

Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Management



Diploma Thesis

**Product development: Case study of DogNTag system
for lost animals**

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

DIPLOMA THESIS ASSIGNMENT

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Economics and Management

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Product development: Case study of DogNTag system for lost animals

Objectives of thesis

The DogNTag product is present in the Czech Republic, however the take up of the product has not been as great as was originally anticipated. The overall aim of the thesis is to conduct a detailed study of the business in order to consider the overall viability of the business, to identify any shortcomings, and to make recommendations for improvements to the business and its operation.

Methodology

Relevant literature will be studied, in particular to identify and summarize techniques of product development, project management and marketing strategy development.

The research/project part of the thesis will be to analyse the original business plan, and address the shortcomings.

The proposed extent of the thesis

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KOTLER, P. – KELLER, K L. *Marketing management*. Upper Saddle River: Pearson Prentice Hall, 2012. ISBN 978-0-13-600998-6.

Lord, L.K. et al; Search and identification methods that owners use to find a lost dog; JAVMA, Vol 230, No. 2, January 15, 2007

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Declaration

I declare that I have worked on my diploma thesis titled "Product development: Case study of DogNTag system for lost animals" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on 27th March 2017

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Product development: Case study of DogNTag system for lost animals

Abstract

Relevant theory was studied in order to provide basis for analysis of the product from various perspectives. Desk research related to lost dog recovery methods was conducted and statistics related to dog ownership were presented. In particular, theory of product development, project management, marketing strategy development and business plan writing was studied. Technology related to analysed product was also studied.

Different characteristics of the product were described and analysed. Quality of physical product and disorganized marketing activities were identified as major shortcomings of the whole project. Solution of physical tag quality issue was found in collaboration with suitable manufacturer of the product. Opinions of potential customers were analysed based survey conducted in form of questionnaire. Absence of phone number printed on the tag was defined as one of major shortcomings of the product. Based on this result, VOIP based service was suggested as solution. Expected costs and revenues, as well as potential profit were presented. Possible project implementation was presented from view of length of implementation and volume of labour requirements. Potential for further development and suggestion towards decision on project acceptance / cancellation were presented.

Keywords: product development; marketing; lost dog; business plan; improvement; dog tag; NFC; mobile phone; customer; DogNTag

Produktový development: Případová studie systému DogNTag pro ztracená zvířata

Abstrakt

Relevantní teorie byla studována s cílem vytvoření základu pro analýzu produktu z různých perspektiv. Byl proveden sekundární výzkum týkající se metod nalézání ztracených psů a statistiky týkající se vlastnictví psů byly prezentovány. Byla nastudována zejména teorie týkající se vývoje produktů, projektového řízení, vytváření marketingových strategií a psaní podnikatelských plánů.

Různé charakteristiky produktu byly popsány a analyzovány. Kvalita fyzického produktu a neorganizované marketingové aktivity byly identifikovány jako hlavní nedostatky celého projektu. Řešení problému s kvalitou fyzické známky bylo nalezeno ve spolupráci s vhodným výrobcem produktu. Názory potencionálních zákazníků byly analyzovány na základě dotazníkového šetření. Absence telefonního čísla vytištěného na známce byla identifikována jako jeden z hlavních nedostatků produktu. Na základě výsledků byla jako řešení doporučena služba založená na VOIP. Očekávané náklady a výnosy stejně jako potenciální zisk byly prezentovány. Možná implementace projektu byla prezentována z pohledu délky implementace a požadavků na objem práce. Potenciál pro další rozvoj a doporučení pro přijetí, nebo odmítnutí projektu byla prezentovány.

Klíčová slova: vývoj produktů, marketing, ztracený pes, podnikatelský plán, zlepšení, psí známka, NFC, mobilní telefon, zákazník, DogNTag

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1 Introduction

Modern technologies are becoming cheaper and more sophisticated year by year and mobile, digital and contactless technologies could be found in innovative and unusual solutions. The idea of smart dog tags without any battery or active element brings contactless technology to relatively stable field, dominated by classical dog tags made from metal and by microchipping. NFC based tags capable of being retrieved by standard smart phone, in combination with online profile, bring additional functionalities and comfort to such a simple thing as a dog tag.

DogNTag project was launched in year 2014 by CALL, company limited, but despite of enthusiasm of DogNTag team, the project did not bring satisfactory results in terms of sales. There are some known issues related to the whole project, but, according to the results of the project, there are either more issues combined, or at least one of the issues is very significant.

It is obvious that some changes to the project and its operations need to be done and well prepared steps need to be taken. In order to design successful changes to the product and perspective future development of the whole project, detailed analysis has to be conducted.

The company claimed to provide all available resources for purposes of the analysis, as well as full cooperation.

2 Objectives and Methodology

2.1 Objectives

The DogNTag product is present in the Czech Republic, however the take up of the product has not been as great as was originally anticipated. The overall aim of the thesis is to conduct a detailed study of the business in order to consider the overall viability of the business, to identify any shortcomings, and to make recommendations for improvements to the business and its operation.

2.2 Methodology

Relevant literature will be studied, in particular to identify and summarize techniques of product development, project management and marketing strategy development.

The research/project part of the thesis will be to analyse the original business plan, and address the shortcomings. Opinions of potential customers on both current product and possible future development of the product will be studied and evaluated. Opinions will be collected using online questionnaire survey.

3 Literature Review

3.1 Overview of Lost Dog Recovery Methods and Relevant Statistics

This chapter discusses findings of scientific studies on methods used for lost dog recovery, published in relevant journals. Statistics of dog ownership are also presented in this chapter.

3.1.1 Dog Recovery Methods

Study on frequency of lost dogs and cats presented in 2012 shows that approximately 13.5% of dogs got lost at least once in five years. Majority of dog owners included in the survey noted that their dog got lost two to five times during last five years. It does not look like high percentage, but in total numbers, it shows significance of the issue. (Weiss et al., 2012)

According to study conducted by Lord et al., different search methods have different probability of lost dog recovery. For purpose of that study, 187 cases of lost dog out of 823 cases that happened in given time frame were included in the study. Out of that number, 132 dogs were successfully recovered, which represents 71% percentage of recovery. The article presents methods that were used by dog owners when dog get lost and also methods that led to successful recovery of the dog. Time periods needed to dog recovery are also presented in the article. (Lord et al., 2007)

Table 1 Methods of Successful Lost Dog Recovery

Recovery method	The length of time during which the dog was lost (days)						Total	
	≤ 1		> 1 but 5 <		≥ 5			
	number	%	number	%	number	%		
Dog returned home on its own	5	8.8	2	4.9	3	8.8	10	7.6
ID tag	7	12.3	3	7.3	1	3.0	11	8.3
Dog licence tag	15	26.3	6	14.7	3	8.8	24	18.2
Microchip	1	1.8	1	2.4	0	0	2	1.5
Neighborhood signs	6	10.5	6	14.7	8	23.5	20	15.2
Newspaper advertisements	0	0	1	2.4	5	14.7	6	4.5
Call or visit to animal agency	17	29.8	21	51.2	8	23.5	46	34.8
Other	6	10.5	1	2.4	6	17.7	13	9.8
Total	57	100	41	100	34	100	132	99.9

Source: (Lord et al., 2007)

The table shows that the most successful method was cooperation with animal agency. If we add dog tag licence and IT tag together, it would be considered as second most efficient method. (Lord et al., 2007)

Both studies from Lord and from Weiss were conducted in USA, and have certain similarities. According to Lord, minority of dogs were equipped with microchip (Lord et al., 2007) and Weiss shown the same result so we can assume microchipping of dogs is neither obligatory nor common in USA. (Weiss et al., 2012)

Study conducted by Lord also discussed importance of microchips as identification method. Even though author considers potential of this method as high, it is not suggested to use microchipping as the only method of identification since lost dog wearing some form of ID or licence tag is more likely recovered faster in compared to dog having microchip only. On the other hand, microchipping is very beneficial in case the dog loses its collar. (Lord et al., 2007)

Not only dog owners have influence on successfulness of lost dog recovery. People who find the lost dog can misunderstand the situation and / or behaviour of the dog. Frequent mistakes include perceiving of dog without collar automatically as homeless dog, ignoring the fact that dog could have lost the collar while escaping or on its way. The second mistake is perceiving fearful dog as a dog which was abused or maltreated and refuse to contact the owner even if obvious identification techniques, such as ID tag or tag with phone number are employed. The problem is that fearful or not friendly dog can just have xenophobic behaviour by nature, this kind of behaviour does not need to show anything about how the dog was treated. (Missing Pet Partnership, c2015)

3.1.2 Statistics Regarding Dog Ownership

According to figures from year 2014, published by The European Pet Food Industry Federation, EU households own approximately 62.025.940 dogs and the European total number is 80.002.940 dogs. Czech household own approximately 2.128.000 dogs, (European Pet Food Industry Federation, c2017) which shows that approximately every 5th inhabitant owns dog. (Czech Statistical Office, 2015)

3.2 Technology Employed in DogNTag Product

Since DogNTag product has been already present at the market, knowledge of technology employed in the product is essential for understanding its advantages and disadvantages as well as designing future development of the product.

3.2.1 NFC

NFC is abbreviation for “near field communication technology”, wireless technology used for short-range transmission between two active devices or active device and passive NFC chip. Passive chips are, in NFC terminology, called NFC tags. Active device used for this transmission could be specialized NFC reader, or smartphone equipped with NFC module by manufacturer. (NearFieldCommunication.org, n.d.)

Process of sending / receiving data using NFC is easy and fast. After putting two NFC devices (two active devices or active device and passive NFC tag) close to each other, the radio transmission starts automatically. In case of active and passive device, the active device charges the passive NFC tag and receives data from memory of the tag immediately. According to this mode of operation, NFC belong to the group of RFID technology, but RFID is more broad term. NFC operates on frequency 13.56MHz and speed of the transmission could be 106, 212 or 424 Kbps. (Egan, 2015)

NFC technology was developed by Sony and Philips in 2003 and in the same year new standard, ISO/IEC 18092, was adopted by International Organization for Standardization. Protocol and interface specification defined by this standard is understood as foundation of NFC technology. (Abdel-Gaber & Abdel-Aleem, 2015) NFC is further standardized by contactless cards standards JIS X 6319-4 and ISO/IEC 14443 (NFC Forum, c2016) and by further specifications designed by NFC Forum. (Abdel-Gaber & Abdel-Aleem, 2015)

NFC Forum is non-profit organization founded by Nokia, Philips and Sony in 2014. The aim of the organization is to develop and promote NFC technology and to assure universal compatibility of NFC devices by further standardization of the technology. (Abdel-Gaber & Abdel-Aleem, 2015)

According to the NFC Forum, there are three main operating modes: card emulation mode, peer-to-peer mode and reader / writer mode. In card emulation mode, NFC-enabled device acts as NFC card or chip, which enables users to use the device to perform ticketing, payments or access control. If the NFC-enabled device, set in this mode, is read by other active NFC device, read information is shown in the same way to reading from NFC card or chip. (NFC Forum, c2016)

Peer-to-peer mode allows communication of two NFC-enabled (active) devices with aim to exchange information such as pictures or contact information. (NFC Forum, n.d.) There is also option to use this mode for authenticating (pairing) WiFi or Bluetooth sessions for data transfer. Combination of NFC pairing and Bluetooth data transfer increases speed of data transfer and leads to 75-90% reduction of time needed for data transfer. (Abdel-Gaber & Abdel-Aleem, 2015)

Reader / writer mode is used for communication between active and passive NFC device, typically NFC-enabled mobile phone or reader with passive NFC card or chip. It enables active device to read data from NFC tag or to write data to NFC tag. (NFC Forum, c2016)

3.2.2 QR codes

QR codes were designed in 1994 by Japanese car-producers, for tracking of car parts. QR codes are evolution of classical barcodes developed in 1970s, but brings significant improvement of possible implementation. (O'Neill, 2015)

The main advantage of QR codes is that they are designed to be scanned by smartphones, using special reader application. (Bear, n.d.) Another significant advantage of QR codes in comparison to standard Barcodes is are also made to operate with 30% error correction, which means that even if 30% of code is corrupted, the code is still readable. (Chan, 2011)

Common type of QR code content is web address in a form of URL. QR code with URL address can work in dynamic way, even though the code cannot be changed. If a URL is saved in the QR code, the displayed content can be changed by redirect of the short URL from original to new final address. (QR Stuff QR Code Generator, 2012) Long URL address means bigger QR code, according to best practices it is better to use URL shortener. Web

services providing management of QR codes redirect usually also provide shortening of URL addresses. (Summerfield, 2014)

There are many other types of content to be used in QR codes. QR code can be designed to carry information to be saved in calendar, to make a phone call, write a short message, create a Tweet, or write an email. In all cases, approval of user of smartphone is necessary for function saved in QR code to proceed. (Bear, n.d.)

3.3 Techniques of Product Development

According to analysis conducted by Roland Berger Strategy Consultants that covered 410 projects made by companies of all sizes, the main challenges for nowadays companies are increased global competition which brings new products and new competitors faster than ever, continuous shortening of product life cycle, and also high rates of failure concerning introduction of new products to market. (Roland Berger Strategy Consultants, 2013)

Using effective new product development techniques is the key to higher product profitability. Three main factors were identified in approaches of successful companies towards product development. Firstly, successful companies do not stick to one method of product development, but they intensively use more product development methods in one project. Secondly, the right selection of product development method is essential in each phase of a project. The third finding shows that combination of methods among fields, for example methods of research and development, project management and quality management, helps to reach success. (Roland Berger Strategy Consultants, 2013)

3.3.1 Cross Functional Methods

3.3.1.1 Benchmarking

Benchmarking as business term refers to process of comparing of one's company processes and performance indicators to the most successful companies in the same industry and / or best practises from different industries. Benchmarking is highly effective approach with potential of continuous development, mainly concerning areas of quality, costs and time. It is specific type of financial analysis, based on comparing one firm to other firms in the same or similar field, and / or to industry standards. (Tantau et al., 2010)

Benchmarking is complex approach that can help to understand complexity of company performance. Development techniques and opportunities learned from other, stronger and more successful companies are cheaper than to conducting all development steps without any information about approaches of competitors. Benchmarking could not only lead to improvement of position of the company towards its competitors, but also to development of new ideas. (Tantau et al., 2010)

Criticism of benchmarking approach says that this technique is focused only on retrospective information, which can be possible shortcoming of results gathered by benchmarking analysis. Another criticized aspect of implementation of benchmarking are costs connected with obtaining comparable datasets. (Moriarty & Smallman, 2009)

Still, study conducted by Roland Berger Strategy Consultants highlighted benchmarking as the most influencing method of Cross-functional methods group. (Roland Berger Strategy Consultants, 2013)

3.3.1.2 SWOT Analysis

SWOT analysis is simple, practical and easy understandable management tool focused on main factors of both internal and external environment of business. (Jurevicius, 2013)

3.3.1.2.1 Internal Factors

SWOT analysis is widely used management tool focused on defining of both internal and external factors influencing company operations and future development. Main purpose of conducting SWOT analysis it to find out whether current strategy is adequate to current situation in company environment. (Recklies, 2014)

First part of SWOT analysis deals with internal factors – S (strengths, positive) and W (weaknesses, negative) of the company. This part is focused only on factors that could be controlled and influenced by the company. Actual strengths and weaknesses can aim at variety of factors and highly depend on current situation. Following areas represent examples of possible sources of strengths and weaknesses:

- Structure of ownership
- Employees skills, abilities and experiences

- Financial condition of company
- Company culture
- Research and development capacity
- Quality
- Internal processes

(Recklies, 2014)

All mentioned strengths and weaknesses should be relevant to actual project or business situation. Enlisting strengths irrelevant to current situation, even though these strengths are superior in compared to competitors, does not bring any additional value to the analysis. On the other hand, superiority in a factor that is not perceived as highly relevant could lead to major advantage over competitors so correct identification of strengths as well as weaknesses is critical. (Recklies, 2014)

All factors need to be defined clearly, for example, research and development, or organizational culture can be strength, weakness, or neither. On the other hand, innovative research and development is clearly defined strength. (Jurevicius, 2013)

It is important to mention that both strengths and weaknesses are relative and need to be examined in broader view. Comparison with main competitors or industry standards increases relevancy of mentioned factors. Factor can look as an advantage but if competitors perform even better, it could lead to disputes of relevancy of the factor as a strength. (Recklies, 2014)

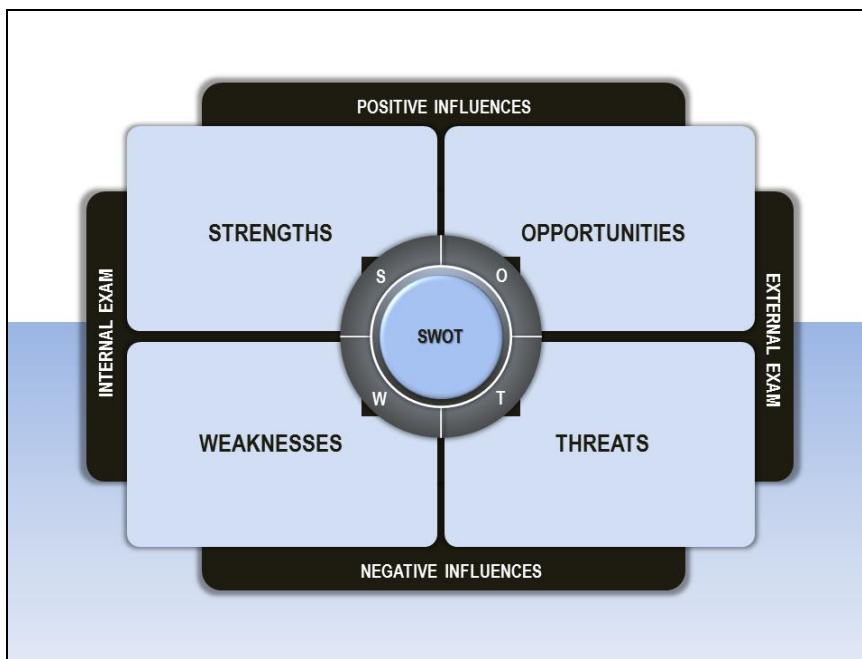
3.3.1.2.2 External Factors

External factors are represented by opportunities (positive) and threats (negative). Both opportunities and threats come from external environment of the company and both are not under control of the company. Since identification of external factors can be difficult, there are models designed to be used in external factors analysis. One of the models that makes analysis of external factors easier is PEST model. This model is based on political, economic, social and technological analysis of aspects of external environment. The PEST model is useful extension, but not integral part of SWOT analysis. SWOT analysis does not bring

answers, but it is clear and structured framework that can make finding of answers easier. (Recklies, 2014)

Main points of criticism related to SWOT analysis come from a fact that there is no prioritization employed in SWOT analysis. So, for example, two minor strengths can overbalance one major weakness. Other critical opinions come from fact that factors are not always defined by facts only, but also by opinions. (Jurevicius, 2013)

Picture 1 Typical SWOT Analysis Template



Source: (Thatte, c2011-2014)

3.3.1.3 Creativity Techniques

3.3.1.3.1 Brainstorming

Brainstorming is creative problem-solving technique. Brainstorming session is group activity, all participants are encouraged to express their ideas freely, without any fear of criticism or other negative responses. All ideas are enlisted for further use. Brainstorming is usually employed at the beginning of group problem solving or decision making process, picked ideas, are then further developed. (Spacey, 2015)

Brainstorming is commonly used method (Grebner et al., 2015), but despite to this fact, there exists also serious criticism of this technique. Sharing ideas in group is beneficial with no

doubt, but because of shouting of ideas, group members tend to think about ideas of their colleagues instead developing of their own. Scientists call this process “anchoring”, and it leads to decrease of originality. First ideas have disproportionately higher influence on outcomes of brainstorming session, set norms of “appropriate” answers or ideas, leaving the best ideas unmentioned. As a result of these problems, brainstorming can be seen as too time demanding in relation to its outcomes. (Greenfield, 2014) To overcome such issues, it is often suggested to use brainwriting technique instead of. (Wilson, 2013)

3.3.1.3.2 Brainwriting

Brainwriting is alternative method to traditional brainstorming. The main difference is that group members do not say their ideas loud to each other. Every member starts with blank sheet of paper and then all group members answer the same question individually and quietly by writing their own ideas. After few minutes, every member passes his or her sheet of paper to colleague and all members continue by adding own ideas to ideas of their colleagues. After ten to fifteen minutes, all sheets of paper are collected and all ideas are discussed immediately. (Wilson, 2013)

This approach let people build their ideas on ideas of others, but in compared to brainstorming, they are not dominated by first ideas mentioned during the session. Since brainwriting is parallel process, it usually brings more ideas within significantly shorter time frame. (Wilson, 2013)

Another advantage of brainwriting in comparison to classical, face-to-face brainstorming is that group members which are quieter or less dominant will not be dominated by more dominant members. Brainwriting session gives the same chance equally to all members. (Greenfield, 2014)

Brainwriting can be beneficial in large groups which are not suitable for brainstorming sessions, as well as in small groups. Brainwriting can be used, in contrast to brainstorming, in groups in which is not acceptable to express wild or highly innovative ideas loud due to formal reasons, and is also suitable for groups formed by more introvert members who would not be willing to express their ideas in front of others. Brainwriting also, in comparison to brainstorming, does not require experienced moderator to lead the session. (Wilson, 2013)

3.3.1.3.3 Scenario Planning

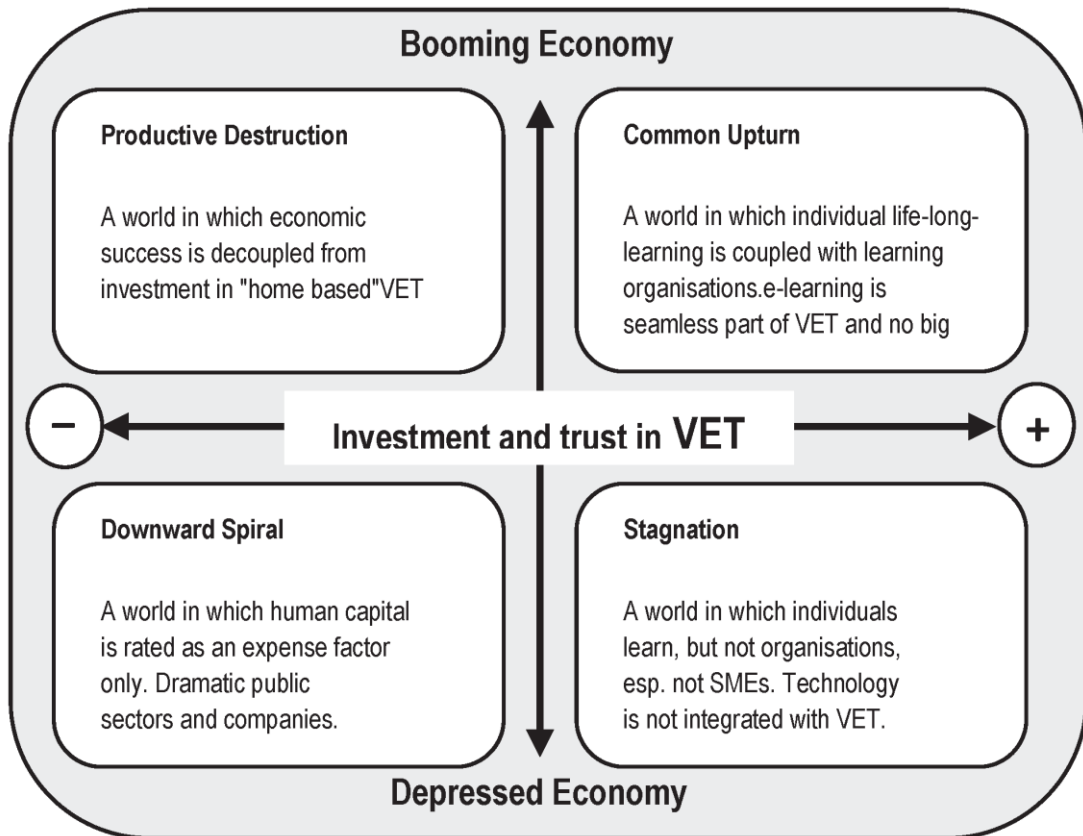
Almost all decisions in business are taken under some level of uncertainty and that brings risk to decision making process. There is no possibility to get rid of the risk, but the goal should be to decrease it as possible. Scenario planning focuses on creating assumptions of future situation in business environment of the company as well as anticipating future consequences of every action. Identification of all main sources of uncertainty is critical, it is not possible to prepare adequate response for not defined source of uncertainty. (Mariton, c2016)

There are four crucial steps of scenario planning, Identification of driving forces, Identification of critical uncertainties, Development of possible scenarios and Implications and paths discussion. First step, Identification of driving forces, consists of anticipation and discussion of significant future changes in economy, politics, technology and /or society. After the list of uncertainties is made, two uncertainties with highest impact on the company should be chosen for further assessment. This phase is included in the second step of scenario planning process. In third step, graphical matrix consisting of two axes for displaying of two main factors defined in previous step should be designed. Each factor should be represented by one axis and each direction on both axes should represent one scenario. In the last step, different implications and impacts should be discussed for all scenarios and then, company strategy should be discussed based on strategies for discussed scenarios. (Mariton, c2016)

Desired outcome of scenario planning consists of four scenarios with highest probability to happen. There are of course much more possible future situations but four scenarios should be enough to address main issues. (Mariton, c2016)

Following example of the scenario planning grid represents scenarios for the European observatory project ARIEL. (Hamburg, 2015)

Picture 2 Example of Scenario Planning Grid

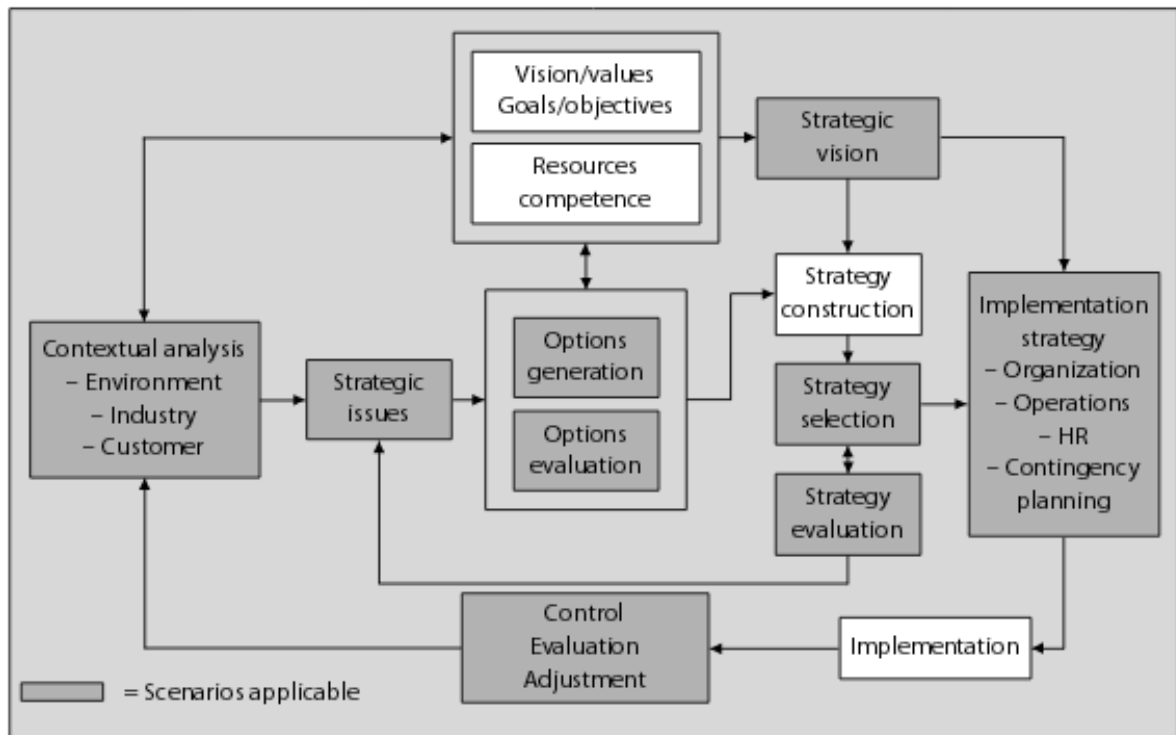


Source: (Hamburg, 2015)

Scenario planning is powerful tool for wide range of activities related to planning and strategy selecting (Lindgren & Bandhold, 2003), but according to Mariton it is not possible to build a business strategy directly from outcomes of scenario planning. (Mariton, c2016) Lindgren expressed the same opinion as Mariton. (Lindgren & Bandhold, 2003)

Implementation of strategy has at least the same importance as strategy development. To avoid wasting resources invested into strategy development, strategy has to be implemented precisely. Scenarios are not directly employed in business strategy implementation, but can be useful in deciding which implementation strategy fits company's needs accurately. Scenarios are also beneficial for company's progress evaluation – to help to find an answer for question, whether they are in comply with their desired direction or not. Following picture shows phases which are suitable for employing of scenario techniques. (Lindgren & Bandhold, 2003)

Picture 3 Different Planning Situations Where Scenarios Are Useful



Source: (Lindgren & Bandhold, 2003)

3.3.2 Customer Integration / Market Research Methods

3.3.2.1 Product Testing

Product (design) testing is important part of product development process. Product testing usually takes place in between design and development phase and commercialization phase of product development (Kowang et al., 2014). However, some authors suggest to proceed testing in every phase of product development. (Duverneay, 2013)

There are two basic terms concerning testing phase of product development: test marketing and product testing. Product testing is focused more on product itself, future and usability of the product. On the other hand, test marketing helps to design marketing strategy for a product by introducing the product to broader part of market and to ideal samples. (Spark, 2016)

Product testing, if properly executed, should help the company to reach and / or maintain product superiority over competitive products. If ongoing testing is employed, product can

be, according to trends in test results, continuously improved. Testing is also crucial in monitoring danger caused by competitive products, helps to understand both advantages and disadvantages of competitive products and monitors overall satisfaction of customers with the product. One of the main benefits of product testing is that this technique can be used to predict consumer acceptance of a product. (Thomas, c2010)

Main risks associated with using product testing techniques are: danger of choosing wrong sample (respondent) group, insufficient size of sample group and wrongful presentation of product and testing to test respondents. Although there are well known risks connected with testing, many of those risks can be decreased or eliminated by proper using of product testing methods. (Wyne, 1997) Lack of product testing is common reason of market failure of new products. Especially small businesses do not test properly. However, big multinational companies also have cases of product failures that are caused by lack of testing. (Wonnacott, 2016)

Typical types of product testing include concept-to-product tests, reformulation studies and discrimination tests. Concept-to-product tests can be held at early phase of development or at later, pre-launch phase of product development. Testing in early phase is usually designed to determine which variant or formulation of product is ideal and should be developed further, colours or flavours can be examples of tested features. On the other hand, testing at later phase of development helps to determine whether the product and all features works as expected. Reformulating studies are usually conducted if some key attribute of product is about to be changed. If one important ingredient of food product should to be altered, reformulation study is focused on consumer acceptance of new product and perception of new product in comparison to the old one. Discrimination tests help to determine if substitution of one ingredient by another will be perceived by consumers or not. (Isaacson & Lesnick, c2012)

3.3.2.2 Consumer Surveys

The term survey usually stands for selection of a relatively wide sample group of the population of researcher's interest, followed by gathering of relatively large volume of data from each participant. Then the researcher uses collected information to make some sort of inference about wider population. Data are collected in structured form and data collecting

process is usually done by a questionnaire or an interview. Information collected by surveys provides snapshot of current situation or current opinions. (Kelly et al., 2003) Consumer survey is powerful tool for gathering high volumes of data together in relatively short time frame. (Ciotti, 2016)

3.3.2.2.1 Consumer Surveys – Advantages and Disadvantages

Collection of empirical data from real-world, wide coverage in terms of volume of participants resulting in representative population sample and gathering of large volume of data for relatively low costs, are main advantages of surveys. (Kelly et al., 2003) Krishna Reddy mentioned these advantages as well in recent article and added easy manageability of surveys and easy quantification of survey results as advantages of surveys and questionnaires. (Reddy, 2016)

Lack of significance of data due to preference of the range of coverage to collected data relevancy is one issue connected with surveys (Kelly et al., 2003), some of other authors go further by saying that same part of collected data can be unreliable, usually due to misinterpretation of question or giving incomplete response to question. (Choudhury, c2016) Therefore, it is essential to provide respondents with easy understandable questions, from this view, close ended questions could help to partly avoid not well answered questions and incomplete answers. (Ciotti, 2016) Kate Kelly named lack of detail in collected information as a disadvantage of surveys (Kelly et al., 2003), Krishna Reddy expressed similar view on this issue. (Reddy, 2016)

3.3.2.2.2 Conducting Surveys – Best Practises

Essential point is that surveys should be easy to follow and questions should be asked in clear and understandable way. All used questions should have purpose so that the answers of these questions help to fulfil the aim of the survey. (Ciotti, 2016) Every question needs to be connected to research question, collecting of high volumes of data without purpose should be avoided. Each question should be answerable and all duplicities among questions should be avoided. (Kelly et al., 2003) Open ended questions should be asked in smart way so that the participant will be sure which question is he or she answering. Close ended questions should be employed as well. Main advantage of closed ended questions is that these questions are easier to answer, respondents are therefore more willing to answer them. It is

also easier to evaluate close ended questions and to reduce biases and other negative factors in evaluation. Be aware of using leading questions, otherwise survey value would decrease rapidly. (Ciotti, 2016)

3.4 Techniques of Project Management

In order to understand project management techniques and tools, project needs to be defined first. Project can be defined as human activity with specific goal to be achieved, limited by specific time frame, limited by fixed volume of monetary resources (if applicable to specific project), which consume human, monetary, capital and other resources. Projects usually cut across several functional areas. (Kerzner, 2013) Maserang added three other typical aspects of projects: using of structured, step-by-step plan of operation, effects of project on current organizational structure, and employing of structure designed and used to solve problems when arise. (Maserang, 2012)

3.4.1 Project Management Phases

On the other hand, project management, consists of five consecutive steps: project initiation, project planning, project execution, project monitoring and control and project closure, and each step includes specific activities. (Kerzner, 2013) However, there are small differences among authors concerning number of project phases. For example, Watt describes only four phases of project management in a way that project monitoring and control phase is included in project execution phase. (Watt, c2014) Pathak described project phases in the same way as Kerzner, but mentioned that project execution phase and project monitoring and control phase are being done in the same time. (Pathak, 2016) For purposes of the thesis, five phases model from Kerzner will be used to provide more detailed overview of project phases. (Kerzner, 2013) Following division is also in order with Project Management Institute. (Esposito, 2015)

1) Project Initiation Phase:

In project initiation phase, objectives of the project need to be defined. Selected approach to the need is described in a business case as well as way to achieve project objectives. Project needs to be evaluated in terms of feasibility (Watt, c2014) and benefits of the project need to be recognized. Project manager is assigned (Kerzner, 2013) and project team is being established. (Watt, c2014)

2) Project Planning Phase:

Project planning phase includes definition of work to be done and required quality and quantity of work. (Kerzner, 2013) Strategy to fulfil project objectives is being further developed and resource requirements are being defined. Outlining of all activities, tasks and time-frames is also included in project planning phase. (Watt, c2014) Various risks evaluation is done in this phase (Kerzner, 2013) and actions are defined to prevent risks with high potential of causing problems. To conclude, tasks, schedule, estimated tasks and the most significant threats are identified in project planning phase. (Watt, c2014)

3) Project Execution Phase:

Project execution phase includes activities connected with project delivery, which are done based on plan and schedule designed in previous phase. (Pathak, 2016) Work needs to be managed (Kerzner, 2013) and status meetings need to be conducted to ensure that all tasks are executed as planned and scheduled. (Pathak, 2016)

Project status updates are also conducted so all involved parties stay informed accurately. Human resources performance is reported (Pathak, 2016) and managers try to help employees to perform better if necessary. (Kerzner, 2013) During execution phase, it usually becomes clear whether the project will be successful. (Pathak, 2016)

4) Project Monitoring and Control Phase:

Project monitoring and control phase, as already mentioned, occurs at the same time as project execution phase. (Pathak, 2016) In this phase, progress of project implementation is tracked, actual progress is compared to project plan and variants and inputs are analysed. (Kerzner, 2013) Changes to project requirement are controlled and managed and key performance indicators regarding time and costs are calculated. In case of significant variation of actual progress to project plan, corrective actions are employed to keep project on track. (Pathak, 2016)

5) Project Closure Phase:

Project closure phase is the final phase of a project. In this part, verification if all tasks were completed needs to be conducted and administrative closure of project needs to be done. (Kerzner, 2013) All stakeholders are informed about project closure, supplier contracts are terminated, project resources are released. (Watt, c2014) Contractual closure of project is done (Kerzner, 2013) reward and recognition to the members of the project team is done (Pathak, 2016) and the project is examined using of lesson-learned studies. (Watt, c2014)

3.4.2 Standardization and Certification

The most widely recognized standards in the field of project management are set by Project Management Institute. The official shortcut is PMI. PMI was found in 1969 with aim to share experiences and expertize in the field of project management. PMI operates as non-profit organization and many project management experts are members of the institute. (Watt, c2014) PMI offers professional certification in the field of project management, the certification is called Project Management Professional, or PMP. (Chung, 2016)

PMP certification started to be offered in 1984 as the first certification concerning project management, currently over 590,000 project management professionals from around the world hold the certification. (Watt, c2014)

PMI published PMBOK Guide - “A Guide to the Project Management Body of Knowledge”. This book is the most important source of information for PMP applicants (Chung, 2016), but the main purpose of the book is to set global standards, rules, characteristics and guidelines to be widely and consistently applied in organizations, with aim to achieve professional excellence. (Project Management Institute, c2016)

PMBOK consists of fundamental knowledge that is needed for successful managing of a project. Knowledge is divided into ten knowledge areas. Application of following knowledge areas is different from concept of project phases, project phases occurs chronologically, whereas project knowledge areas are employed during all process phases. (Hartney, 2016)

1) Project Integration Management

The first knowledge is focused on holding a project together and integrating all activities. This area includes creation of project charter that initiates the project and project manager is authorised using project charter. (Hartney, 2016) Project plan including a way managing, directing and controlling of project change is also developed using this knowledge area. (Watt, c2014)

2) Project Scope Management

In this phase, project scope is defined based on collected project requirements, then work breakdown structure is created and defined scope is validated and controlled. Inserting unauthorized tasks into project has consequences in a form of increased costs so scope needs to be designed accurately. (Hartney, 2016) The scope must be managed through work breakdown structure or WBS. (Watt, c2014)

3) Project Time Management

Project time management is usually the most time demanding knowledge area. The project must be divided into single tasks, schedule has to be created and every task has to be budgeted and has to have defined schedule, date of the beginning and of the end of task. Project status must be evaluated on regular basis, because project schedule can be affected by various changes in project execution. If change occurs, project plan must be updated. (Hartney, 2016)

4) Project Cost Management

All projects consume resources, so costs connected with consumption of resources needs to be managed. (Watt, c2014) Budgeting is usually critical part of project, there is usually not enough financial resources to fit all tasks to budget in comfort way, including appropriate reserve. Project financial requirements must be estimated precisely and tracked continuously. (Hartney, 2016)

5) Project Quality Management

Quality is essential aspect of deliveries, regardless of type of good or service to be delivered. (Watt, c2014) Delivered quality needs to be consistent with agreed and planned quality, defined in project plan. Process of dealing with quality issues should also be described in project plan. Quality is included in the triple constant concept,

that includes: quality, time and costs. If quality should be increased, time or costs volume must be increased as well. (Hartney, 2016)

6) Project Human Resource Management

This knowledge area is focused on planning and managing of human resources (Watt, c2014), composing right project team, tracking performance of each team member and satisfaction of each team member. (Hartney, 2016) Keeping project on track with schedule is also part of this knowledge area. (Watt, c2014)

7) Project Communications Management

Not only internal or external customers - receivers of project output, are interested in projects. There are various stakeholders around every project, including indirectly affected employees of receiving or providing company, manager responsible manager responsible for project department, project team members, or other people interested in success of the project. (Watt, c2014) It is necessary to keep all involved people informed adequately, especially if some unexpected change happens. Keeping stakeholders informed helps to preserve open attitude of stakeholders towards the project. Communication towards stakeholders is essential for project success, communication management needs to be well planned and operated. (Hartney, 2016)

8) Project Risk Management

The aim of projects in general is to develop new product or service, to manage and proceed a change, or to uncover and use hidden opportunity on market. All projects can be endangered by unexpected events that are usually connected with changes within organization, project team stability or changes in technological development, budget changes. (Watt, c2014) For this reason, risk analyses should be conducted to identify major risks and then, strategy for responding to identified risks must be designed (Hartney, 2016) and risks should be monitored and controlled. (Watt, c2014)

9) Project Procurement Management

Projects usually need some level of external goods and / or services to be successfully completed, for example employing of contractual workers, or purchasing goods and

/ or services. (Watt, c2014) External sources can lead to netter expertise, or increase in quality. There are also possible negative effects of procurement: loss of control, unexpected delays or budget issues can stand as examples. Strong procurement management is essential, procurement must be well planned, executed and controlled. (Hartney, 2016)

10) Project Stakeholder Management

Stakeholders are the most important factor of project. Stakeholder identification must be conducted in early stages of project planning, then it is necessary to prioritize stakeholders and their concerns based on their potential impact on the project. Needs of stakeholders must be addressed during process of project execution and strong communication with stakeholders should be maintained. Engagement of stakeholders must be controlled to make sure that chat concerns of stakeholders are being addressed. (Hartney, 2016)

Described knowledge areas of project management help to ensure that project criteria are met. (Hartney, 2016) This framework should be followed for effective managing of projects. (Watt, c2014)

Project management experts agree that principles described in PMBOK Guide are effective and correct application of these principles should lead to project success. But could it be applied to mini and micro projects executed by small companies? Is it really beneficial for small companies to stick to project management theory? According to Rincon, even small companies that run mini and micro projects can benefit from theory presented in PMBOK, in case theory is applied in reasonable way. Author says that basic principles are suitable for all projects, including mini and micro projects, but company should be careful applying every single concept if there is no need to do so. Author emphasizes that all main aspects of project management, for example project plan, control, stakeholder approval and risk management are relevant for all projects, however not all sub-tasks and formal steps need to be taken. For this context, author defined micro projects by maximum 40 hours of work and mini projects by maximum 120 hours of work. (Rincon, 2006)

Another author that discussed application of PMBOK in projects of small size is Roseke. However in this case, small project was defined as any project budgeted under 100,000 USD

and findings seems to be influenced by this fact. Roseke also suggests to conduct only limited number of formal steps, but still emphasizes eight main formal project documents, so reduced framework described in the article seems to be, in comparison to text from Rincon, suitable for a bit more complex projects. (Roseke, 2016)

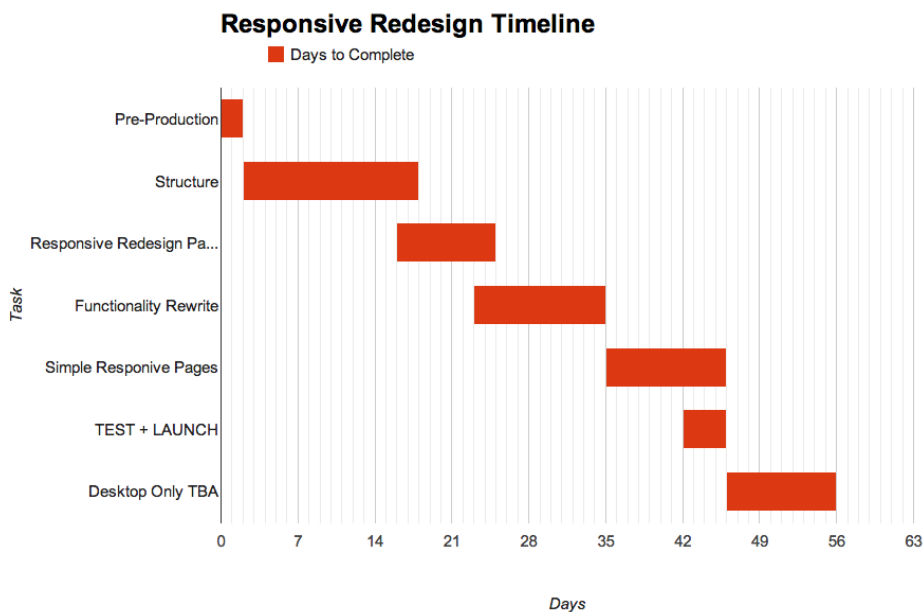
3.4.3 Project Scheduling Tools

There are many special tools for designing, monitoring and controlling project schedule. Following chapter describes most widely used examples of these tools. (Baskerville, 2015)

3.4.3.1 Gantt Chart

Gantt chart is simple and widely used tool designed for scheduling project tasks and for controlling project progress. It is also used as basis for more complex chart tools, for example PERT diagram. (DuBrin, 2009) It is XY graph, time is represented by horizontal axis and states of objects are represented by vertical axis. Time is represented by numbers along with horizontal axis (Kovács et al., 2002) and active phases of each activity are represented by rectangle boxes. Time dedicated for active state of each activity is represented by length of relevant box, the longer an active state the longer the box is. (DuBrin, 2009)

Picture 4 Gantt Chart Example



Source: (Stepniewski, 2014)

There are two main types of activities included in Gantt chart: independent activities and activities that are dependent on completeness of other activities. Independent activity can be executed without any relation to other scheduled activity. On the other hand, execution of dependent activity cannot start before specific previous activity is finished. Completed activities are marked by specific colour. (DuBrin, 2009)

Gantt chart can be made in paper form or form of plastic cards representing activities (Kovács et al., 2002). However, using software for Gantt chart creation is definitely more efficient. There are many software products, both online and offline, designed for creating Gantt charts. Prices vary from freeware products to expensive products with price up to hundreds of USD. There is for example Microsoft Project which can be integrated with other Microsoft Office products or competitive, cross platform freeware product Open Proj. (Solaris, 2011)

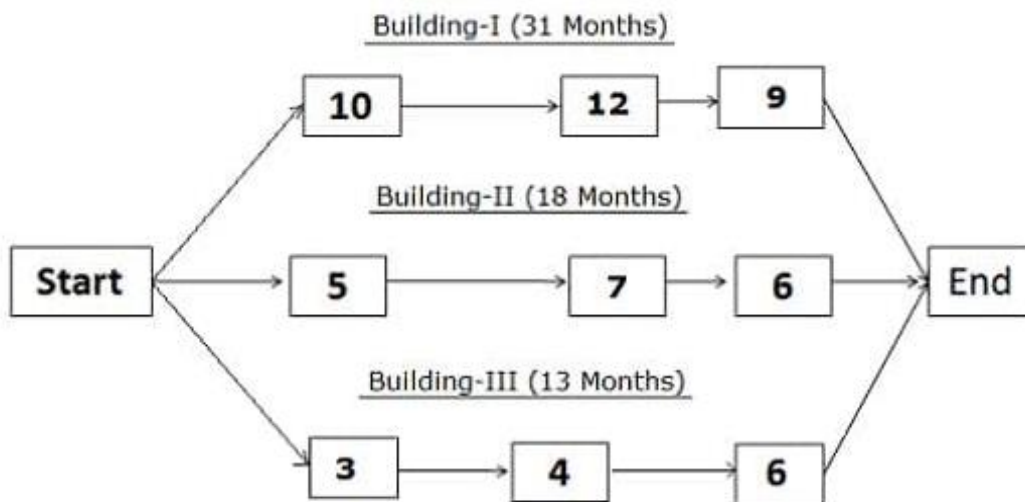
Main advantage of Gantt chart is its simplicity. Creating and understanding of this type of charts is not difficult. Simplicity also comes hand by hand with low costs of application. (Ghosh, c2016) If some issue or delay arises, it can be easily seen from the chart and then appropriate action can be taken. (Montoya, 2011) It is easy as well as cheap to proceed updates and changes to Gantt charts. (Ghosh, c2016)

There are also certain disadvantages and limitations regarding Gantt charts. In particular, Gantt chart is absolutely dependent on input in a form of work breakdown structure or from other equivalent source of information, so quality of information depicted using properly designed Gantt chart is equal to information provided by input. If an activity is missing from WBS or is not described accurately, the mistake occurs in Gantt chart as well. If such issue arises, complete redesign of Gantt chart can be necessary. (Bowen, 2013) Another limitation is that Gantt chart is not suitable for displaying cost in general so it is not possible to show costs connected with activities displayed. (Ghosh, c2016) Moreover, Gantt chart is not suitable for displaying complex projects, because complex dependencies, also if there are milestones which are completed using multiple activities with sub tasks, it is difficult to depicture this type of complex projects. (Bowen, 2013)

3.4.3.2 Critical Path Method (CPM)

Critical path method is project scheduling tool focused on finding the longest way through project tasks. Input for CPM chart creating is, as well as for Gantt chart, work breakdown structure. (Hill, c2012) CPM method is based on network of tasks and the aim of the method is to connect project duration and project costs, in order to make allocation of scarce resources easier. (Nicholas, 2004) Task name, time and resources needed for task to be completed, are associated with each task. (Hill, c2012) However, the main information about identified tasks, needed for CPM chart construction, is duration of each task and dependencies within tasks. Based on this information, time of starting and ending point of each task is calculated and then the longest way through the project is defined. This way is called “critical path” and is equal to overall duration of the project. If delay concerning activity which is part of the critical path occurs, the whole project is delayed. There can be multiple critical paths within one project. (Edwards, 2012)

Picture 5 CPM Diagram Example



Source: (Usmani, c2017)

Critical path can be found in two ways. The basic way consists of identification of all paths and simple calculating of the longest one using time estimates of all activities located on specific path. The path with longest calculated duration is critical path. (Sharma, 2015a) Second approach is based on forward and backward testing with aim to find specific parameter. Forward pass starts in the first task and the aim of this pass is to identify early

start, “ES” and early finish “EF” of each activity. Backward pass, or back scheduling, starts in the last task of project – desired finish date of project. Parameters late start, “LS” and late finish, “LF”, are identified using backward pass. Then, slack time, or float is identified for each activity. It can be calculated in two ways, by calculating difference between early start and late start, or difference between early finish and late finish, result is always the same. The path with the lowest float is a critical path. (Hill, c2012)

One of main advantages of critical path method is that CPM enables to depict various dependencies among project activities. Another significant advantage of CPM method is suitability for calculation of float of each activity. If float of all activities is identified, delays in project can be managed easier. (Sharma, 2015b) If subcontractors are involved in project implementation, output of CPM method provides project manager with information concerning start date for each supplier. This helps to prevent delays in project implementation. CPM also helps to determine which activities can be performed in parallel. (Dy Buncio, c2016)

On the other hand, CPM method also possesses certain limitations and disadvantages. Even not so complex projects are represented by many tasks and dependencies on CPM chart, large and very complex projects can be possibly represented by so many tasks that, according to Weedmark, the complexity of output of CPM method could be an issue. (Weedmark, n.d.) Sharma agrees with this opinion and suggests using of software products to deal with chart complexity. (Sharma, 2015b)

3.4.3.3 Programme Evaluation and Review Techniques (PERT)

PERT method, as well as CPM, uses work breakdown structure as a base identification of tasks. Then sequence of all identified tasks is determined and network diagram is created. And then time estimates are calculated and attached to activities. (Morris & Sember, c2008)

There are certain similarities of PERT method and CPM method, the most visible similarity concerns chart design, both PERT and CPM models are graphically represented by network charts. The second important similarity is that both methods have the same basis in work breakdown structure. (Rai, c2013)

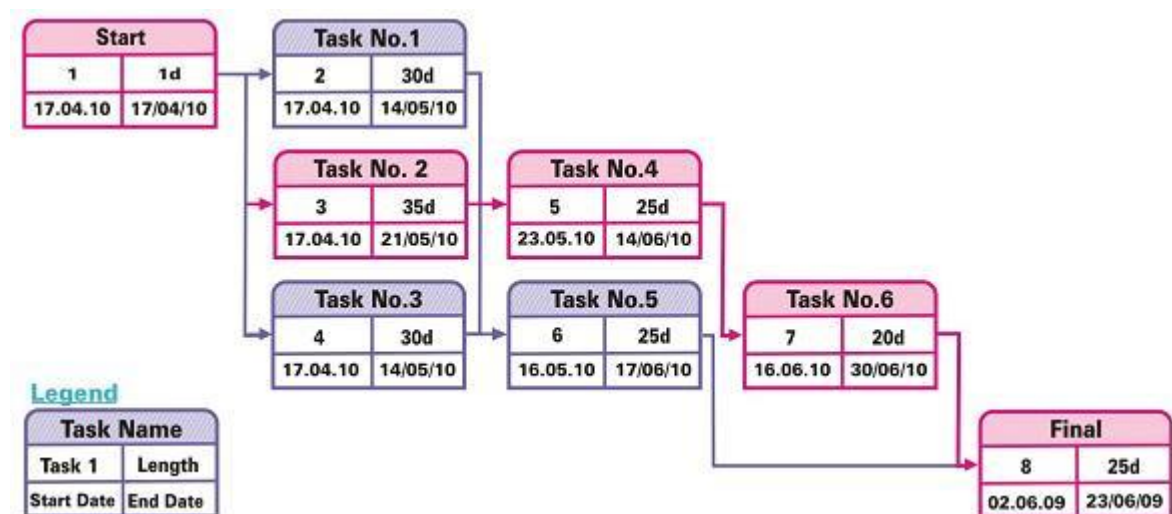
The main difference between these methods is attitude towards time estimations. CMP method is deterministic model which operates with one value of time needed for task to be completed. On the other hand, PERT uses probabilistic approach, represented by three time estimates for each task: optimistic, most likely and pessimistic time estimate. (Hillary, c2013-2016) Then, estimated time is calculated based on following formula:

$$(1x \text{ optimistic time} + 4x \text{ (most likely time)} + \text{pessimistic time}) / 6$$

(Hillary, c2013-2016)

According to Sharma, PERT better suits research and development projects thanks to possibility to use time estimations. Whereas CPM is based on incorporation of past experience and knowledge. Based on this fact, CPM is more suitable for repetitive projects, such as projects in the field of construction. (Sharma, 2006) Same as in CPM model, longest path within PERT diagram is critical path. (Rai, c2013)

Picture 6 PERT Diagram Example



Source: (Management Hub, c2005-2017)

3.5 Marketing Strategy Development

The main aim of marketing is to identify human and social needs and to use them in profitable way. Marketing management is employed when at least one party of potential exchange thinks about how to reach and how to obtain wanted reaction from the other party.

3.5.1 Marketing Perspectives and Definitions

In this chapter, main perspectives of marketing will be discussed and different definitions of marketing will be provided.

According to The American Marketing Association: *“Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large.”* (American Marketing Association, c2017) This set of processes requires, according to Kotler & Keller, considerable volume of skill and work. (Kotler & Keller, c2012)

There are two main perspectives of marketing – social and managerial. Social perspective shows role of marketing in society and focuses on influence of marketing on society. (Kotler & Keller, c2012) Kotler & Keller noted: *“Here is a social definition that serves our purpose: Marketing is a societal process by which individuals and groups obtain what they need and want through creating, offering, and freely exchanging products and services of value with others.”* (Kotler & Keller, c2012, p. 5)

On the other hand, managerial perspective is represented by marketing management, which is considered as business discipline focused on practical usage of marketing. (Sharp, c2014) Kotler & Keller noted: *“Thus we see marketing management as the art and science of choosing target markets and getting, keeping, and growing customers through creating, delivering, and communicating superior customer value.”* (Kotler & Keller, c2012, p. 5)

Taloo noted: *“According to Peter F. Drucker, there will always, one can assume, be need for some selling. But the aim of marketing is to make selling superfluous. The aim of marketing is to know and understand the customer so well that the product or service fits him and sells itself. Ideally, marketing should result in a customer who is ready to buy. All*

that should be needed then is to make the product or service available.” (Taloo, c2007, p. 141)

3.5.2 Main Marketing Concepts

Understanding of basic marketing concepts is crucial substance, which helps to understand how marketing works. (Kotler & Keller, c2012)

3.5.2.1 Needs and Wants

Needs and wants are starting points of marketing, according to Kotler & Keller, needs are the primary human requirements, for example requirement for food, air, home, water, or clothes. People have also strong needs for entertainment, knowledge and recreation. Needs are transformed to wants if they are directed to things that have potential to satisfy the need. There is one more stage which should be considered – demands. Demands are wants of people who are able to afford specific product or service to which their wants are directed. This is important since not all people interested in specific product have enough money to buy it. Thus, potential customers are only those customers who can afford to buy the product or service, not only people who are interested. (Kotler & Keller, c2012)

3.5.2.2 Market Segmentation

Since not all people have the same tastes, marketers started dividing market into submarkets. (Kotler & Keller, c2012) According to Moor & Pareek: *“Market segmentation is the practice of dividing a large heterogeneous market into smaller subgroups with shared characteristics in order to deliver a market offering that satisfies unmet needs as closely as possible. Since those within a segment have similar characteristics, marketers have found they respond similarly to a marketing strategy promoting a given product, at a certain price that is distributed in a particular fashion.”* (Moore & Pareek, 2006, p. 131) Taloo commented market segmentation in the same way and noted that following requirements for market segmentation:

- 1) Subjects within segment are homogenous
- 2) There is heterogeneity among segments
- 3) Segments are stabile
- 4) Segments could be identified and measured

- 5) Segments could be accessed
- 6) Chosen segment is assumed to be profitable

(Talloo, c2007)

3.5.2.3 Marketing Channels

Marketing channels are sets of tools designed to reach the target market. There are, according to Kotler & Kelle, three types of marketing channels: communication channels, distribution channels and service channels. (Kotler & Keller, c2012)

The aim of communication channels is to receive and deliver message to target audience. Tools that can be employed in communication channels are namely magazines, newspaper, billboards, telephone, e-mails and internet. Companies can also use appearance of their retail stores for communicating of certain message to customers. (Kotler & Keller, c2012)

Purpose of distribution channels is to display, sell or deliver goods or service to customers. Distribution channels are further divided into two categories, direct and indirect channels. Direct channels are represented by direct selling through online shops, via telephone or mobile. On the other hand, indirect channels are represented by retail chains, distributors, wholesalers and intermediates. (Kotler & Keller, c2012)

Service channels comprises banks, warehouses, insurance companies and transportation services. (Kotler & Keller, c2012)

3.5.2.4 Main Marketing Models and Frameworks

The original concept of marketing mix by Borden consisted of twelve elements and was intended to serve as guideline for marketing specialists, not as a definition. Marketers were, according to original concept, supposed to pick elements that fit to each situation. Currently used concept of marketing mix connected with 4 Ps concept is, according to Kitchen, oversimplification of original marketing mix by Borden. (Kitchen, 2005)

4 Ps classification has been introduced by McCarthy as approach to marketing mix (Kotler & Keller, c2012), which serves as a basic guideline in marketing literature. 4 Ps approach comprises four main concepts – product, price, place and promotion. (Prenzer, 2010) This

approach is, according to Vliet, most suitable for business to consumer (B2C) marketing. (van Vliet, 2013)

Picture 7 The 4Ps Components of the Marketing Mix



(Kotler & Keller, c2012)

For purposes of this approach, product can have a form of both physical product and service. Product has different qualities which can be classified into three stages – Physical product, Extensive product and Total product. Physical product is based on functional and aesthetical characteristics, for example size, colour and functionalities. Extensive product comprises physical product with additional characteristics, for example warranty, extra service, or packaging. Total product is formed by extensive product and adds emotional aspect to the product. Customers are attracted to product in stage of Total product by values and expressive qualities. (van Vliet, 2013)

Price is represented by pricing policies, discounts, payment periods and credit conditions. (Kotler & Keller, c2012) Setting well designed price policy is difficult task and there are many theories focused on pricing. The basic aim, which is broadly accepted, is that prices should cover all costs plus compensate risk of entrepreneur. However it is not easy to define costs of the risk and to set required level of profit. Determining targets for marketing of a product can serve as basis for price setting. If target is determined, for example short-term

profit maximisation, market share increases, reaching superiority in research and development or maintaining position on the market and it can help to design appropriate price strategy. (Moore & Pareek, 2006)

Place refers not only to geographical location where the product is available, but also to distribution channels employed to reach customers and to sell them the product. Distribution channels are divided into two basic groups, direct and indirect distribution channels. If direct channel is employed, company which created the product does not use any business intermediate and sell the product directly to end users. This practise is typical for banks and insurance companies. Including some manufacturers who sell goods directly using internet. On the other hand, if indirect distribution channel is employed, there is always some intermediate, for example retail store or wholesaler. (van Vliet, 2013)

Promotion comprises all activities of company focused on increase of volume of sales. (van Vliet, 2013) Moore & Pareek noted: *“Promotion is the fourth element of the marketing mix. Being successful in this element of the marketing mix not only builds good publicity for the firm itself, but the brand equity of its products also prospers. Promotion involves disseminating information about a product or a company using five different key types of promotions: advertising, sales promotion, public relations, personal selling and direct marketing. Together, the five elements are all part of a company’s promotion mix.”* (Moore & Pareek, 2006, p.85)

Since 4 Ps approach is widely used, many authors introduced modifications to original concept. Moore & Pareek added People as fifth dimension and work further with extended, 5 Ps model. People, employees of the company, are crucial for establishing relationship with customers. Great customer service is perceived by customers as significant advantage and strong value and it does not concern sale staff only. (Moore & Pareek, 2006)

Kotler & Keller went further and suggested redesigned version of 4 Ps to follow holistic approach to marketing. The new model consists of People, Processes, Programs and Performance. (Kotler & Keller, c2012)

3.5.2.5 Tips and Best Practises

- Marketers should be careful with discounts – discount can make previous customers unhappy while new customers will not be willing to buy until new discount is introduced. (Denning, c2016)
- PR should be considered as important way of promoting of new products. Small companies have usually limited resources and they are not able to make huge marketing campaign, but if there is new product available, it is important to let public know about it. So, reports and other materials should be created and distributed. (Phillipson, 2016)
- While creating regular content, special content and “behind the scenes” content should be created as well. In a fact, the best way to make special content is to create it simultaneously with regular content. This kind of special content is attractive for the audience (Cohen, 2013) and special content also has significantly higher viral potential in compared to regular content. (Ajmera, 2013)
- It is important to stay in touch with customers and provide them with content they want to see. Newsletters are essential tool in contact maintaining, but it is not a simple task. If company commits to send newsletters on regular basis, then it is important to stick to the commitment. Subscriber should be informed in advance what they could expect if they sign for newsletter, well designed expectations can prevent possible issues and complaints. Relevant content is one of the keys to success with newsletters. Form is as important as content, grammar and stylistic mistakes should be prevented by editorial work and the message has to be perfect before distributing – there is no chance to change anything afterwards. Since more and more mobile phone users use their phones to access the Internet, it is important to optimize the newsletter to mobile devices. (Lee, 2012)
- Low level of complaints does not automatically show high level of customer satisfaction. According to Swinscoe, customers formally complain about poor quality very rarely, instead they leave and share the experience. (Swinscoe, 2010)

3.6 How to Write a Business Plan

What is a business plan? It is a plan that helps company to look ahead, to allocate resources, identify key points and estimate and resolve future issues. Business plan writing does not concern only starting of new business and applying for funds, it is helpful also for optimising of business operations and can help to keep the business on track. (Berry, 2005) According to Abrams, persuading bank or joint venture to provide funding should not be the only reason to write a business plan. Good business plan could also help to decide whether the business should be started or not. The other reason why business plan is helpful is that it puts industry information as well as information about business operations together, which helps to keep the right direction and to conduct qualified decision. (Abrams, c2003)

3.6.1 Target Audience

Knowledge of target audience is essential for creating good business plan. It has to be identified, whether the business plan is going to be used for internal or external purposes. (Hirai, 2008) Reader of business plan should be considered on first place. Author of the business plan should try to think in the same way as target audience / readers do and form content in a way to make the plan interesting for target audience. (Rhoads, c2014)

Business plan for internal use helps to outline development of business idea, shows resources needed to fulfil the idea and helps to determine if the idea is realistic within the company environment. (Hirai, 2008)

On the other hand, if the purpose of business plan is to receive funding, then business plan is usually a must have in order to receive loan or investment. Both bankers and joint venture require written business plan that shows that the business has good chance to become successful and they also want to see description of financial flows in the company. (McKeever, 2017)

3.6.2 Content

According to McKeever, there is wide range of parts to be included in business plan, but not all of them are necessary for all business plans. The author highlighted chapters that are important and thus should be included in business plan, and other chapters that could be added based on situation. McKeever defined following as most important parts: summary of

plan, problem statement, description of business, accomplishments of business, revenue, cash flow, profit and loss forecast and plan of capital spending. Parts to be added based on actual need are for example marketing plan, analysis of future trends and personal background. (McKeever, 2017)

According to DeThomas, content of business plan is highly dependent on purpose of the plan. Differences would be not only in specific parts included in the plan, but also in level of detail employed in creating of every chapter. Level of detail in which each part is wrote vary based on purpose of the plan as well as target audience. DeThomas, same as Rhoads, emphasised importance of knowledge of target audience / reader of business plan. (DeThomas, 2008)

3.6.3 **Tips and Best Practises**

Best practises regarding business plan writing will be described in this chapter. Even though content is the most important substance of good business plan, other aspects will be discussed as well. (DeThomas, 2008)

- First and very important advice is that provided information and values should be, if applicable, supported by facts in reliable way. (DeThomas, 2008) Using numbers in business plan helps to bring additional credibility. (Abrams, c2003)
- According to Abrams, it is important to prioritize parts within business plan to save time. The purpose should not be rushing the process, but to allocate time in a smart way, to spend more time with more important parts and to write other parts more briefly. (Abrams, c2003)
- DeThomas emphasised that business language should be used in business plan. Financial and business words should be used frequently and adequately (DeThomas, 2008) and superlatives should be avoided. (Abrams, c2003) Ryan suggested using of active language, since verbs in active form helps to “bring text to life”. (Ryan, 2013)
- Using bullet points is highly recommended in business plans. Bullet points have ability to draw reader’s attention to specific provided information and readers are more willing to read text shortened by bullet points, in compared to standard full sentences. (Abrams, c2003)

- Business summary is considered as important part of business plan, it helps to shape first impression and provides most important information. DeThomas suggests to write executive summary last. This approach is significantly easier than writing summary at the beginning and ensures all main points are most likely putted into summary so summary itself is more accurate. (DeThomas, 2008)
- Executive summary should be formulated in straight forward way. Useful framework is, due to Pinson, using of Key Word approach. Answers for following questions should be addressed:
 - Who?
 - What?
 - Where?
 - When?
 - Why?
 - How?

(Pinson, c2008)

- Since the purpose of executive summary is to provide crucial brief snapshot of the plan, the length should be appropriate to its purpose. Optimal length is approximately from one to two pages, depending on complexity of the plan. (DeThomas, 2008)
- Financial proposal should be included in business whenever the plan is presented. Even if the purpose of the plan is not to raise funds, intended financing should be included. (DeThomas, 2008)
- Basic details of company, brief history, ownership structure and main achievements should be presented in company description. All names used by company, namely legal name, brand names, model names, names used by different subsidiaries and business name should be also presented. (Abrams, c2003) If the plan is created for internal use within the company, company introduction does not need to be included. (Berry, 2005)
- Market analysis should be also conducted to define target group, position of competitors, prices of competing products, industry trends and trends within target market. (Pinson, c2008)

4 Practical Part

4.1 Analysis of Original Product

This chapter focuses on analysis of original DogNTag product, its product design, functionality, features and shortcomings that arose.

4.1.1 Description of original product design and functions

This chapter serves as summary of most important information regarding both physical product and DogNTag online system.

4.1.1.1 Physical Tag

The original DogNTag tag is manufactured from PVC material with epoxy layer, which gives rounded shape to both front and back side of the tag. There is small eyelet made from the same material, located on the top of the tag. Tag is attached to dog collar by connecting metal ring to both eyelet of the tag and to dog collar. DogNTag tags are offered in four colours: black, white, brown and red. There were 800 pieces manufactured in total.

Every tag has NFC chip NTAG 203 which includes link to personal profile of particular dog, there is also QR code and serial number printed on one side of the tag. Personal profile can be reached by scanning tag by NFC compatible device, scanning QR code by mobile device with QR code reader application, or by entering serial number on www.dogntag.com webpage.

4.1.1.2 Online System

Online system is divided into two main parts. First part is represented by public webpages for potential customers and people interested in DogNTag and the second part is used for administration of DogNTag tags and profiles of DogNTag customers. Online system has Czech, English and Slovak language version. Online system is designed to cover following objectives:

- Present the product to potential customers and provide potential customers with relevant information
- Enable customers to activate recently bought tags

- Enable current customers to fill and edit web profiles of their dogs and to administer DogNTags they have already bought.
- Provide dog finders with relevant information on found dog and the owner.

If online profile of the dog is shown on mobile device, the page automatically asks for permission to use built-in GPS for geolocation. If permission is provided, dog owner automatically receives email with information that the dog was found and with location of the dog shown on a map. If permission is not provided, dog owner still receives the email, but the map could not be provided.

Personal profile of dog is suitable for entering essential information on dog owner, including contact information and also information regarding dog name, identification, health, behaviour, special diet and any other information considered as important to potential finder of the dog.

4.1.2 Issues Related to Original Product Design and Functions

4.1.2.1 Issues Related to Physical Tag

Design and material chosen for first generation of DogNTag possessed certain issues. Tags proved to be completely suitable for small dog breeds, however there were issues with bigger and more active dogs. These dogs often manage to damage the tag relatively fast, which brings certain percentage of complaints and dissatisfaction of customers.

Complaints were recorded regarding to 95 tags out of 651 sold tags, which represents 14.6 % complaint rate. However, it is assumed that there were much more broken tags, but customers decided not to complain due to inconvenience, relatively low price of the tag, or because the tag get lost so it was not possible to complain. Theory related to customer complaints supports the idea that relatively low percentage of customers officially complaint. Unfortunately, it is not possible to find out how many costumers still use the tag since there is no need for regular interaction with the system if the dog does not get lost. Certain number of tags was also provided as a free sample, while there is no information related to functionality of those tags since it is not possible to complain officially about free sample.

Majority of complaints were caused by broken eyelet of the tag, so it is assumed that both material and design of the tag were not chosen well in a view of tag durability. According to records, all complaints proved by broken tag, or photograph of broken tag, were accepted and solved by replacement or, in justified cases, by refund. If the tag have got lost and customer wanted to buy a new tag, discounted price was offered.

According to experience of members of DogNTag team, many potential customers refused to buy the tag because there is no phone number printed on the tag. Based on this experience, one part of questionnaire focuses further on this issue.

4.1.2.2 Issues Related to Online System

DogNTag webpages have fresh look, content has good information value and used pictures illustrates well DogNTag functionalities. On the other hand, it may look like the content was added in a bit chaotic way. Translation to Slovak language is nearly complete, but there are still some pages that are not translated completely. Translation to English language is less complete in compared to Slovak version, some pages are not translated at all and even some menu buttons are not translated. Translation issues decreases overall level of webpages.

Customer zone is considered as intuitive and user friendly, there were no issues reported regarding customer part of online system. Personalised profiles – Doggie pages are also considered as well designed, graphically rich and well organised.

One of the issues are also maintenance costs of the online system and costs related to ad-hoc bug solving. This costs differs month by month, but could be estimated as 10 working hours a month with payroll rate 200 CZK / working hour.

4.2 Analysis of Original Business Plan

This chapter focuses on original business plan analysis. The original business plan is described, differences between original plan and reality are derived and shortcomings are identified.

4.2.1 Description of Original Business Plan

This chapter serves as summary of original business plan, target group, marketing strategy and introduces original business model in terms of monetization strategy and distribution strategy. Unfortunately, the business plan was not formally created, there is no particular document to be analysed. Due to this fact, all important information and characteristics of the business concept and business operation were together, described and analysed.

4.2.1.1 Original Target Group Description

The original target group was defined as dog owners mainly living in big and medium cities, who want to increase overall safety of their dogs in terms of probability of finding dog if got lost. Since one of main advantages of DogNTag product is that content associated to the particular tag could be displayed using NFC ready mobile device, it was assumed that owners of modern smartphones would be more likely to buy the tag in compared to people who own standard mobile phones.

Main attention was on dog ownership, but the fact that mainly people interested in mobile technologies are about to buy the product was not considered.

4.2.1.2 Original Marketing and PR Strategy Description

Original marketing strategy was focused on promotion on events related to dog ownership, for example dog exhibitions or competitions. This marketing activities were supported by publication of press releases and PR articles. After approximately one year of operation, PPC campaign was introduced to increase sales. Facebook page was also founded to provide customers and other interested people by news concerning DogNTag project.

Besides marketing activities focused on increase of sales to end users, the main strategy was to sell DogNTag through pet shops. Campaign on discount portal was also conducted to boost sales at the beginning of operation.

165 pet shops were contacted in total. 86 shops which were interested, have been then provided with free sample tag and discount coupons. There were 8 pet shops that added DogNTag to their product portfolio in total and only 3 of these shops ordered repeatedly.

Partner for Slovak market was found. Besides that, DogNTag is also available on internet shop nfcmix.com, which is run by our company. The internet shop is focused on RFID technology with specialization in NFC, so DogNTag serves as complementary goods. In 3rd quarter 2015, supplier agreement with internet shop Alza.cz was signed.

4.2.1.3 Monetization and Pricing Policy Description

The original monetization model, which is still employed, was constructed in a way that both physical tag and online service is paid by one payment at the time the tag is purchased. No additional fees are charged regarding online service. At the beginning, the price was set to 560 CZK, including taxes and shipping. After that, discount campaign was introduced, with price 329 CZK including taxes and shipping. After the discount finished, people were less willing to buy for full price, so after some time, regular price was reduced to level of 389 CZK including VAT and shipping (share of shipping on the price is 30 CZK). Costs of one tag manufacturing and packing ware approximately 100 CZK, but costs related to selling tags by own capacities were rather high. If only one tag is ordered, but the employee has to communicate with customer, check the payment, prepare the order and go to the post office, it takes up to one hour with total costs around 140 CZK (Depending on employee salary).

Wholesale prices are also employed, prices are divided into seven groups depending on volume of order.

4.2.2 **Original Business Plan Evaluation**

This chapter provides evaluation of the original business plan with emphasis on marketing strategy and monetization and pricing policy.

4.2.2.1 Original Target Group Evaluation

The original targeting towards pet shops and pet owners does not proved to be sufficient. Praxis showed that mainly people interested in mobile technologies are willing to buy the tag. It is still questionable if initial idea lacked precisely designed target group or if the main shortcoming was lack of exposure. When we sold through Alza.cz, they putt DogNTag into Smart category of products, which seems to be intended mainly towards people interested in new technologies.

4.2.2.2 Original Marketing and PR Strategy Evaluation

Sales portal campaign helped to sell 29 tags only, which is considered as a very poor result. Further more people were less willing to buy the product for full price after the discount campaign finished so overall influence of the campaign was negative. The result of campaign is consistent with theory according to Denning, discounts bring risk of problems with selling for full price in the future.

Promotion on events related to dog ownership is considered to be beneficial to the project, even though the effect on sales is difficult to evaluate. Participation on this kind of events also generated promotion materials in form of photographs and blog posts.

On the other hand, strategy focused on selling through pet shops was not successful. Response from pet shop owners was very weak and if they purchased, they usually did not repeat the purchase. This fact was discussed with several people from pet shop business and the accepted reason was that there are too many products available in pet shops and since dog owners were not aware of DogNTag product, they did not ask for it and sales people from pet shops were not specially motivated to offer our product.

Partner company bought 180 pcs of DogNTag for Slovakian market and was provided with special branding of boxes. It was agreed that partner company is responsible for complaints related to DogNTags sold in Slovakian market. The partner company did not repeat the purchase, which shows that they were not so successful with selling the product on Slovak market. Despite to this fact, this cooperation is evaluated as beneficial from our side since significant volume of tags was sell out so part of manufacturing costs was paid out.

PPC campaign was evaluated as not so beneficial since average volume of tags sold increased only by 33.3 % from average monthly sales of 7 tags to average monthly sales of 9.33 tags per month. Averages were calculated based on sales during three months of PPC campaign operation and three months prior the PPC campaign. Costs of PPC campaign were 10,000 CZK excluding VAT and the campaign was designed by specialized agency. According to presented results, contribution of PPC campaign was evaluated as very negative.

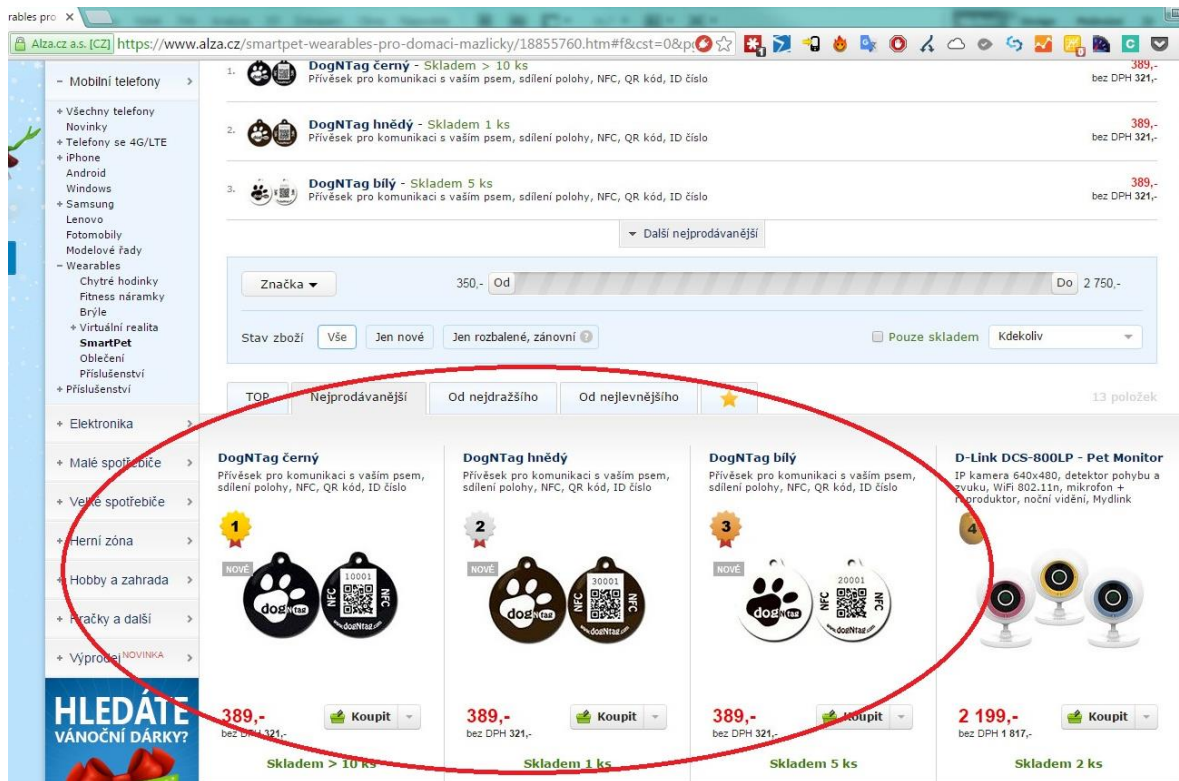
Table 2 Results of PPC Campaign

	No PPC	No PPC	No PPC	PPC	PPC	PPC
month (2015)	May	June	July	August	September	October
sales volume	7	8	6	9	10	9
average	7			9.33		

Source: Own work, 2017

The most successful selling channel was wholesale cooperation with Alza.cz. DogNTag quickly become one of main items among the product category, in time prior to Christmas 2015. During the cooperation Alza.cz bought 210 tags, so more than one quarter of all tags manufactured was sold this way. Despite of quantity of tags sold, standard wholesale pricelist was accepted by Alza.cz so the cooperation can be evaluated as very successful. Unfortunately, there were some issues related to product quality and then the most popular tag colour – red, was sold out from our stock so Alza.cz sold all tags from their stock and stopped ordering. If there would be new, improved version of DogNTag, there are no barriers to continue with cooperation.

Picture 8 DogNTag Displayed on Alza.cz



Own work, 2015

It is difficult to evaluate whether success of selling through Alza.cz was defined by better exposure or by different target group buying from Alza.cz, but the fact is that exposure of products listed on Alza.cz is excellent and even many customers without previous intention to buy such a product could see it while browsing the e-shop and decide to buy DogNTag. It is completely different from selling through own product web.

4.2.2.3 Monetization and Pricing Policy Evaluation

Pricing policy of the product was highly influenced by relatively unsuccessful sales campaign on sales portal. Since the product is somehow different to other product with the same purpose, and is considered as “luxury” product due to the fact, that the product is not vital for customers, price is not the main reason why customers buy or do not buy the product. From this point of view, launching the product by sales campaign does not seem to be the best option. Monetization policy designed in a way that customers pay for both the tag and online service by one payment brings problems if customers stop buying, but the service still need to be maintained. Finding additional functionalities, which could be charged on periodical basis would help to cover maintenance costs.

4.3 Opinions of Potential Customers - Questionnaire Evaluation

Opinions of potential customers are, without a doubt, essential for both evaluation of current product and for direction of future development. Potential customers were asked to fill short questionnaire focused on their opinion on current product as well as their willingness to accept and appreciate new functionality described in questionnaire.

The questionnaire was intended for dog owners only. In the first question, respondents were asked if they are dog owners and negative answer resulted in premature end of the questionnaire. Questionnaires that included negative answer on first question were then deleted from the list of answers, to increase explanatory power of results.

Evaluation of opinions of potential customers is divided into two parts, namely opinions on current product and opinions on proposed new functionality, service providing redirect of calls from phone number that would be printed on a tag. According to DogNTag team experience, missing phone number was expected to be identified as serious issue by respondents. This was defined as hypothesis for the questionnaire survey.

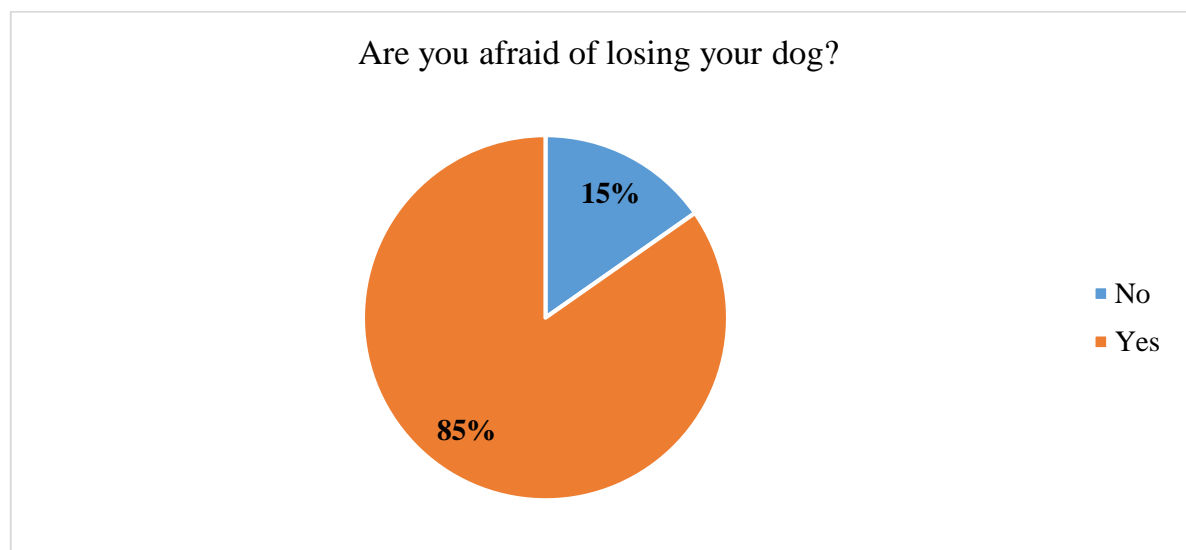
Potential customers were, except opinions on DogNTag product, also asked to share their attitude towards risk of losing their dog, as well as to share methods they use to decrease such risk.

Questionnaire was designed in a way that some questions could be skipped based on previous answers. Therefore, total number of answers is not the same for all questions. Based on this fact, all percentages were calculated based on real number of answers of each question. Due to the fact that survey is conducted in the Czech Republic, questionnaire is made in Czech language. This was decided in order to obtain more responses and to make the survey convenient for respondents. Questionnaire was approved by diploma thesis supervisor.

4.3.1 Attitude of Dog Owners towards Risk of Losing Their Dog(s)

Dog owners were asked three questions in this part. The first question was focused on worries of dog owners connected with possibility of losing their dog. 85 % of respondents answered that they are afraid of losing their dog. This result follows generally accepted assumption that owners usually worry about their dogs.

Picture 9 Graph Displaying Worries of Dog Owners of Losing Their Dog

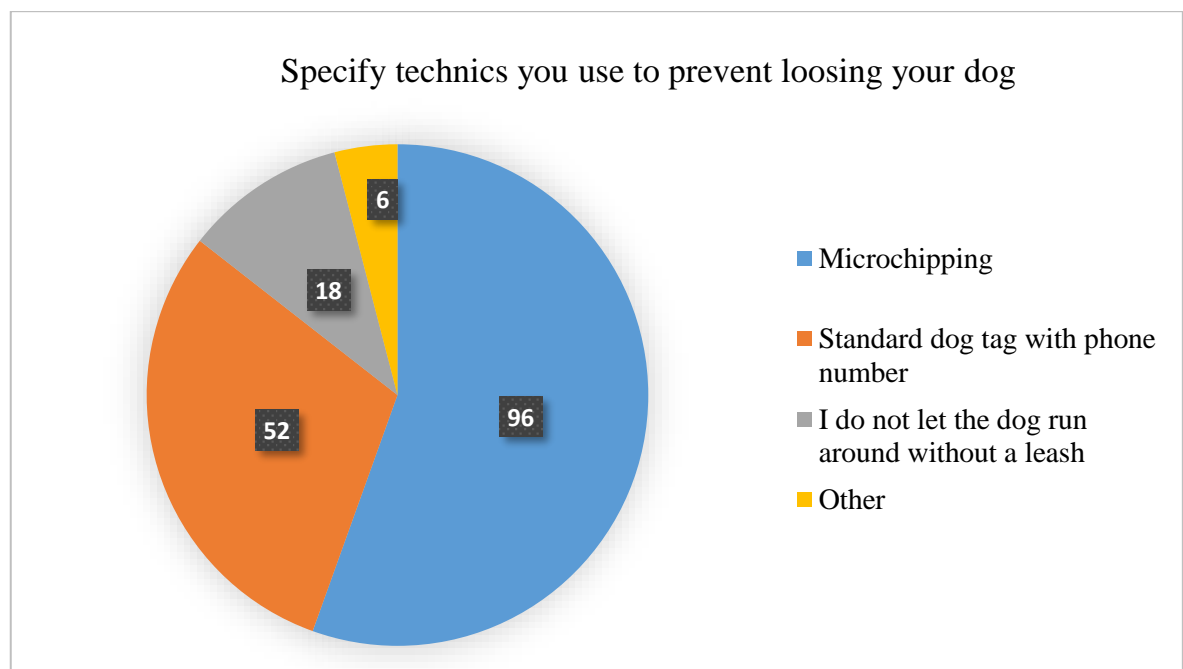


Source: Own work, 2017

Then there were two questions related to tools respondents use to decrease probability of losing their dogs. In first question, respondents were asked if they use any tools for this purpose and if the answer was positive, they were also asked to specify which tools they use. First of these questions was closed question with possibility of positive and negative answer only. In this question, 118 respondents out of 144 answered that they use some techniques to reduce probability of losing their dog, which shows that 81.9% of respondents use some technique to prevent losing the dog.

In next question, 118 who noted using some technique to prevent losing of the dog, were asked to describe which techniques were they using. It was possible to select multiple answers from list or / and to add own answer. One own answer was deleted due to inappropriateness of content. Results are shown on following graph.

Picture 10 Techniques Used by Respondents to Prevent Losing the Dog



Source: Own work, 2017

Microchipping was identified as the most common technique used by respondents to prevent losing their dog, 88.4% of respondents noted that they use this technique. This fact could be influenced, besides other factors, by local regulations on obligatory using of microchipping, employed on the level of towns or municipalities. 68 respondents (57.6%) noted that they

use only one technique and, on the other hand, 50 respondents (42.4%) noted that they use multiple methods. Only one respondent mentioned using of GPS based device.

4.3.2 Evaluation of Opinions on Current Product

Respondents were asked, both in qualitative and quantitative way, for answers regarding their view of current DogNTag product.

First question concerning current product was focused on collecting qualitative information regarding customer view of current product. Respondents were provided with neutral description of the product and with product photo, and they were asked for advantages and disadvantages of the product and also if they consider buying the product. Those sub-questions were putted together with aim of collecting different ideas and it was presumed that not all respondents will answer all three sub-questions.

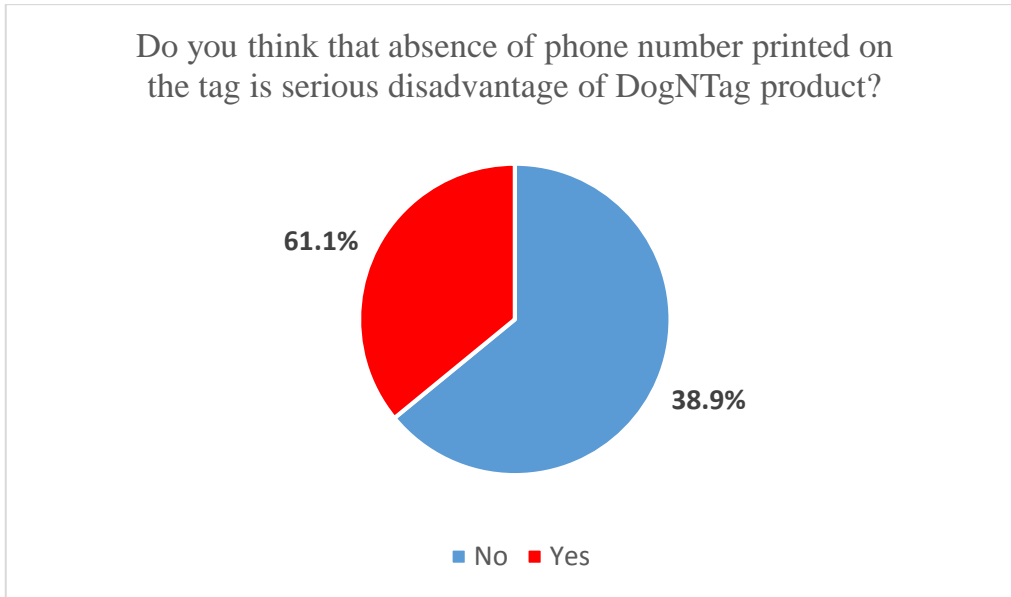
Advantages commonly mentioned by respondents were online profile of the dog, nice design and possibility to load information from the tag using mobile phone. Respondents also appreciated possibility of sharing map with location of the dog while loading information from the tag using mobile device.

Respondents also expressed their view on disadvantages of the product. Certain part of respondents was worried that their dog could lose the tag, some respondents formulated their answer in a way that they find such a tag unnecessary. Some respondents also expressed opinion that person who find the dog could not know how to obtain information from the tag, mainly because NFC technology is, according to those respondents, not so widely known. Missing phone number was also mentioned as disadvantage by some respondents.

Question number seven was intended to find answer, whether respondents find absence of phone number printed on the tag as significant disadvantage of the tag. Question on colour of the tag was skipped intentionally in questionnaire results discussion. This question is discussed in next part of questionnaire discussion.

According to questionnaire results, majority of respondents find absence of phone number as significant disadvantage of the product. Results are shown on following pie chart.

Picture 11 Opinion of Respondents on Absence of Phone Number Printed on the Tag



Source: Own work, 2017

According to questionnaire results, 56 respondents out of 144 do not find absence of phone number as serious disadvantage, on the other hand 88 respondents find it as serious disadvantage. The number of respondents who find missing phone number as important issue is significantly higher compared to number of respondents who noted that they use classical dog tag with phone number. It is assumed that that if they consider buying tag with special functions, they want it to be universal and easy to use for potential finder of the dog. The result follows the hypothesis that respondents would find absence of the phone number as serious issue.

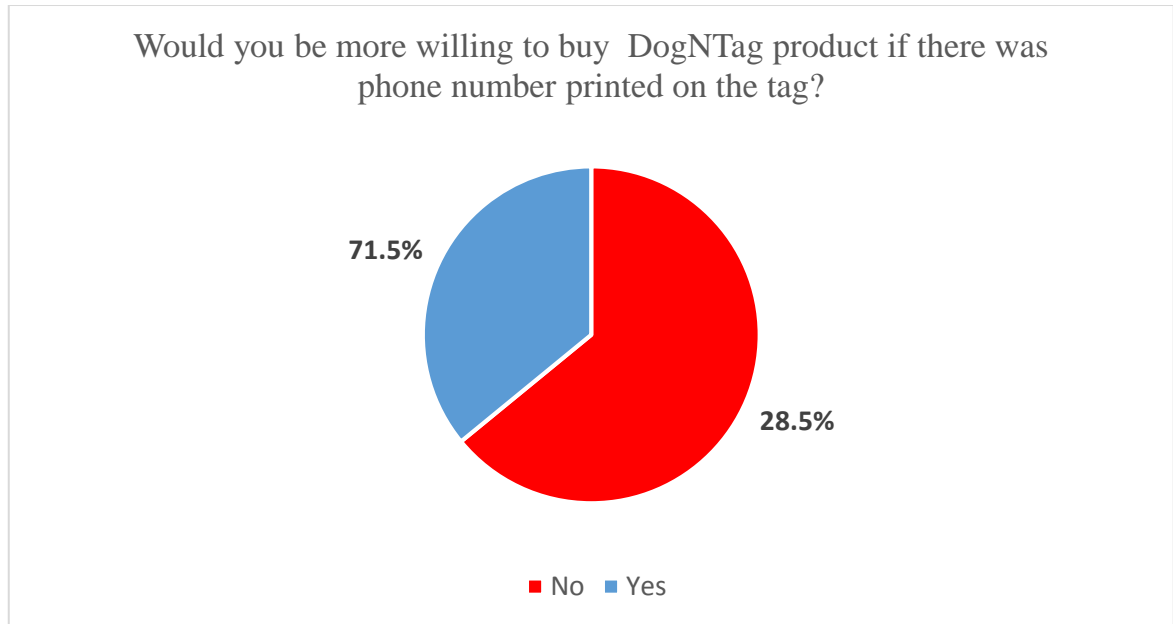
4.3.3 Opinions on Future Development of DogNTag Product

This section follows previous question and provides answers which are important towards future development of DogNTag product.

Respondents answered question if they would be more willing to buy the product if there was phone number printed on it. Significant majority of respondents answered that they would be more willing to buy the product if there was phone number printed, the percentage is significantly higher than relative volume of respondents who find missing phone number as serious issue. It is assumed that even though certain respondents did not find missing phone number as serious issue, they still would appreciate phone number to be there. In total,

103 out of 144 respondents would be more willing to buy the product if there was the phone number printed. Detailed results are presented on following graph.

Picture 12 Relative Number of Respondents Who Would Be More Willing to Buy the Product if There Was Phone Number Printed



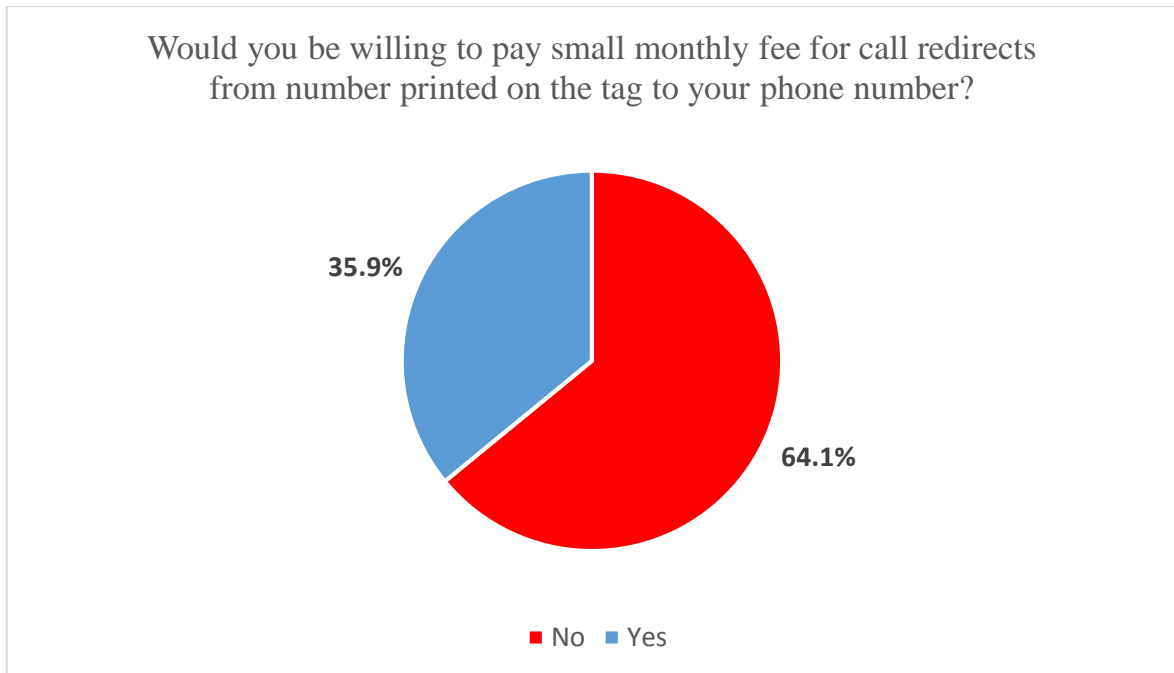
Source: Own work, 2017

If respondent expressed opinion that phone number printed on the tag would not make the product more attractive to buy, the questionnaire finished. Respondents who would prefer printed phone number were asked two more questions regarding their willingness to pay additional fee for call redirect service.

Presented results increase importance of following question, if respondents would be willing to pay monthly fee for service providing redirect from phone number printed on the tag as a part of manufacturing process, to their own phone number.

Results were not surprising since additional fees are not welcomed by customers in general: 66 out of 103 respondents answered that they would not be willing to pay additional fee on monthly bases and, on the other hand, 37 respondents noted that they would be willing to pay the fee. Detailed results are presented in following graph.

Picture 13 Willingness to Pay Monthly Fee for Call Redirects



Source: Own work, 2017

As presumed, majority of respondents answered that they would not be willing to pay monthly fee for additional service. This fact is consistent with general situation on Czech market since local customers are not happy with fees of any kind. Since results were more, or less expected, next question was designed to clarify if respondents are against fees in general or if they are not happy with fees on monthly basis.

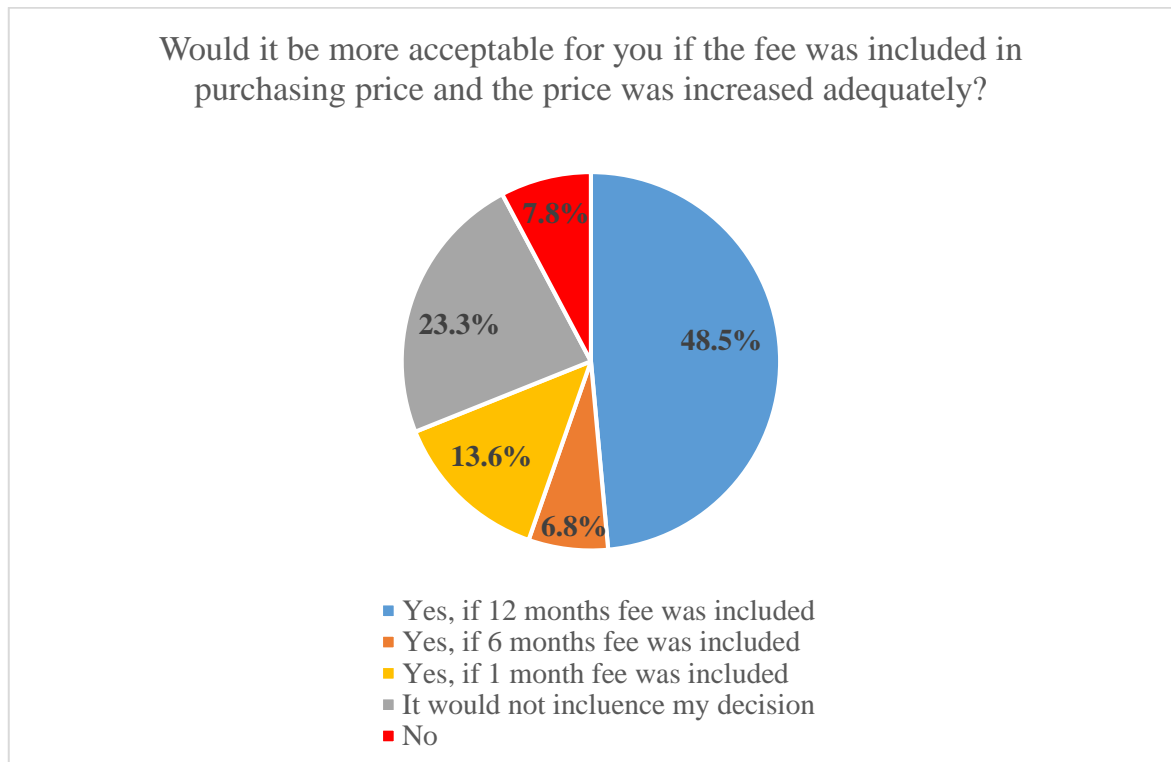
Respondents were asked if the fee would be more acceptable if it was included in purchasing price and the price was increased adequately. Five options were presented and respondents were asked to choose one option which describes their view in best way. There were three options with fee from one month to twelve months included in purchasing price. Neutral and negative answer was also presented.

Almost half of respondents noted that the fee would be more acceptable if 12 months were included in price of the tag while only 6.7% of respondents prefers 6 months included. 13.6% of respondents would prefer one fee included in the price of the tag. There can be various reasons influencing this results, but according to knowledge of market and to intensive communication with current customers, it is assumed that those who prefer one year of additional service included, just do not want to be bothered by paying the fee every month.

Reason for one month prepaid period seems to be sign of lowest possible price preference. Those respondents would prefer to try the service first for shortest time possible, but they are still interested in the service.

The important finding is that 54 out of 66 respondents who noted that they would not be willing to pay the monthly fee, answered that they would be more willing to accept the fee if the fee for one, six, or twelve months was included in the purchasing price. It shows that respondents do not reject fee in general, but they are picky about form of the fee. More options concerning fee periods seems to be, based on results, more appropriate than single option.

Picture 14 Acceptance of Different Fee Variants

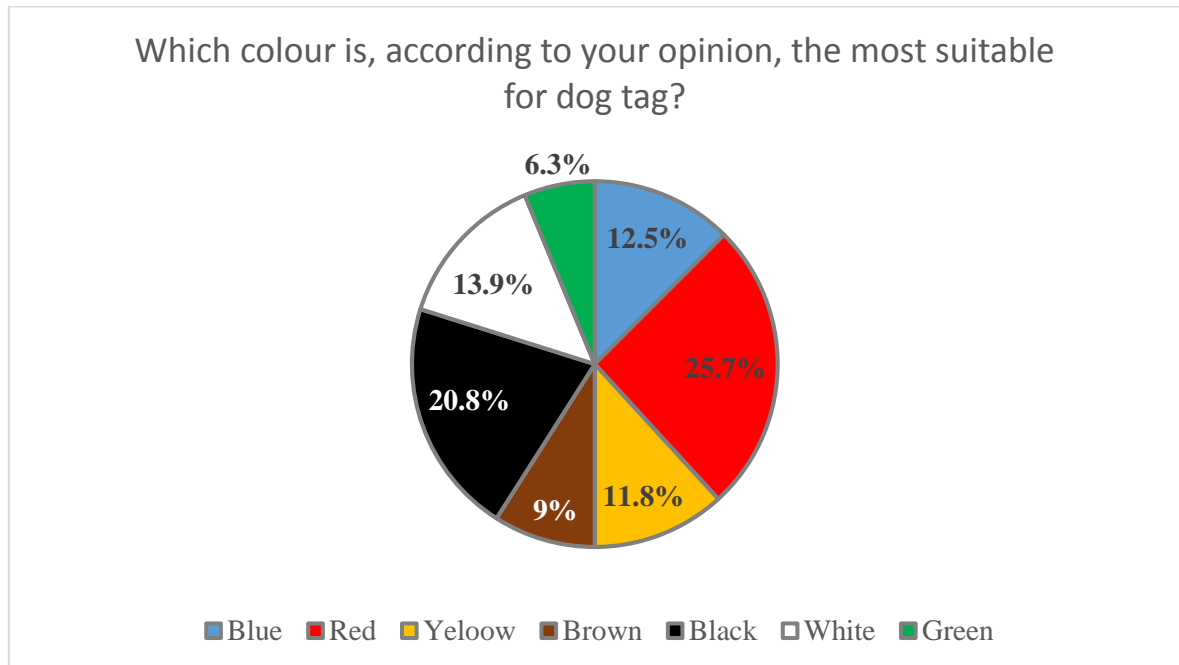


Source: Own work, 2017

Besides questions related to phone number and additional service related to phone number, one more aspect of future development was identified. Respondents were asked for their opinion on colour which fits the product most. Respondents were provided with seven options and were allowed to choose one option. According to results, there was no dominant colour, but results were spread among all options. Two options obtained more than 20% of

answers while two other options received less than 10%. All together 144 respondents answered this question, detailed results are provided below.

Picture 15 Colour Preferences of respondents for Dog Tags



Source: Own work, 2017

Since respondents shared different tastes towards colour of tag, method which provides possibility to manufacture tags in different colours without affecting cost, would be beneficial. Existence of such a method and possibility of application of such a method should be investigated further in production planning.

4.4 Analysis of Competing Products

Analysis of competing products is important input for decision how to design new version of DogNTag product and which features include, but could also help to decide whether to continue with DogNTag project or not.

Competing products have three important parameters: employed technology, price and presence on local market. All products will be also evaluated based on possessed advantages and disadvantages, assumed from available information and own experience.

4.4.1 Classical Dog Tags

Classical dog tags are usually made from metal, which brings high durability of the tag. Space for writings depends on shape and size of the tag, but there is usually only space for the most important information, for example name of the dog or phone number. If the tag is big enough, address can be engraved as well, but it cannot be accepted as general assumption. One of basic characteristics is that it is not possible to change information engraved on the tag since it was written on the tag mechanically. Metal tags are available and common on the Czech market.

According to Heureka.cz, prices of metal dog tag range from 30 CZK to 229 CZK, excluding costs of engraving of personalized text. Costs of engraving usually are, based on information provided by sellers, approximately 95 CZK, however price could vary depending on length of engraved text.

Advantages

- Low price
- High durability
- Easy to read information from the tag
- Available on Czech market

Disadvantages

- Lack of space for information due to limited size of tag
- It is not possible to change engraved information

4.4.2 Microchipping

Microchipping of dogs is technique which involves implanting of small RFID chip under skin of dogs. Czech towns and municipalities started with implementing duty to have the dog microchipped, according to local laws and regulations. Prague, for example provides dog owners with discount from dog fee, which should cover costs of microchip implanting. Since in some towns microchipping is obligatory, it is not considered as direct competitor. However it needs to be considered in evaluation of overall market situation

Information from microchip could be loaded by special device, which is owned by police and veterinarians. Microchip needs to be registered in specialized register in order to be successfully recognized by specialized staff. There are several registers operating in the Czech Republic, with prices of registration starting from tens of CZK (exceptional) to lower hundreds of CZK. Some registers offer special conditions based on chip manufacturer.

Advantages

- Cannot be lost
- If obligatory, purchasing price can be refunded

Disadvantages

- Information cannot be loaded by general public
- Various registers
- Extra costs

4.4.3 GPS Based Devices

GPS based devices are smart wearables which provides ongoing, or upon request tracking of position of the device. Devices from several manufacturers are available on Czech market, prices vary, according to Heureka.cz, from approximately 1,400 CZK to 5,000 CZK for standard user device, but could reach up to 20,000 CZK for professional device.

Manufacturers of devices from user category require or suggest using additional SIM card with data service activate, for live tracking or / and for access to online application. Some manufacturers offer the service themselves, others suggest using services from mobile operators. Manufacturers of some devices also require / suggest using SIM card / service capable of sending SMS messages. Prices of additional service directly from manufacturers are according to official information provided by local resellers approximately 250 CZK per month. Data services by Czech mobile operators are, according to official pricelists, available from approximately 200 CZK per month. Professional devices usually do not require SIM cards, data services and additional fees. Some devices from user category does not require SIM card and data connection, but these devices are usually more expensive, approximately 5,000 CZK and there is usually still charged some fee for using online application.

Devices from user category are usually relatively small and can be easily attached to dog collar. On the other hand, professional devices are usually bigger and can be also equipped with external antenna.

Operating time varies based on which mode the device operates. According to official product information. If device is in full operation mode, battery needs to be charged approximately every 6 – 8 hours, if standby mode is applied, devices should operate number of days without charging. Some devices send information about location only periodically in order to save energy. The period can be changed in order to obtain information more frequently.

Advantages

- Real time tracking possible
- Online application for tracking
- SMS notifications
- Available on Czech market, but not very common

Disadvantages

- Higher price
- Needs to be charged often
- Does not provide any information for potential finder of the dog
- Relatively high fees for data connection / online application
- Available on Czech market, but not very common

According to own investigation, situation abroad seems to be similar to Czech market. Prices are, according to Amazon.com, slightly lower but it is not anything important to be considered. Offered items are the same or similar to those available on Czech market and according to volume of reviews are not sold massively.

4.4.4 Tag4pet

Direct competitor on Czech market who sells similar tags to DogNTag with similar functionality. One tag was bought in the past to investigate functionality of the tag and to compare it with DogNTag tags. The app is designed based on mobile application QR City

so application design does not fit the purpose of smart dog tags very well and the application is due to this fact slightly confusing.

Advantages

- NFC and QR codes for loading the information
- No additional fees
- Number of cooperating pet shops

Disadvantages

- Confusing application design
- No big wholesale partner
- According to reviews, similar problems with quality of physical tag itself plus some issues with functionalities of the application

4.5 SWOT Analysis

SWOT analysis is important tool for identification of strong and weak characteristics of the business. Following SWOT analysis elaborates current situation of DogNTag business in a view of all available findings.

Picture 16 SWOT Analysis



Source: Own work, 2017; template: demplates.com

4.6 Development of Improved Product

Since current product was analysed and shortcomings were identified, it is possible to suggest changes to original product, which could be then implemented in design and functions of new version of the product. The way of addressing of identified issues needs to be defined and discussed.

4.6.1 Brainstorming Session – Addressing of Identified Shortcomings

The aim of employing of creative management technique was to bring fresh ideas and new views to the project. Brainstorming techniques was chosen because it is fast, generally known and easy to use technique. All participants know each other and work together in the past so, according to previous experiences, there was no need to worry that one participant would dominate the brainstorming session. All three owners, including CEO of the company, and external programmer from related company joined the session. Working sheet from the session is available in appendices of the thesis.

Following issue addressing ideas were collected in brainstorming session:

- More durable material
- New webpages
- Focus on wholesale
- Hire new sales person
- VOIP service
- Different tag sizes
- Tags for cats

Following ideas were picked for further development from collected ideas:

- More durable material
- Focus on wholesale
- VOIP service
 - New webpages

New webpages were associated with VOIP service since if the VIOP service would be introduce, new webpages or significant redesign is necessary. CEO of the company claimed he provides contact to VOIP service supplier and desired manufacturer of new tags.

4.6.2 Development of Improved Tags

As agreed, new version of tags should be more durable to prevent losing of tags due to broken eyelet. Contact to account manager from manufacturing company was provided. The company was selected by CEO due to high quality of products, proved by cooperation from the past. During negotiations, two possible ways of durability improvement were suggested by manufacturing company.

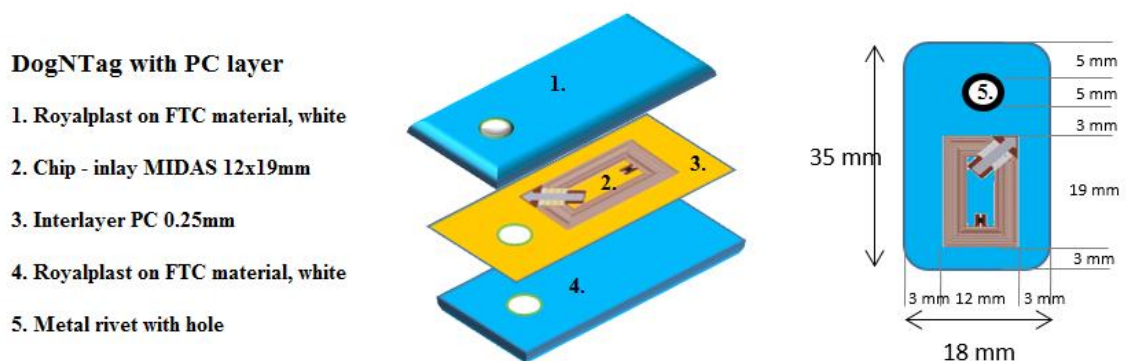
4.6.2.1 First Option – Polycarbonate Tag with Plasticized Plastic Layer

First possibility was to change tag design in a way that there would be no eyelet, but only small hole for attaching to the key ring / dog collar, and material of inner part would be changed from polyvinylchloride (PVC) to polycarbonate (PC). There would be also plasticized plastic fiber on both sides of the tag to support flexibility of the tag and to make the tag more attractive.

Since the eyelet will be removed, shape of the tag needs to be changed due to preserve enough space for the NFC chip. The new shape is rectangle with rounded corners. The hole for attaching to the ring is considered as the weakest part of the tag so it will be supported by metal rivet with hole.

It was tested that there will be no interference of quality of chip reading caused by presence of metal rivet if both components are placed properly.

Picture 17 Technical Sketch of New DogNTag



Source: Own work based on sketch provided by manufacturing company, 2017

Digital print was selected as printing technology, because any set of colours can be printed in one series, regardless of quantity of each colour. This decision follows results of the questionnaire.

Design and materials described above were agreed from our side and then following offer was received:

Table 3 Offer - Polycarbonate Tags with NFC chip

Quantity (pcs)	Price (CZK)
250	68.93
500	57.66
1,000	45.74
2,500	35.88
5,000	29.42
10,000	26.97

Source: Own work based on received offer, 2017

Small box + packing 15.71 CZK / unit

Costs of graphical artwork: 1,497.66 CZK

All prices are excluding VAT.

4.6.2.2 Second option - Aluminium Tag with Plasticized Plastic Layer

The second option was designed to achieve maximum durability without affecting appearance in negative way. Inner layer was designed from aluminium material (AL), there would be also plasticized plastic fiber on both sides of the tag to support flexibility of the tag and to make the tag more attractive. Digital printing would be employed.

NFC chip was removed from this variant since metal materials disturb NFC transmission in a way that it is not possible to detect NFC chip placed on metal material at all. This could be solved by adding specialized ferrite layer between metal material and chip. However ferrite layer is expensive and it would make the manufacturing of such tag unrealistic from costs point of view.

This version was intended for big and active dogs, to guarantee maximum durability in extreme conditions. Since NFC chip was removed from this version, size of the tag could be smaller in compared to tag with NFC chip. There were two variants regarding size of the tag, round tag with 36 mm diameter and round tag with 22 mm diameter. There will be one hole for attaching to key ring / dog collar.

Table 4 Offer - Aluminium Tags without NFC chip

Size (mm)	Quantity (pcs)	Price (CZK)
36	500	60.30
22	500	52.27

Source: Own work based on received offer, 2017

Small box + packing 15.71 CZK / unit

Costs of graphical artwork: 700.00 CZK

All prices are excluding VAT.

4.6.2.3 Printing

As mentioned above, all variants are intended to be printed using digital print. The advantage of this solution is that various colours can be printed without affecting costs. Following five colours were selected for next generation of DogNTag:

Table 5 Selected Background Colours

Colour	CMYK code
Black	75-68-67-90
Blue	96-68-0-0
Yellow	0-15-94-0
White	0-0-0-0
Red	0-100-100-0

Source: Own work, 2017

Originally, pantone colours were selected. However each colour would be considered as single series if printed with pantone, which is major disadvantage.

Based on background colours, colours of personalization need to be modified. For yellow, red and white personalization will be printed in black colour, while white colour will be used for personalization of black and blue tags.

Content to be printed on tags is following:

- Front side
 - Dog's paw
 - Text “Is he lost?” (not applicable for 22 mm round tags)
 - Symbol of contactless transmission
 - Link to DogNTag webpages
- Back side
 - Text “Call: +420 xxx xxx xxx” (if decided to use phone numbers)
 - QR Code

4.7 Development of VOIP Service

According to our experience, potential customers consider absence of phone number printed on the tag as major disadvantage. This was supported by questionnaire which is part of the thesis, since 71.5% of respondents answered that they would be more willing to buy the tag if there was phone number printed on it. Absence of phone number is therefore considered as major drawback and needs to be solved in order to provide complex and convenient product and service to customers.

The problem is, that it is technically not possible to wait until customer orders the tag and then print the number on the tag. All printings need to be done in manufacturing process. CEO of the company suggested VOIP solution and passed contact information to one service provider which is considered as suitable for our solution. Some negotiations with this company were conducted in the past so information on functionalities of desired solution were provided as well.

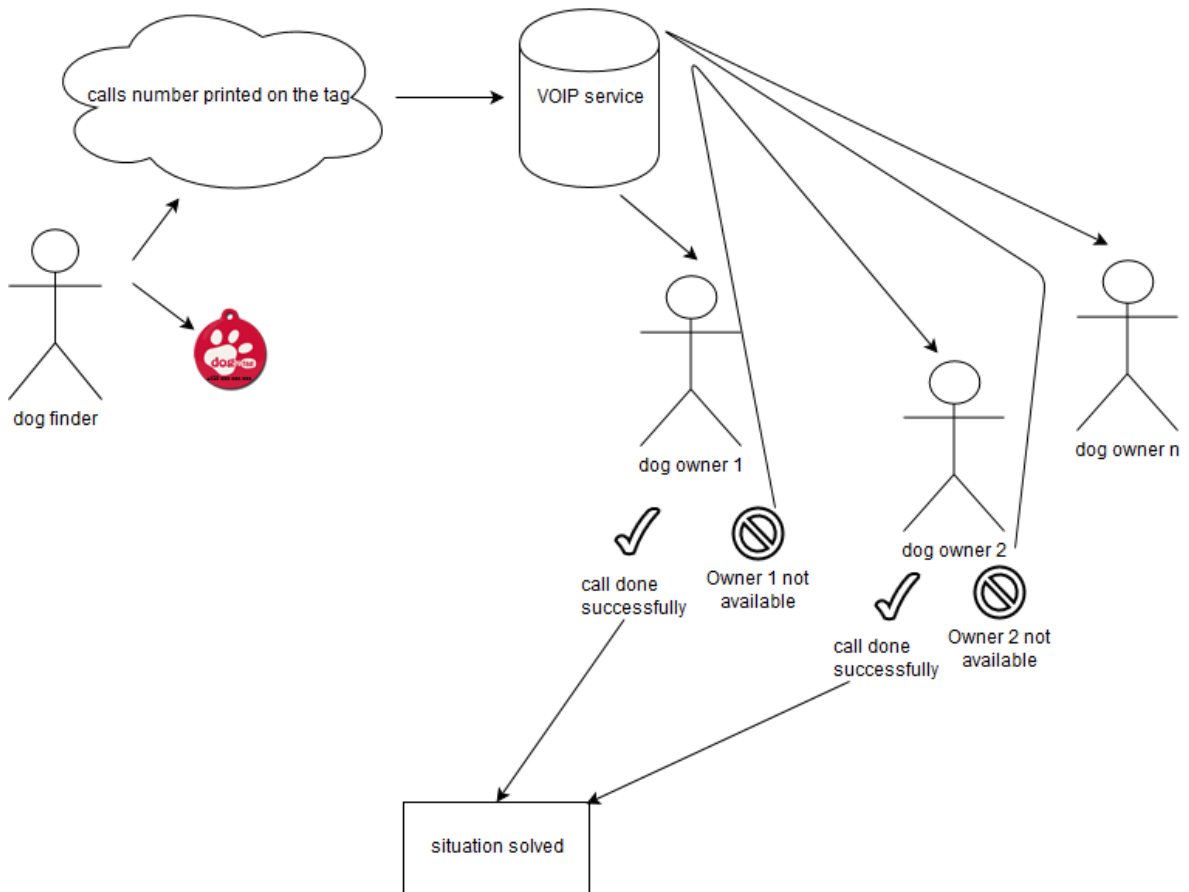
4.7.1 Technical Characteristics

Desired model assumes that number of phone numbers will be purchased and operated on virtual PBX of supplier company. It is possible to set up what happens if somebody calls particular number, call would be redirected to another phone number or SMS would sent to

predefined phone number or / and to number which opened the call. There could be more phone number listed for call redirect and if one number does not answer, call could be redirected to next number, after predefined time period. Foreign phone numbers could be provided as well.

VOIP supplier provides own API so their VOIP solution can be connected with application of another subject, in this case with DogNTag system. There would be development needed on our side as well. However, DogNTag webpages and online system for customers need certain redesign, so desired way of implementing the VOIP solution to our system is to merge both jobs together. This approach will lead to decreasing of costs by economies of scale.

Picture 18 Scheme - Dog Recovery Using VOIP Service



Source: Own work, 2017

4.7.2 Costs of VOIP Solution

Costs can be divided into two parts, costs related to purchase of numbers and then costs related to operation of the service – costs of SMS messages and call redirects.

One phone number costs 1 CZK per year and prices of phone calls are 1 CZK per minute, counted by second and one SMS costs 1 CZK. Prices are excluding VAT. Costs related to new VOIP ready DogNTag system development were defined to 30 000 CZK. Costs were calculated based on information acquired from software developer from related company. The same person would, in case of project realization, develop the system.

Apart from costs of system development, costs of system maintenance and customer support need to be considered. Volume of work connected with those tasks was, according to information provided by system developer and by employee responsible for customer support, defined as 1 working hour per working day. Costs for one working hour were defined as 200 CZK, excluding costs related to running the office, which will be added separately.

4.7.3 Monetization of the Service

Due to the fact that there are certain costs connected with providing the VOIP service, namely costs of call redirects, the service needs to be charged in certain way.

There also needs to be certain limitation of call redirect minutes per payment period, to prevent misusing of the service. It is suggested that even if all customers use all available call redirect length, both VOIP supplier bill and maintenance need to be paid. Phone charges are 1 CZK per minute, so the suggestion is to provide users with 60 minutes / year, which should be more than enough to sort out meeting with dog finder. In case the user uses all available minutes year bill for the phone number is 60 CZK. Also 1 CZK per number needs to be added. If company decides to sell 1,000 tags, maintenance costs of the service per 1 tag are approximately 50 CZK per year. Therefore, minimal fee on one year basis is 111 CZK to cover all costs. Service could be also charged in shorter period basis, one month is considered as minimum. If there would more tags sold in the future, there is space for price reduction.

According to results of the questionnaire, respondents would prefer one year licence included in the purchasing price of the tag. Based on this fact, purchasing price of the tag will be formed by price of the tag and one year licence for VOIP service. After one year period, customers will be allowed to prolong the service on monthly or yearly basis, or not to prolong the service at all.

5 Results and Discussion

5.1 Suggestions Towards New Version of the Product

As the price itself was not defined to be major drawback of the original product, quality of the product, additional value and user experience were stressed more in compared to cost minimalization. Materials were tested for high durability by the manufacturer and at the end polycarbonate tags were found durable enough to be suitable for all dog breeds.

According to this fact, it was decided that the production will start with polycarbonate tags. First series will comprise of 1,000 tags, 200 from each colour. This volume was selected because it is sufficient to cover all costs, but does not bring unacceptable level of risk connected with having too high volume of tags in stock. This solution was accepted by CEO of the company.

5.1.1 Costs Overview

Overall costs connected with new version of DogNTag can be divided into two parts – fixed costs and variable costs.

5.1.1.1 Fixed Costs

Fixed costs are represented mainly by costs related to development of new online system, but also artwork proofs and shipping costs from the factory are considered as fixed.

Table 6 Fixed Costs

Item	Costs (CZK)
Online system	30,000
Artwork proof	1,498
webhosting + domain	734
Online system maintenance + customer support	4,200 / month

Source: Own work, 2017

5.1.1.2 Variable Costs

Variable costs are represented mainly by cost of manufacturing of physical tags, but also by costs related to tags packaging. Due to the fact that the company is not going to sell the

product on its own, labour costs connected with having the product in portfolio will be minimal.

Table 7 Variable Costs

Item	Price (CZK/ 1 pc)
Tag manufacturing	45.74
Tag packing	15.71

Source: Own work, 2017

Prices are noted excluding VAT.

5.1.1.3 Suggested Pricing Model

Even if there will be additional service provided and charged, price of the tag should generate enough revenues to cover all costs and generate appropriate profit margins. Due to this fact, end price of the tag was, in collaboration with company management, defined as 205.78 CZK excluding VAT. The price gives enough space for providing wholesale prices for our partner companies. The price of the VOIP service is calculated separately. Expected wholesale price of the tag is, according to previous experiences with wholesale partners, defined as 106 CZK excluding VAT. The will be influenced by ordered volume so it is not possible to predict exact figure.

The price of VIOP service was, according to costs related to providing VIOP service, defined as 123 CZK per year, which represents 10.25 CZK per month only. Price is calculated excluding VAT. Even if all users use full capacity of the service, there will still be certain profit generated. On the other hand, less users use the service, more profits are generated.

5.2 Suggestions Towards New Business Plan

Due to the fact that business strategy for the whole company is about to be updated in close future, there is no point to create full updated business plan for DogNTag project. On the other hand, certain suggestions need to be noted for further use in the business strategy of the company.

5.2.1 **Marketing Strategy**

Since the company is not going to sell the product on its own, marketing campaigns towards end customers will be responsibility of the wholesale partner. Still it is suggested that some level of activities will be maintained. Since DogNTag webpages will be changed to product web with user zone, the web will be main communicating channel with both new and current customers. In addition, press release will be launched after the new version of product will be available on market.

It is highly recommended to not target on end customers at all, especially no discount campaigns and paid online marketing campaigns, since all these activities were highly unsuccessful in the past.

Responsibility for new wholesale partners acquisition will be held by sales manager currently employed in the company. Suggested strategy is to contact main players in the business only, because there is much higher potential of decent sales volumes due to high exposure, in comparison to small internet shops.

5.2.2 **Profit or Loss Forecast**

Profit or loss forecast is important part of the business plan and thus needs to be designed to provide management of the company with relevant source of information. All prices are calculated excluding VAT.

Following calculations were based on assumption that all 1,000 tags will be sold within one year of operation and for the estimated wholesale price. Since it is not possible to predict which prices will be negotiated with wholesale partners, and also how long it will take to sell the whole first series of tags, revenues are qualified estimates only. It is also not possible to predict how often will customers use call redirects, so variable costs related to VOIP service are presented as a range.

The minimum costs represent situation if nobody uses the service and the maximum costs represents situation if all customers use all available minutes of call redirect. Especially maximum costs related to VOIP service represents theoretical maximum and it is highly unlikely to happen. But, even if it happens, the project should not go into red numbers anyway.

Table 8 Profit / Loss Forecast

Costs	(CZK)	
Online system	30,000	
Artwork proof	1,498	
webhosting + domain (1 year)	734	
Online system maintenance (1 year)	50,400	
Tags manufacturing (1,000 tags)	45,740	
Tags packing (1,000 tags)	15,710	
Call redirect costs	Min.	Max.
	0	60,000
phone numbers purchase	1,000	
Total	Min. (CZK)	Max. (CZK)
	145,082	205,082
Revenues		
Revenues from sold tags	116,000	
Revenues from sold service	123,000	
Total	239,000	
Profit estimation		
	Max. (CZK)	Min. (CZK)
	93,918	33,918

Source: Own work, 2017

One of arguments towards project implementing is, that costs related to current online system maintenance, which are not covered by any fee, would be replaced by costs for new system maintaining, which are higher, but covered by VOIP service subscription. Costs related to current system maintenance were estimated as 2,000 CZK per month. Webhosting and domain are also paid now so this item will not increase overall costs of the company.

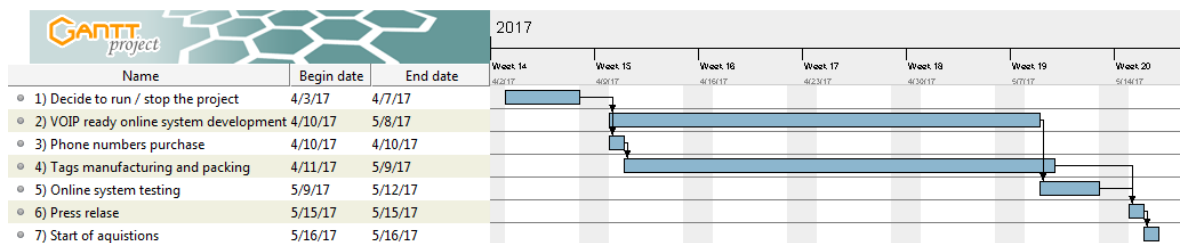
5.2.3 Future Development

On one hand, the project has ambition to be profitable as described. On the other hand, without willingness for future development, mainly for expansion to foreign markets, it would be questionable to run the project due to the fact that total costs are relatively high in comparison to expected profits. If the described project implementation serves as basis of expansions towards new market and successful acquisitions of more and more strong wholesale partners, it makes sense. On the other hand, if company decides not to stress the project and its expansion, project implementation is not suggested.

5.3 Suggestion towards Project Implementation

Total length of project implementation was estimated to five weeks and two days, including one week dedicated for decision of CEO whether the company runs the project or not. Estimates were defined in collaboration with people who will physically work on particular tasks or with external subjects who will provide particular part. Project tasks are shown on following Gantt chart.

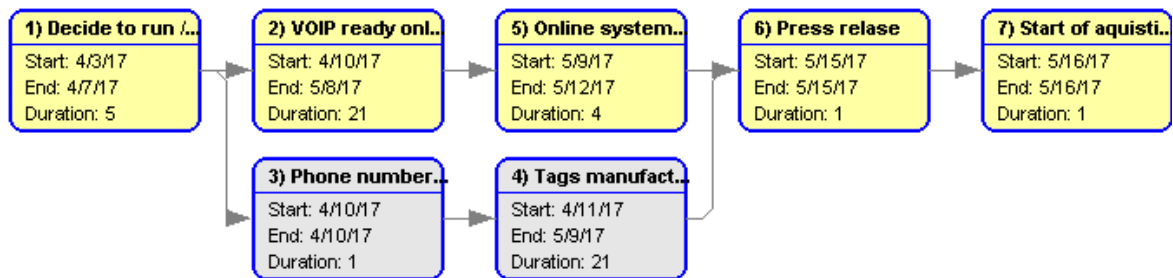
Picture 19 Gantt Chart - Estimated Project Length



Source: Own work, 2017

Following PERT chart provides more clear overview of length of each task and also information regarding task order and predecessors.

Picture 20 PERT Diagram



Source: Own work, 2017

Both graphs were created in Gantt project software under GNU General Public License version 3.0 (GPLv3).

If management decides to run the project, full project outline will be created.

6 Conclusion

DogNTag product has been present on the Czech market since year 2014. However, management of the company is not satisfied with the results of the product in terms of sales.

The product was analysed using various approaches. Physical characteristics of the product as well as pricing policy, target group, competing products but also opportunities for future development were main analysed characteristics of the product. Opinions of potential customers were also taken into consideration.

Main identified shortcomings related to physical characteristics of the product were flawed product design with eyelet combined with not enough durable material that together caused relatively high level of consumer dissatisfaction and complaints. The other shortcoming is related to product operations disorganized and wrong planned marketing activities and sales campaigns did not bring almost any results, instead caused problems related to willingness of customers to accept the price.

The only reasonable way of selling the product proved to be wholesale cooperation with strong partner, which helped to sell more then quarter of all tags produced. Even though the cooperation did not last till present, there is still chance for future cooperation after launch of new, improved version of the product. Opportunities towards new partner acquisition are also considered as good.

New version of the product including new VOIP functionality providing call redirects from phone number printed on the tag in the factory to phone number of the customer, which have ambition to attract potential customers who missed the function in first version of the product, was designed. Issues related to poor quality and wrong chosen material were solved in collaboration with new manufacturing company. Expected costs and revenues were defined and opportunity for profit generation was found. Expected profit generated from selling of the first series of new tags, comprised of 1,000 pieces, were defined as range from 30,918 CZK to 93,918 CZK, based volume of VOIP service usage.

On one hand, new product was found perspective and profitable. On the other hand, running the project on described level only, does not make enough sense from business point of view

due to relatively high total costs. The first series of the new version of DogNTag is intended to serve as basis for further expansion on foreign markets and for acquisition of new wholesale partners both in the Czech Republic and abroad.

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8 Appendix

8.1 Questionnaire

Sekce 1 z 7



DogNTag

Dotazník slouží pro potřeby diplomové práce zaměřené na rozvoj produktu chytré psí známky DogNTag. Dotazník je určen výhradně majitelům pejsků.

Děkuji za vyplnění dotazníku a přeji hezký den :)

1) Máte psa? (Pokud odpovíte "Ne", dotazník bude ukončen) *

Ano

Ne

Sekce 2 z 7



Název sekce (nepovinný)

Popis (nepovinný)

2) Bojíte se, že se Vám pes ztratí? *

Ano

Ne

3) Používáte nějaké metody pro snížení rizika ztráty psa? (Čip pod kůži, klasická známka...)

Ano

Ne (přechod na otázku č. 5)

Název sekce (nepovinný)

Popis (nepovinný)

4) Jakým způsobem se snažíte snížit riziko ztráty psa? *

- Čip pod kůží
- Klasická známka s telefonním číslem
- Nepouštím ho z vodítka
- Jiné...

Název sekce (nepovinný)

Popis (nepovinný)

5) Zvažoval(a) byste zakoupení chytré psí známky DogNTag (viz popis níže)? * Jaké výhody a nevýhody ve známce DogNTag spatřujete?

Text dlouhé odpovědi

Chytrá psí známka DogNTag

DogNTag je "chytrá psí známka" založená na technologii NFC a na QR kódech. Po přiložení smartphone s funkcí NFC ke známce se zobrazí webová stránka s profilem pejska, ve kterém jsou uvedeny všechny důležité informace o majiteli pejska i pejskovi samotném. Při návštěvě profilu zároveň dojde k zobrazení žádosti o sdílení polohy skrze nálezcův smartphone, majitel psa poté obrátí email s mapkou zobrazující místo, kde byl pejsek nalezen. Jako alternativu k NFC lze použít QR kód vytištěný na známce, nebo zadat číslo známky na webové stránce www.dogntag.com. Cena známky je 389 Kč včetně DPH a poštovného.



Sekce 5 z 7



Název sekce (nepovinný)

Popis (nepovinný)

6) Jaká barva Vám pro psí známky připadá nejvhodnější? Vyberte prosím jednu možnost *

- Modrá
- Červená
- Žlutá
- Hnědá
- Černá
- Bílá
- Zelená

Název sekce (nepovinný)

Popis (nepovinný)

7) Myslíte si, že absence telefonního čísla na majitele psa, vytištěného na známce, je závažným nedostatkem tohoto produktu? *

Ano

Ne

8) Byl(a) byste více ochotn(ý/á) známku DogNTag zakoupit, pokud by na známce bylo vytištěno telefonní číslo? *

Ano

Ne (konec dotazníku)

Název sekce (nepovinný)

Popis (nepovinný)

9) Byl(a) byste ochotn(ý/á) za přeměrování hovorů z telefonního čísla uvedeného na známce DogNTag na Vaše číslo platit drobný poplatek v řádu nižších desítek korun měsíčně? *

Ano

Ne

10) Bylo by pro Vás více akceptovatelné, pokud by byl výše zmíněný poplatek zahrnut v ceně známky s tím, že by cena známky byla o to adekvátně navýšena? Vyberte, prosím, možnost, která nejvíce odpovídá Vašemu názoru. *

Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky

Ano, pokud by byl poplatek za 6 měsíců zahrnut do ceny známky

Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky

Ne

Na mé rozhodnutí o nákupu by to nemělo vliv

8.2 Questionnaire Answers

1) Máte psa? (Pokud odpovíte "Ne", dotazník bude ukončen)	2) Bojíte se, že se Vám pes ztratí?	3) Používáte nějaké metody pro snížení rizika ztráty psa? (Čip pod kůži, klasická známka...)	4) Jakým způsobem se snažíte snížit riziko ztráty psa?	5) Zvažoval(a) byste zakoupení chytré psí známky DogNTag (viz popis níže)? Jaké výhody a nevýhody ve známce DogNTag spatřujete?	6) Jaká barva Vám pro psí známky připadá nejvhodnější? Vyberte prosím jednu možnost	7) Myslíte si, že absence telefonního čísla na majitele psa, vytištěného na známce, je závažným nedostatkem tohoto produktu?	8) Byl(a) byste více ochotn(ý/á) známku DogNTag zakoupit, pokud by na známce bylo vytištěno telefonní číslo?	9) Byl(a) byste více ochotn(ý/á) za přesměrování hovoru z telefonního čísla uvedeného na známce DogNTag na Vaše číslo platit drobný poplatek v řádu nižších desítek korun měsíčně?	10) Bylo by pro Vás více akceptovatelné, pokud by byl výše zmíněný poplatek zahrnut v ceně známky s tím, že by cena známky byla o to adekvátně navýšena? Vyberte, prosím, možnost, která nejvíce odpovídá Vašemu názoru.
Ano	Ano	Ano	Klasická známka s telefonním číslem	Ano, nevýhodu ale vidím v tom, že by ho pesek mohl ztratit.		Ano	Ano	Ano	Ano, pokud by byl poplatek na 12 měsíců do ceny známky
Ano	Ano	Ano	Klasická známka s telefonním číslem, Nepouštím ho z vodítka	ano, bála bych se, že známku můj pesek ztratí...	Hnědá	Ano	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Nejsem si jistý, plastová známka vypadá křečce a bez telefonního čísla nemusí vždy pomoci	Červená	Ano	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ne									
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Nevím, musel bych si funkci známky nejdříve vyzkoušet, ale nápad se mi líbí.	Černá	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Čip pod kůži	známky vypadají hezky, budu o koupi važovat	Červená	Ne	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	možnost načteční údajů ze známky mobilem se mi líbí, na klasickou známku se moc informací nevejde, nákup známky zvážím	Červená	Ne	Ano	Ne	Ano, pokud by byl poplatek za 6 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	Takže bych mohl do profilu pejska zapsat třeba údaje o zdravotním stavu? To mi připadá dobré. Možná zakoupím	Modrá	Ano	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Spíše ne, klasická známka s číslem je dostatečná	Černá	Ano	Ano	Ne	Ne
Ano	Ano	Ano	Čip pod kůži	Známka vypadá hezky i jako doplněk, obvyčejné známky většinou moc hezké nejsou...možná si ji Nufikovi koupím.	Žlutá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 6 měsíců zahrnut do ceny známky

Ano	Ano	Ano	Čip pod kůži	Výhodou by mohlo být, že se dá do známky nahrát hodě informací, ale co když pejska najde gřeba starší člověk bez chytrého telefonu? To by ještě chtělo dořešit. Nákup zatím nezvažuji	Černá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ne	Ano	Čip pod kůži, Klasická známka s telefonním číslem	To mi připadá zbytečené, obyčejná známka stačí.	Bílá	Ano	Ne (konec dotazníku)		
Ne									
Ano	Ano	Ano	Čip pod kůži	Online profil pejska vypadá jako zajímavý nápad, pokud vážně stačí jenom přiložit telefon informace se zobrazí. Kupuji	Červená	Ne	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Zní to hezky, webový profil a tak, cokoliv může pomoci pejka najít stojí za to. Kdo někdy o pejska přišel, ví o čem mluvím.	Černá	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ne	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Pejsek mi ještě nikdy neutekl, takže to považuju za zbytečné. Možná když má někdo pravidelného útekáře, tak to ocení.	Černá	Ne	Ne (konec dotazníku)		
Ano	Ne	Ne (přechod na otázku č. 5)		Dobře vycvičený pes neutíká, to je přece nesmysl. Vaši známku nepotřebuju	Bílá	Ne	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži	Asi ano, ta červená na fotce vypadá hezky. Asi se to může hodit, když pejsek uteče a zas tak drahé to není.	Červená	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	Jsem fanoškem moderních technologií a tenhle nápad se mi líbí. Před nákupem bych si chtěl určitě známku vyzkoušet, ale zatím mi to připadá dobré.	Žlutá	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	webový profil vypadá zajímavě...známka je ale z plastu, že? No nevím, jestli něco vydrží	Modrá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 6 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	To je vážně dobrý nápad, to s tím načtením mobilem. Určitě lepší, než volat strážníky	Zelená	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ne									
Ano	Ne	Ano	Čip pod kůži, Klasická známka s telefonním číslem, Nepouštím ho z vodítka	Hezká vychytávka, ale v praxi zbytečné. Na psa dávám pozor a nikdy mi neutekl	Hnědá	Ano	Ne (konec dotazníku)		

Ano	Ano	Ano	Čip pod kůži	Výhodou je určitě ten webový profil, to se mi vážně líbí. Na známce ale nikde nevidím místo pro telefonní číslo, to tam asi dát nejde, co? S telefonním číslem bych si to asi koupila.	Červená	Ano	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, papírek s telefonním číslem vložený do plastového obalu	ten profil je asi faj, může se tam napsat víc věcí, než na papírek, ale číslo podle mě stačí. Známkou si nekoupím	Černá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Jako výhodu vidím možnost zapsat hodně informací do online profilu. Jako nevýhodu pak nutnost použít k načtení chytrý telefon, ono to ale jinak asi nejde. Vzhledem k rostoucímu podílu smartphone na trhu mi připadá pravděpodobné, že nálezce, nebo nějaký kolemjdoucí bude chytrý telefon mít. Podávám se na Vaše stránky, nastuduji informace a známku možná zakoupím.	Modrá	Ne	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ne	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Asi ne, přijde mi to zbytečné. Asi je to dobré spíš pro technické hračky, což já nejsem.	Žlutá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži	Zajímavé řešení, čip pod kůži totiž není samospásný. Jednou se mi pejsek ztratil a čip moc nepomohl. Jako jednoznačnou výhodu vidím možnost načíst informace mobilem	Černá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ne									
Ano	Ano	Ano	Čip pod kůži, Nepouštím ho z vodítka	Možná si známku koupím, o pejska se hodně bojím	Černá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ne	Ne (přechod na otázku č. 5)		hezká vychytávka, ale můj pes je poslušný, nikdy by neutekl	Hnědá	Ne	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Asi ano, vypadá to šikovně. Jako výhoda se jeví možnost získat pozici psa hned po načtení známky, nevýhoda by mohlo být malé povědomí veřejnosti o těchto známkách	Červená	Ano	Ano	Ano	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky

Ano	Ano	Ano	Čip pod kůži	Možná ano, ale musel bych se se známkou nejprve více seznámit, přece jenom, obyčejná kovová známka sotjí daleko míň. Načtení profilu mobilem zní dobře, ale co uživatelé klasických telefonů?	Bílá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, Nepouštím ho z vodítka	Vaše známka vypadá hezky, i jako takový designový doplněk. Škoda, že nemáte víc barev.	Modrá	Ne	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Webový profil se mi líbí, ale ta cena, no nevím.	Černá	Ne	Ano	Ne	Ne
Ano	Ano	Ano	Čip pod kůži	Známka vypadá veseleji, než obyčejná známka a to načtení telefonem zní dobře.	Černá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ne									
Ano	Ano	Ano	Čip pod kůži	Známku si asi koupím, líbí se mi více možností načtení profilu psa - jako majitel iPhone mám s nfc smůlu :(Telefonní číslo by ale taky neškodilo, kvůli starším lidem	Žlutá	Ano	Ano	Ano	Na mě rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Čip pod kůži	Asi ne, přijde mi to zbytečné. Známk vypadá pěkně, ale telefonní číslo podle mě stačí	Červená	Ano	Ano	Ne	Ne
Ano	Ne	Ano	Čip pod kůži	Asi ne, pes má čip, který mít stejně musí, tak k čemu tuhle známku?	Modrá	Ne	Ne (konec dotazníku)		
Ano	Ne	Ano	Čip pod kůži, Klasická známka s telefonním číslem, na známce mám i adresu	No když o tom tak přemýšlím, může se hodit mít v tom profilu víc informací, než se vejde na známku. Nejsem si ale jistý, jestli to pro nás není zvyčené, pejsek je stejně většinu času na zahradě a z té ještě nikdy neutekl.	Černá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	Hezký doplněk, mám malého pejska, tak by známka mohl hezky vyniknout. V těch technologiích se moc nevyznám, pišete něco o profilu na internetu, to zní zajímavě	Červená	Ne	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži	Je to trochu drahé, ale na druhou stranu pejsek je pro mě cennější. Možná si to koupím.	Bílá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 1 měsíc zahrnut do ceny známky

Ano	Ano	Ano	Čip pod kůži	Možná ano, vaše známka vypadá zajímavě. Líbí se mi možnost našení známky telefonem, akorát bych ocenila více variant co se týče velikosti známky. Máme většího psa a známka mi z fotky připadá trochu malá.	Červená	Ano	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, klasická známka se jménem psa a mou adresou	adresa na známce podle mě stačí, tohle mi připadá spíš jako technologická vychytávka...ale pokud by se to masově rozšířilo, mohlo by to být fajn	Bílá	Ne	Ano	Ne	Ne
Ano	Ano	Ano	Čip pod kůži	Podívám se na Vaše stránky a uvidím, zaujalo mě to. Výhodou je asi ten profil pejska na webové stránce, nevýhodou trochu vyšší cena v porovnání s běžnou známkou.	Černá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, Nepouštím ho z vodítka	možná ano, ale musela bych známku nejdříve vidět. Pro mladé lidi, kteří mají moderní telefony je to asi dobré, já tomu moc nerozumím	Červená	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	Jsem fanda do všech nových technologií a tohle mi připadá zajímavé. řemýšlel jsem o nákupu GPS pro psa, ale je to dost velké a musí se to pořád nabíjet. Tohle vypadá jako taková kompromisní varianta.	Modrá	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Čip pod kůži	Známka se mi líbí, ale možná bych byl opatrný s odolností - dle fotky vypadá plastově. Nákup zvážím.	Bílá	Ano	Ano	Ano	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	Známka se mi líbí, ale za ty peníze mi to přijde zbytečné.	Červená	Ano	Ne (konec dotazníku)		
Ne									
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	Ano, ale pokud na známce není telefonní číslo, je to takové polovičaté řešení, na tom ještě zapracujte. Designově vypadá známka daleko líp, než obyčejné známky, to беру jako jednoznačnou výhodu.	Červená	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Čip pod kůži, papírek s číslem	spíše ne, telefonní číslo funguje dostatečně, ale není to špatný nápad, s tím profilem na internetové stránce	Hnědá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky

Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem	To mi přijde jako blbost, když je pes vycvachovaný, nikam neutiká. Takže drahou známku nepotřebuji.	Zelená	Ano	Ne (konec dotazníku)		
Ano	Ne	Ano	Čip pod kůží	O psa se sice nebojím, nikdy mi ještě neutekl, ale zapisování informací do toho přího profilu se mi celkem líbí. Akorát nepíšete nic o telefonní číslo, to mi připadá na známce nejdůležitější	Černá	Ano	Ano	Ano	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží	Máte hezké známky, pro malého roztomilého pejska ideální, kamarádka si vaši známku před šasem koupila a je s ní spokojená, takový hezký doplněk. Akorát kdyby pejska našel nějaký starší člověk, asi by si se známku neporadil.	Červená	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem	známka má hezký tvar a logo s tlapkou se mi taky moc líbí, akorát to očko vypadá trochu chatrně, mám velkého psa a už byl schopný zničit všemožné věci na obojek. Podívám se na vaše stránky a nákup zvažím	Žlutá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ne									
Ano	Ano	Ne (přechod na otázku č. 5)		no možná by to za to stálo, pořídit nějakou šikovnou známku a takhle vypadá hezky. Na druhou stranu, pes se mi ještě nezaběhl, tak nevím.	Černá	Ano	Ano	Ne	Ne
Ano	Ano	Ano	Čip pod kůží	Ten profil pejska mi připadá jako dobrý nápad, o známce budu uvažovat	Žlutá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží, dobrý výcvik	je to hezké, přece jenom chytrý mobil má už skoro každý, tak proč ne.	Černá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží	Konečně vím, k čemu to nfc jde použít. Známkou si koupím ani cena mi nepřipadá přemrštěná	Hnědá	Ne	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ne	Ano	Čip pod kůží	Ještě nikdy mi pes neutekl, tak asi nejsem ta pravá cílovka, ale pro někoho to může být dobré. Líbí se mi, že vymyslíte takové vychytávky	Bílá	Ne	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem	I was interested and was given one to try. Unfortunately the tag broke and we lost it!	Červená	Ne	Ano	Ne	Na mé rozhodnutí o nákupu by to nemělo vliv

Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem	když se pejsek zaběhne, určitě se taková věc hodí, vše co může pomoci pejsku najít je dobré. Ta mapka s mapou místa, kde byl pejsek nalezen v praxi určitě hodně pomůže. Jenom aby s tou známkou nálezce uměl pracovat	Červená	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem	Známky jsou opravdu hezké, může to být dobrý dárek, cena je také rozumná. K použití v praxi jsem ale trochu skeptická, nevím, jestli by někoho napadlo známku načítat telefonem. Možná, kdyby to na ní bylo viditelně indikováno, na fotce ale vidím jen jednu stranu známky.	Červená	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem	Známka s telefonním číslem podle mě stačí, ale kdo má rád tyhle blbůstky, mohlo by se mu to líbit.	Černá	Ano		Ne (konec dotazníku)	
Ano	Ne	Ano	Čip pod kůží, Klasická známka s telefonním číslem	Moc těhle vychytávek jsem u nás neviděl, nepovažuju to sice za nutné, ale když se to někomu líbí, tak proč ne.	Bílá	Ano	Ano	Ne	Ne
Ano	Ano	Ano	Čip pod kůží	Za tyhle peníze mi to přijde zbytečné, to mu radši koupím nějaký pamlssek.	Modrá	Ano		Ne (konec dotazníku)	
Ano	Ne	Ne (přechod na otázku č. 5)		úplně zbytečné	Černá	Ano		Ne (konec dotazníku)	
Ano	Ano	Ano	Čip pod kůží	Webový profil pejška je super nápad, každý si tam může napsat co chce :) Co zvažít více barev?	Žlutá	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ne	Ano	Čip pod kůží	pes je pořád na zahradě, útěku se neobávám, ale hezká známka	Bílá	Ano		Ne (konec dotazníku)	
Ano	Ano	Ano	Nepouštím ho z vodítka	uvažoval jsem o GPS, ale to je hrozně drahé, tohle by možná mohl ostačit	Červená	Ano	Ano	Ne	Ne
Ano	Ne	Ano	Klasická známka s telefonním číslem	Už jsem o Vašich známkách slyšel, prý toho moc nevydrží, známý má ovčáka a známku zničil hned. Na tom by určitě chtělo zapracovat.	Černá	Ne		Ne (konec dotazníku)	
Ano	Ano	Ne (přechod na otázku č. 5)		asi ne, stejně těm technologiím nikdo nerozumí	Bílá	Ne		Ne (konec dotazníku)	

Ano	Ano	Ano	akorát registrační známka, počítá se to?	možná ano, ale asi to nenahrazuje registrační známku, co? Načtení mobilem zní fajn	Černá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Klasická známka s telefonním číslem	Známka se mi docela líbí, ale to telefonní číslo je teda jenom v tom profilu? mám teď známku s vyrytým číslem a přijde mi to dobré	Černá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ne (přechod na otázku č. 5)		možná ano, musel bych se s produktem víc seznámit, Výhodou je asi ten profil, o kterém píšete	Modrá	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Nepouštím ho z vodítka	líbí se mi to, dobrý nápad s tím načítáním telefonem	Červená	Ne	Ano	Ne	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Klasická známka s telefonním číslem	přijde mi to zbytečné	Žlutá	Ano	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ne (přechod na otázku č. 5)		možná ano, podle toho, jestli je možné si nejdříve známku někde prohlédnout, kouknout na vaše stránky	Černá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kūží	čip je sice dobrý, ale musí se čekat na odchytovou službu, kdo zkusil ví, že to není nic moc. Jednou jsem takhle s nalezeným pejskem čekala a kdyby měl takovouhle známku, mohl být dřív zpátky doma	Červená	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Klasická známka s telefonním číslem	ta mapka s polohou psa mi přijde úžasná	Černá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ne (přechod na otázku č. 5)		tak asi to pomůže, když se pesek ztratí	Zelená	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ne (přechod na otázku č. 5)		známka pěkná, jen barev bych přidala	Žlutá	Ano	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Klasická známka s telefonním číslem, Nepouštím ho z vodítka	Známka se mi líbí, zkusím a uvidím :)	Bílá	Ne	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ne	Ne (přechod na otázku č. 5)		kam by chodil, doma je mu dobře	Žlutá	Ano	Ne (konec dotazníku)		

Ano	Ano	Ano	Klasická známka s telefonním číslem, Nepouštím ho z vodítka	o pejska se hodně bojím a tak ho moc volně běhat nenechávám, jestli ta známka opravdu funguje, tak by mi mohla přidat trochu klidu	Bílá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží	čip stačí, tohle nepotřebuju	Hnědá	Ne	Ne (konec dotazníku)		
Ano	Ano	Ano	Klasická známka s telefonním číslem	o telefonním čísle v popisu nepíšete, to by mi na známce asi chybělo, byť bude asi napsané v tom profilu	Zelená	Ano	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem, Nepouštím ho z vodítka	čím více ochrany, tím lépe	Žlutá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 6 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží	mapka s místem nálezu psa je dobrý nápad, pokud to v praxi opravdu funguje, není co řešit	Červená	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Klasická známka s telefonním číslem	pěkný doplněk, funkce mi dle popisu taky připadají zajímavé, akorát to vypadá dost plastově	Bílá	Ne	Ano	Ne	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Čip pod kůží	mám iPhone, takže NFC mi bude k ničemu, ale přes QR kód by to mělo být ok	Červená	Ne	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Klasická známka s telefonním číslem, Nepouštím ho z vodítka	tydle technologie mě moc nezajímají	Červená	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůží	proč ne, je to pěkný a může to asi pomoci	Hnědá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ne	Ne (přechod na otázku č. 5)		já tohle nepotřebuju, u nás na vsi se psi neztrácejí	Červená	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Klasická známka s telefonním číslem	hezké logo :) profil zní dobře	Zelená	Ne	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ano	Klasická známka s telefonním číslem	asi ne, takové věci považuju za zbytečné	Hnědá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůží	dobrý nápad, takhle se nálezců o pejskovi dozví daleko víc informací	Modrá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky

Ano	Ano	Ne (přechod na otázku č. 5)		musel bych se se známkou nejdříve bíce seznámit, ale takhle jak to píšete mi to dává smysl	Zelená	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Čip pod kúži	dobrý nápad, známka e mi líbí, kouknu na stránky a asi kupuju :)	Bílá	Ne	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Klasická známka s telefonním číslem, Nepouštím ho z vodítka	podle mého názoru stačí kovová známka, tyhle vychytávky mi připadají zbytečné	Černá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kúži	přijde mi fajn, že se dá známka načíst mobilem, to považuji za jednoznačné +	Žlutá	Ne	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kúži	pokud po nkupu nepožadujete žádné další poplatky, tak mi to připadá dobré	Červená	Ne	Ne (konec dotazníku)		
Ano	Ano	Ne (přechod na otázku č. 5)		dobrý nápad, jen si nejsem jistá, kolik lidí napadne mobilem načítat psí známku	Modrá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 6 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kúži	mapka s místem nalezení psa je super	Zelená	Ne	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ne									
Ano	Ano	Ano	Čip pod kúži, Nepouštím ho z vodítka	můj pejsek moc neutiká, takže tuhle známku nepotřebujeme, možná to někom koupím jako dárek	Červená	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kúži	super nápad, konečně jsou ty technologie k něčemu dobré	Červená	Ne	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ne (přechod na otázku č. 5)		přijde mi to předražený, takový nic za čtyři stovky	Černá	Ne	Ne (konec dotazníku)		
Ano	Ne	Ne (přechod na otázku č. 5)		nikdy neutekl, takže tyhle věci nepotřebuju	Bílá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kúži, Klasická známka s telefonním číslem, Nepouštím ho z vodítka	to mi přijde dobré, webový profil, načítání telefonem, krok správným směrem	Modrá	Ne	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kúži, Klasická známka s telefonním číslem	hezky a funkční doplňek, cenu respektuju	Modrá	Ne	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ne									

Ano	Ano	Ano	Čip pod kůži	čip podle mě stačí	Hnědá	Ne	Ne (konec dotazníku)		
Ano	Ano	Ne (přechod na otázku č. 5)		když se něco stane, člověk asi bude rád, že pes takovouhle známku nosí, o známkách jsem nikdy dřív neslyšel, ale líbí se mi	Červená	Ne	Ano	Ne	Ano, pokud by byl poplatek za 6 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	zní to rozumně, hodně výhod za málo peněz	Červená	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ne	Ne (přechod na otázku č. 5)		celkem dobrý nápad a ani cena se mi nezdá přemrštěná	Bílá	Ne	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ano	Klasická známka s telefonním číslem, Nepouštím ho z vodítka	u nás v obci nemusíme mít čip, ale tahle známka by se mohla hodit	Hnědá	Ano	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	vypadá to slibně, hodně funkcí v jedné známce	Modrá	Ne	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	plechová známka mi přijde dostatečná i když moderní zrovna není	Černá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži	ten profil s informaemi o pejskovi je dobrý nápad, cena mi přijde adekvátní	Zelená	Ano	Ano	Ano	Ano, pokud by byl poplatek za 6 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	mapka s místem nálezu - velmi užitečná věc	Hnědá	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Nepouštím ho z vodítka	těmhle věcem moc nevěřím, ale někomu se to může líbit	Červená	Ano	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	za nevýhodu považuji malé povědomí o známce mezi majiteli psů, já jsem o těchto známkách nikdy dřív neslyšel. Jinak se mi nápad s profilem a načtením telefonem zamlouvá	Modrá	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ne (přechod na otázku č. 5)		uvažuji o GPS, ale přijde mi celkem drahé, možná si vystačím s touhle známkou	Bílá	Ano	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	když musím mít čip, proč bych vyhazovala peníze za nějaké drahé známky?	Černá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	normální známka stačí, vždycky pomohla	Žlutá	Ano	Ne (konec dotazníku)		

Ano	Ne	Ano	Čip pod kůži, Klasická známka s telefonním číslem	psa mám vycvičeného a s tímhle nemám problémy, v nehorším by určitě saticila známka a čip	Červená	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	design známky vypadá atraktivně, ale chtělo by to telefonní číslo	Žlutá	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Klasická známka s telefonním číslem	líbí se mi různé barvy známky, ale možná bych nějaké ještě přidala :)	Modrá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	proč ne, známka vypadá pěkně a navíc může být užitečná	Červená	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	zajímavá alternativa k běžné známce, jen se obávám, aby se to očko neutrhlo	Bílá	Ano	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ano	Ano	Klasická známka s telefonním číslem, Nepouštím ho z vodítka	hezke inovativní řešení, mapa s místem nálezu pejska je super	Černá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži, Klasická známka s telefonním číslem	chtělo by to ještě telefonní číslo napsané na známce, ne každého napadne známku načítet telefonem	Modrá	Ano	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ne (přechod na otázku č. 5)		může to být užitečné, ale zat y peníze mi to nepřipadá jako taková bomba	Hnědá	Ano	Ano	Ne	Ne
Ano	Ano	Ano	Čip pod kůži	výhoda - webový profil, nevýhoda - nfc skoro nikdo nezná	Zelená	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ne	Ne (přechod na otázku č. 5)		podle mě je to k ničemu	Černá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůži	za zkoušku to asi stojí, webový profil je fajn nápad	Žlutá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůži	to je pěkná blbost, kdo by načítal psa telefonem	Modrá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	GPS	není to špatný nápad, sice máme pro pejska GPS, ale to není na každodenní nošení moc vhodné	Červená	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ne	Ne (přechod na otázku č. 5)		hezky doplněk, o praktickém využití mám ale pochybnosti	Bílá	Ano	Ne (konec dotazníku)		

Ano	Ano	Ano	Klasická známka s telefonním číslem	hezké, ale normální známka je dostačující	Červená	Ano	Ne (konec dotazníku)		
Ano	Ano	Ne (přechod na otázku č. 5)		super nápad, to se může hodit, webový profil, mapka s místem nálezu, bomba	Černá	Ne	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ano	Čip pod kůží	zvládním to, přese jenom když se pejsek zaběhne, všechno se mě hodit	Žlutá	Ne	Ano	Ano	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem, Nepouštím ho z vodítka	výhodou je jednoznačně ten online profil, nevýhoda absence telefonního čísla na známce a někde povědomí o nfc	Modrá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží	líbí se mi více způsobů vedoucích k zobrazení profilu pejska, to je určitě výhoda	Hnědá	Ano	Ano	Ne	Ano, pokud by byl poplatek za 12 měsíců zahrnut do ceny známky
Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem	myslím, že můj pejsek je dostatečně vybaven, ale Vaše známka vypadá hezky, to zase anp	Červená	Ano	Ne (konec dotazníku)		
Ano	Ano	Ano	Čip pod kůží, Klasická známka s telefonním číslem	známý vaši známku měl a jeho pejsek ji po čase ztratil, na tom byste měli zapracovat, ale jinak nápad dobrý	Bílá	Ano	Ano	Ne	Na mé rozhodnutí o nákupu by to nemělo vliv
Ano	Ano	Ne (přechod na otázku č. 5)		asi ano, ale musel bych se s produktem nejdřív více seznámit. Líbí se mi možnost načtení známky telefonem	Žlutá	Ano	Ano	Ne	Ano, pokud by byl poplatek na 1 měsíc zahrnut do ceny známky
Ano	Ne	Ne (přechod na otázku č. 5)		podobné věci mi připadají zbytečné	Černá	Ano	Ne (konec dotazníku)		
Ano	Ano	Ne (přechod na otázku č. 5)		vzhledem k tomu, že mám iPhone, mi bude NFC k ničemu, snad teda ty QR kódy. Nápad dobrý, ale stále čekám, kdy bude na trhu rozumně použitelné GPS řešení	Červená	Ano	Ano	Ano	Na mé rozhodnutí o nákupu by to nemělo vliv

8.3 Brainstorming Session Sheet

ODOLNĚJŠÍ MATERIÁL

VOIP
ZNAČKY PRO
KROKY

USENÍ VEČER
DŮMŮ
TAGŮ

Marek a jeho
Obchodní nabídky

Velkoobchod