supplier iOS	15 man-days
Mobile app supplier Android	10 man-days
Backend for mobile apps	25 man-days

Table 1: estimated expenditure for the components

IT operations

A cloud-first approach is pursued for the operation of the IT infrastructure. This offers a better way of cost estimation and enables to quickly respond to changes in demand. The

finely granular selection of the necessary resources can also be used to reduce the costs of jump-fixing. The assumed demand for the first year is estimated at € 2000 for the full year. This number is based on a cost estimate of the developers and refers to the offer of Amazon Web Services (AWS).

Marketing

In the first year there will be a fee of 50.000 € for marketing purposes. These are divided in both target groups. Virtual advertising, such as Facebook ads, should be used for potential suppliers. Buyers are addressed via banner advertising, especially in supermarkets. The actual advertising materials are selected as required and can not be declared compulsory at this point.

Additional costs

For the whole of the first year, no office space is required, since the team can either work together in a virtual way or can meet in cost-neutral locations such as a common room at university. However, there are already costs for the development environment. This is estimated at 3.000 € and includes not only a powerful notebook but also software and a monitor as well as other peripherals. The team consists of two developers, according to which initial costs of 6000 € are estimated. A further € 2000 is set for the other employees as well as expenses for expenses.

Variable costs

The variable costs are based on the number of orders made. No variable costs are expected for the operation of the application. However, the concept of ShopBuddy is based on the largest possible range. Only through sufficient suppliers the application appears attractive enough for the customer. This situation is often described as a hen egg problem. Therefore, so-called premium suppliers are used to make the application usable right from the start.

Prices

In general, every person can apply for the role as a premium supplier. However, the applications are individually reviewed and only accepted if they are actually required. The target group is those whose availability is comparatively flexible. Students, for example. For each premium delivery, a supplier receives 6 €. However, the customer pays only the usual price, of an average of 2 €. This results in costs of 4 € per successful delivery. At the beginning 80% of premium deliveries are expected. This share should be reduced with the successful adoption of the ShopBuddy concept. For example, for the fourth year only 8% premium deliveries are expected. The premium suppliers are particularly responsive to the most important criticism of the competitor MYU.

The business model of ShopBuddy is based on a mediation fee, i.e. a commission for deliveries made. By cooperating with various supermarket chains, current prices can be displayed for the customer. The delivery fees are calculated on the basis of the shopping cart and are borne by the orderer. The calculation is based on a formula, which includes the weight, scope and distance. For the first year, delivery charges of an average of 2 € are expected. The supplier receives 70% of this amount, i.e. 1,40 € and ShopBuddy 0,60 €. Tax

duties are disregarded for the purpose of simplification.

For successful deliveries a commission of 30% is assessed, which must be borne by the suppliers. Exceptions to this rule are premium deliveries.

Evaluation

As we heavily rely on the network effect, we don’t have much value on our own (Figure 1). The value is created by users and as more users join in, more value is created. To get our business started we have to invest a lot and take big loans to be able to finance the business. We estimated our breakeven point in year 4 as you can see in the previous assignment.

Figure 1: Income statement - first year

Balance sheet for Sept 2018			
ASSETS	**€**	**LIABILITIES**	**€**
Current Assets:		**Current Liabilities:**	
Net Cash	40,500.00 €	Accounts Payable	0.00 €
Cash in Bank	0.00 €	Wages Payable	153,648.00 €
Petty Cash	500.00 €	Office Rent	0.00 €
Loan	40,000.00 €	Utilities	50,000.00 €
Accounts receivable	0.00 €	IT Operations	4,000.00 €
Inventory	264,744.00 €	**Total Current Liabilities**	207,648.00 €
Total Current Assets	305,244.00 €		
		Long-term liabilities	
Fixed Assets:		Loan	40,000.00 €
Equipment	4,000.00 €	**Total long-term liabilities**	40,000.00 €
Total fixed assets	4,000.00 €		
		TOTAL LIABILITIES	247,648.00 €
		OWNERS EQUITY	61,596.00 €
TOTAL ASSETS	**309,244.00 €**	**LIABILITIES AND EQUITY**	**309,244.00 €**
EVALUATION			
Acid-Test Ration	**0.20**		
Debt/Equity Ration	**4.02**		

As Figure 2 shows, the Acid-Test/Quick Ratio indicates that we have sufficient short-term assets to cover our immediate liabilities. The Debt/Equity Ratio shows that we have been heavily taking on debt (the loans mentioned earlier) and thus have a high risk

Key performance indicators

The success of the company depends on the structure of the network. Correspondingly, key indicators must be

defined, in order to measure success and deviations.
Figure 2: Balance sheet - September 2017

The following KPIs are considered to be particularly important: amount of orders, share of premium deliveries, acquisition costs per order, average delivery fees and total costs. The following table shows the target values for these key figures over the next few years. Particular consideration was given to the circumstances of the respective regions.

Key indicator	**Target value - Year 1**	**Target value - Year 2**	**Target value - Year 3**
Amount of orders	190.000	270.000	400.000
Share of premium deliveries	80%	60%	5%
Costs of acquisition	2,90€	2,50€	2,25€
Average of delivery fees	2,00€	2,50€	3,00€
Personnel costs	160.000€	160.000€	300.000€
Marketing costs	50.000€	75.000€	112.500€
IT operation costs	4.000€	5.000€	20.000€
Additional costs	8.000€	2.000€	15.000€

Table 2: Key indicators

Total costs

As explained in the previous chapter, the fixed costs consist of the following categories: IT operations, marketing, additional costs and personnel. Figure 3 shows that the workforce accounts for the largest share. While for the first two years only the founder team is planned, the number of employees increases in the following years. This is due in particular to the zgrowing expenditure on extended communication with supermarkets, increased communication requirements as a result of the growing number of customers and suppliers as well as growth in the development team. While the additional costs are initially kept low, the rental of an office space is expected for the eighth year. This planning can be adapted at any time. For example, renting an office space may be required earlier, as the team can reach a critical size faster than expected.

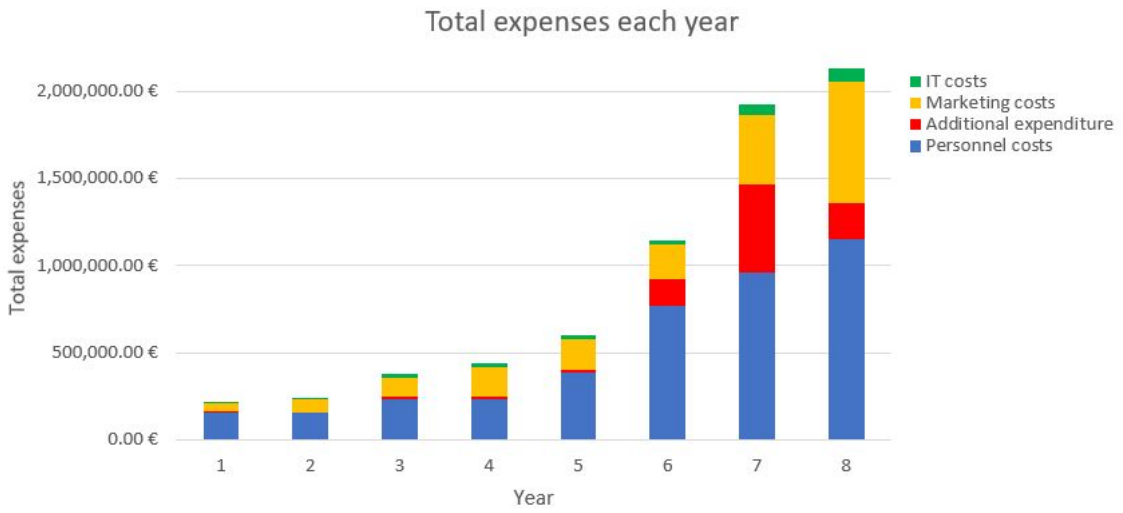


Figure 3: Total expenses each year

Figure 4 shows that the concept of premium deliveries is a significant cost factor. Nevertheless, the concept of these subsidized supplies is considered essential for the success of the platform.

Figure 4: Cost of premium delivery

Figure 5 shows the planned share of the premium deliveries, which is to be reduced slowly.

Figure 5: Share of premium deliveries

Outlook and breakeven

Figure 6 visualizes the expected breakeven point in the fifth year. Critical to success is the proportion of cost-intensive premium deliveries compared to the profitable private deliveries. Table 3 shows an aggregated overview based on the defined target values of the described KPIs. This shows the projected costs of 3,402,118 € for the fourth year. These expenses are to be fully amortized by the surplus up to the seventh year.

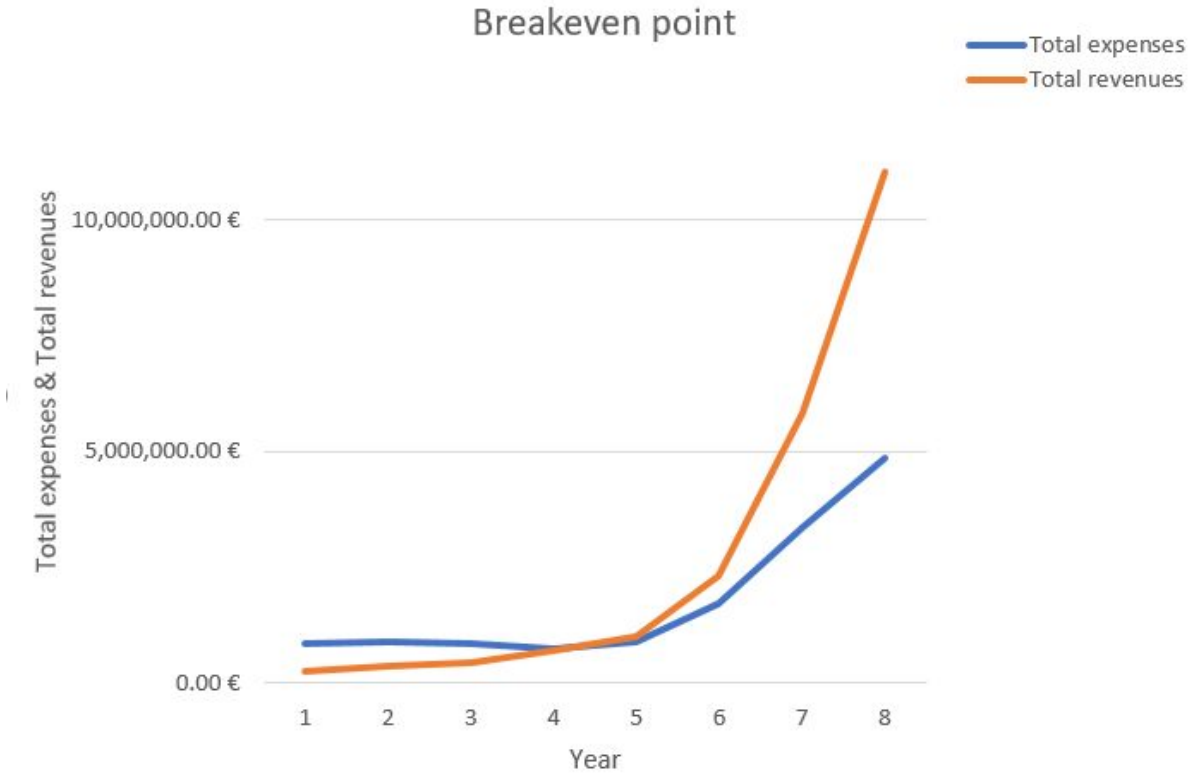


Figure 6: Breakeven

Year	Amount of orders	Total revenue	Total costs	Net profit / balance
1	183,850	264,744.00 €	877,460.00 €	-612,716.00 €
2	270,000	391,500.00 €	883,648.00 €	-492,148.00 €
3	410,000	451,000.00 €	870,044.00 €	-419,044.00 €
4	670,000	715,560.00 €	760,966.00 €	-45,406.00 €
5	1,000,000	1,005,000.00 €	899,480.00 €	105,520.00 €
6	2,300,000	2,311,500.00 €	1,719,200.00 €	592,300.00 €
7	5,000,000	5,829,000.00 €	3,371,800.00 €	2,457,200.00 €
8	11,000,000	11,055,000.00 €	4,884,520.00 €	6,170,480.00 €

Table 3: Net profit of orders per year

Appendix A: