Project of Web Usability Testing for a Chosen E-shop

Bc. Iveta Chlupová

Master Thesis 2016



Tomas Bata University in Zlín Faculty of Management and Economics

Tomas Bata University in Zlín Faculty of Management and Economics Department of Management and Marketing

Academic Year: 2015/2016

MASTER'S THESIS ASSIGNMENT

(PROJECT, ARTWORK, ARTISTIC PERFORMANCE)

Degree, First Name and Surname: Bc. Iveta Chlupová

Personal Code:

Degree Course:

M140296

Degree Programme:

N6208 Economics and Management

Management and Marketing

Thesis Topic:

Project of Web Usability Testing for a Chosen

E-shop

Thesis Guidelines:

Introduction

Define the objectives and the application methods used in the Master thesis.

- I. Theoretical part
 - Compile the theoretical information about web usability testing.
- II. Practical part
 - Complete the analysis of current situation of the e-shop by web usability
 - Prepare the project of web usability testing for the e-shop.
 - Submit the project to risk and cost analysis.

Conclusion

Thesis Extent:

cca 70 stran

Appendices:

Form of Thesis Elaboration:

tištěná/elektronická

Bibliography:

BARNUM, Carol M. Usability testing essentials: ready, set—test. Amsterdam: Elsevier/Morgan Kaufmann, c2011, 382 p. ISBN 978-0-12-375092-1. KRUG, Steve. Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability. 3rd edition. USA: New Riders, c2014, 216 p. ISBN-13 978-0-321-96551-6. KUNIAVSKY, Mike. Smart things: ubiquitous computing user experience design. Amsterdam: Elsevier/Morgan Kaufmann, c2010, 318 p. ISBN 978-0-12-374899-7.

Thesis Supervisor:

doc. Ing. Michal Pilík, Ph.D.

Department of Management and Marketing

Date Assigned:

15 February 2016

Thesis Due:

18 April 2016

Zlín, 15 February 2016

doc. RNDr. PhDr. Oldřich Hájek, Ph.D.

Dean

L.S.

doc. lng. Vratislav Kozák, Ph.D. Head of Department

BACHELOR'S/MASTER'S THESIS AUTHOR STATEMENT

I hereby acknowledge that:

- Upon final submission of my Bachelor's/Master's Thesis, I agree with its publishing in accordance with Act No. 111/1998 Coll., on Higher Education Institutions and on Amendment and Supplements to Some Other Acts, (The Higher Education Act), without regard to the defence result;
- My Bachelor's/Master's Thesis will be released in electronic form in the university information system, accessible for reading only; and one printed copy of the Bachelor's/Master's Thesis will be stored on electronic media in the Reference Library of the Faculty of Management and Economics of Tomas Bata University in Zlín;
- To my Bachelor's/Master's Thesis fully applies Act No. 121/2000 Coll., on Copyright, Rights Related to Copyright and on the Amendment of Certain Laws (Copyright Act) as subsequently amended, esp. Section 35 Para 3;
- In accordance with Section 60 Para 1 of the Copyright Act, TBU in Zlín is entitled to enter into a licence agreement about the use of the Thesis to the extent defined in Section 12 Para 4 of the Copyright Act;
- In accordance with Section 60 Para 2 and 3, I can use my Bachelor/Master's Thesis, or render the licence to its use, only with the prior expressed written agreement of TBU in Zlín, which is in such case entitled to require from me appropriate financial compensation to cover the cost of creating the Bachelor/Master's Thesis (up to the total sum);
- If the software provided by TBU or other entities was used only for study and research purposes (i.e. for non-commercial use) in the development of the Bachelor/Master's Thesis, it is not possible to use the Bachelor/Master's Thesis commercially;
- In the event that the Bachelor/Master's Thesis output encompasses any software product, source codes and/or files of which the project consists of are considered part of the Thesis. Failure to submit this part of the Thesis may result in an unsuccessful defence of the Thesis.

I herewith declare that:

- I have created this Bachelor/Master's Thesis on my own and cited all used sources. In case the results are published, I shall be cited as author.
- The contents of the Bachelor/Master's Thesis handed over are identical with the electronic version entered in the IS/STAG.

Zlín	
date	signature

ABSTRAKT

Diplomová práce prezentuje projekt testování použitelnosti webových stránek vybraného e-shopu. Cílem práce je navrhnout nový vzhled e-shopu, tak aby splňoval trendy současného e-commerce. Navržený design je vytvořen na základě teoretických a praktických poznatků, které jsou vysvětleny v příslušných kapitolách.

Všechny oblasti výzkumu jsou testovány s ohledem na zvýšení počtu objednávek, vracejících se zákazníků a získání nových. Vstupní data k zjištění analýzy současné situace e-shopu jsou použita z nástroje Google Analytics. Zjištěné nedostatky jsou odhaleny na základě uživatelského testování a heuristické analýzy. Celý projekt je podroben analýze rizik, času a nákladů.

Hlavním přínosem tohoto výzkumu je pomoc s nalezením toho, co není v souladu s použitelností webových stránek a na základě výsledků je možné navrhnout řešení, které bude vytvořeno přesně na míru tomuto e-shopu.

Celá studie je velmi významná díky zaměření na oblast internetového marketingu e-shopu v rámci B2C. Tato oblast se zdá být méně zkoumaná ve srovnání s jinými studiemi zabývajícími se internetovým marketingem.

Klíčová slova: e-commerce, e-shop, použitelnost, uživatel, uživatelské testování, heuristická analýza, web design, internet marketing

ABSTRACT

Master thesis presents the project of web usability testing for a chosen e-shop. Its purpose is to design new layout which will meet the current e-commerce trends. Proposed design is created based on the theoretical and analytical knowledge that is described in relevant chapters.

All areas of the research will be tested considering the increase of the number of orders, returning customers and attracting new customers. The input data of the current situation analysis of the e-shop are used from Google Analytics tool. Identified shortcomings are revealed through user testing and heuristic analysis. The project is submitted to risk, time and cost analysis.

The main contribution of this research is to help with finding things that are not in accordance with the web usability and based on the outputs it is possible to propose solution that is tailored for the e-shop.

The study is important especially for its focus on the internet marketing field of B2C of eshops. This area seems not to be researched so much in comparison to other studies dealing with internet marketing.

Keywords: e-commerce, e-shop, usability, user, user testing, heuristic analysis, web design, internet marketing

AKNOWLEDGEMENTS

Firstly, I would like to use this opportunity and thank Zdravá výživa Hronov that provided with me all necessary information, figures, gifts for participants of the user testing and allowed me to do the research of their business.

Secondly, I would like to thank PSHK Ltd. that supported the whole research, provided room, computer and a camera for user testing and heuristics for heuristic analysis.

Finally, I would like to thank my supervisor doc. Ing. Michal Pilík, Ph.D. for his valuable advice, recommendations and guidance through the creation of this thesis.

I hereby declare that the print version of my Master's thesis and the electronic version of my thesis deposited in the IS/STAG system are identical.

Zlín, Czech Republic, April 18th, 2016

Bc. Iveta Chlupová

CONTENTS

I	ITRO	DU(CTION	10
ı	THEC	RY	••••••••••••••••••••••••••••••••••••	13
1	E-	COI	MMERCE	14
	1.1	\mathbf{C}	ATEGORIES OF E-COMMERCE	14
	1.2	Co	ONTEMPORARY E-COMMERCE	15
2	DI	ESIC	GN FOCUSED ON USERS	17
	2.1	W	EB DESIGN	17
	2.2	PE	ERSONAS	18
	2.3	W	EB CONVENTIONS AND ACCESSIBILITY	19
	2.4	Us	SABILITY VS UX	21
	2.5	Us	SABILITY AND USERS	22
3	TY	YPE	S OF TESTING METHODS	26
	3.1	Qt	UANTITATIVE METHODS	26
	3.1	_	Data Mining	
		1.2	A/B Testing	
	3.1	1.3	Online Questionnaire	28
	3.2	Qt	UALITATIVE METHODS	29
	3.2	2.1	Benchmarking	29
	3.2	2.2	Eye-tracking	30
	3.2		Card Sorting	
	3.2		Heuristic Analysis	
	3.2		User Testing	
4			OP USABILITY	
	4.1		JCCESSFUL E-SHOP USABILITY	
	4.2		HE MOST FREQUENT MISTAKES OF E-SHOPS	
II			IS	
5	AI	BOU	JT THE CHOSEN E-SHOP	43
	5.1	Z_{Γ}	DRAVÁ VÝŽIVA HRONOV	43
	5.2	ST	TRATEGY	43
	5.3	TA	ARGET CUSTOMER GROUP	44
	5.4	ID	ENTIFICATION OF THE PROBLEM	44
	5.5	Aı	IM OF TESTING	45
6	TF	EST	ING SCHEDULE	47
	6.1	TI	METABLE	47
	6.2	TE	ECHNICAL REQUIREMENTS AND TOOLS	47
	6.2	2.1	Computer with Internet Connection	47
	6.2		Camera and Mouse Tracking Software	47
	6.2		Heat Maps	
	6.2 6.2		E-mails	
	Ο.∠	ر.ن	Noncember and Ones for Fafticipality	48

	6.3	BUDGET	48
	6.4	PERMISSION FORM	48
	6.5	SCRIPT	49
	6.6	PARTICIPANTS	50
	6.6.	1 Profiles of Participants	50
7	WE	EB USABILITY TESTING OUTPUTS	52
	7.1	USER TESTING - PROCESS	52
	7.1.	1 Homepage	52
	7.1.	8	
	7.1.		
	7.1. 7.1.		
	7.1. 7.1.	J	
	7.1.		
		7.1.7.1 Order Confirmation E-mail	
		7.1.7.2 Order is processed	
		7.1.7.3 Order has been shipped	
	7.1.	- · · · · · · · · · · · · · · · · · · ·	
	7.2	USER TESTING – OVERALL RESULTS	
_	7.3	HEURISTIC ANALYSIS	
8		E PROJECT OF WEB USABILITY	
	8.1	DESIGN	
	8.2	HOMEPAGE	
	8.3	MAIN MENU	
	8.4	LEFT MENU	
	8.5	PRODUCT DETAIL	73
	8.6	CONTENT OF THE WEB	74
	8.7	FUNCTIONS	74
	8.8	Order	76
	8.9	E-MAILS	80
	8.10	New Menu Items	80
	8.10	0.1 Detoxification	80
		0.2 Recipes	
9	RIS	SK, TIME AND COST ANALYSIS	82
	9.1	RISK ANALYSIS	82
	9.2	TIME ANALYSIS	83
	9.3	COST ANALYSIS	85
C	ONCLU	USION	87
B	IBLIO(GRAPHY	89
L	IST OF	ABBREVIATIONS	93
L	IST OF	FIGURES	94
L	IST OF	TABLES	96
\mathbf{A}	PPEND	DICES	97

INTRODUCTION

Contemporary e-commerce is saturated by plenty of e-shops that offer the same or similar products. Online shoppers usually search for information about desired product on the internet and choose an e-shop that satisfies their needs and wants according to clarity of websites, range or products, availability, terms and conditions and ways of delivery and payment. It is therefore necessary to distinguish the shop from the competition and offer added value to its products.

Before figuring out the added value, it is required to know what should be done better to increase the amount of orders and to retain customers. Such analysis can be done by one specialist who will reveal common mistakes and will add his personal ideas. On the other hand the research can be focused on other e-shop buyers' usability skills and performed with the assistance of other potential customers, which will support the analysis from a different point of view. It is very important to impress with the design and functionality but most e-shops do not follow new trends and their online shops have an obsolete look.

The company chosen for this thesis is Zdravá výživa Hronov, which owns both an e-shop (www.zdravavyzivahronov.com) and a physical store in the city of Hronov. This company offer healthy food, detoxification medication, aids and much more in context of healthy living. Owners of this e-shop were willing to cooperate on the research and provided all the necessary information needed for the analysis. They know that now is the right time to do changes and to offer something more than their competitors to increase sales, otherwise they will be pushed out of the market.

The author is glad that she could explore another area of internet marketing in practice because in the syllabus of the Management and Marketing study program there was only one class dealing with this particular subject. Also this kind of analysis is offered by many companies that are involved in internet marketing which ensures great practice for a future job position.

OBJECTIVES AND METHODS OF MASTER THESIS PROCESSING

The purposes of this thesis are classified in two fields. Firstly, to find out if the e-shop www.zdravavyzivahronov.com meets all rules of e-shop usability that are known based on the current e-commerce trends. Secondly, to reveal drawbacks that restrain the e-shop from acquiring new customers and which should be redesigned to increase the conversion rate.

Research questions:

- 1. Does the e-shop meet all rules of usability?
- 2. What are the drawbacks of the e-shop?

Methodological Approach

The research contains two kinds of qualitative analysis. Both methods are very important when testing usability and together they complement each other perfectly. First method is user testing which tests the usability of e-shop with 3 to 5 people who could be its potential customers. Second method is called heuristic analysis and it uses specific rules - heuristics that test if the actual state of the e-shop coincides with the rules or not.

The thesis consists of two parts. The first part deals with theoretical knowledge about e-commerce, testing methods and e-shop usability. The second part is based on the theoretical background and it includes analysis and the project itself. The analysis is a very crucial part that provides data from the research and it will be used as the basis for the project part.

Dispositions

This thesis consists of the following chapters:

Chapter 1.E-commerce: This chapter describes important terms of e-business and results of e-commerce in last few years.

Chapter 2. Design Focused on The User: This chapter introduces how important it is to create a design that is focused on the user and what the rules in web design are.

Chapter 3. Types of Testing Methods: This chapter reveals types of testing methods. Qualitative and quantitative methods are defined there and it is also described what they are used for.

Chapter 4. E-shop Usability: This chapter is about usability as the most important part of this e-shop which is subsequently elaborated on the analytical part of the thesis.

Chapter 5. About the Chosen E-shop: This chapter introduces the e-shop, its strategies, target customers, facing problems and its aim of the research.

Chapter 6. Testing Schedule: This chapter explains what is necessary to be prepared for before user testing like timetable, special tools, script and participants for the testing.

Chapter 7. Web Usability Testing Outputs: This chapter describes the results of user testing and heuristic analysis and it is used as a source for the project.

Chapter 8. The Project of Web Usability: This chapter proposes solution in the form of new graphical design and changes in functions.

Chapter 9. Risk, time and cost analysis: This last chapter submits the whole project to risk, time and cost analysis.

Used sources

Number of e-shops, their turnovers, trends in design and usability are changing very fast and that is the reason why it is not possible to use only books as sources of information for this thesis. Such sources would be outdated and this study requires new information. For that reason, the most sources of material used in this study are internet sources which help to keep up with the latest trends from the e-commerce world.

I. THEORY

1 E-COMMERCE

According to Suchánek (2013), e-commerce is a part of e-business (Figure 1) which has much broader meaning. E-business covers a lot of business and manufacturing activities that support and increase the effectivity in business processes. Those activities are for example customer relationship management, marketing, packaging, shipment, warehousing, human resource management and many others. What they have in common is that all of them are managed by using electronic tools.

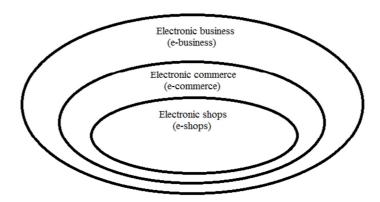


Figure 1: Areas of electronic business (Suchánek, 2013)

Whereas e-commerce is mainly focused on business activities in which the most crucial communication interface is electronic shop as e-shop which is presented by specific web application. To become an e-shop there is one requirement that has to be met and it is that all the communication between business entities takes place through ICT (Information Communication Technology) to satisfy demand and supply.

1.1 Categories of E-Commerce

As in traditional commerce, in e-commerce there are 4 categories in which businesses and customers can buy and sell products and services. Those categories are B2B, B2C, C2B and C2C.

B2B as Business to Business means commerce among businesses. Manufacturers sell its products to distributors and those sell it to the retailers in the form of goods. In the case of services it can be for example a company creating web design will create web for another company who will use it for its own business.

B2C as Business to Customer focuses on final customers, which means that companies sell its products for consumption or usage. Some of the biggest and well known Czech e-shops in B2C are Mall.cz and Alza.cz.

C2B as Consumer to Business is the opposite of B2C. Customers contact an enterprise and raise suggestions and ideas about innovation of products or services. Companies then choose the most suitable customer for cooperation.

C2C as Consumer to Consumer consists of consumers who want to sell purchased products to those consumers who want to buy them. It usually takes place in some marketplaces or forums, nowadays also on social networks. One example from Czech C2C is Aukro.cz but it can also be Facebook or Instagram. (Arline, 2015)

1.2 Contemporary E-Commerce

According to Heureka Roadshow (2016), the number of e-shops (Figure 2) is increasing every year. Results from last two years are not so striking but the turnover (Figure 3) increases very fast, in four years it increased almost twice. From both graphs it is visible that it is the right time for having e-shops and doing business online.

Figure 4 shows the share of visits in 2015 where the leader is still electronics and white goods. On the other hand clothing and fashion, cosmetics and food have grown faster than other areas of online business therefore it can be expected that those areas will be more favourite among online shoppers.

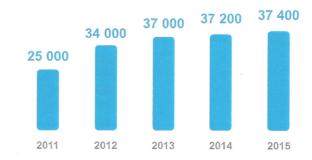


Figure 2: Trend in number of e-shops (Heureka Roadshow, 2016)

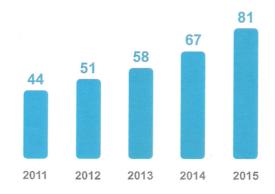


Figure 3: Turnover of e-shops in billions of CZK (Heureka Roadshow, 2016)

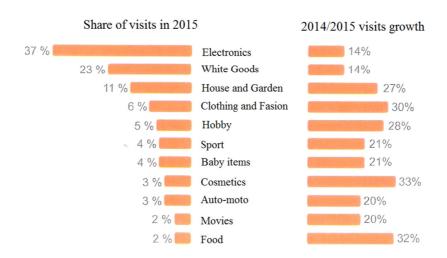


Figure 4: Share and growth of visits (Heureka Roadshow, 2016)

Nowadays, people shop online because it is more convenient for them, they can get information faster, everything is in one place and prices are usually lower because the provider of e-shop does not have to pay extra fee for the physical store – rent, energy, salesclerk. Customers can easily sort products by the cheapest or by best sellers, purchase in a few clicks and pay online as well.

There are also businesses that provide both e-shop and a physical shop which helps them to serve customer in a better way. It means that a customer can order and pay a product online but he can pick it up in the shop. There is no delivery time and cost and the customer does not have to wait home for the delivery, he just come into the shop and picks it by himself in his free time. Also when there occurs a complaint, it is much easier to hand over the product than sending it by post which is much more expensive.

2 DESIGN FOCUSED ON USERS

When talking about e-commerce, it is very important to think about the design which will influence customers. There will be no person like in a shop that will help with the shopping and change a visitor to a customer but the design has to speak and convince customer to do the conversion. Conversion means getting visitors to do what companies want them to do, it can be purchasing a product, signing up for a newsletter, filling out a contact form or downloading some file (Adaptic, 2016). It depends on the company type and the purpose of its websites. Some companies do not want visitors to purchase on the first time of their visit but they can get their e-mails and do e-mail marketing after that.

2.1 Web Design

According to Powell (2004), the definition of web design consists of 5 important fields that are necessary to be considered when creating web sites. Those areas are:

- 1. Technology language that will be used to create web site (HTML, CSS) and other interactive elements like JavaScript.
- 2. Visuals it means what the layout of the page will look like and which graphic elements will be used for decoration and navigation.
- 3. Content all information covered on the web, the meaning, arrangement and purpose. This field includes as form as organization of the content. It is important how is the content written and presented to attract visitors.
- 4. Delivery how fast will the web be delivered to the visitor and how safe.
- 5. Purpose what is the purpose of the web, for what reasons it was created. It is usually connected to the economic reason to present a company and to sell products and services.

Figure 5 shows all necessary aspects of web design when creating web pages. Those 3 areas are very important and none of them should be prioritized because it would not lead to targeted goals.

As Powell (2004) states, even if designers create functional and good-looking web sites their users do not have to share the same feelings. Sometimes designers or project managers spend too much time considering their own desires than those of web site's users. Therefore designers have to think about customers' needs and wants in the best form which

is understandable, with easy to use functions and in economic purpose which is to gain money.

Even if there are experts able to construct a beautiful and functional Web site, their users may look at their beautiful construction with puzzlement. It is very important to see a web site from the other side, from the prospective of a visitor to understand what is needed and what is above that. Therefore all 3 areas (form, function and purpose) have to be taken into account and meet the purpose from the designers' point of view and users' as well.

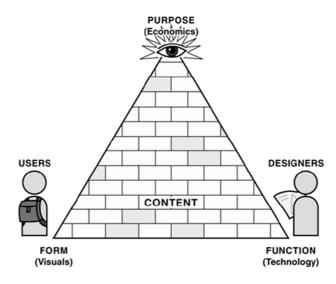


Figure 5: Aspects of web design (Powell, 2004)

2.2 Personas

To serve customers in the best possible way, it is required to create personas. As Barnum (c2011) mentions, personas are fictional representatives of people who are created from real data about companies' users. Those personas should have essential characteristics – name, gender, age, occupation, income, goals, environment and technical expertise to easily create the design based on user characteristics and needs. Figure 6 is an example from Holiday Inn China and it shows what personas can look like.

In practice it means that company knows profiles of its customers and can adapt its products and services to those backgrounds. Based on those personas enterprises put their money effectively in areas where it is needed. Also they can create perfect marketing campaigns because they know what the problems that their customers face are and can help them purchase its products or services which were designed just for them. The number of personas depends of companies' time and sources but in general it is between 2 and 12 (Barnum, c2011).



Figure 6: Preview of a persona (Barnum, c2011)

2.3 Web Conventions and Accessibility

In last years, several web conventions appeared to be well known on the internet to users and should be followed. Those conventions should all designers take into consideration when creating design not to confuse visitors. Figure 7 shows how those conventions look in practice for the British web site Amazon.co.uk. Those conventions are:

- The logo should be situated on the top of the page on the left side and should link back to the homepage.
- All links should be underlined and should have different colour than the rest of the text to be recognizable. Also visited links should change colour to be distinguishable from not visited links.
- The web navigation should be always on the same place on all web pages so the visitor will not lose orientation.

- Every web page should contain search box so the visitor can search through the web through products, services, articles or whatever he is looking for.
- To lead the visitor through subpages, the breadcrumbs are necessary to be implemented, so visitors always know where they are and can easily go back.
- If there is some element that looks like a button, it should also act like it not to mislead the visitor.
- All fields where the visitor has to click should be easily clickable; it means both the object and text.
- Website should be accessible with using both www and without www in the URL. (Netaccountant.net, 2010)

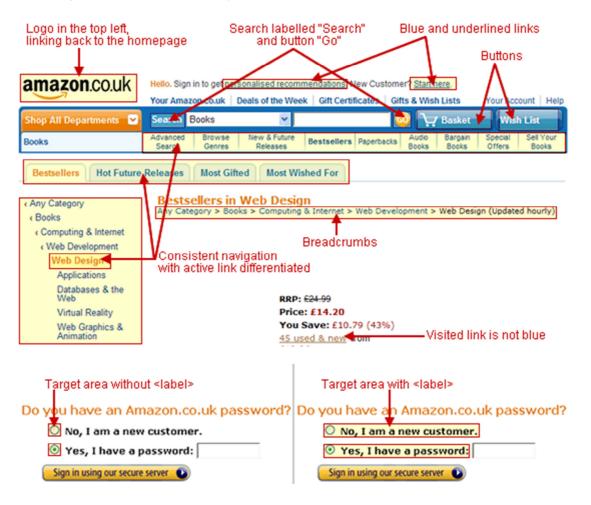


Figure 7: Web conventions according to Amazon.com (Netaccountant.net, 2010)

According to Ruibar (2005) accessibility is an attribute of the web that ensures that the web will be accessible to variously handicapped people. It means to those who are physically or technically disabled. Physically disabled is someone who is blind or deaf. Technically

cally disabled is someone who uses PDA, other browsers or screen resolution that was not taken into consideration when designing the web.

The main international organization that creates standards for World Wide Web and also provides guidelines for web content accessibility is W3C. These guidelines consist of a huge amount of recommendations that explain how to create more accessible web and therefore only few of them were chosen to demonstrate it.

- Content is accessible and legible all non-text elements have to provide alternative text and the design should not impede the legibility.
- Information is clear and understandable web sites communicate information through easy language and homepage describes the sense and purpose of the web.
- Links are clear and provide guidance for users each link is distinguished from the other text (not only by a colour) and the landing page¹ should be clear.
- Code is technically competent and structured specific language is used.
- Work with the web is managed by the user the content is changed by an element activating. (Špinar, 2016)

2.4 Usability vs UX

Before describing what the usability is and why it is so important, there has to be explained what is the difference between usability and UX. Sometimes those two expressions are misused but they are not the same.

UX as User Experience is much broader than just usability. UX is about feelings and emotions between the customer/user and the product/service. User experience is focused on the end user satisfaction, results and quality of the relationship, whereas usability is about practicality. It helps people to use products, services or web pages easily, so they do not have to think about anything, they just do it because it seems natural to them. (Kuniavsky, c2010)

¹ "A landing page can be any page that someone lands on after clicking on an online marketing call-to-action." (Thelandingpagecourse.com, 2013)

2.5 Usability and Users

One of known usability definitions is from ISO and it says that usability is: "The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use." (Barnum, c2011)

The most important rule of usability is "Don't make me think!" which is also a title of Steve Krug's book. This sentence seems easy and clear but in reality it is much difficult. It means that each product/service/webpage should be intuitive, understandable and self-explanatory. Figure 8 shows how designers create links and how much visitors have to make an effort to figure out the issue.

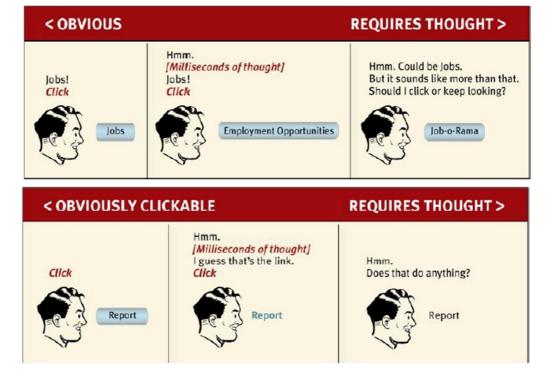


Figure 8: Things that make us think (Krug, c2014)

Steve Krug (c2014) mentions in his book 3 facts about users. Those facts are:

1. People do not read pages, they scan them. (Figure 9)

There are several reasons why people do it - they do not have much time and they know that it is not necessary to read all. They are looking for some words or phrases that catch their attention. Simply, people look for certain information and scanning or skimming will help to find the relevant bits. Sometimes pages are more complicated that visitors can absorb and understand.

2. People do not make optimal choices, they satisfice.

Because people are usually in hurry they choose the first reasonable option and if this option was wrong they can go back and try something else which is faster than considering more options and choosing the best one. It requires thinking that it is not what people want to do.

3. People do not figure out how things work, they muddle through.

For most people it is not important how things work, they do not go through instructions; they just want to use them. Read of instructions is the last possible way.

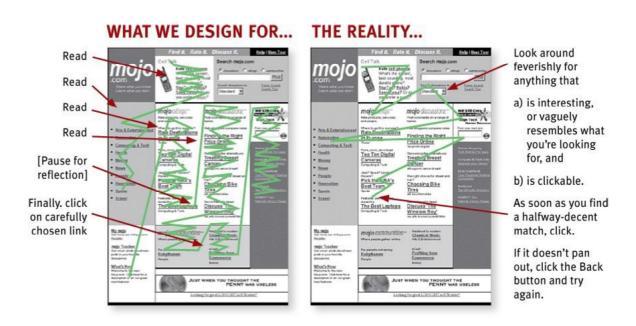


Figure 9: What we design for vs the reality (Steve Krug, c2014)

Each website should be therefore user friendly which is not simple because of internet beginners. For such purpose BFU look should be used. Rubiar (2005) in his book states that BFU is a bit offensive abbreviation that describe ordinary or totally inexperienced user. This abbreviation has a lot of expressions and some of them is Brain Free User. It means that this person is incompetent and at the same time capable of anything. That is why BFU look should be used when creating web design to avoid complex tasks that cannot be handled by such user.

According to Krug (c2014), another important thing is that people do not like visual noise that disturbs them. It means that some pages consist of a lot of elements, invitations to buy, animations, slideshows and many more. Visitors cannot easily orient and their attention to

important areas decreases. Therefore it is important to avoid "shouting" elements, disorganization and clutter to sustain a customer.

As it was already written, people do not read pages but scan them. For this purpose it is very demanding to format texts on pages. It is required to write catching heading which attract customers' attention, short paragraphs and use bullet points for greater clarity. Because people are looking for some specific keywords or phrases, there is nothing easier than to highlight them to catch attention. Figure 10 shows the difference between unformatted page (left) and formatted page (right). It is obvious that formatted text is better for orientation and people are more willing to read it than the unformatted text.

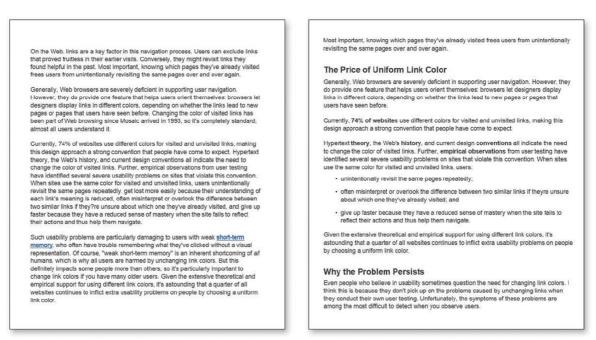


Figure 10: Unformatted page vs formatted page (Krug, c2014)

What cannot be missed in any e-commerce is navigation (Figure 11) which helps customers to go through pages smoothly without any hesitations on what to click, if it will work or what will happen after that. It is like signs on streets or in markets which help to find the right aisle because if people cannot find what they are looking for they will leave. Usually only text is used to direct customers but when an icon/picture is added, it is much better for imagination and it enables faster decision making.

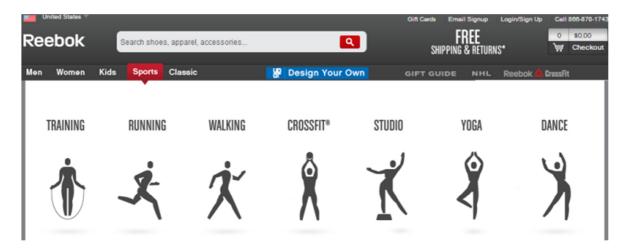


Figure 11: E-commerce navigation (Chawla, vwo.com)

3 TYPES OF TESTING METHODS

Each area of marketing activities can be tested and when talking about usability it is required to test and verify customer's satisfaction, therefore this chapter is focused on types of testing methods. Those methods can be divided into quantitative and qualitative methods and some of them were used in the analytical part of this thesis.

3.1 Quantitative Methods

Results of quantitative methods are expressed as numbers. There have to be more respondents to reach more representative data than in qualitative methods. Results are not dependent on expressions and feelings and therefore it leads to easier interpretation.

3.1.1 Data Mining

First method that is used is data mining. This method requires an effective data collection and warehousing through which companies try to find some pattern to increase revenues and learn more about its customers. It is based on special software which takes data from a database, searches patterns and creates predictions. (Oracle.com, 2016) Figure 12 shows the data mining process that starts in the database, continues in mining and finishes with the new knowledge about researched behaviour.

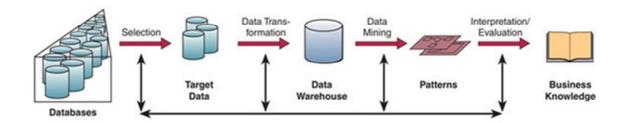


Figure 12: Data mining process (O'Brien, 2009)

3.1.2 A/B Testing

Another method which tests only one function is A/B testing. This procedure contains comparison of 2 variants, evaluates the effectivity and chooses the one that performs better. In practice it means that 50 % of visitors see the original web page and the other 50 % see the modified web page in the same period of time to have proper data for analysing the results. (Optimizely.com, 2016)

This method is usually used for e-commerce websites that persuade visitor to buy or for websites where visitors should register. However, the main goal is to figure out which version is better in terms of more conversions (revenues, registrations, reservation, subscriptions to the newsletter and so on) that increase the conversion rate and this version should be implemented. (VWO.com, 2016)

Figure 13 shows how it works – only a colour of conversion button was changed and then tested. It is evident that the orange button gets more conversions and therefore it is assessed as better for implementing.



Figure 13: A/B testing (VWO.com, 2016)

There are several areas that can be tested, for example text or colour of call to action button, placement or different types of images, colour or size of headings and subheadings, content of the page and everything that would be a source of low conversion rate. (Oracle, 2016) But important is to decide only for one area because if more of them are chosen the results will be biased and it will never be known which tested areas had an effect.

A great tool that can be used to analyse the results of A/B testing is Google Analytics. Google Analytics is an analytical tool of Google company that obtains the statistical data about the users of a web site. This analysis catches all sources of sessions and it makes the whole testing much easier. From Google Analytics (Figure 14) it is visible at first sight which variant is better in terms of bounce rate, visited pages, average visit duration and the most important conversion rate. (Laja, 2014)

	Acquisition			Behavior			Conversions
Custom Variable (Value 02)	Visits +	% New Visits ?	New Visits	Bounce Rate ?	Pages / Visit	Avg. Visit	Goal Conversion Rate ?
	20,403 % of Total: 5.74% (355,382)	67.08% Site Avg: 71.13% (-5.70%)	13,687 % of Total: 5.41% (252,800)	2.90% Site Avg: 11.27% (-74.25%)	1.50 Site Avg: 1.41 (6.11%)	00:03:52 Site Avg: 00:03:09 (22.40%)	1.13% Site Avg: 1.05% (7.64%)
1. Variation_1	10,265	67.12%	6,890	3.03%	1.51	00:03:43	1.15%
2. Original	10,138	67.04%	6,797	2.77%	1.48	00:04:00	1.11%

Figure 14: A/B testing in Google Analytics (Laja, 2014)

3.1.3 Online Questionnaire

According to the Business Dictionary, a questionnaire is an easy tool that contains listed questions for which the obtained data are analysed. Respondents are asked those questions and researchers then create results that help companies to reach specific information. Online means that these questionnaires are not printed or the research is not on the telephone, but everything is done on the internet.

As an article on the Survio's blog (2013) states, online questionnaires have pros and cons. For companies it is a simple tool for reaching customers and obtaining their opinions. It is not difficult to create such online questionnaire and deliver it to customers and also the analysis of results is simply concluded because of available tools that are provided nowadays.

But the disadvantages are very crucial because they can affect the whole research. One of the disadvantages is that it is anonymous, so the company does not know who the responder is, except the information about gender, age and occupation which can be part of the questionnaire. Also there can be very low response rate when a wrong channel of distributing questionnaires is used. A problem with understanding questions can appear too. For example if a respondent does not understand the question, he can be de-motivated to finish the questionnaire or he can answer differently than he should.

When deciding to use online questionnaire as a method for a research, all problematic areas have to be taken into account to gain proper results.

3.2 Qualitative Methods

Qualitative methods are about individuals or groups and their opinions. These methods do not use statistical techniques but psychological and sociological techniques.

3.2.1 Benchmarking

Benchmarking is a systematic comparison of processes and performance of the organisation that lead to improvement. Shortly, it is learning from the most successful ones.

There are few types of benchmarking that compare different areas such as:

- internal processes within the organisation,
- comparison with competition (way of delivery, pricing policy, ingredients/components),
- functions within similar industry,
- and many more. (Vaněk, 2015)

It can take long time to watch competitors and learn from them but it is a great source of what actually works in reality. It does not mean that if one tool has good results it will be the same for everybody. Benchmarking can be therefore used at the beginning of a project to research competitors, how they run their businesses, take the best from that and do it differently to distinguish.

Figure 15 describes the whole process of benchmarking based on PDCA cycle (plan, do check, act) which simply describes continuous improvement of actions within a company.

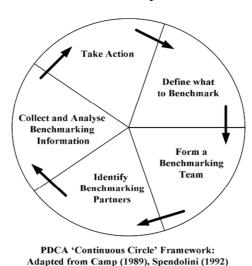


Figure 15: Benchmarking process models (Vaněk, 2015)

3.2.2 Eye-tracking

This method is very interesting but on the other hand very expensive because of tools needed. Eye tracking is an instrument that measure how long is a person looking in one area. It is a great tool in connection to usability testing because it supports the whole testing and brings remarkable results. For eye tracking a special computer with implemented software is required, participants are invited into special labs and researchers do not test only where those people look and click (Figure 17) but also why, thanks to prepared research questions. Also there are other two results that are very important to the research and those are opacity map (Figure 16 - left) that shows areas that caught participants' attention and gaze plots (Figure 16 - right) that shows that path of participants' eye movement. (Usability.de, 2016)

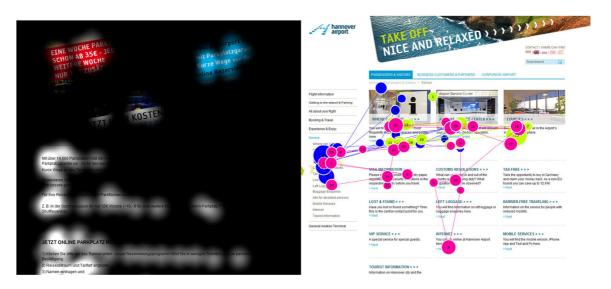


Figure 16: Opacity map (left) and gaze plots (right) (Usability.de, 2016)

Much cheaper way of tracking is mouse tracking which monitor the mouse movements and creates colourful maps (Figure 17) that indicate the amount of interactions. Red colour indicates the most interactions and blue colour the least. In many cases (84 - 88 %) the cursor of the mouse is moving with eyes, so this method is cheaper and more aesthetic than eye tracking. (Krausz, 2010)

However, mouse tracking belongs to the quantitative field because it only observes and analyses the user behaviour without disturbing the natural environment of the person. On the other hand it can reveal why people do not finish the order process and what is difficult for them to understand and use.

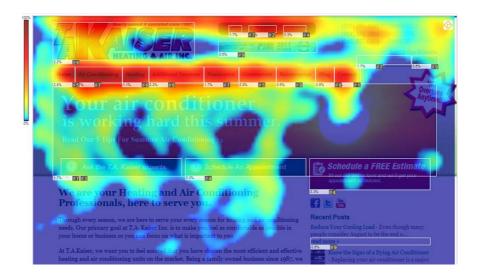


Figure 17: Preview of a heat map (Provim.net, 2015)

3.2.3 Card Sorting

Each e-shop sorts its products into groups of similar products and puts them into menu items to help customers quickly and easily find what they are looking for.

As Wilson (2010) mentions, card sorting it a great method that classify products into meaningful groups. It can be done by group of people or it can be re-sorted by a researcher. Both variants are possible and effective.

The process is as follows - all products have to be written on small cards and handed out to every participant of the testing. Each tester is asked to create groups of similar products from those cards. Collected results are then evaluated and the best solution is implemented.

This method helps to reveal how people associate terms in their minds and make the eshop menu more usable and well-arranged for everyone who would like to make an order.

3.2.4 Heuristic Analysis

Usability of web sites can be tested by heuristic analysis or by user testing. As written in a journal by S. Y. Chen (2005), heuristic analysis is much faster and cheaper method in comparison to user testing because only one expert that evaluates the web is required.

This method tests the user interface according to heuristics – specific rules. Those heuristics could be found on the internet but usually marketing agencies create their own based on their experience and the type of testing web site.

It is said that heuristic analysis will reveal more mistakes and problems than user testing but on the other hand there is no interaction with the user. It means that there are some rules that are tested by an expert whether they are implemented or not but no person who actually uses the web is present to provide his feedback.

That is the reason why both methods are very important for testing websites because both reveal all important elements and areas that are the most problematic.

3.2.5 User Testing

User testing as the title suggests tests web sites with a help of users. To conduct such research there are several elements that have to be followed. Those areas are listed below:

- user profile,
- task-based script,
- process of testing,
- changes based on findings from the research.

Profiles of users should be created from the data about companies' customers and also personas can help to choose the right people for testing. Figure 18 shows that there is no need to test with more than five people because then it is not so effective. Five users ensure 85 % of results, other users will repeat the same and only a few small problems will be found. (Nielsen, 2000)

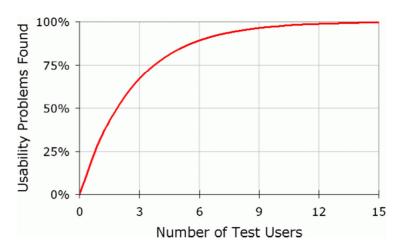


Figure 18: User testing curve (Nielsen, 2000)

A script will help during the whole testing to keep direction of the research and to get reliable results. Therefore specific tasks, that participants of the testing are required to perform in a way they are capable of, have to be set.

The whole testing should be organized by a moderator who gives tasks to the participants and ensure smooth procedure. The test should be a think-aloud process which means that participants are required to express their opinions and feelings aloud. Sometimes it is not known why people click here or there but when they will tell the reason, it is much more understandable and thanks to that companies can do meaningful changes. Concerning user testing it is most important to speak aloud and express everything that comes to participants' minds. It will support the research and it will be possible to look into users' thoughts for a while and reveal banal and serious mistakes. Moderator cannot interfere with the process, he can only give tasks and remind participants to speak aloud because sometimes they can forget to do so.

The last part that has to be done properly is the change itself. Based on what has been learnt from the user testing, problems that have been found should be changed and the test repeated. The second test will find out whether the changes were done correctly and will uncover other mistakes that were not visible for the first time. (Barnum, c2011)

4 E-SHOP USABILITY

As it has already been mentioned in chapter 1, e-shop is a part of e-commerce which enables doing business on the internet. People can choose a product, add it to virtual cart, pay online and a delivery company will bring their order to them. Usability in chapter 2 was described as a very important area that companies should focus on. It can be implemented into anything and therefore this chapter pays attention to e-shop usability and most frequent mistakes of e-shops that can be found on the internet.

4.1 Successful E-shop Usability

Crucial goal of each e-shop is to convert visitors into customers and usability plays big role in this process.

According to Spyers Studios (2011) which is an online web design magazine, there are several recommendations that help to sustain potential customers. That does not mean that if an e-shop follows those suggestions that all visitors will make a purchase the first time visiting the site. It will help them with orientation, it will navigate them and the persuasion to do conversion will be much easier.

Recommendations for successful usable e-shop are:

1. Use of **breadcrumbs** (Figure 19) which helps with orientation within the website. Visitors know where they are exactly and can go easily back. There usually is a specific symbol 'greater than' that is used to define which category is superior.

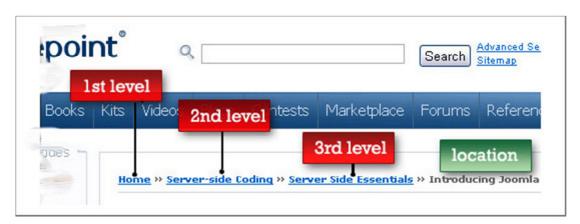


Figure 19: Preview of navigation (Anthony, 2013)

- 2. Big issue in e-commerce is trust which can stop potential customer from ordering and because there is a huge amount of e-shops, people carefully pick to whom they give their money. For this reason it is important to have visible **contact information** (Figure 20), so the customer feels that he can ask for help anytime. One of great tools of communication is live chat which represents the seller in the store and questions are answered immediately.
- 3. A very important element that cannot be missing in any e-shop is **search box** (Figure 20). Because if somebody does not like looking for products through menu or if he cannot find the product in the menu, he can use search box as a faster searching tool. It means that this box has to be visible so everybody can find it it is usually located on one side above the main menu on the top of the page.

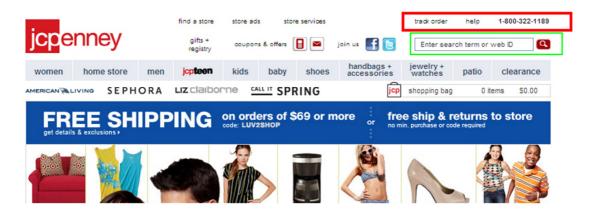


Figure 20: Visible contact and search box (Fekete, 2011)

4. To increase sales and attract customers to buy more, **related and recommended products** should be provided. Those products are usually situated in product details or in the shopping cart and try to entice customers to buy them. Because if someone is purchasing a couch, he or she will probably need an ottoman or a chair (Figure 21). Or this attached product does not have to be related but it can be recommended by the e-shop so the customer can be convinced to buy it as well.

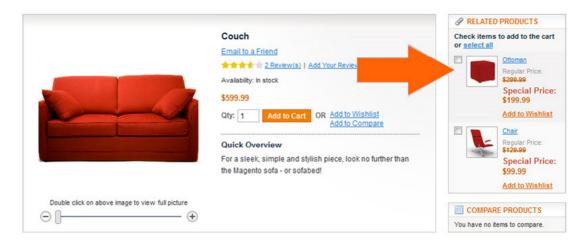


Figure 21: Related products in product detail (Astrio, 2012)

5. To attract customers, it is recommended to use **call to action buttons** (Figure 22). Those buttons are usually coloured and clearly visible and says what will happen if a visitor clicks on it. Call to action buttons are very important because they will attract attention and can influence decision so the customers do not have to think what to do, he or she just clicks on it because it provides clear statement. Those button should direct a visitor through the whole web site and lead him to a conversion page.



Figure 22: Call to action button (Wolf, 2013)

6. When a customer adds an item to the cart, the **cart should be visible**. Sometimes it can happen that customers cannot find where the cart is and therefore they will not finish the order and leave without purchasing. For that reason the cart should be located in the right corner and should be highlighted so everyone can notice it (Figure 23).

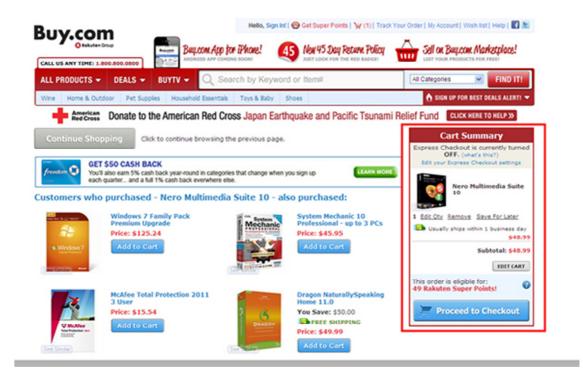


Figure 23: Shopping cart (Fekete, 2011)

- 7. When the customer finds the shopping cart, the **order process should be as simple as possible** to ensure the order completion. Usually the process should not have many steps because it would be too long and customers could leave the cart when something does not work or they do not understand it. Therefore it is recommended to have one step shopping cart, which is simple and shows all **fees (shipping, payment) at once**.
- 8. Last area that is recommended by SpyerStudios is **pre-confirmation page**. This page is very important because customers can review their orders before purchasing and can avoid mistakes.

Roman Viliavin from Small Business proposed further recommendations which should not be missing on any company's usability list. These features affecting the site look should be taken into account when creating e-shop design:

1. Products that are **not in stock** should not be visible to visitors because if a potential customer finally finds what he was looking for and finds out that it is not possible to order it, he will be angry and leave.

- 2. Owner of e-shops usually use bad quality images of their products or use manufacturer's images and because people buy with their eyes, pictures are worth a thousand words. To differentiate it is required to use own pictures in high quality and if possible also videos which allow to highlight the benefits of those products.
- 3. Customers should not be reminded every time that a product has been **added into the cart** in a disturbing form. This can be annoying and it slows the order process, therefore if there is a pop-up box, it should be possible to disable its function. Better solution can be information about the adding into the cart in form of some bobble or a stripe in the bottom of the page but without any changes on the page like pop-up box or redirection to the cart page.
- 4. To catch visitor's e-mail and use it later for sending news, invitations to buy or discount coupons, **newsletter subscription** (Figure 24) is recommended. This is one way how companies can gain e-mail addresses. Another way is to offer a discount, e-book, hints, tips and tricks or anything that will ensure that the person will provide the e-mail that will be then used in the e-mail marketing.



Figure 24: Newsletter subscription (Wpsites.net)

5. People like reading other user's experience – **testimonials** of a product or a service. It helps companies to improve their products/services and contributes as sales promotion for future buyers. It is a very important menu item which should not be hidden and it should be part of each webpage to support the business. Figure 25 shows what such testimonials can look like. It is good to use pictures of people because then the reference seems more real.



Sarah Jenks — "B-School gave me step-bystep guidance on how to grow my business and make more money. My first major launch brought in \$50,000 in one week."

Read More



Tangela Ekhoff — "My husband is proud of me, my kids are proud of me, but most of all, I'm proud of myself for never giving up, no matter how bad it got. B-School truly changed my life." Read More



Amy Tan — "My biggest win from B-School was understanding how to create a business that is custom-tailored for me and that allows me to work in my genius zone and reach the people who need my help the most." Read More

Figure 25: Testimonials (Mcdonalds, 2014)

6. Add to cart button (Figure 26) is also a call to action button and that means that it should not be less visible than any other button as for example the social button "like". Moreover this button is the most important and crucial for the whole business so the clear visibility is desirable.

Home > Home Organizers > Closet Storage and Organization > Garment Racks and Wardrobes > ADJUSTABLE GARMENT RACK

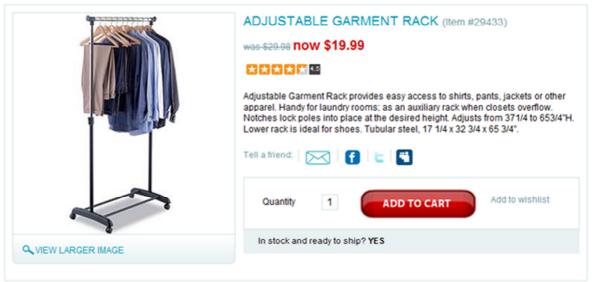


Figure 26: Add to cart button (Chopra, Vwo.com)

7. The most important principle when creating e-shop is to **stand out from the crowd**. People should not copy other web sites; they should distinguish from them to attract more customers. There are 37 400 e-shops and all of them want to in-

crease sales. To be better than competitors it is necessary to be original and unique, otherwise it is just another e-shop in many.

4.2 The Most Frequent Mistakes of E-shops

Recommendations are well known but there still are e-shops that make mistakes and their potential customers leave without making any order. There are several reasons why it is so.

Visitors can be discouraged from purchasing at first sight because the e-shop is confusing and it is difficult for customers to create an order. Sometimes owners of e-shops have never gone through the whole order process and do not know that there is a problem. If there is just one ambiguity, the customer could leave to the competition. Reasons of this are that what is expected by the customers is missing or it is located on a different place than it is common.

If e-shops want to gain money, they should avoid the most frequent mistakes. Peter Ilieve (2014) from Metrilo company that specializes in e-commerce marketing published common mistakes that decrease sales of e-shops.

- 1. Companies lack quality **product description** and use manufacturer's text. This has resulted in no differentiation from the competition and also search engines will not rank those pages in good positions. For this reason, copywriting² is very important because it will bring more visitors to the e-shop.
- 2. Lack of **delivery information** is another mistake of e-shops. There should be note that clarification of availability and shipment to other countries (for example to Slovakia) and what the price and delivery time is. All of this information will satisfy potential visitor's questions and help with their decision-making.
- 3. It is known fact that buyers on the internet will usually get **better prices** than in physical stores. Some e-shops do not respect this unwritten rule and offer products with higher prices. This can also be a way of increasing sales but there has to be an added value which is worth compensating the higher price. It has to be well ex-

² "Copywriting is in the first instance the creative process of conceptualising advertisements and marketing devices such as events and other platforms promoting brands or services." (Copywriters.co.za, 2008)

plained and obvious, otherwise customers will leave to competitors who sell cheaper products.

One example of this pricing policy can be seen in the e-shop of Vojtěch Kulhánek that sells bicycles and its accessories. The e-shop offers a cross bike Leader Fox Paradox for 21 500 CZK but in the physical store the price is only 19 900 CZK. Moreover this company provides after purchase service free of charge which is not beneficial for customers who live hundreds kilometres far from this shop.

- 4. More and more customers use **mobile phones or tablets** for searching information, booking but also online shopping. This cannot be ignored and each website should be mobile/tablet friendly and responsive not to lose customers. Responsive web design is therefore a set of techniques and technologies which purpose is to open up as many applications as possible to users on a variety of devices. (Sharkie and Fisher, 2015) According to František Doupal from NetDirect (2015), it is known that only a one fifth of e-shops have responsive web.
- 5. Sometimes it can happen that the e-shop is perfectly prepared for customers, contains high quality pictures, copy write texts, easy order process, everything is well organized but people do not make purchases. Very crucial in this situation is to find the biggest **source of traffic** and focus on increasing the sessions or to prepare specific marketing campaign that will increase the traffic and conversion rate as well.
- 6. Last mistake which is often seen and tells a lot about companies is their **logo**. The logo is one of the first impressions that visitors have from the e-shop but most of the e-commerce shops do not use it. (Lazazzera, 2015) Owners think that it is very expensive to create such logo and therefore run their business without it. Current technologies allow us to use tools which work almost alone and creation of the logo does not take that much time and the results are satisfying.

Running an e-shop is not as easy as it may seem at first. Everything has to be taken into account and a lot of time has to be devoted to continuous improvements to follow trends and differentiate from competition. Otherwise a lot of money will be thrown out for things that do not work. Also creating an e-shop does not mean that people start purchasing but a lot of effort has to be given to the marketing to increase the awareness about the e-shop.

II. ANALYSIS

5 ABOUT THE CHOSEN E-SHOP

5.1 Zdravá výživa Hronov

Zdravá výživa Hronov (hereinafter ZVH) is a family company that was founded by Zdeňka Lantová and Jan Lanta. This company is interested in areas of healthy eating and healthy lifestyle and therefore they have opened their own physical store in March 2005 in Hronov.

At the beginning of 2007, an e-shop www.zdravavyzivahronov.com has been launched. For this online shop, the perfect packaging is the principle. In September of the same year, the business has been extended and a new store has been opened in the nearby city of Náchod.

Company's goals are to promote healthy products, to teach customers to make a change in the composition of their diet to feel better and to realize the connection between diet, mental well-being and health.

The range of products is very wide, here are some of them:

- BIO products,
- dietary supplements,
- ECO cosmetics,
- detoxifying medication,
- pharmacy products,
- vitamins, minerals and so on.

5.2 Strategy

Strategy of the e-shop is excellent performance in terms of packaging and communication with customers. It means that if anybody makes an order, the phone call is done and all necessary conditions are agreed upon. Before the order is handed over to the shipping company, the packaging is done very carefully. Customer's satisfaction is the most important in the whole process of doing the business. Their motto says: "Our work is our hobby, so the customer is always on the first place." (ZVH, 2016)

This online shop also concentrates on the range of products and tries to offer huge amount of them so everybody who is interested in healthy food can easily choose. Once a month

every customer who has ever ordered will receive a newsletter that informs about new products that have been added to the e-shop or about the products of the month.

5.3 Target Customer Group

From Google Analytics data (Figure 27) the biggest group of customers that create the highest profit of e-shop are customers in the age from 25 to 34. Concerning gender, it is almost balanced – 40.20 % male and 59.80 % female. This information can be biased because one computer can be used by many users with different demographic background. Therefore these facts are taken into account to have some general data.

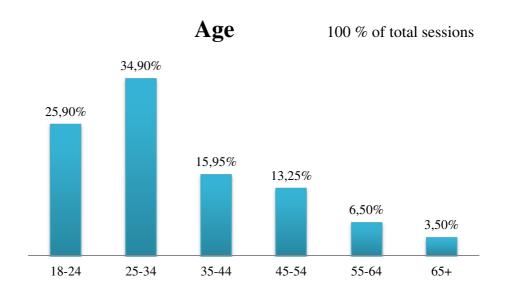


Figure 27: Age of target customer group (Source: Google Analytics)

5.4 Identification of the problem

The main problem which the ZVH is facing is a decrease in revenues and increase in bounce rate. Google Analytics is a perfect source of information about all traffic and sources of revenues and that is why ZVH uses it to monitor the statistics.

Figure 28 shows sessions (light blue) and revenues (dark blue) from December 2013 to July 2015. It is evident that the revenues have decreased from around 150 000 CZK per month to 50 000 CZK per month.



Figure 28: Graph of sessions vs revenues (Source: Google Analytics)

Revenues are connected to the amount of transactions (Figure 29) that have been decreasing as well from around 150 transactions per month to 50 transactions per month.



Figure 29: Graph of sessions vs transactions (Source: Google Analytics)

Also the bounce rate (Figure 30) is a big problem because this metric should be decreasing but the opposite is true. At the beginning there was 61 % of bounce rate and in July 2015 the rate has increased to 73 %.



Figure 30: Graph of sessions vs bounce rate (Source: Google Analytics)

5.5 Aim of Testing

ZVH believes that two types of testing will help to solve their problem. For this purpose the user web usability testing and heuristic analysis were used.

The main aim of the user web usability testing is to observe potential customer behaviour on the website and find out what cause the biggest problems with looking for information, searching products or creating an order and to find the reasons why customers leave the website without purchasing anything.

The main purpose of the heuristic analysis is to verify whether the e-shop offers the basic functions that are required to simplify potential customers' orientation on the website and to bring them to create an order.

The output of the testing will be creation of a new strategy, redesign, e-mail marketing and simplification of the entire e-shop that will help to increase transactions and revenues to at least the figures from 2013 and decrease the bounce rate by at least 10 % which is the main goal of the company.

6 TESTING SCHEDULE

Because the whole process of user web usability testing is very time demanding, everything had to be planned carefully to avoid unpleasant complications. Following subchapters describe the whole preparation procedure.

6.1 Timetable

The user web usability testing was held on July 20, 2015 at 3 p.m. in the office of PSHK Ltd. which is a company that cooperates with ZVH in the field of internet marketing and which also helps the author with her preparation for a future job. The date was chosen randomly. There were 4 participants and each of them had 1 hour for testing process. It means that the first participant tested the e-shop from 3 to 4 p.m., the second one from 4 to 5 p.m., the third one from 5 to 6 p.m. and the last one from 6 to 7 p.m. Independently of this testing there was a heuristic analysis performed by the author few days later.

6.2 Technical Requirements and Tools

Some technical tools were required to implement the testing. Without those tools it would not be possible to get the accurate data and the whole research would be cancelled.

6.2.1 Computer with Internet Connection

The most important tool for testing was a computer with internet connection, without which there would not be any research implemented. A computer from PSHK Ltd. company was used.

6.2.2 Camera and Mouse Tracking Software

To properly analyse the results a private camera was used to capture the whole testing with both picture and sound. Also there was a software tool needed for recording mouse movements on the screen and audio. For this purpose the CamStudio software was used to ensure that if a problem with the camera occurred, this software would be used as a backup.

6.2.3 Heat Maps

Two weeks before testing, a trial version of mYx code, which tracks clicks of visitors during their sessions, was implemented. With this tool it was possible to verify whether the most important menu items and buttons were situated in the right place. It was not possible

to use the full version because ZVH would have to pay around 500 CZK per month which was not planned in this research.

6.2.4 E-mails

E-mails that are sent from the e-shop had to be prepared to ensure the authentic process of ordering. It means that if there is an order in the e-shop, a confirmation e-mail has to be sent to the customer within 24 hours. Also the customer should be informed about any changes regarding the status of the order – for example when it is prepared at a pickup point or is handed over to the shipping company.

6.2.5 Refreshments and Gifts for Participants

To provide nice surroundings and to get closer to the participants, a calm environment, refreshments like water and snacks were available for them.

To reward participants for their time and help with testing, small gifts were prepared from ZVH Company.

6.3 Budget

Concerning the budget of the testing, the entire process that consisted of preparation, user web usability testing, heuristic analysis and analysis of the results of the project was done free of charge because of the thesis purpose. The total price of testing by PSHK Ltd. company was originally calculated at 15 000 CZK + overheads + participants rewards. Heuristic analysis was estimated at 2000 to 5000 CZK + an overhead, the fee depends on the scope of a web.

The only sources that had to be paid were water and snacks that were served during the testing to all participants and gifts that were in-kind from the ZVH Company. These gifts contained boxes of tea, cones of nuts and candied fruit that ZVH sells in their e-shop as a thank you for participating in the testing.

The budget was therefore estimated at 250 CZK per participant.

6.4 Permission Form

To use all data from user testing for the research, permissions from all participants had to be acquired. For this purpose a permission form was created, which states that participants agree with recording video and authorize the ZVH company to use this record for internal

use only and for improving the usability of the web. The whole form both in Czech language (the original form) and English language (translation) is provided in the Appendix I: Permission form.

6.5 Script

The testing script was compiled based on advice from Steve Krug (2010), the guru of usability testing. To ensure all necessary data for the research would be collected, specific questions had to be asked. The whole script is attached in the Appendix II: Usability test script.

The scrip starts with basic information about the process as follows:

- introduction of the moderator,
- duration of the testing,
- request to speak loudly and express all thoughts and feelings,
- if there are any questions from the participants, they will be answered before or right after the testing,
- information about camera and recording,
- signing the permission form.

Then several basic questions about the participants were asked, such as:

- age
- occupation,
- free time,
- frequency of online purchasing,
- preferred form of transportation and payment.

After introducing the procedure and asking personal questions the user testing of e-shop www.zdravavyzivahronov.com started.

Tasks that were tested were created to verify the most important areas of the e-shop and then used as sources for creating new strategy. Those tasks simulated the real process of ordering that ensured gathering suitable data for the research. Each task was introduced to the participant but after that there was no conversation between the participant and the moderator not to affect the testing results. Therefore participants were left to their own and had to cope with the tasks alone.

Tasks consisted of several detailed sub-tasks. The first area concentrated on the first impression about the homepage of the e-shop. It was mainly about feelings and thoughts that are the most important for every potential customer because based on the first impression, customer will choose either to purchase or not. Second area was about searching information that is important when deciding whether to leave the e-shop or stay. Another area focused on contacts that could be very crucial for potential buyers and on product details, which plays very important role in decision making. Then participants had to sign in, change a password, log in and create an order - ordering procedure should be the most understandable within the whole process because it is known that 70 % (Aktualne.cz, 2014) of customers leave e-shops without ordering. This can be caused by some quite petty mistakes that discourage customers from completing orders. Last important tested area was e-mailing that informs customers about order status. The overall impression was also part of the research and it helped to know what were the reasons of purchasing, leaving without ordering and summarized the whole testing.

6.6 Participants

For choosing the best participants for this testing, there were 2 conditions. The first condition was online shopping experience and the second condition was related to buying healthy food. To get more precise results, those participants had to be also between 18 and 44 years old because this age group is the most profitable for ZVH e-shop (Figure 27).

Selection of participants was carried out on the social network Facebook as the cheapest way how to reach the most relevant candidates. After one month of posting offers, 5 people were chosen for testing but finally 1 of them did not come, so only 4 people joined the research. Their profiles are shown in the following sub-chapter. Participants in the ration of half male and half female were selected in all the most profitable age groups (Figure 27).

6.6.1 Profiles of Participants

Marcela is 24 years old. She studies Political and Cultural Geography in Ostrava. She is vegan and her free time in mostly connected to yoga exercises. She purchases online once per month. Costs for transportation are very important for her so she chooses the cheapest way that is available. She prefers pickup points, DPD or PPL delivery companies and for payments she uses cash on delivery or card payment.

Ondřej is 24 years old. He studies Information Management in Hradec Králové. He is celiac and therefore he has to buy healthy products. He spends his free time by dancing. He shops online very rarely. He chooses products on Heureka.cz where he can compare products based on price. For shipment he usually selects pickup point as Uloženka or Heureka Point and he is used to pay by card.

Marek is 35 years old. He organizes corporate events. He is interested in healthy food and in his free time he is doing sports. He purchases online from 10 to 20 times per month. The price of a product is not important for him but the availability and short delivery time is the main deciding factor. As a way of payment he uses cash on delivery or card payment and for transportation it is Czech post, PPL delivery company or pickup points.

Jitka is 26 years old. She is a graphic designer. She is dependent on healthy food and prefers yoga as the healthiest sport for body and soul. She usually purchases online once per month. The price is very crucial for her and for transportation she uses Zásilkovna or any other pickup point where she can pay in cash.

7 WEB USABILITY TESTING OUTPUTS

The testing was divided into 2 parts. First part was done with real users and the second part was analysed by the author based on heuristic rules. In sub-chapters below, readers of this thesis can see detailed outputs and overall results of those analyses that lead to setting a new strategy to increase conversions.

7.1 User Testing - Process

Because the outputs/problems that were found by participants were overlapping, the author will firstly introduce what was the goal of testing the area and then the identified problems will be show.

7.1.1 Homepage

Homepage (Figure 31) was examined based on the first impression that all potential buyers get when seeing the e-shop and it was also tested which elements were visible to participants and which were not.

- Marcela liked the design of the page but she was disappointed that the width was very narrow, which she described as old style web. She also liked the main menu and left menu which seemed well-arranged. She enjoyed new and recommended products and search box which was excellently visible. Problems she was facing were a lot of elements on the page that made the orientation more difficult and also the right bar with news contained too much text and thus was confusing and spoiled the simplicity of the page.
- At first glance **Ondřej** noticed logo, left menu, some products, contacts and a survey. He found out that people can register but not based on the big green banner on the top of the page (Figure 35) but he saw small font in the right corner (Figure 34). He also noticed the Tibetan flag which is located down on the page on the left bar. He felt lost and observed that titles of new and recommended products were not recognised at first sight, only some products were visible.
- Marek noticed search box, left menu, new and recommended products, contacts, news in the right bar, the survey and best sellers. For him the news was too long and he would welcome more and bigger images and less text. He thought that there is too much information on one page. Also best sellers were tucked down that he believed it was a mistake. He lacked information about the e-shop because he

- thought he was not on the homepage. He was confused with so many colours that could be better organised.
- Jitka firstly saw the search box and left menu, then she noticed contacts and news on the right bar. Her opinion was that everything is green and that the web is very old. She did not feel comfortable and because of her profession she remarked that green and red colours could not be together in such concentration. She would not purchase in this e-shop if she was to decide based on the appearance.



Figure 31: Preview of the homepage with the news on the right bar (ZVH, 2016)

7.1.2 Searching Information

This area concentrated on ways of searching needed information. There were 2 tasks. First one researched which information user usually need when purchasing online. The second one investigated what participants would do if they did not find needed information. Whether they contact the company or not and which communication channel they use.

- Marcela was looking for ways of payment and shipment and Terms and Conditions which were the most important for her when buying online. She found them without any problem and she chose menu item Vše o nákupu / All about purchase. She just remarked that the text on this menu item could be arranged better. The second task was much complicated for her because she could not find any contact information. Finally, she found it on the homepage on the left bar (Figure 33) but she was confused about telephone numbers which were not described well. She suggested that contacts should be placed as a main menu item on the right side because it is a standard nowadays. As the best communication channel she picked e-mail. In this part she also noticed the green banner (Figure 35) that brought attention to the 10% discount when registering. She described it as an interesting idea for regular shoppers but she would not be interested in it because 10 % discount was a low number.
- Ondřej was interested in product range, prices and reviews. When he found a product that he would buy, he was missing comments and reviews and also instructions of food preparation. He was rather satisfied with prices of products he would buy. He wanted to have more products visible in a category but he could not find where to change it. After few minutes he was able to alter the setting but it did not work as it should therefore he was dissatisfied. Concerning the second task, he did not need any contact information. When he did not find the product that he was looking for, he would leave without ordering.
- For **Marek** product range was the most important. As the way of searching information he used left menu but he was confused because he would not find gifts and glasses in the menu item Zdravá výživa zboží / Healthy products. If he had found a product that he needed but this product would not be available he would contacted the company but the contact was missing in the product detail. If he had not hurried with delivery of that product he would write and an e-mail or make a phone call. If he had not found the product, he would leave without contacting the compa-

ny and he would rather look for another e-shop through Google search engine. The second task was a bit tricky for him because he was looking for the contact below the logo or in the footer, he would not seek it in the middle of the left bar. He would welcome a chat through which potential buyers could communicate with the e-shop in real time.

Jitka was interested in products which she was searching through search box because she thought that the left menu is very incomprehensible for her. Fortunately, she found the product that she was looking for but she was confused because of the title of products like "Chlorella Akce I/Chlorella Sale I" and "Chlorella Akce II/Chlorella Sale II". She did not know what the difference between those products was. If she had not found a product that she wanted to buy, she would leave without ordering anything.



Figure 32: Preview of the main menu (ZVH, 2016)



Figure 33: Preview of quick contacts on the homepage located on the left bar (ZVH, 2016)

7.1.3 Registration

This part tested whether participants liked the offered 10% discount after registering, how they would sign in and also whether they could change their password when it was forgotten.



Figure 34: The first way of registering placed on the homepage in the right corner (ZVH 2016)

ZAREGISTRUJTE SE A ZÍSKEJTE SLEVU AŽ 10%

Figure 35: The second way of registering – green banner placed the on homepage (ZVH, 2016)

- Marcela registered through the green banner (Figure 35) which was posted on the homepage. She had no problems with filling all the required information. When she visited the e-shop for the second time she easily found where she could change the password. She also knew that the new password would be sent to her e-mail so she checked the mailbox and logged in. But after logging in with the new data she was confused because she did not realize that she was already logged in. After that she clicked on her name (Figure 36) which looked like her account and changed the given password to a different one.
- Ondřej did not know how to register because of the green colour which was everywhere. Finally, he chose the green banner as the way of registering. He was interested in the discount but after reading all information he did not understand the conditions at all. After signing in he understood that all data about his account were hidden in the menu item Můj účet / My Account. He had no problem with changing his password and he understood that after using new data he would be logged in immediately. To change the password he clicked on his name (Figure 36).

- Marek registered and changed the password without any obstacle. He just mentioned that if he registered because of the discount he would do it when finishing the order, not before that.
- Jitka noticed the green banner on the homepage but for her it was banner blindness because used colours were green but when she was decided to purchase she would probably sign in. For registering she chose the green banner but she was annoyed with a lot of text and conditions which discouraged her. After signing in she was very angry because she remarked that her discount is only 2 % instead of offered 10 % and she felt ripped off.

Přihlášen: <u>Iveta Chlupová</u>

Vaše sleva: 2% <u>Odhlásit</u>

Figure 36: Preview of the discount when logged in (ZVH, 2016)

Note about the discount rules which is explained when clicking on the green banner: Once you reach with your orders the following amounts, your next orders will have that discount regardless of the number of orders. For our accurate records it is necessary to register and to purchase with your account. Here are our discount rules:

- 2% discount immediately after registration,
- 3% discount when purchased over 5.000 CZK,
- 4% discount when purchased over 10.000 CZK,
- 5% discount when purchased over 20.000 CZK,
- 6% discount when purchased over 30.000 CZK,
- 8% discount when purchased over 40,000 CZK,
- 10% discount when purchased over 50.000 CZK. (ZVH, 2016)

7.1.4 Product Detail

Product detail tested which information was important for participants (price, availability, product description, add to cart button, etc.) how they understood given information and what was missing.

- **Marcela** noticed the paw symbol (Figure 37) which she tried and found it useful. She missed related products and information about availability.
- Ondřej was interested in all symbols. He understood functions of the star and hand symbols but he did not know what the paw symbol used for. After reading information about this function in the menu item Můj účet / My Account he was still confused. He also tried this function but after couple of minutes he gave up.
- Marek liked comments and answers of the e-shop and product dosage. He did not like very long product description. He would welcome more structured text with bullet points. He missed related products and products that are the most frequently purchased.
- Jitka noticed all necessary information but she was not interested in any symbol. She was confused with prices because there were 3 prices visible (Figure 37). She did not know what the actual price was and also whether the final price is with the discount or the discount will be applied when finishing the order.

Sirup švestkový BIO **X** novinka Sirup švestkový BIO (350g) Značka: Country Life Kategorie: Sladidla, džemy Dostupnost: Obvykle skladem Kód: Skladem: **ANO** Cena: běžná cena: 142,00 Kč ušetříte: 6,76 Kč (5%) 135,24 Kč 1 Koupit

Figure 37: Product detail preview with special symbols and 3 types of prices (ZVH, 2016)

Note: After log in there are 3 symbols that helps when purchasing. The symbol "star" means that this product will be added to favourite items, the symbol "paw" means that when there is any change in price or availability the user will be informed by an e-mail. The last symbol "hand" compares chosen products. (ZVH, 2016)

7.1.5 Můj účet / My Account

Tasks related to menu item Můj účet / My Account (Figure 38) tested whether users need this information and if they have ideas about what they learn there.

Menu item Můj účet / My Account contains information about favourite products, watchdog, my orders, account setting and buttons – return to the e-shop and log out.

- **Marcela** skipped this task because she had already described this menu item when she changed her password and she was satisfied with all the information provided.
- Ondřej also skipped this task because he examined all functions when he created his account.
- **Marek** well guessed what Můj účet / My Account would contain. He liked the star and paw symbols and found them useful.
- **Jitka** was not interested in this menu item because she does not like reading. For her, the most important is to purchase easily and without long texts.

7.1.6 Order

This part of testing was the most important because all participants had to create a real order. Here the research tested how users purchase, their understanding, their abilities, what the obstacles were and what was easy.

- Marcela searched products through the left menu with offered products and she found what she was looking for without any problem. She was able to add products into the cart but she did not notice the condition that it was necessary to order above 350 CZK to finish the order which was written in the pop-up box (Figure 39). She noticed the free shipment condition and she would welcome if the pop-up box did not appear after every adding to the cart because it impeded her. As a way of shipment she chose DPD delivery company and for payment she chose cash on delivery because she did not want to pay in advance. She filled the whole order form without any problems.

Klientské centrum

"Váše nastavení obchodu" lveta Chlupová 25 SENERS Odhlásit se Oblíbené položky Hlídací pes Jedná se o zboží, které často kupujete > Virtuální hlídač, který kontroluje změny a nechce se Vám jej hledat pokaždé, u Vámi zvoleného zboží. Zjištěné když navštívíte náš obchod. Do informace odesílá na email, který byl oblíbených položek se produkt vloží po uveden při registraci (popř. v osobním kliknutí na ikonu hvězdičky. nastavení) jednou denně. Do hlídacího psa lze přidat zboží ve výpisu produktů nebo v detailu produktu kliknutím na ikonu pejska. Moje objednávky Nastavení mého účtu Upravte si nastavení vašeho účtu jako Zobrazte si vaše objednávky, sledujte průběh jejich vyřizování, komunikujte s například vaše heslo, e-mailovou vaším operátorem. adresu a podobně. Návrat do obchodu Odhlásit se Pokračujte v nakupování. Do Pokud již nechcete pracovat v klientského systému se můžete kdykoli klientském systému a odcházíte od vrátit kliknutím na odkaz v hlavičce. počítače, odhlašte se. Nikdo tak nebude moci prohlížet a měnit vaše údaje.

Figure 38: Preview of Můj účet / My Account section (ZVH, 2016)

- Ondřej also searched through the left menu with products but he was confused with the button Koupit / Add to cart which appeared twice in the product details. Also he had a problem with the minimum order price which he thought was very restrictive. When finishing the order he did not know if the price is with his discount or not because there was no information about it. As a way of shipment he would normally choose DPD delivery company but his task was to choose pickup point. For payment he would choose transfer to the bank account but in case of pickup point he chose cash.
- Marek found out that the pop-up box appeared every time when inserting into the cart which was confusing, annoying and full of text. 350 CZK condition pushed him to purchase more which would discourage him from buying. He missed the possibility to select the number of pieces of some product in each product category which would help with faster order creation. He did not like that the Terms and

Conditions are hidden in the cart detail and also he missed the check box which confirms the agreement. Marek is used to purchase as a company, not as a final customer and therefore the billing address was misleading to him. He did not understand immediately that if user purchased as a company, he would have to fill in the address again, even though at the beginning there was a written note that if both addresses are identical, there is no need to fill it in again. For the way of delivery he chose Czech post and for payment he chose cash on delivery.

Jitka searched products through search box because the left menu was very huge and she found out that it would take a lot of time to find a specific product. She was a bit disappointed because she did not find everything that she was looking for and also using search box it was not visible in which category she was located. She did not pay attention to the pop-up box but when she wanted to finish the order she could not because of the 350 CZK condition. This condition limited her and if she was a potential customer she would leave without making an order. As a way of shipment she chose the cheapest one because that is crucial for her when buying online but if there was a pickup point in her home town she would choose it. After clicking to the button Objednat / Purchase she was confused if the order was already sent or not because the screen had the same look as in the previous steps.



Figure 39: Preview of the pop-up box (ZVH, 2016)

7.1.7 E-mails

Last step of the tasks concentrated on e-mails that are delivered to the customers' e-mail boxes and inform about order status. Participants were asked to describe those e-mails and comment what was missing. All e-mails are attached in the Appendix III: Old e-mails.

7.1.7.1 Order Confirmation E-mail

- Marcela had a problem with finding the final price in this e-mail because it was not visible at the first sight. She mentioned that the design of the e-mail was very average and grey which made the orientation more difficult.
- **Ondřej** was satisfied with this e-mail and did not pay much attention to it.
- Marek described this e-mail as non-professional because of the design which he suggested should be in the same visual style as the e-shop to help with recognition.
 He would be more satisfied with the invoice attached and well-arranged text.
- Jitka evaluated this e-mail as graphically unprocessed text which contained not important information for her as the address of the supplier and her address. She was interested only in the bank account and the amount of money that would be transferred. She had a problem with finding the sum of the order because the e-mail was confusing.

7.1.7.2 Order is processed

- Marcela was happy with this information about order status but she did not like that the registration discount was repeated there because it was not her case. She would welcome if the system remembered that she had already been registered. She missed information about the delivery of certain product because when she purchased it, this product was not available but it was possible to buy it.
- **Ondřej** was happy that something was happening with his order.
- Marek did not like the remark about registration discount.
- Jitka welcomed the information about order status but she did not like the advantages of registration.

7.1.7.3 Order has been shipped

- Marcela commented on this e-mail in the same way as the previous one.
- Ondřej assumed that he could pick his order up the other day but he did not know where it would be delivered to. He estimated that he could collect his package in Hronov because the URL of the e-shop is www.zdravavyzivahronov.com but he was not sure, therefore he would call and ask.

- Marek did not like the remark about registration discount. He would prefer some banner in the footer of the e-mail which would not disturb the overall impression of the e-mail.
- Jitka missed information about the e-shop which would help her to recognise it because it could happen that she would not remember what she ordered and in which e-shop. She also missed the tracking of the Czech post or DPD to know when the order would be delivered. And again she did not like the note of the advantage of registration.

7.1.8 Overall Impression

- Marcela really enjoyed the colourful background, colours of the e-shop and nice bubbles. She did not like the right bar which contained a lot of text and made the page more confusing. She mentioned that the width of the page was very narrow which showed that the e-shop is old. She missed automatic loading of products on the page so a user does not have to click on the button next page. 10% discount was not attractive for her and the pop-up box was annoying because it appeared all the time. She thought the product list lacked more filters for product searching; there were only price and title filters and also there was no information about future availability of products that were not in stock at the time. Finally she mentioned that when she was browsing through products on the bottom of the page, the left menu was not visible so she had to scroll up to select another menu item. She also hoped that she could unsubscribe from the newsletters if some would be delivered.
- Ondřej rated the e-shop as confusing and very green in terms of colours. He would differentiate recommended and new products and the best sellers to the top of the page to be more visible. He had not understood the registration discounts and the watchdog. He then tried again to find some information about the watchdog using the search box but the e-shop searches only among products.
- Marek judged the shop as simple and well-arranged but he believed that the homepage is the most important; therefore he missed some information about the eshop and some benefits or emotional pictures that would catch the attention and convince a potential buyer to order. His opinion was that there was too much text which should be more systematic and also that the contacts should be on the top of the page to be more visible.

- The web had an effect on **Jitka** as very old which is not good for decision making. The background was full of green shades and did not make sense to her. Also the ICQ number gave the impression that the web was very old and she would not make any order. She would purchase only if there were unbeatable prices.

7.2 User Testing – Overall Results

In Table 1 there is the evaluation of each task of the user testing. The following criteria were taken into consideration while rating: overall impression, satisfaction, ability to find the needed information, speed and comprehension. Rating scale is from 1 to 5, where 1 is the minimum and 5 is the maximum points.

Task	Marcela	Ondřej	Marek	Jitka
First impression	3	3	2	1
Searching information	5	4	3	3
Contacts	3	1	1	1
Product detail	3	2	2	3
My account	5	3	5	1
Order	3	2	2	1
E-mails	2	1	2	1
Overall impression	3	2	2	1
TOTAL	3.375	2.25	2.375	1.5
TOTAL SCORE OF TESTING		2.375		

Table 1: User Web Usability Testing (own processing)

Table 1 shows that the overall assessment of all participants is below the average (2.5) and changes that lead to increasing conversions and sales are needed to be done. The exact changes are based on the actual testing.

7.3 Heuristic Analysis

Heuristic analysis is cheaper and faster than user testing and it compares e-shop rules with actual status and help to reveal serious mistakes. In connection with user testing it is a great source of detecting web inadequacies and that is why this combination was used for the research.

The analysis for this thesis consisted of given questions that were created by PSHK Ltd. and provided to this testing and analysed by an expert on web usability - the author. All questions with answers are attached in the Appendix IV: Heuristic analysis questions.

Heuristic questions were divided into 8 categories based on the area of analysis and each consisted of 3 to 10 questions. Those areas were:

- homepage,
- focus on tasks,
- navigation and information infrastructure,
- forms and data entry,
- quality of content,
- page layout and visual design,
- search,
- error, feedback and help.

Each question was ranked from 1 to 4, where 1 means that the rule and actual state coincide, 2 – more likely to coincide, 3 – more likely not to coincide, 4 – inconsistency of rules and actual state.

Table 2 summarises the comparison of heuristic rules and facts from all areas. It shows that 39 % of rules coincided with the facts and therefore there is no need to make any changes. 22 % of rules were more likely to coincide with the facts and these areas do not require any immediate changes. 15 % of rules were more likely not to coincide with the facts and thus changes are recommended. And finally 24 % of rules were inconsistent with the rules and hence it is necessary to make changes.

Statement		Quantity	Percentage	
1	Coincidence	21	39 %	
2	More likely to coincide	12	22 %	
3	More likely not to coincide	8	15 %	
4	Inconsistency	13	24 %	

Table 2: Heuristic analysis (own processing)

Table 3 shows number of questions in each area, maximum attainable score, actual score and also actual score converted into percentage for better clarity.

Tested area	Number of questions	Max score	Actual score	Score %
Homepage	4	16	10	63%
Focus on tasks	6	24	11	46%
Navigation and Information Infrastructure	10	40	28	70%
Forms and Data Entry	3	12	11	92%
Quality of Content	10	40	27	68%
Page Layout and Visual Design	9	36	25	69%
Search	6	24	19	79%
Error, Feedback and Help	7	28	21	75%

Table 3: Heuristic analysis data and results (own processing)

After getting results from heuristic analysis results, a spider graph (Figure 40) was created. It is usually used for defining which areas of analysis coincide with actual status and which not and how much. It is visible that the least problematic area is forms and data entry (92 %), which focused on description and requirements of entry fields. The most problematic area is focus on tasks (46 %), which tested how easy it was to finish a task. All other areas scored between 60 % and 80 %, which is the average.

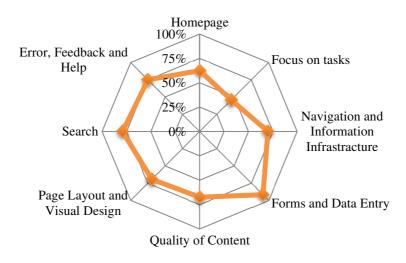


Figure 40: Heuristic analysis results (own processing)

Based on the findings from heuristic analysis research, it is highly required to improve the focus on tasks (46 %) area. It is the most important mission for the owner of the website because if potential customers cannot find wanted products and finish the order in a few clicks due to a huge menu or disturbing elements, they will not purchase and leave to competition and that is not the goal of this e-shop.

Second area that deserves more attention is the homepage (63 %) because it is usually the landing page or the page that visitors return to when they get lost or do not know what to do and start again from there. Also heat maps were used to verify one heuristics which asks if the menu on the homepage is arranged logically with respect to the most frequent user needs. Appendix V: Heat map of the homepage confirms this statement.

All recommendations and a proposal of a new design and functions are described in the following part – The project of web usability.

8 THE PROJECT OF WEB USABILITY

This part of the thesis is related to the project that will lead to increasing sales which is the most problematic area for the e-shop. This chapter is divided into several sub-chapters for better clarity and understanding.

8.1 Design

As a new strategy, it is proposed to create a new design of the e-shop which would attract attention and would be easy to understand. Participants of user testing were confused because there were a lot of elements on the page and the only colour that was visible was green which made the whole orientation more difficult. It is therefore suggested to get inspiration from these e-shops that have easy and united graphics: www.palelo.cz, www.nutri-vyziva.cz and www.celidia.cz.

Also responsivity of the web is necessary because nowadays people browse more on mobile phones and tablets which can be seen in Figure 41. It is evident that the desktop is still the largest source of sessions but the use of mobile phones and tablets also increases.

Sessions by device 2011-2015

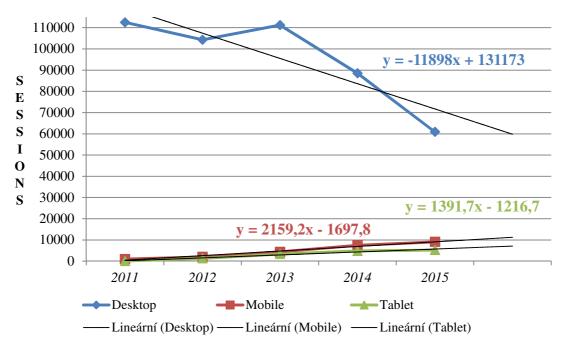


Figure 41: Sessions by device 2011-2015 of ZVH (Google Analytics, 2016)

To predict the sessions in 2016, trends of each device were estimated which shows in the Figure 41. The number of sessions from desktop will be lower than in 2015 and vice versa concerning mobile phones and tablets.

Also computation of the predicted values was done based on the annual average growth that is shown in the Table 4. From the table it is evident that the amount of sessions from desktop will decrease from 60 892 to 47 991, from mobile they will increase from 9 070 to 11 088.25 and from tablets they will increase from 5 254 to 6 553.

	Desktop	Mobile	Tablet
2011	112 496	997	58
2012	104 285	2 004	1 307
2013	111 210	4 378	3 341
2014	88 516	7 450	4 832
2015	60 892	9 070	5 254
$ar{\Delta}_{t}$	-12 901	2 018.25	1 299
\widehat{Y}_{6}	47 991	11 088.25	6 553

Table 4: Prediction of the number of sessions in 2016 (own processing)

From those results it is noticeable that the responsivity is necessary and therefore it is highly recommended to ZVH to implement it.

Concerning the logo of the e-shop, there currently is none. There is no recognition of the company which lead to no connection to its customers. Logos are often used in e-mails and in products comparators as an identification of a company. Based on the philosophy of the ZVH company, two graphical designs of the logo were created (Figure 42).





Figure 42: Proposed logos (own processing)

8.2 Homepage

The homepage should be more recognizable and so it is proposed to add a slider with 3 pictures that will show special offers, new products and interesting information from the healthy eating world. It is also suggested to take away the green banner which does not play a big role and participants did not even notice it at the first sight. A better way is to highlight the registration discount in the order process to attract relevant customers.

As it was mentioned in the user testing - recommended products, new products and best sellers are not so visible on the page, which is another crucial aspect of the design that will be changed. Those products will be moved to the top of the page, right below the slider.

Also it is advised to add at least 3 traits to the top of the page, which will attract user's attention and which will try to persuade creation of an order instead of leaving. Here are some traits that could be used:

- 10 years on the market,
- 90 % of customer retention,
- excellent packaging,
- 130 pickup points,
- detoxification specialist,
- certified consultants.

The proposed homepage either in English or in Czech is attached in the Appendix VI: Homepage design. The design was created using wireframe (= a project documentation of a new web site) that places all individual elements on the page.

8.3 Main menu

Main menu is considered to be rearranged. The most important areas will be main items and the less important sub-items. Also the contact is not visible which is not appropriate for this kind of web.

Figure 43 displays the redesign main menu which is changed based on the current trends, so at the beginning there are items homepage and about us and at the end there are the ways of payment and shipment, the terms and conditions and the contacts. In the middle, there were added the most important content items that support the e-shop thanks to interesting stories, news from the healthy world and healthy recipes.



Figure 43: Proposed main menu in Czech (above) and English (below)

(own processing)

8.4 Left menu

Due to the unclear division of products into categories (for example: glasses placed in the healthy food category), it is requested to reorganize the left menu into main items and subitems in a drop-down form. It is recommended to reduce the number of main categories to have a shorter menu and to rearrange and rename the sub-items to get closer to customers.

The new design of the left menu is divided into three levels – main menu, sub-menu and a second sub-menu. Because of saving space, the second sub-menu will be visible only in a category detail (Figure 44). The whole proposed left menu with submenus is attached in the Appendix VII: Left menu arrangement and the proposed design of the submenus is attached in the Appendix IX: Category design.

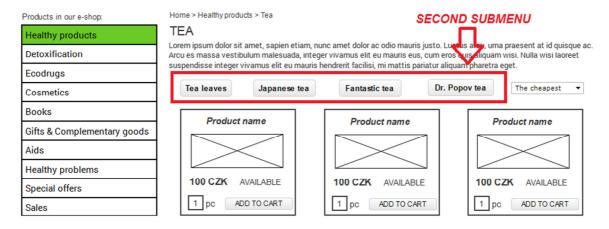


Figure 44: Proposed main menu and second submenu (own processing)

During the user testing, participants had a problem with the left menu movements because when they clicked on any main item, the menu became very long and confusing. It means that instead of folding out to the right side it dropped down and did not return back after clicking on another item. The orientation was very difficult and there was a huge amount of sub-items at once. Because of that reason, the left menu is required to change function to

fold out to the right side, therefore if a user clicks on any main item, the submenu will appear on the right side and when he clicks on another main item, the previous submenu will disappear to save the space on the page. The proposal is attached in the Appendix VIII: Left menu design.

8.5 Product Detail

The product detail contains 3 prices – a common price, a discount with percentage and a final price (Figure 45). This made participants confused because those prices are not graphically separated and therefore it was not clear at the first sight which price was final.

The discount and percentage is not necessary so this information will be deleted in the new design. Also the common and final/your price will be in a different font and the common price will be strikethrough to be more recognizable.

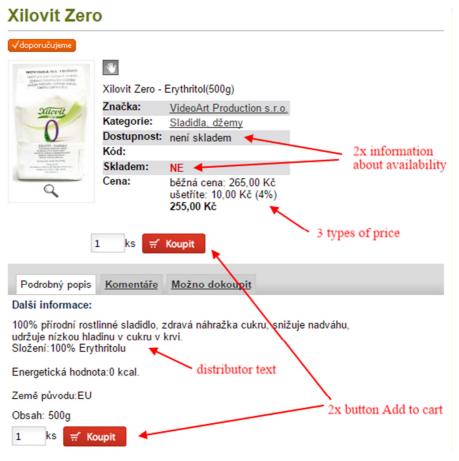


Figure 45: Example of a current product detail (ZVH, 2016)

The availability is described only with the word "Ano / Yes" or "Ne / No" (Figure 45) and that is why it is necessary to add the amount of available pieces so the customer knows

how many of them he or she can order. On the other hand if the product is not available, it should be stated in what time product will be available again and temporarily disable the Koupit/Add to cart button.

Because in some cases the product description is very long, a second button Add to cart was added in the past. That in itself is understandable but when there is a very short text, both buttons are visible at once (Figure 45) which is confusing. One of the participants had a problem with those buttons because he did not know where to click. Also participants did not like very long distributor text without formatting. Because of those reasons, it is proposed to write own descriptions which will be written in formatted paragraphs and bullet points. The whole description text will not be visible at once, only the first paragraph will be shown and if a customer would like to read it, there will be a post thumbnail with a button to see the whole text.

Some participants missed the related products which would inspire them during online shopping. Many e-shops have this function accessible and therefore 3 related products will be added to each product to increase sales. In case that there is no related product, best sellers will be added. All proposed solutions of product detail are attached in the Appendix X: Product detail.

8.6 Content of the web

Each page of this e-shop contains right bar with news. This element is not very necessary to be everywhere and that is why news will be moved to the main top menu. That will create new space which will enable to extending the width of the e-shop.

There is also a problem with the clarity of the text. It means that each text will be reformatted to fit the design for easier reading and orientation. All important information will be visible and separated from other text. Headlines will have different font and each text/description/story/recipe will be written in shorter paragraphs and will highlight relevant or interesting facts. Simply, the content must be easy for reading not to burden eyes.

8.7 Functions

There were several functions found that did not work clearly. All of them are very crucial to be changed. The search box searches only within products but not within the whole web which is a function advised to be added.

Link hover colour is not working which confuses the customer and also the colour of a visited link is not set. It is proposed to have a green link, dark green hover colour and a brown visited link colour to fit the design (Figure 46).



Figure 46: Colours of links (own processing)

A contact form that could be used for communication with the company is missing. A simple form was designed accordingly (Figure 47) that is easy to use and customers will find it in the menu item Kontakt / Contact. Another possibility how to get to the contact form is through "Contact us" button which is situated in the footer of the web (see Appendix VI: Homepage design).

Vaše jméno:	Your name:
Váš e-mail:	Your e-mail:
Předmět zprávy:	Subject:
Vaše zpráva:	Your message:
ODESLAT	SEND

Figure 47: Contact form in Czech (left) and English (right) (own processing)

Participants also had a problem with registration. When they finished the whole procedure there was no feedback that a registration has been successfully made, only redirection to the homepage. It is proposed to create a simple paragraph (2-4 sentences) that will inform the customer that he has been signed up and what he is allowed to do.

Concerning registration an ambiguity with the prices of products has been found. It means that it was not clear if the price of a product after log in was with the discount or if the dis-

count would appear when finishing the order process. In this case it would be proper to display the price with discount and describe it as it is show in the Figure 48.

Your price with discount: 69 CZK

1 pc ADD TO CART

Figure 48: Price with discount (own processing)

Because of the plethora of products in each submenu it is recommended to use automatic loading of products on the page. This function is very useful for visitors because it is more convenient when searching products. Instead of clicking on a number or an arrow which signals that the visitor will be shown other products, those are automatically loaded on the page by scrolling down. Thanks to that, there are no more clicks forwards and backwords, all products are visible on one page and the customer can easily choose the best one.

8.8 Order

When evaluating the order, all participants were disappointed with the minimum amount of 350 CZK that did not motivate them to finish the order process. Even though it is not so high amount, it limits the order and that is something that people do not like. Because of this reason, it is highly recommended to change this rule and do not limit the order, but instead make it that if a customer's order will be only 100 CZK, he will have to pay higher postage and packaging charges. This factor will be very motivating to increase the order amount.

Also when a customer adds a product into the cart, a pop-up box that informs about the limit amount which has to be met and about the amount for free transportation appears. Participants of the testing found this pop-up box useful for the first time but after adding other products in the cart it was irritating and slowing the order process. Figure 49 shows a proposed pop-up box without limited amount for an order and with a checkbox that disables this window's future appearance.



Figure 49: Pop-up box in Czech (above) and English (below) (own processing)

Regarding the pickup point choices, there is no possibility to select either the city of Hronov or Náchod. There is only one choice that states Náchod / Hronov. The possibility to choose a specific city is very crucial for the customer and that is the reason why it should be added. It will make the order procedure easier for the company and also the customer will be satisfied too. The proposed design is displayed in the Figure 50.

Vyberte způsob doprav	у	
Osobní převzetí na p	na: 85,00 Kč ruky (do 30ti kg) - cena: 90,00 Kč rodejně Hronov - zdarma rodejně Náchod - zdarma	
Select the way of shipm	ent	
Select the way of shipm	ent	
Select the way of shipment	- price: 85 CZK	
Select the way of shipment O DPD (30 kg maximum)	price: 85 CZK imum) - price: 90 CZK	

Figure 50: Proposed ways of transportation (own processing)

At the beginning of the user testing, the moderator asked all participants what ways of payment and transportation they prefer. All of them answered that they prefer pickup points as the cheapest and easiest way that is available nowadays. According to Daniel Morávek (2015) from a business portal Podnikatel.cz the number of pickup points is increasing each year. Because of this fact, ZVH should cooperate with a pickup point company and offer its customers better prices for transportation and more comfortable picking up parcels.

It is advised to cooperate with the DPD delivery company which is already a partner of ZVH. DPD provides around 130 pickup points (Figure 51) and 13 depots within the Czech Republic and also a tracking tool that monitors the immediate location of the parcel. (DPD.cz, 2016)



Figure 51: Pickup points of DPD (DPD ParcelShop, 2016)

The Figure 52 shows how this way of transportation will be implemented in the order process where the customer can easily find the nearest pickup point for his parcel delivery. This function will also inform the customer about the opening hours of the selected pickup point and about the card payment possibility.

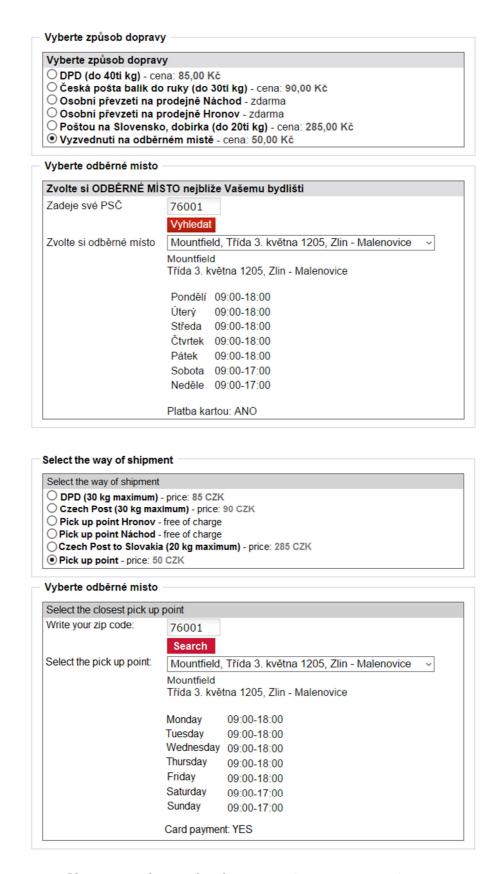


Figure 52: Proposed way of pickup points (own processing)

8.9 E-mails

E-mailing is nowadays a very good tool form of communication with the customer or a potential customer. E-shops are obliged to send a confirmation e-mail that the order has been received and they should also inform customers about the order status, specifically when the order is processing, has been handed out to a transport company or has been prepared for pick up.

During user testing, participants found out that the e-mails form of ZVH did not look very professional and contained a lot of information that was not important. Also they did not like the registration discount reminder in each e-mail and had a problem with finding the final price and a bank account number which were the most necessary figures for them.

In the e-mail Order has been shipped, the ordered products are missing and in the e-mail that informs about the package being ready for collection, there is no information about the pickup point so the customer does not know where his parcel is located.

For all the reasons written above, new e-mails have been created. These e-mails contain only necessary facts that help the customer to recognize the e-shop (the newly designed logo is added), recapitulate the ordered products, highlight the price and a bank account number and do not repeat the registration discount. Also new e-mails are designed in a way that everybody can easily imagine what is going on with the parcel and who is responsible for it.

All newly designed e-mails are attached in the Appendix X: New e-mails.

8.10 New Menu Items

To attract more customers 2 new menu items have been designed. Both of them will contain interesting and useful information that will have added value for all e-shop visitors.

8.10.1 Detoxification

First menu item that have been added is Detoxikace / Detoxification. ZVH are specialists in detoxification. They detoxify according to MUDr. Jonáš and they use medication from the Joalis company that helps them to sell more products from their e-shop.

Nowadays, people are looking for more information before purchase and try to find recommendations, reviews and stories (Novinky.cz, 2016). Based on this trend, a new menu

item has been added to show potential customers the whole process of detoxification and results of the procedures.

Stories of clients will be written by Jan Lanta who is an expert on detoxification and who has the best contact with his clients. On the other hand if customers will be willing to share their stories, they will have a possibility to write them by themselves and it will contribute as a testimonial for the e-shop.

8.10.2 Recipes

More and more people change their eating habits and try to eat healthy and this is the right time for added value information. Because of this reason the second menu item that has been added is Recepty / Recipes. The ZVH e-shop is about healthy products and it is therefore appropriate to write recipes from the healthy food world. All recipes will be written by Zdeňka Lantová whose whole life is dedicated to healthy eating.

Moreover, if products from the e-shop are necessary for cooking the meal/snack, it can help them to make more sales. It is recommended to add links to the text of recipes that will land on the product details' pages.

9 RISK, TIME AND COST ANALYSIS

Analysis is an integral part of any project and so it is necessary to estimate possible outcomes in order to know the starting point. Sometimes one analysis can change the decisions of companies.

This part of the thesis is therefore related to risk, time and cost analysis.

9.1 Risk Analysis

As every project in a business, this one also faces risks that have to be taken into consideration. Current situation in e-commerce is that who can attract customers makes more money. It is thus necessary in this field to take some risks to achieve desired results or to get closer to them. It is very important to create the best possible plan to avoid or minimize potential risks. Potential risks of current project could be:

1. Internal risks

- a. The revenues that are supposed to increase, because it is the purpose of the whole project, will stay unchanged or will decrease.
 - *Mitigation*: The project will be proposed in the best possible design to meet the trends in today's e-commerce and explore all areas that increase revenue to the maximum.
- b. The amount of hours allocated to the project will be higher and it will not be possible to finish on time because of some complications.
 - *Mitigation*: The offer to the client will have to be submitted with some reserves, in case of problems that will slow down the implementation.
- c. The costs of the project will be higher than estimated.
 - *Mitigation*: This internal risk is connected to the previous risk b because more time spent on the project causes higher costs. Because of that, the schedule of the project development will have to include extra working hours in order to keep costs down.
- d. The graphic designer or programmer will quit the job and the project will not be finished on time with the estimated budget.
 - *Mitigation*: It will be necessary to create a good working atmosphere that will ensure satisfaction of employees. Also for this project, a person who has a relationship to the topic of healthy eating will be chosen.

2. External risks

- a. There will be change of legislation in the area of healthy products, which will affect the e-commerce. For example European Union will ban the sale of healthy products on the internet.
- b. The electronic records of sales will also be applied to e-shops. It means that each e-shop will have to hand out monthly records of their transactions, so the state will have all businesses under control.
- c. There will be a change in tax policy that will increase prices of products, which will affect the final customer.
- d. The state will intervene in the free market in a way that the company will not be able to continue with its business.

Mitigation of external risks: It is very difficult to find a way of mitigating external risks because those risks cannot be influenced by any company. But it is important to be aware of those risks and be ready for any changes.

9.2 Time Analysis

In order to achieve defined goals and reach desired results, every project needs to be framed by time. Time planning helps companies with guidance of the project and defined deadlines which lead to set outcome. It is also very important to define the longest and shortest possible time frame in which the project can be finished. Immediate predecessor says which activities are dependent and which can be done simultaneously.

Time analysis of this project is initiated through PERT/CPM method of WinQSB software. The abbreviation PERT means Program Evaluation and Review Technique and it is a statistical tool that is used in project management and analyses the duration of each phase, dependences and the shortest possible time for project implementation. CPM means Critical Path Method which is the longest possible way from the initial activity to the last one. It states the total time required for the project and therefore if there is a hold-up in any activity of the critical path, the whole project will be delayed.

Table 5 describes all activities involved in the project, their dependencies and duration in MD unit. MD signifies 8 working hours per one person per one day. (Note: 2 MDs is equal to 16 working hours in 2 days for 1 person or 1 day for 2 persons.) This table also contains input data that are used in the WinQSB tool to find out the project completion time and critical path.

Name of	Description of an activity	Immediate	Time
an activity	Description of an activity	predecessor	(MD)
A	Meeting with the client	none	0
В	Key words analysis	A	1
С	Web usability proposal	В	2
D	Approval of the proposal	С	3
Е	Copywriting	D	7
F	Web design proposal	D	14
G	Approval of the proposal	F	3
Н	Programming and coding of the homepage	G	7
I	Programming and coding of subpages	Н	14
J	Filling the content	Е	7
K	Testing and tuning shortcomings	I, J	7
L	Final approval	K	3
M	Launching the full version	L	1

Table 5: Activities of time analysis (own processing)

Figure 53 is a solution from the WinQSB tool and it shows that there is only one critical path and the project completion time is 56 weeks.

03-07-2016 09:06:49	Activity Name	On Critical Path	Activity Time	Earliest Start	Earliest Finish	Latest Start	Latest Finish	Slack (LS-ES)	
1	Α	Yes	1	0	1	0	1	0	
2	В	Yes	1	1	2	1	2	0	
3	С	Yes	2	2	4	2	4	0	
4	D	Yes	3	4	7	4	7	0	
5	E	no	7	7	14	31	38	24	
6	F	Yes	14	7	21	7	21	0	
7	G	Yes	3	21	24	21	24	0	
8	Н	Yes	7	24	31	24	31	0	
9	I	Yes	14	31	45	31	45	0	
10	J	no	7	14	21	38	45	24	
11	K	Yes	7	45	52	45	52	0	
12	L	Yes	3	52	55	52	55	0	
13	М	Yes	1	55	56	55	56	0	
	Project	Completion	Time	=	56	weeks			
	Number of	Critical	Path(s)	=	1				

Figure 53: WinQSB solution (own processing)

Graphical solution and critical path of the project is shown in the Figure 54. The critical path goes through almost all activities except E and J and those activities cannot be delayed because than the whole project would be delayed. Activities E and J can each have 24 weeks of hold-up and the project would still be finished in time.

The critical path is A - B - C - D - F - G - H - I - K - L - M.

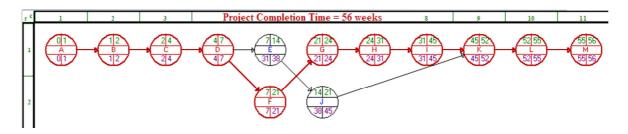


Figure 54: WinQSB graphical solution and critical path (own processing)

9.3 Cost Analysis

When creating any project, it is very necessary to know the budget, so it will not be a surprise that the costs of any stage are higher than anticipated. And this project is no exception.

The costs are based on the amount of time, in this case hours and the hour rate. All budget items were selected from time analysis which summarises all stages of the project that have to be converted into money. Table 6 shows the estimated budget of the project implementation, Figure 55 demonstrates all costs in percentage and it is visible that the biggest area of costs is web coding and programming with 27 %.

The price is set based on the hour rate (600 CZK) of PSHK Ltd. and can be found in their price list. The quantity is estimated time that will take to finish tasks and it is also a figure that is used to calculate the total costs of each part and for the whole project.

The total costs of this project are calculated at 66 000 CZK. It is not a standard price for eshops but because this e-shop has a huge range of products and requires redesign, the price has to be higher to cover all work stages of the company, that would create a new e-shop – in this case the aforementioned PSHK Ltd.

Cost	Price (hour rate)	Quantity (hours)	Total
Web usability proposal	600 CZK	12	7 200 CZK
Key words analysis	600 CZK	8	4 800 CZK
Graphic design (responsive)	600 CZK	20	12 000 CZK
Web coding (responsive), programming	600 CZK	30	18 000 CZK
Copywriting	600 CZK	15	9 000 CZK
Filling the content	600 CZK	10	6 000 CZK
Blog programming	600 CZK	5	3 000 CZK
Redesign of e-mailing	600 CZK	10	6 000 CZK
	TOTA	L COSTS	66 000 CZK

Table 6: Budget estimation (own processing)

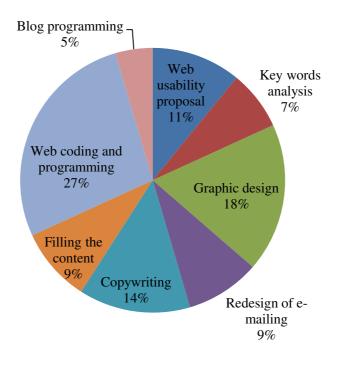


Figure 55: Budget estimation in percentage (own processing)

CONCLUSION

The topic of this thesis was chosen based on the author's working experience in PSHK Ltd. which cooperates with company Zdravá výživa Hronov in the field of internet marketing.

Thanks to this project, the author had a chance to research the usability of an e-shop that specializes in healthy products, could help the company with analysis and created a proposal that would be a basis for future changes.

One of the research questions asked if the e-shop meets all rules of usability. The answer is that not all of them, actually only less than half of them. The e-shop has a lot of drawbacks which was the topic of the second research question. This online shop lacks visible contact information that customers could use if they wanted to ask something or got lost. Related and recommended products are visible only on the homepage but not in products' details. Call-to-action buttons are also missing and that is the reason why visitors get confused on the page. In the product offer there are products that are out of stock and they lack the availability. When a user wants to add a product in the cart, there is recurring pop-up box which is annoying and cannot be disabled. Also testimonials which support the business and newsletter subscription that sends customers e-shop news are missing. Last and very important function that is ambiguous is the confirmation page that informs that the order has been sent and what the customer should do.

It was not possible to do a planned second research which could reveal another mistakes and it would be possible to create a proposal that would cover all problems found. The reason is that it would be costly for the company in short period of time and therefore only one user testing was done.

The present time requires constant improvements in terms of design and functions and that means that what is good today may not be true in a few years. It also means that if the company Zdravá výživa Hronov does not realize proposed changes within one year, it will be needed to do another testing because what was found during this research could be outdated. What will not change is the fact that who differentiates from competitors, offers extraordinary products and services with added value and guaranties something that nobody else does, this company will reach more relevant customers who will purchase again and increase sales of the e-shop.

Finally, the author acknowledges having an opportunity to try out a completely new area of skills and appreciates the contribution of this thesis for her next professional life. It was the first step towards web analytics and the acquired skills will continuously extend and enhance.

BIBLIOGRAPHY

Adaptic.cz. Internetový slovníček. *Konverze*. [online]. 2016 [cit. 2016-03-11]. Available at: http://www.adaptic.cz/znalosti/slovnicek/konverze/

ANTHONY, Kirk. Designwebkit.com. *Breadcrumb Navigation in Website Design: Out-dated or Trending?* [online]. 2013-10-18 [cit. 2016-03-11]. Available at: http://designwebkit.com/web-and-trends/breadcrumbs-website-design-outdated-or-trending/

ARLINE, Katherine. Business News Daily. *What is e-commerce?* [online]. 2015-02-26 [cit. 2016-03-05]. Available at: http://www.businessnewsdaily.com/4872-what-is-e-commerce.html

Astrio.net. Magneto developers. *Magneto development: Automatic related products*. [online]. 2012-06-28 [cit. 2016-03-11]. Available at: http://astrio.net/blog/magento-development-automatic-related-products/

BusinessDictionary.com. *Questionnaire*. [online]. [cit. 2016-02-24]. Available at: http://www.businessdictionary.com/definition/questionnaire.html

CHEN, Sherry Y. and Robert D. MACREDIE. The assessment of usability of electronic shopping: A heuristic evaluation. *International Journal of Information Management*. 2005. [online]. Volume 25, Issue. 6, s. 516–532 [cit. 2016-03-07]. ISSN: 0268-4012. Available at: http://www.sciencedirect.com.proxy.k.utb.cz/science/article/pii/s0268401205000873

Copywriters.co.za. *What is copywriting*. [online]. 2008 [cit. 2016-03-07]. Available at: http://www.copywriters.co.za/what-is-copywriting.html

DOUPAL, František. Resseler Magazin Online. *Mobilním zařízením je přizpůsobena pětina e-shopů*. [online]. 2015-09-23 [cit. 2016-03-31]. Available at: http://www.rmol.cz/novinky/mobilnim-zarizenim-je-prizpusobena-petina-e-shopu

DPD.cz. *DPD Parcel Shop*. [online]. [cit. 2016-02-11]. Available at: http://www.dpd.com/cz_en/domu/nase_sluzby/reseni_pro_e_shopy/po_cr/dpd_parcelshop

FETKE, George. Spyersstudios.com. *Usability Best Practices For eCommerce Websites*. [online]. 2011-03-21 [cit. 2016-02-11]. Available at: http://spyrestudios.com/usability-best-practices-for-ecommerce-websites/

Heureka Roadshow. Liberec. 2016-02-23 [cit. 2016-02-26].

ILIEV, Peter. Metrilo.com. *Common Mistakes in an Online Store: 9 Things You're Probably Doing Wrong*. [online]. 2014-11-27 [cit. 2016-03-14]. Available at: http://spyrestudios.com/usability-best-practices-for-ecommerce-websites/

KUNIAVSKY, Mike. c2010. Smart things: ubiquitous computing user experience design. Amsterdam: Elsevier/Morgan Kaufmann. 318 p. ISBN 978-0-12-374899-7.

KRAUSZ, Brian. GazeHawk.com. *Eye Tracking vs Mouse Tracking*. [online]. 2010-10-18 [cit. 2016-02-26]. Available at: http://gazehawk.com/blog/eye-tracking-vs-mouse-tracking/

KRUG, Steve. 2006. *Web design - nenuťte uživatele přemýšlet!*. 2., aktualiz. vyd. Brno: Computer Press, 167 s. ISBN 80-251-1291-8.

KRUG, Steve. c2014. *Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability*. 3rd edition. USA: New Riders, 216 s. ISBN-13: 978-0-321-96551-6.

LAJA, Pepa. Conversionxl.com. *12 A/B Split Testing Mistakes I See Businesses Make All The Time*. [online]. [cit. 2016-02-22]. Available at: http://conversionxl.com/12-ab-split-testing-mistakes-i-see-businesses-make-all-the-time/

Thelandingpagecourse.com. Welcome to The Smart Marketer's Landing Page Conversion Course. *Part 1: Landing Page 101*. [online]. [cit. 2016-03-15]. Available at: http://thelandingpagecourse.com/landing-page-101-intro/

LAZAZZERA, Richard. Shopyfy.com. *Don't Make These 7 Mistakes in Your Ecommerce Business*. [online]. 2015-04-01 [cit. 2016-03-14]. Available at: https://www.shopify.com/blog/17953576-dont-make-these-7-mistakes-in-your-ecommerce-business

MORÁVEK, Daniel. Podnikatel.cz. *Chcete mít v obchodě výdejní místo pro e-shopy?*Čtěte, co musíte splňovat. [online]. 2015-06-02 [cit. 2016-02-20]. Available at:

http://www.podnikatel.cz/clanky/chcete-mit-v-obchode-vydejni-misto-pro-e-shopy-ctete-co-musite-splnovat/

NIELSEN, Jakob. Nngroup.com. *Why You Only Need to Test with 5 Users*. [online]. 200-03-19 [cit. 2016-03-08]. Available at: https://www.nngroup.com/articles/why-you-only-need-to-test-with-5-users/

Netaccountant.net. 10 web design conventions that will make your website as good as Amazon.com. [online]. 2010-02-26 [cit. 2016-02-29]. Available at:

http://netaccountant.net/website-design-for-accountants/web-design-conventions/

Optimizely.com. *What is A/B Testing*. [online]. 2016 [cit. 2016-02-20]. Available at: https://www.optimizely.com/ab-testing/

Oracle. *What is A/B Testing*. [online]. 2016 [cit. 2016-02-20]. Available at: https://www.maxymiser.com/resources/ab-testing

POWELL, Thomas A. 2004. *Web design: Kompletní průvodce*. 1. Brno: Computer Press. ISBN 80-722-6949-6.

Provim.net. *Heat maps*. [online]. 2015 [cit. 2016-02-26]. Available at: http://provim.net/heat-maps/

RUIBAR, Richard. 2005. *Alchymie internetového úspěchu*. Vyd. 1. Kralice na Hané: Computer Media. ISBN 80-86686-53-1.

SHARKIE, Craig a Andrew FISHER. 2015. Responzivní webdesign: okamžitě. 1. vyd. Brno: Computer Press. ISBN 978-80-251-4384-1.

SUCHÁNEK, Petr. 2012. *E-commerce: elektronické podnikání a koncepce elektronického obchodování*. 1. vyd. Praha: Ekopress. ISBN 978-80-86929-84-2.

Survio.com. *Online Surveys and their Advantages / Disadvantages*. [online]. 2013-11-28 [cit. 2016-02-24]. Available at: http://www.survio.com/en/blog/popular-series/online-surveys-and-their-advantages-disadvantages#.Vs22n0h3BRI

ŠPINAR, David. 2016. Pristupnost.nawebu.cz. *Czech web accessibility guidelines*. [online]. [cit. 2016-02-29]. Available at: http://pristupnost.nawebu.cz/texty/guidelines.php?full#rule1

Usability.de. 2016. *Eye tracking*. [online]. [cit. 2016-02-24]. Available at: http://www.usability.de/en/services/ux-testing-research/eyetracking.html

VANĚK, Jiří. Marketing Applications. *Lecture 1 - Benchmarking and SWOT*. [online]. 2015 [cit. 2016-01-29]. Available at: http://vyuka.fame.utb.cz

VILIAVIN, Roman. Aabacosmallbusiness.com. 20 Tips for eCommerce Web Design and Usability. [online]. 2015 [cit. 2016-03-11]. Available at:

https://www.aabacosmallbusiness.com/advisor/20-tips-ecommerce-design-usability-173517191.html

VOKURKOVÁ, Kateřina. Aktuálně.cz. *Proč nedokončíte nákup? Studie hodnotila e-shopy*. [online]. 2014-09-10 [cit. 2016-01-27]. Available at:

http://zpravy.aktualne.cz/finance/nakupovani/nejvetsi-nedostatky-e-shopu-neprehlednost-a-skryte-poplatky/r~30b5985038e011e4ba15002590604f2e/

Vwo.com. *The Complete Guide to A/B Testing*. [online]. [cit. 2016-02-20]. Available at: https://vwo.com/ab-testing/

WILSON, Chauncey. 2010. *User experience re-mastered: your guide to getting the right design*. Burlington, MA: Morgan Kaufmann Publishers, 382 s. ISBN: 978-0-12-375114-0.

WOLF, Talia. Taliagw.com. *3 Ways To Improve Your Call To Action Buttons*. [online]. 2013-07-15 [cit. 2016-03-11]. Available at: http://www.taliagw.com/call-to-action-buttons/

Wpsites.net. *Add Metro Pro's Newsletter Subscribe Box To Any StudioPress Theme*. [online]. [cit. 2016-03-11]. Available at: http://wpsites.net/web-design/add-metro-prosnewsletter-subscribe-box-to-any-studiopress-theme/

LIST OF ABBREVIATIONS

MD Man-Day

ZVH Zdravá výživa Hronov

LIST OF FIGURES

Figure 1: Areas of electronic business	14
Figure 2: Trend in number of e-shops	15
Figure 3: Turnover of e-shops in billions of CZK	16
Figure 4: Share and growth of visits	16
Figure 5: Aspects of web design	18
Figure 6: Preview of a persona	19
Figure 7: Web conventions according to Amazon.com	20
Figure 8: Things that make us think	22
Figure 9: What we design for vs the reality	23
Figure 10: Unformatted page vs formatted page	24
Figure 11: E-commerce navigation	25
Figure 12: Data mining process	26
Figure 13: A/B testing	27
Figure 14: A/B testing in Google Analytics	28
Figure 15: Benchmarking process models	29
Figure 16: Opacity map (left) and gaze plots (right)	30
Figure 17: Preview of a heat map	31
Figure 18: User testing curve	32
Figure 19: Preview of navigation	34
Figure 20: Visible contact and search box	35
Figure 21: Related products in product detail	36
Figure 22: Call to action button	36
Figure 23: Shopping cart	37
Figure 24: Newsletter subscription	38
Figure 25: Testimonials	39
Figure 26: Add to cart button	39
Figure 27: Age of target customer group	44
Figure 28: Graph of sessions vs revenues	45
Figure 29: Graph of sessions vs transactions	45
Figure 30: Graph of sessions vs bounce rate	45
Figure 31: Preview of the homepage with the news on the right bar	54
Figure 32: Preview of the main menu	56

Figure 33: Preview of quick contacts on the homepage located on the left bar	.56
Figure 34: The first way of registering placed on the homepage in the right corner	. 57
Figure 35: The second way of registering – green banner placed the on homepage	. 57
Figure 36: Preview of the discount when logged in	. 58
Figure 37: Product detail preview with special symbols and 3 types of prices	. 59
Figure 38: Preview of Můj účet / My Account section	.61
Figure 39: Preview of the pop-up box	. 62
Figure 40: Heuristic analysis results	. 67
Figure 41: Sessions by device 2011-2015 of ZVH	. 69
Figure 42: Proposed logos	.70
Figure 43: Proposed main menu in Czech (above) and English (below)	.72
Figure 44: Proposed main menu and second submenu	.72
Figure 45: Example of a current product detail	.73
Figure 46: Colours of links	.75
Figure 47: Contact form in Czech (left) and English (right)	.75
Figure 48: Price with discount	.76
Figure 49: Proposed pop-up box in Czech (above) and English (below)	.77
Figure 50: Proposed ways of transportation	.77
Figure 51: Pickup points of DPD	. 78
Figure 52: Proposed way of personal collection	. 79
Figure 53: WinQSB solution	. 84
Figure 54: WinQSB graphical solution and critical path	. 85
Figure 55: Budget estimation in percentage	. 86

LIST OF TABLES

Table 1: User Web Usability Testing	65
Table 2: Heuristic analysis	66
Table 3: Heuristic analysis data and results	67
Table 4: Prediction of the number of sessions in 2016	70
Table 5: Activities of time analysis	84
Table 6: Budget estimation	86

APPENDICES

APPENDIX I: PERMISSION FORM

APPENDIX II: USABILITY TEST SCRIPT

APPENDIX III: OLD E-MAILS

APPENDIX IV: HEURISTIC ANALYSIS QUESTIONS

APPENDIX V: HEAT MAP OF THE HOMEPAGE

APPENDIX VI: HOMEPAGE DESIGN

APPENDIX VII: LEFT MENU ARRANGEMENT

APPENDIX VIII: LEFT MENU DESIGN

APPENDIX IX: CATEGORY DESIGN

APPENDIX X: PRODUCT DETAIL DESIGN

APPENDIX XI: NEW E-MAILS

APPENDIX I: PERMISSION FORM

Original scanned Permission Form in Czech language:

Souhlas s nahráváním a zpracováním dat

Děkujeme za účast v našem výzkumu na téma uživatelské testování použitelnosti webu pro firmu Zdravá výživa Hronov.

Celé testování bude nahráváno a bude sloužit jako podklad pro zpracování analýzy pro společnost Zdravá výživa Hronov.

Přečtěte si prosím prohlášení níže a potvrďte jej svým podpisem.

Souhlasím s nahráváním videozáznamu. A uděluji oprávnění společnosti PSHK s.r.o. a Zdravá výživa Hronov používat tento záznam pouze pro interní potřebu a za účelem zlepšení použitelnosti webových stránek.

Vaše jméno: .	ONDREJ	BENES	•••••
Datum: 28.če	rvence 2015		
Podnis:	Beres		

Translation of the Permission Form into English language:

Permission to recording and processing data

Thank you for participating in this user web usability testing research for Zdravá výživa Hronov Company.

The whole procedure of testing will be recorded and then will be used as a source for the research.

Please read the statement below and confirm it with your signature.

I agree with recording video and I authorize Zdravá výživa Hronov Company and PSHK Ltd. to use this record for internal use only and for improving the usability of the web.

Date: 28 th July 2015	
Signature:	 •••••

Your name:

APPENDIX II: USABILITY TEST SCRIPT

Hello, *name of the participant*. My name is Iveta Chlupová and I will be the moderator for today's testing.

Before we start the testing I have to tell you some information, I will read them not to forget anything.

Maybe you know or have some idea about today's testing. I will just shortly summarize everything to be clear. Today we will do web usability testing and it will last about one hour. I have to mention that we are not testing you and your skills but the web. So, it means that you cannot do anything wrong. You do not have to worry that you will do any mistake.

When you will test the web, please, speak loudly and tell me everything that comes to your mind, your feelings, your thoughts, what are you looking at, what you are doing and why. It will really help me during this testing.

Do not worry that you will tell something that

Do not be afraid that you would somehow hurt my feelings. We are going to change the web, so speak sincerely and tell me what you really think.

If you have any questions, you can ask but I will answer them after the testing. The reason why is that we are testing user behaviour on the web without any help of other people, like you were at home. So, if you still have any questions after the testing, do not hesitate to ask me, it will be pleasure for me to answer them. If you need a break during the testing, just tell me, it will not be any problem.

Here we have a camera that will record mouse movement and our conversation. It will help me during the testing because I will not have to write so many notes. The record will be used only for internal purposes of the company. It will help us with the improvements of the web and this record web e shown only to people who are involved in this research, which means me, PSHK Ltd. Company and ZVH Company.

Now, please read and sign the Permission Form which says that you agree with the recording and analysing the data which will be recorded today and which will be used only for internal purposes.

☐ Permission Forma and pen
☐ During reading and signing the Permission Form start the recording and
mouse tracking
Do you have any questions?
Before we start, I would like to ask you some quick questions. What is your occupation?
What do you do in your free time?
Which websites do you like?
How often do you purchase online?
Is form of transportation, payment and price important for you? Is it crucial when purchas-
ing? What do you prefer?
Which explorer do you use?
☐ Open homepage of www.zdravavyzivahronov.com
☐ Open homepage of www.zdravavyzivahronov.com TASKS: FIRST IMPRESSION
TASKS: FIRST IMPRESSION
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of this page is, what do we use it for, where would you click and why but please do not click
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of this page is, what do we use it for, where would you click and why but please do not click
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of this page is, what do we use it for, where would you click and why but please do not click
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of this page is, what do we use it for, where would you click and why but please do not click anywhere but you can scroll down.
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of this page is, what do we use it for, where would you click and why but please do not click anywhere but you can scroll down. 3-4 minutes leave the participant examine the webpage
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of this page is, what do we use it for, where would you click and why but please do not click anywhere but you can scroll down. 3-4 minutes leave the participant examine the webpage Does he/she know the web?
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of this page is, what do we use it for, where would you click and why but please do not click anywhere but you can scroll down. 3-4 minutes leave the participant examine the webpage Does he/she know the web? Did he/she notice the search box?
TASKS: FIRST IMPRESSION Well, please look at this website and tell me what you see, what do you think, what type of this page is, what do we use it for, where would you click and why but please do not click anywhere but you can scroll down. 3-4 minutes leave the participant examine the webpage Does he/she know the web? Did he/she notice the search box? Did he/she notice the menu on the left side?

☐ Did he/she notice
□ recommending goods?
□ new products in the e-shop?
□ contact?
□ news in the right column?
☐ menu item – why purchase in this e-shop?
□ survey?
□ best sellers?
□ interesting links?
□ shop assistant of the e-shop?
□ controlled detoxification?
TASKS: SEARCHING INFORMATION
Now imagine that you are a potential customer of this e-shop. Which information are you
interested in? Please try to find them.
☐ Way of searching information – menu or search box?
☐ Did he/she find all answers? Why not?
☐ Did he/she read all the text?
Now you are in the situation that you need some additional information but you cannot
find them on the web, what would you do? Will you contact the company? Which form of
contacting would you choose?
☐ Did he/she find the contact?
☐ Which form did he/she choose?
TASTKS: REGISTRATION
Now imagine that you are interested in the discount when registering. Please, register and
log in to make an order.
☐ Did he/she find where to register?
☐ Did he/she manage to register?

•	it the web for the second time, for example after one month and you want to chase with the discount but unfortunately you forgot the password, what will
	Did he/she find the log in form?
	Did he/she find the link of forget your password?
	Did he/she understand that the new password has been sent to the e-mail?
	Did he/she able be able to log in with the new password?
	Did he/she understand that after filling in the new log in data, he/she would
	be already logged in?
Now, please	change your new password so you can remember it.
	Did he/she manage to change the password?
	Which way of changing password did he/she choose? – My account or
	clicking on his/her name?
	ODUCT DETAIL details of any product that you like and describe everything you see.
	Did he/she notice labels – recommended, new product (if it is available)?
	Did he/she understand those symbols?
	Star
	Paw
	Hand
	Did he/she find the price?
	Did he/she notice if the product is available or not?
	Did he/she notice detailed description of the product?
	Did he/she understand that the button Purchase means Add to cart?
TASKS: MI	CNU ITEM - MY ACCOUNT
What do you	think that you will find in the menu item Můj účet/My Account? (Ask only if
he/she did no	t do this task in the previous task in registration.)
	Did he/she estimate what is hidden in the menu item Můj účet/My Account?

	Did he/she understand	
	□ what is popular items?	
	□ what is watchdog?	
	□ that here he/she can find status of his/her orders?	
	□ that here he/she can change the setting of the account?	
	□ that here he/she can log out?	
TASKS: ORI	<u>DER</u>	
If you were at home with your PC or if you visit a shop with healthy food, what would you		
buy? Please try to find it?		
	Way of searching information – menu or search box?	
	Did he/she find what he/she is looking for? Why not?	
	Did he/she can add products to the cart?	
	Did he/she understand that transportation free of chargé is from above 1300	
	CZK order?	
	Could he/she return back for searching other product after adding a product	
	to the cart?	
Please create	an order and use this contact information – testovanipshk@gmail.com,	
Veverkova 1343, Hradec Králové, 500 02.		
	Which way of transportation did he/she choose and why? (Classify one way	
	to each participant.)	
	 DPD - Marcela 	
	Czech Post - Jitka	
	 Personal collection – Ondřej, Marek 	
	 Slovakia 	
	Which way of payment did he/she choose and why?	
	☐ Cash on delivery	
	☐ Transfer to the bank account	
	□ Cash	
	Could he/she fill in all information of order form correctly?	

☐ Did he/she understand that right after making an order there will be an e-mail delivered?
TASKS: EMAILS
 □ Did he/she understand □ confirmation e-mail? □ e-mail - order is processed? □ e-mail - shipped? □ e-mail - settled? □ e-mail- cancelled?
When choosing personal collection as a way of transportation – Did he know where to pick up the order and how much to pay?
☐ How did he find that information?
☐ Did he check the e-mail to find the price?
☐ Did he check the menu item Můj účet/My Account -> Moje objednávky/My orders?
☐ How did he figure out which shop and address would the order be delivered?
TASKS: COMPLETION
☐ Turn of the computer screen
What is your opinion on this web? Did it catch you?
Last question – What would you change in today's testing? What did not suit you? What would help you to feel more comfortable?
☐ Acknowledgement and handing over the gift

APPENDIX III: OLD E-MAILS

PŘEDMĚT E-MAILU - DORUČENÍ OBJEDNÁVKY

Vážený(á) pane(paní)Iveta Chlupová,

právě jsme přijali Vaši objednávku (č.19625) ke zpracování. Děkujeme Vám za důvěru, kterou nám projevujete. Pokud jste zvolili platbu předem, plaťte na účet 35-9561630257/0100, V.S.19625.

REKAPITULACE OBJEDNÁVKY:

Dodavatel:

Zdravá Výživa Hronov

Hostovského 565

549 31 Hronov

tel.: +420 608830709

mob.: +420 602709486

IČ: 728 53 603

DIČ: CZ7354083242

bank. spojení: 35-9561630257/0100 - Komerční banka

konstantní symbol: 0008

specifický symbol: -

variabilní symbol: 19625

Osobní údaje:

jméno: test

email: test@test.cz telefon: 123 456 789

Dodací adresa:

jméno:

firma:

ulice: Veverkova 1343 město: Hradec Králové

PSČ: 50002

stát: Česká republika

Nakoupené výrobky:

- Celozrnná žitná mouka BIO (1ks) ... 28,00Kč
- Aloe Vera 100% (1ks) ... 385,00Kč

Recyklační popl. ... 0,00Kč

Platba (Převodem) ... 10,00Kč

Doručení (DPD (do 40ti kg)) ... 85,00Kč

CELKEM 508,00Kč (včetně DPH)

Zaregistrujte se (pokud již nejste) a nakupujte se slevami 2-10%!

Internetový obchod

Zdravá Výživa Hronov

Hostovského 565

549 31 Hronov

www.zdravavyzivahronov.com

tel.: 777 923 668

PŘEDMĚT E-MAILU - ZPRACOVÁVÁNO: OBJ. 000

Vážený zákazníku,

Vaše objednávka č. 000 ze dne 28.07.2015 je právě zpracovávána.

Zaregistrujte se (pokud již nejste) a nakupujte se slevami 2-10%!

Internetový obchod

Zdravá Výživa Hronov

Hostovského 565

549 31 Hronov

www.zdravavyzivahronov.com

tel.: 777 923 668

PŘEDMĚT E-MAILU - PŘIPRAVENO K EXPEDICI: OBJ. 000

Vážený zákazníku,

Vaše objednávka č. 000 ze dne 28.07.2015 je připravená k expedici.

Zaregistrujte se (pokud již nejste) a nakupujte se slevami 2-10%!

Internetový obchod

Zdravá Výživa Hronov

Hostovského 565

549 31 Hronov

www.zdravavyzivahronov.com

tel.: 777 923 668

PŘEDMĚT E-MAILU - EXPEDOVÁNO: OBJ. 000

Vážený zákazníku,

Vaše objednávka č. 000 ze dne 28.07.2015 byla právě expedována.

Zaregistrujte se (pokud již nejste) a nakupujte se slevami 2-10%!

Internetový obchod

Zdravá Výživa Hronov

Hostovského 565

549 31 Hronov

www.zdravavyzivahronov.com

tel.: 777 923 668

PŘEDMĚT E-MAILU - VYŘÍZENO: OBJ. 000

Vážený zákazníku,

Vaše objednávka č. 000 ze dne 28.07.2015 byla právě vyřízena.

Zaregistrujte se (pokud již nejste) a nakupujte se slevami 2-10%!

Internetový obchod Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

APPENDIX IV: HERUSTIC ANALYSIS QUESTIONS

Homepage

- 1. Is the important content located on the homepage or within reach of one click?
 - Some products are on homepage.
 - Other products are in categories 2-3 clicks.
 - Information about the purchase 2 clicks.
 - Points of interest 1 click.
- 2. Is the menu logically arranged with respect to the most frequent user needs?
 - Yes from heat map results which show the areas where users click the most. (Appendix V: Heat map of the homepage)
- 3. Is the homepage URL address easy-to-remember?
 - Yes but the ending .com gives the impression that the page is not Czech.
- 4. Is the homepage specific/distinguishable from the others?
 - No, it is not. The homepage is distinguished only by the green banner and offer of recommended products and new products.

Focus on Tasks

- 1. Is the necessary scrolling down and clicks minimal?
 - No, it is not. On one page there are a lot of products and user has to often scroll down an up.
 - Clicks are very frequent because there is a lot of categories from where to choose.
- 2. Is it possible to quickly finish the most frequent steps and tasks?
 - Add to cart and order creation is quick.
 - Pop-up box slows the whole order.
- 3. If the task consists of several required steps, are these steps to complete shown to the user in advance? Is a feedback provided during doing this task?
 - In the order form there are all steps visible but they are not so highlighted to be recognised.
 - Feedback does not appear every time. When finishing the order then yes but after logging in no.
- 4. Do the pages contain only relevant and non-disturbing elements and information?

- Disturbing elements are colours because each button has different colour and there is a lot of text on each page, mainly because of the right bar with news.
- 5. If the web requires personal information for registration, does it contain the Letter of Privacy?
 - No, it does not contain.
- 6. Is there visible and easily accessible possibility to contact any employee of the company which ensure quick respond? (e.g. e-mail, telephone, ...)
 - Contacts are not so visible, there is missing contact form.

Navigation and Information Architecture

- 1. Is it possible to move easily among related pages and is easy to return to the homepage?
 - Yes, it is.
- 2. Is it clear from the menu, which item has been selected?
 - No when searching through search box, main menu or when choosing the last category.
 - Yes when choosing main category.
- 3. Is there visible navigation feedback? (For example breadcrumbs.)
 - Yes, it is.
- 4. Is necessary information displayed in the upper part of the screen?
 - No, mostly it is displayed in the lower part of the screen.
- 5. Is frequently needed information easily and quickly available from any page?
 - Partly yes. This information is located in the main menu but a user has to click farther.
 - Cart content 1 click
 - My Account 1 click
 - Contact, Terms and conditions, Transportation and Shipment 2 clicks
 - Information and Points of interest 1 click
- 6. Are there all common elements and terminology across the web consistent? (For example logo, menu, frequently used terms, ...)
 - Yes, there are.
- 7. Does the appearance of the cursor change when moving it to a place of the active element where is possible to click? (From the shape of an arrow to a hand.)

- Yes, it does.
- 8. Is there the list of items in the main menu rather longer and more transparent than the shorter and deeper? (In the case of narrow menu, items are comprehensive "deeper", which may lead to worse clarity.)
 - There are not so much items in the main menu and therefore a user has to click farther.
- 9. In case of more complicated and more comprehensive web, is there the site map available?
 - No, it is not.
- 10. Does each category correspond to menu titles, links and other elements of its content?
 - Not all of them. Those sub-categories do not correspond: Brýle / Glasses,
 Dárkové a doplňkové zboží / Gifts and Complementary products, Sex a intimita / Sex and Intimacy.

Forms and Data Entry

- 1. Does the description of input fields explain clearly what information is required?
 - Some button labels are written grey colour which a user can easily overlook.
- 2. Is visible which answers are required and which not when filling in fields?
 - Yes, it is. Those fields are marked with a star.
- 3. Does the page enable easy error correction when filling in information? (For example if a user skip required field and want to continue, this field will be highlighted and there appears a label that the information is required.)
 - Yes, it does.

Quality of Content

- 1. Is the content easy for scanning (note: looking for specific information instead of careful reading)?
 - The text is often dull, unformatted and hard for scanning. Headings and paragraphs are not often separated and usually there is used the same font.
- 2. Are there links and their captions predictively described?
 - Yes, they are.
- 3. Is there recognition in colours between visited and unvisited link?

- No, there is not.
- 4. Are there words, phrases and concepts understandable to standard user (also to a new comer)?
 - Healthy food is very specific field and therefore all users should know the terminology.
- 5. Is each page labelled with a meaningful headline?
 - Yes, it is.
- 6. Are all headlines and subtitles brief and accurate?
 - Rather yes.
- 7. Is there some archive of previously published content?
 - Yes, it is News archive.
- 8. If there on a page a part of an article or list of items which appear after click then is this attribute and the possibility to see the whole content after click visible?
 - Unfortunately not.
- 9. Is there a possibility to change language available?
 - No, it is not and it is not needed now.

Page Layout and Visual Design

- 1. Is the web responsive?
 - No, it is not.
- 2. Is there on any page balanced proportion of the content and empty space?
 - There is more content than empty space.
- 3. Are there items / zones clearly separated?
 - Yes, they are.
- 4. Is it possible to get on homepage when click on the logo?
 - Yes, it is.
- 5. Is there a difference in the design of active element and inactive element? (Inactive elements attract the attention to click on it and vice versa.)
 - Not everywhere, for example in the menu item Informace a zajímavosti / Information and Points of interest it is confusing.
- 6. Are text lines optimally long? (Approximately 50-100 characters.)
 - Yes, they are.
- 7. Is the background of the web simple and enough contrast with the text?

- The background could be disturbing for somebody because there are a lot of elements.
- 8. Are animations, differences in size and font together with other elements which can disturb a user used only within the relevant communication? (Maximum four sizes of font and three types of font.)
 - Rather yes.
- 9. Is the font sufficiently large and readable?
 - No, it is not. The font is small.

Search

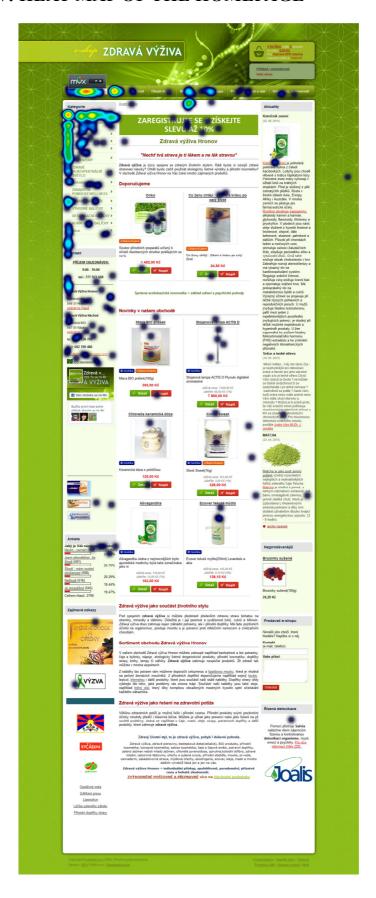
- 1. Is there a search box available?
 - Yes, it is.
- 2. Are there all results of search clear, helpful and ordered by the relevance or the data?
 - No, it is searching only in products, not in the news or points of interest.
- 3. Does the page contain search result duplicity?
 - No, it does not contain.
- 4. Is the search box located on the place where estimated? (In the right upper part.)
 - Yes, it is.
- 5. Is the search box enough long?
 - Yes, it is.
- 6. Does the result of search contain important meta-information? (For example the size of a document, date of publishing,...)
 - There does not work search in articles therefore it does not contain.

Errors, Feedback and Help

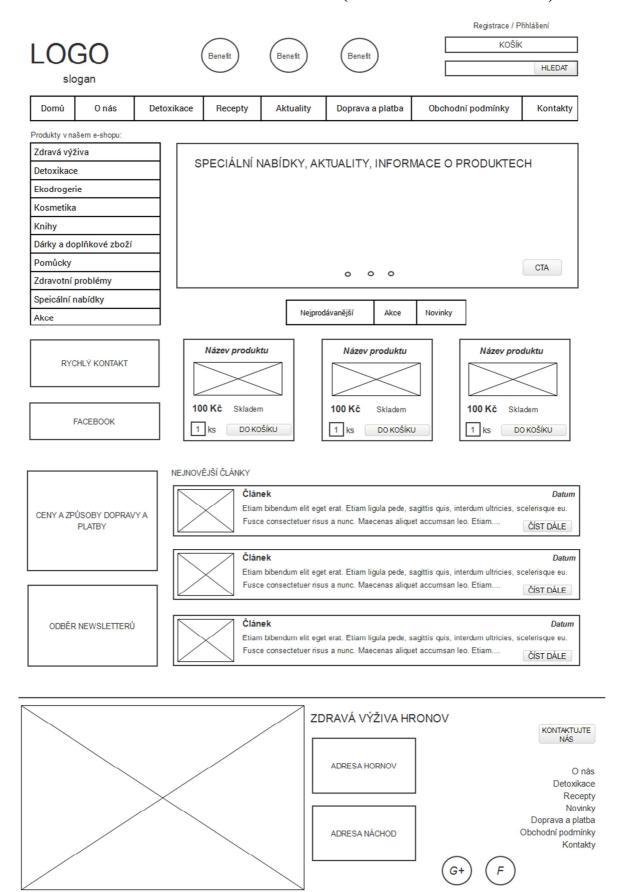
- 1. Is the error page 404 adopted? Does it contain any tip show to get to the search page, homepage link or call to use search box?
 - Yes, it is adopted.
- 2. Is the error page understandable and does it contains instruction how to continue?
 - Yes, it is understandable.
 - Yes, it contains all necessary information.
- 3. Are there error and warning notifications written in the user friendly and non-aggressive form?

- Yes, they are.
- Only in one case the notification is not friendly. There is a condition that the
 minimum amount of order is 350 CZK and in the cart there is written
 "Musíte objednat ještě za XY CZK."/ You have to order more to reach the
 limit.
- 4. Do the pages load quickly? (Approximately 5 seconds.)
 - Yes, they do.
- 5. Is there a feedback available after each user step?
 - Mostly yes. For example when a user adds a product into the cart there appears pop-up box.
- 6. Is it easy to return back or to cancel a process?
 - Rather yes. Only one problem has been discovered an item cannot be removed from the cart by click on a cross which is usually used for cancelling or removing. To remove the product, there has to be written amount of pieces 0 and then it has to be recalculated.
- 7. Are there instructions or help available when needed?
 - Yes, there are.

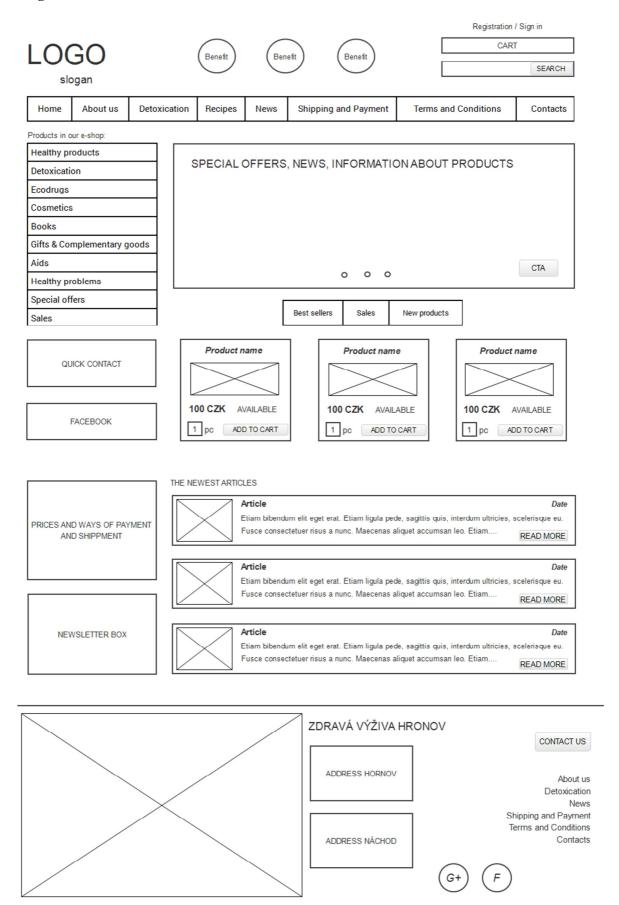
APPENDIX V: HEAT MAP OF THE HOMEPAGE



APPENDIX VI: HOMEPAGE DESIGN (CZECH AND ENGLISH)



English version:



APPENDIX VII: LEFT MENU ARRANGEMENT

Zdravá výživa – produkty

- Bezlepkové potraviny
 - Chléb a housky
 - Kaše a vločky
 - Mouky a směsi
 - Nápoje
 - Polévky
 - Sušenky a mlsání
 - Těstoviny a rýže
- BIO produkty
 - Dobroty
 - Dochucovadla
 - Koření
 - Nápoje
 - Oleje
 - Potraviny
 - Víno
- Čaje a bylinné směsi
 - Čaje a směsi Dr. Popov
 - Fantastic tea
 - Japonské čaje
 - Sypané čaje černé
 - Sypané čaje červené
 - Sypané čaje ovocné
 - Sypané čaje rooibos
 - Sypané čaje zelené
- Chlazené výrobky pouze osobní odběr
- Kávoviny
- Koření, dochucovadla a soli
- Zdravé nápoje, sirupy a šťávy
 - Bylinné sirupy
 - Javorové sirupy

- Kitl
- Nápoje a šťávy
- Sušené nápoje
- Zdravé potraviny
 - Luštěniny
 - Obiloviny, mouky a kaše
 - Octy
 - Polévky
 - Pomazánky
 - Sladidla a džemy
 - Sojové maso
 - Těstoviny a kuskus
 - Vločky, otruby a klíčky
- *Řasy a houby*
- Zdravé mlsání
 - Čokoláda
 - Dobrůtky v polevách na váhu
 - Kornouty a balíčky
 - Müsli tyčinky
 - Ořechy na váhu
 - Sušené ovoce na váhu
 - Žvýkačky
 - Ostatní zdravé mlsání
- Zelené potraviny
 - Chlorella a spirulina
 - Mladý ječmen a mladá pšenice

Detoxikace podle Mudr. Jonáše

- Pro dospělé
 - Balíčky podle orgánů a potíží
 - Bioharmoni
 - Roční detoxikace
- Pro děti
- Vitamíny a minerály

Eko-drogerie

- Do koupelny
- Do kuchyně
- Hygienické potřeby
- Kartáče
- WC čističe
- Ostatní čisticí prostředky

Eko-kosmetika

- Nimbová kosmetika
- Saloos kosmetika
 - Hydrofilní odličovací oleje
 - Karité
 - Koupelové oleje
 - Květinové pleťové vody
 - Regenerační obličejové oleje
 - Sprchové oleje
 - Tělové a masážní oleje
- Chlorella cosmetics
- Konopná kosmetika Cannaderm
 - Afty a opary
 - Akné
 - Atopie a lupénka
 - Dětská pokožka
 - Intimní hygiena
 - Mykóza
 - Opalování
 - Regenerace
 - Svaly, klouby a žíly
 - Vlasová péče
 - Ostatní
- Solex agro kosmetika
- Čakrární éterické oleje
 - S rozprašovačem

- S kapátkem
- Henna kosmetika
- Koňské masti
- Kosmetika Dr. Popov
- Aloetrox kosmetika
- Mýdla z ruční výroby

Knihy

- Duševní literatura
- Motivační literatura
- Zdravá výživa

Dárkové a doplňkové zboží

- Bio doplňky
- Brýle pro zlepšení zraku
- Dárky
- Přírodní antibiotika
- Sex a intimita
- Zásaditá péče o organismus

Pomůcky

- Výdejníky dispenzory
- Zdravé plnospektrální světlo
- Zdravotní pomůcky a wellness
 - Lampy a svítidla nasli
 - Lampy ott-lite
 - Lampy verilux
 - Simulátor slunce
 - Úsporné zářivky a žárovky

Zdravotní potíže

- Angína
- Astma
- Bolesti hlavy a migrény
- Celiakie

- Celulitida
- Detoxikace
- Diabetes
- Dna
- Gynekologické potíže
- Hemeroidy
- Chřipka
- Imunita
- Játra
- Klimaktérium
- Kouby
- Kožní problémy
 - Akné
 - Atopický ekzém
 - Kožní alergie
 - Lupénka
 - Opary a afty
 - Plísně
- Křečové žíly
- Ledviny
- Lymfatický systém
- Nadváha a obezita
- Nachlazení a kašel
- Oči
- Pálení žáhy
- Pohybový systém
- Prostata
- Překyselení organismu
- Psychika
- Sexualita
- Srdce a cévy
- Špatné spaní
- Urologické potíže

- Uši
- Vlasy
- Vysoký krevní tlak
- Zácpa
- Zvýšený cholesterol
- Žaludek a zažívání

Akce

Výprodej

Vánoční balíčky

English version:

Healthy products

- Algae, mushrooms
- BIO products
- Chilled products only personal collection
- Coffee
- Gluten-free products
- Green products
- Healthy drinks, syrup, juice
- Healthy food
- Healthy sweets
- Spices, flavourings, salt
- Tea and herbage

Detoxification

Ecodrugs

Cosmetics

Books

Gifts & Complementary goods

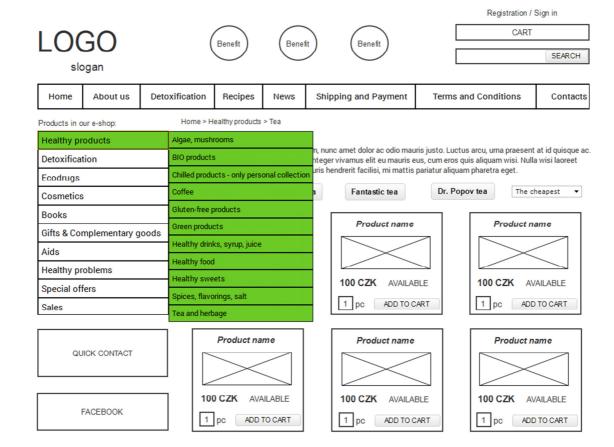
Aids

Healthy problems

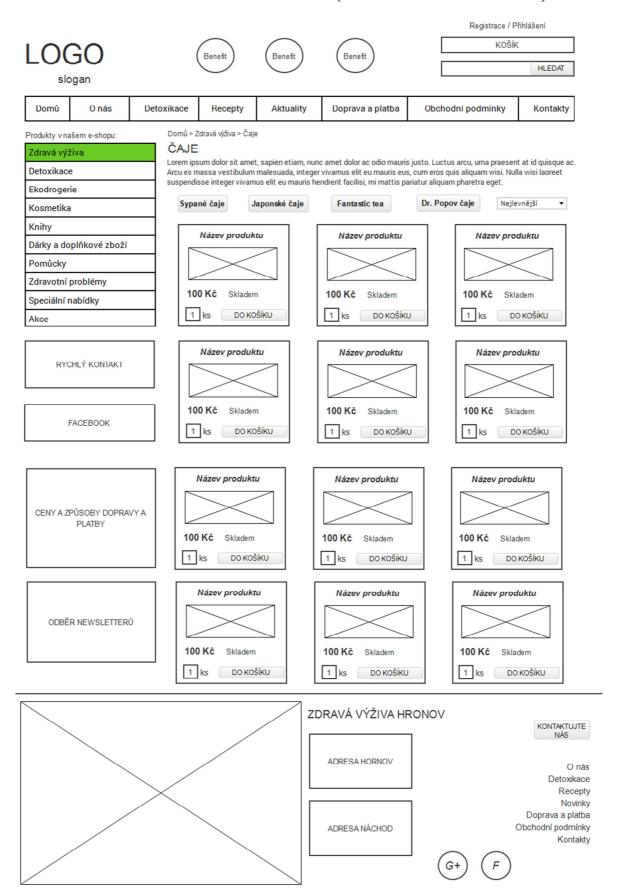
Special offers

Sales

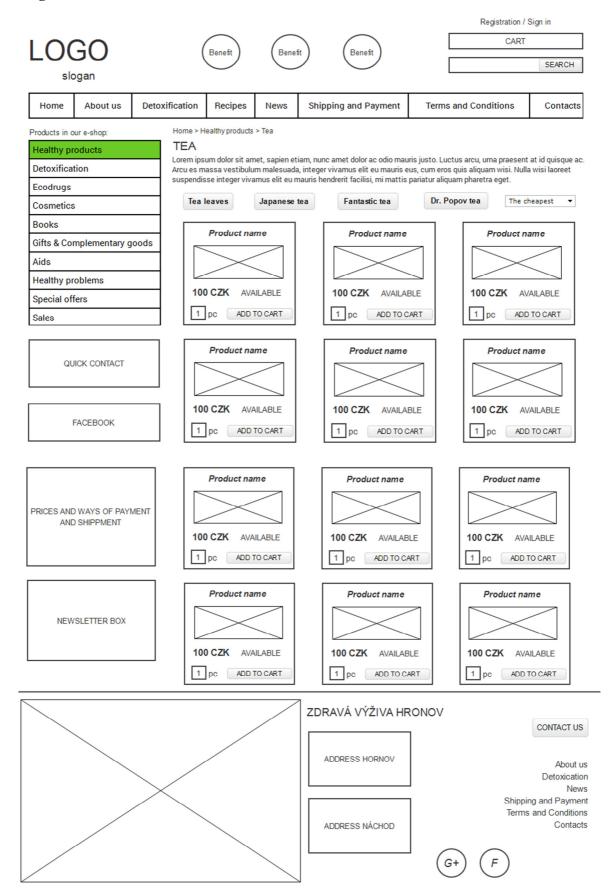
APPENDIX VIII: LEFT MENU DESIGN



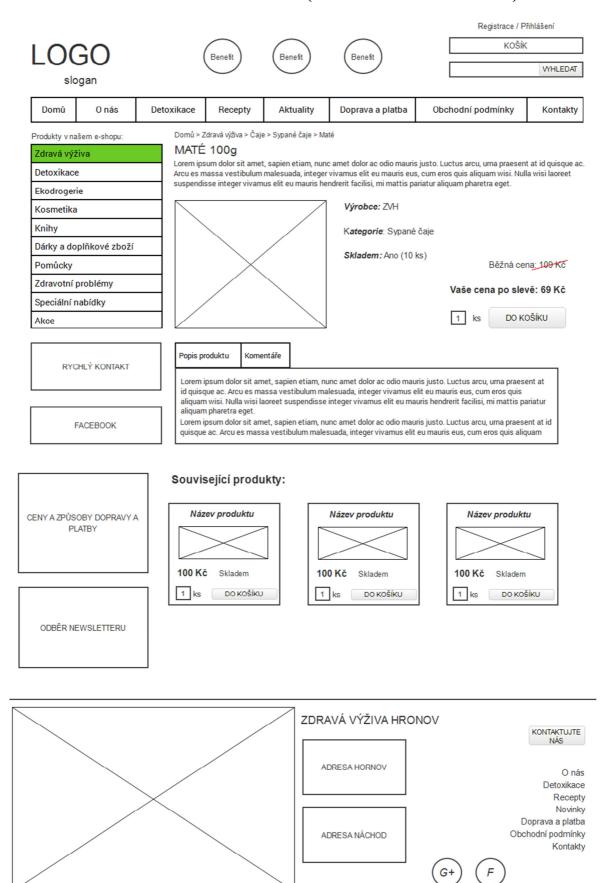
APPENDIX IX: CATEGORY DESIGN (CZECH AND ENGLISH)



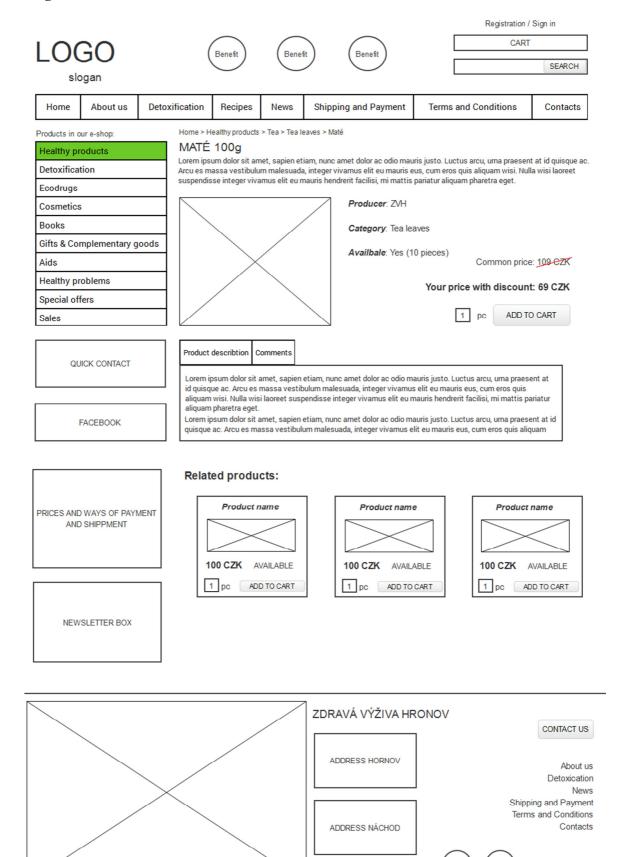
English version:



APPENDIX X: PRODUCT DETAIL (CZECH AND ENGLISH)



English version:



APPENDIX XI: NEW E-MAILS

Registrace / Registration



Milá/ý Jméno,

níže Vám zasíláme přístupové údaje pro přístup do klientského centra.

Uživatelské jméno: test Heslo pro přihlášení: test

Tyto přihlašovací údaje můžete použít pro přihlášení na adrese:

http://www.zdravavyzivahronov.com/prihlasit

Hezký den přeje Vaše

Zdravá výživa Hronov

Internetový obchod Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

Zapomenuté heslo / Forgotten password



Milá/ý Jméno,

zasíláme Vám uživatelské jméno a nově vygenerované heslo pro přihlášení do internetového obchodu.

Uživatelské jméno: test

Nové heslo pro přihlášení: test

Tyto přihlašovací údaje můžete použít pro přihlášení na adrese:

http://www.zdravavyzivahronov.com/prihlasit

Hezký den přeje Vaše

Zdravá výživa Hronov

Internetový obchod Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

Objednávka byla přijata / Order has been received



Milá/ý Jméno,

právě jsme **přijali** Vaši objednávku (č.**0000**) ke zpracování. Děkujeme Vám za důvěru, kterou nám projevujete. Janu pošleme do skladu pro Vaše produkty co nejdříve, nejpozději však do 5 dnů. Při případné telefonické či písemné komunikaci, prosíme, uvádějte číslo objednávky.

V případě, že jste zvolili **platbu předem**, níže zasíláme podklady pro platbu.

Informace pro platbu bankovním převodem:

číslo účtu: 35-9561630257 / 0100

variabilní symbol: číslo vaší objednávky

zpráva pro příjemce: vaše jméno

Rekapitulace objednávky:

Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
	CELKEM	CENA

Při **osobním odběru** nebo vyzvednutí objednávky na **odběrném místě**, vyčkejte na výzvu, kterou obdržíte na tento email. Jestliže Vám výzva nedorazí, Jana ještě nepřipravila objednávku k odběru.

Hezký den přeje Vaše

Zdravá výživa Hronov

Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

Objednávka se zpracovává / Order is been processed



Milá/ý Jméno,

právě jsme poslali Janu do skladu, aby **připravila** všechny Vaše produkty z objednávky (č. **000**), pečlivě je zabalila a s úsměvem na rtech předala do těch správných rukou. Pokud Jana nenajde nějaký produkt, obratem se Vám ozveme a domluvíme se na dalším postupu.

V případě, že jste zvolili **platbu předem** a částku ještě neuhradili, níže zasíláme podklady pro platbu.

Informace pro platbu bankovním převodem:

číslo účtu: 35-9561630257 / 0100

variabilní symbol: číslo vaší objednávky

zpráva pro příjemce: vaše jméno

Rekapitulace Vaší objednávky:

Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
	CELKEM	CENA

Při **osobním odběru** nebo vyzvednutí objednávky na **odběrném místě** vyčkejte na výzvu, kterou obdržíte na tento email. Jestliže Vám výzva nedorazí, Jana ještě nepřipravila objednávku k odběru.

Hezký den přeje Vaše

Zdravá výživa Hronov

Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

Objednávka je vyřízena – Česká pošta / Order has been processed – Czech post



Milá/ý Jméno,

Vaši objednávku (č. **000**) dnes Jana předala **České poště**. Balíček můžete očekávat v následujících dnech na Vaší adrese.

Rekapitulace Vaší objednávky:

Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
	CELKEM	CENA

Hezký den přeje Vaše

Zdravá výživa Hronov

Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

Objednávka je vyřízena – ParcelShop / Order has been processed – ParcelShop



Milá/ý Jméno,

Vaši objednávku (č. **000**) dnes Jana předala společnosti **DPD ParcelShop**, který Váš balíček dopraví na Vámi zvolené místo. Informace o adrese odběrného místa a otevírací době jsou uvedeny níže.

Informace o odběrném místě:

Adresa:

Otevírací doba:

Rekapitulace Vaší objednávky:

Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
	CELKEM	CENA

Hezký den přeje Vaše

Zdravá výživa Hronov

Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

Objednávka je vyřízena – Hronov / Order has been processed – Hronov



Milá/ý Jméno,

Vaši objednávku (č. 000) dnes Jana připravila na naší pobočce v Hronově.

Informace o pobočce:

Adresa: Hostovského 565, 549 31 Hronov zobrazit na mapě

Telefon: 608 830 709

Otevírací doba: Po - Pá: 8.00 - 17.00, Sobota: 9:00 - 11.30, Neděle: zavřeno

Rekapitulace Vaší objednávky:

Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
	CELKEM	CENA

Hezký den přeje Vaše

Zdravá výživa Hronov

Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

Objednávka je vyřízena – Náchod / Order has been processed – Náchod



Milá/ý Jméno,

Vaši objednávku (č. **000**) dnes Jana **připravila** na naší pobočce v **Náchodě**.

Informace o pobočce:

Adresa: Plhovská 863, 547 01 Náchod <u>zobrazit na mapě</u>

Telefon: 602 709 486

Otevírací doba: Po - Pá: 8.00 - 17.00, Sobota: 9:00 - 11.30, Neděle: zavřeno

Rekapitulace Vaší objednávky:

Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
Název produktu	množství	cena
	CELKEM	CENA

Hezký den přeje Vaše

Zdravá výživa Hronov

Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

Ohodnocení / Evaluation



Milá/ý Jméno,

před nedávnem jsme poslali Janu do skladu, aby připravila Vaši objednávku, a doufáme, že vše proběhlo k Vaší **spokojenosti**.

Stále se snažíme **zdokonalovat** nabízený sortiment a také servis, který poskytujeme našim zákazníků, jako jste i Vy. Proto bychom Vás chtěli poprosit o zodpovězení **pár jednoduchých otázek**. Celé to zabere jenom minutku a budeme Vám nesmírně vděčni.

CHCI OHODNOTIT E-SHOP

Hezký den přeje Vaše

Zdravá výživa Hronov

Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

tel.: 777 923 668

Dotaz na stornování / Request to cancel the order



Milá/ý Jméno,

Vaše objednávky byla stornována.

Hezký den přeje Vaše

Zdravá výživa Hronov

Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com

Stornování objednávky / Order cancelation



Milá/ý Jméno,

Vaše objednávky byla **stornována**.

Hezký den přeje Vaše

Zdravá výživa Hronov

Zdravá Výživa Hronov Hostovského 565 549 31 Hronov

www.zdravavyzivahronov.com