

# THE FUNDAMENTALS OF A PROSPEROUS E-SHOP IN CONNECTION TO SEARCH ENGINE OPTIMIZATION

Petr Suchánek

## 1. E-business and E-commerce

At the present time electronic business (e-business) plays a major role in the world's economy. E-business is a term used to describe businesses run on the Internet, or utilizing Internet technologies to improve the productivity or profitability of a business [3]. E-business involves business processes spanning the entire value chain:

- electronic purchasing and supply chain management,
- processing orders electronically,
- handling customer service,
- and cooperating with business partners.

E-business comprises all enterprise activities that are supported with information systems and information and communication technologies (ICT). E-commerce is subset of e-business (Fig. 1). E-commerce is the online transaction of business, featuring the linked computer systems of the vendor, host, and buyer. E-Commerce is not only about online stores, it's about anything and everything that has to do with money (for example if people pay with via cash, check, credit card, etc.). Electronic business methods enable companies to link their internal and external data processing systems more efficiently and flexibly, to work more closely with suppliers and partners,

and to better satisfy the needs and expectations of their customers [9].

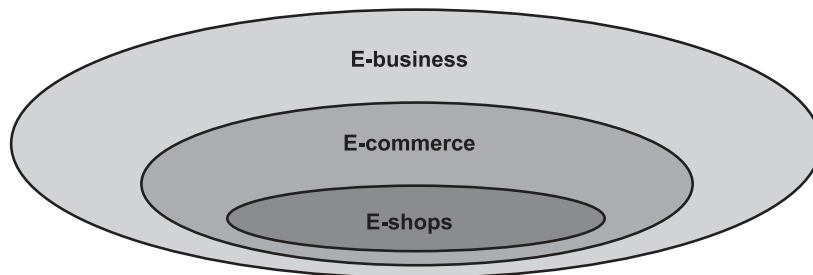
E-shops are subsets of e-commerce. In the Czech Republic the first e-shops came in to being in 1995. E-shop is the standard name of online selling-buying processes on the internet, but we can use the many other names such as online shop, e-store, internet shop, webshop, webstore, online store, or virtual store.

People are able to deduce mounting interest in electronic business from the increasing numbers of business transactions. In the Czech Republic profit on e-shops was about 1 billion in 2001 and about 22 billion in 2008.

In connection with the e-business and internet, it is necessary to get in location-based services (LBS) and iDTV. The term location-based services is a recent concept that denotes applications integrating geographic location with the general notion of services. Examples of such applications include emergency services, car navigation systems, tourist tour planning or "yellow maps" (combination of yellow pages and maps) information delivery. With the development of mobile communication, these applications represent a novel challenge both conceptually and technically. [11]

iDTV (Improved-definition television) is a television receiver that improves the apparent quality

**Fig. 1: E-business, E-commerce and E-shops**



Source: Own

of the picture from a standard video signal by using techniques such as frame doubling, line doubling, and digital signal processing. Interactive digital television (IDTV) promises to enhance traditional television programming. Current approaches to IDTV generally use either the primary television display or add a second display that resides on a traditional personal computer. [7]

### 1.1 E-business Subjects and Their Bilateral Communication and Transactions

There are three basic subjects in e-business:

- the business man (firms),
- the customers (consumers),
- and the administration (and government) institutions.

### 1.2 Advantages of E-business and E-commerce

E-business offer new possibilities which bring a lot of advantages. The two advantages are increased sales and reduced cost. These advantages are able to be achieved with the support of the internet environment. Other advantages include:

- websites that can be accessed 24 hours a day, 7 days a week,
- transactions and communications that can be completed online,
- people can provide product details and do electronic marketing and advertising,
- introduce online transactions,
- automate customer service,
- produce online publications,
- market electronically,
- provide access to global marketplace,

Tab. 1: Types of e-business communication on Internet

Generator of information	Recipient		
	Business man, firm (B)	Customer (Consumer) (C)	National institution (A = Administration, G = Government)
Business man / Firm (B)	B2B Buying systems of the big companies	B2C Selling of books, CD, electronics, clothes, sporting goods etc.  Bank2C Banking services	B2A (B2G) Offer of services and goods, communication with public administration on the internet
Customer (Consumer) (C)	C2B Offers monitoring in order to price reduction	C2C Auction system for used goods selling ("bazaar")	C2A (C2G) Declaration of taxes, votes, population census
National institution (A = Administration, G = Government)	A2B (G2B) Public contract letting, grant projects	A2C Supplying of public administration information	A2A (G2G) Coordination of activities of public authority organs, international coordination

Source: Own

In terms of these subjects, individual types of business processes can be defined. Every subject is able to do business transaction with the other (Tab. 1).

- be of a faster speed,
- allow customer self-service and customer outsourcing,
- and step beyond borders to a global view.

E-business and e-commerce have also some disadvantages which are related to security above all, but the advantages far surpass the disadvantages.

The principal aim of the all business activities is to earn a profit. This profit should be permanent. If company wants to profit, it usually has to be investing. Investments have to be returned. If it would be to the contrary, business would be no good. The return of investments and repayment-time are always important indicators of e-business fruitfulness.

### 1.3 Internet Shop Development

At present, e-shops have the second largest profit, just after hypermarkets, in the Czech Republic. E-shops belong to the B2C and B2B groups. E-shops are one alternative of company presentation and offer a way to its products. E-shops have to maintain many conditions to be considered. All these conditions have to be already considered during the e-business strategy developing. In addition to security, stability and rate demands creator of e-shop has to ensure easy operation and usability not only for visitors and customers but also for the workers who have to update the information in e-shops and process all business and e-business transactions. The fundamental conditions to e-shop realization can be summarized as [13]:

- **Search engine optimization** – the effort of internet shop web sites link to be displayed in one of the forefront place in internet search engines after the user request. Optimization should be done both, by keywords searching and for example in agreement with the product title, brand name, product type, and so on.
- **Eye-appeal** – internet shop web sites should have a good graphical lay-out and contain marketing components and services to aid in luring customers. For example there can be newsletters, affiliate applications, video presentations, tags, discussion groups and so on.
- **An easy manageability** – for both customers and staff.
- **Rate** – high-quality graphics, multimedia components, an extensive products database, searching etc. All functions and components mustn't hamper in an action with e-shop web sites.

- **Stableness** – e-shops have to have continuous function.
- **Security** – in e-shops the security of all transactions has to be ensured. Security has to be ensured especially in the context of the system of payment, prevention of server attack, name of description protecting, and other specifications associated with e-business transactions on the internet.
- **Interfacing** – the data from internet shops has to be processed through information system used in the company. Internet shops and information systems have to be becomingly interconnected to make possible easy data transmission. Data transmission should be the furthest automated.
- **Return of investments and profit** – these depend upon optimization for browsers but also on all of the shown characteristics. The return of investments is one of the fundamental indicators of strategic concept. If analyses don't show enough high investment returns, managers have to change prospectus.
- **System modularity** – If server administrators want the data base to expand, it is not necessary to buy or develop new e-shop system. Current systems can be expanded with new modules, by which means increase functioning.
- **Analyses** – managers need statistic analyses of data from internet shops. Fundamental statistic data may be part of the internet web sites; more detailed analyses are more suitable to make in terms of information system to which the data from the internet shops are stored.

Every business must take advantage of the possibilities available through the Internet to compete in the modern marketplace. If managers want e-shop to be successful, it has to be seen in one of the first positions in internet search engines. This can be achieved with support of search engine optimization (SEO).

## 2. Search Engine Optimization

There are millions of e-shops web pages on the internet. The storage of e-shop web sites on the web server is only the first step of ensuring fruitfulness. SEO is the science of the search as it relates to marketing on the web. SEO deals with

the localization and searching of individual web sites. As output is optimization of web sites so that web sites are shown in one of the forefront positions after the user request. Search engine optimization focus on website rank high in the search engines.

- We can say that SEO is a lump investment,
- in case of commercial applications, SEO has a short-term investment return,
- SEO is the cheapest and most effective investment with a sure result,
- printed advertisements and similar ways of presentation are expenses which only yield short-term effects,
- SEO has the longest continuation when compared to other paid services.

Website Optimization combines the disciplines of online marketing and site performance tuning to attain the competitive advantage necessary on today's Web. Website optimization not only provides web sites developers with a strategy for success, it also offers specific techniques for you and your staff to follow. A profitable website needs to be well designed, current, highly responsive, and optimally persuasive if you're to attract prospects, convert them to buyers, and get them to come back for more. [4] The online advertising market is expected to grow at 34% CAGR between 2005 and 2010, and nine out of ten companies are estimated to be implementing SEO strategies. [6]

SEO has a feedforward to marketing, at present often marked as e/marketing and e-business. E-marketing and digital communication channels have transformed the businesses in last decade. Many, who have outsourced their digital marketing relying on agencies only and those doing it in-house have achieved some kind of success. But as the markets and competitions

have grown, the need is to implement another layer of e-marketing intelligence on top of these digital activities to achieve maximum results and get ahead of the competition. [8]

## 2.1 Conversion in E-shops

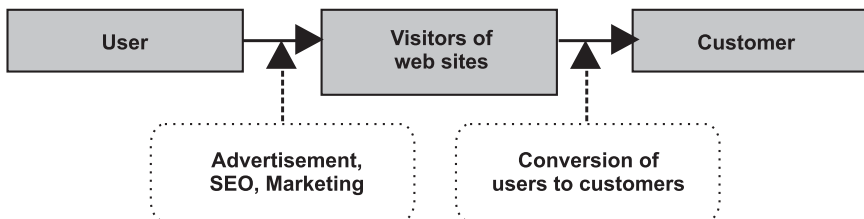
The principal aim of every shop is to obtain a big number of customers. The customers of e-shops are users who visited a website and placed an order (Fig. 2).

The order is the most often watched action. The order is conceived as buying products or services. Research results show that common margin of conversion in common internet shops reaches approximately 1%. The shopping probability of user-known e-shops can be up to 30%. On internet web sites many actions can be done. People can think of it as a special type of conversion, even if these actions don't bring profit, because they are a significant marketing indicator. Examples of these conversion actions can be:

- user registration,
- user login,
- user downloads of demo, freeware, shareware, or the full version of the application (for example, open source),
- user contact (user sends e-mails, takes a part in discussion groups, calls the seller, and so on),
- user browsing of promotional web sites.

Conversions are measurable variables. An increasing number of users connected to internet result in increasing number of customers in e-shops. Many research results show a dependence between the presentation of the web sites in the first few positions on an internet search engine and the count of conversions from users to customers.

Fig. 2: Conversion of users to customers



Source: own

## 2.2 Research of Selecting Web Sites in Individual Internet Search Engines

It is proven that 90 % of the users are interested in, at the most, the first 2 - 5 web sites pages, 80 %, and at the most, the first 5 - 10 web sites pages shown by the Internet web browser. If the web sites of e-shops are shown in the one of the first positions on the internet web browser, fruitfulness increases. This fact relates to eye tracking studies. Eye tracking studies have shown that searchers scan a search results page from top to bottom and left to right (for left to right languages), looking for a relevant result. Placement at or near the top of the rankings therefore increases the number of searchers who will visit a site. [12]

As starting information for research, the percentage of the most often used internet search browsers and the most often buying assortments in e-shops in the Czech Republic. We wanted to know the count of the same links found in the first ten positions on the internet web browsers.

Some internet browsers use the same internet search engine. Search engine is a program that

searches documents for specified keywords and returns a list of the documents where the keywords were found. [1] Search engines automatically create web site listings by using spiders that „crawl“ web pages, index their information, and optimally follows that site's links to other pages. Spiders return to already-crawled sites on a pretty regular basis in order to check

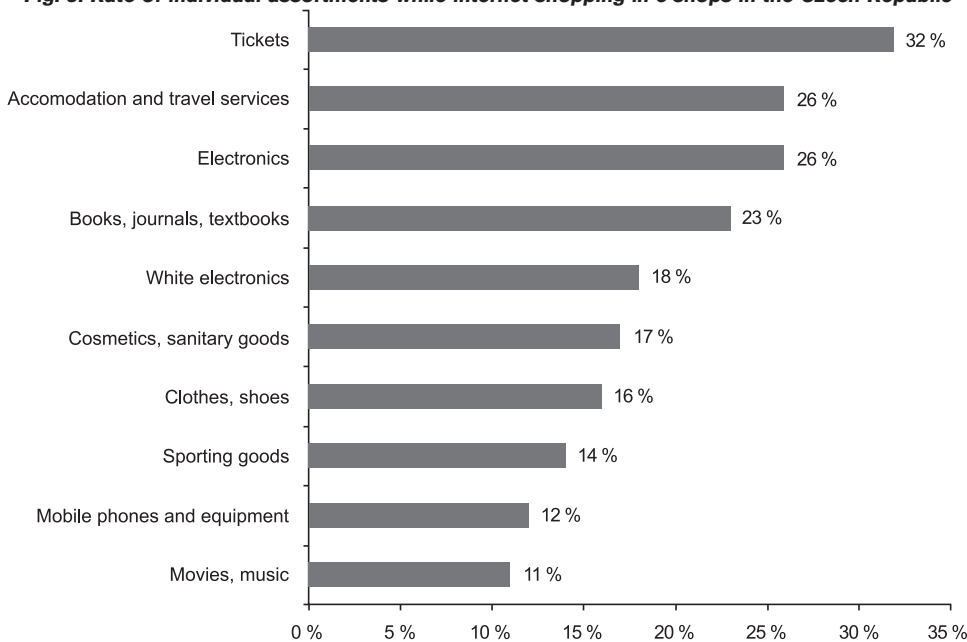
**Tab. 2: The most used internet search engines**

Web browser	Percentage of usage
www.seznam.cz	62,80 %
www.google.cz	30,16 %
www.centrum.cz	2,86 %
www.atlas.cz	1,28 %
www.jyx0.cz	0,16 %

Source: own

for updates or changes, and everything that these spiders find goes into the search engine database. [15]

**Fig. 3: Rate of individual assortments while internet shopping in e-shops in the Czech Republic**



Source: Czech Statistical Office, 2008

Tab. 3: Lists of the found links for two keywords

Keywords inserted in the internet browser	www.seznam.cz	www.google.cz
Mobilni telefony (Mobile phone)	<ol style="list-style-type: none"> <li>1) mobilni-telefony.heureka.cz/</li> <li>2) www.mobilni-telefony-biz.cz/</li> <li>3) www.mobilky.com/</li> <li>4) www.rtemultimedia.cz/</li> <li>5) www.levne-mobilni-telefony.cz/</li> <li>6) katalogmobilu.cz/</li> <li>7) www.digihit.cz/</li> <li>8) www.1m.cz/</li> <li>9) www.tadykoupimmobil.cz/</li> <li>10) www.mobilky.cz/</li> </ol>	<ol style="list-style-type: none"> <li>1) www.mobilni-telefony-biz.cz/</li> <li>2) www.mobilky.cz/</li> <li>3) www.mobilni-telefony-prodej.cz/</li> <li>4) www.mobil4you.cz/</li> <li>5) mobilni-telefony.heureka.cz/</li> <li>6) katalogmobilu.cz/</li> <li>7) www.mobilky.com</li> <li>8) www.seznamzbozi.cz/mobilni-telefony-c3277/</li> <li>9) www.prodejtelefonu.cz/</li> <li>10) www.1m.cz/</li> </ol>
	www.centrum.cz	www.atlas.cz
	<ol style="list-style-type: none"> <li>1) www.aaamobil.cz/</li> <li>2) www.mobilky.cz/</li> <li>3) lom.mobilnitelefony.cz/</li> <li>4) www.najisto.cz/pocitace-a-komunikace/mobilni-telefony/</li> <li>5) www.mobilnitelefony1.cz/</li> <li>6) mobilnitelefony.pasaz.cz/</li> <li>7) mobilnitelefony.okamzite.eu/</li> <li>8) mobilnitelefony.wgz.cz/</li> <li>9) mobilnitelefony-lidecz.webgarden.cz/</li> <li>10) www.itcontact.cz/</li> </ol>	<ol style="list-style-type: none"> <li>1) www.mobilni-telefony-biz.cz/</li> <li>2) www.mobilky.cz/</li> <li>3) www.mobilni-telefony-prodej.cz/</li> <li>4) mobilni-telefony.heureka.cz/</li> <li>5) www.mobil4you.cz/</li> <li>6) katalogmobilu.cz/</li> <li>7) www.mobilky.com</li> <li>8) www.1m.cz/</li> <li>9) www.seznamzbozi.cz/mobilni-telefony-c3277/</li> <li>10) www.prodejtelefonu.cz/</li> </ol>
Knihy (Books)	www.seznam.cz	www.google.cz
	<ol style="list-style-type: none"> <li>1) knihy.abz.cz/</li> <li>2) www.levneknihy.cz/</li> <li>3) knihy.cpress.cz/</li> <li>4) www.encyklopedie-knihy.cz/</li> <li>5) www.knihy.cz/main.php3</li> <li>6) www.gradac.cz/</li> <li>7) www.kosmas.cz/</li> <li>8) www.lergie.info/</li> <li>9) www.deti-knihy.cz/</li> <li>10) www.palmknihy.cz/</li> </ol>	<ol style="list-style-type: none"> <li>1) www.knihy.cz/main.php3</li> <li>2) www.neoluxor.cz/</li> <li>3) knihy.abz.cz/</li> <li>4) www.levneknihy.cz/</li> <li>5) www.tydenik-knihy.cz/</li> <li>6) www.vsechnyknihy.cz/</li> <li>7) www.kosmas.cz/</li> <li>8) www.kanzelsberger.cz/</li> <li>9) www.dobre-knihy.cz/</li> <li>10) www.tarzan.cz/</li> </ol>
	www.centrum.cz	www.atlas.cz
	<ol style="list-style-type: none"> <li>1) www.fragment.cz</li> <li>2) www.knizniweb.cz</li> <li>3) www.pemic.cz</li> <li>4) www.najisto.cz/?what=elektronicke+knihy</li> <li>5) www.nakupnigalerie.cz</li> <li>6) www.kanzelsberger.cz/</li> <li>7) www.klaris.cz</li> <li>8) knihy.abz.cz</li> <li>9) www.levneknihy.cz</li> <li>10) www.kosmas.cz</li> </ol>	<ol style="list-style-type: none"> <li>1) knihy.cpress.cz</li> <li>2) www.minotaur.cz</li> <li>3) www.shakes.cz/</li> <li>4) www.knihy.cz/main.php3</li> <li>5) www.neoluxor.cz/</li> <li>6) knihy.abz.cz</li> <li>7) www.levneknihy.cz/</li> <li>8) www.tydenik-knihy.cz/</li> <li>9) www.vsechnyknihy.cz/</li> <li>10) www.kosmas.cz/</li> </ol>

Source: Own

Through this, researchers determined that the best known internet web browsers in the Czech Republic are:

- www.seznam.cz,
- www.google.cz,
- www.centrum.cz,
- www.atlas.cz,
- www.zona.cz,
- www.caramba.cz,
- www.toplist.cz,
- www.navrcholu.cz,
- www.cent.cz,
- www.opendir.cz.

Apparently research was focused on internet shop web pages in the Czech Republic. In the Czech Republic, there were approximately about 5.5 millions internet users in 2008. The internet web browsers that are the most often used include: www.seznam.cz, www.google.cz, www.centrum.cz, www.atlas.cz and www.jyxo.cz (Table 2). Although statistics show the decreasing usage of centrum.cz and atlas.cz, both were added in our research.

sitions on the internet web browsers (Tab. 3). Google.cz, centrum.cz and atlas.cz were compared with seznam.cz. Paid links have not been looked for. The same found links are marked in bold.

Table 3 is only preview and contains search results for two keywords. Counts of the same links for every keywords used in research are in Tab. 4.

## 2.3 Basic Research Results

For the purpose of research there were found 40 links for every keyword (these were always the first ten results on every internet search engine). There were 320 links in total. Only 4 links from 320 were not typical e-shop web sites, but they linked to e-shop web sites. From this fact we can deduce direct contexture between e-shops and common keywords.

The search engines with the most links in common are seznam.cz/google.cz and seznam.cz/atlas.cz. This results from fact that atlas.cz uses google.cz when searching. Today's internet search engines usually use full text search. Full

**Tab. 4: Counts of the same links**

Key words	seznam.cz google.cz	seznam.cz centrum.cz	seznam.cz atlas.cz
Mobilní telefony (Mobile Phones)	6 (60 %)	1 (10 %)	6 (60 %)
Knihy (Books)	4 (40 %)	3 (30 %)	5 (50 %)
Vstupenky (Tickets)	5 (50 %)	0 (0 %)	5 (50 %)
Bílá technika (Home electrical appliances)	6 (60 %)	6 (60 %)	6 (60 %)
Kosmetika (Cosmetics)	2 (20 %)	2 (20 %)	1 (10 %)
Oděvy (Clothes)	2 (20 %)	2 (20 %)	1 (10 %)
Sportovní potřeby (Sporting goods)	5 (50 %)	3 (30 %)	5 (50 %)
Televize LCD (TV set LCD)	6 (60 %)	2 (20 %)	5 (50 %)
<b>Average</b>	<b>4.5 (45 %)</b>	<b>2.375 (23.75 %)</b>	<b>4.25 (42.5 %)</b>

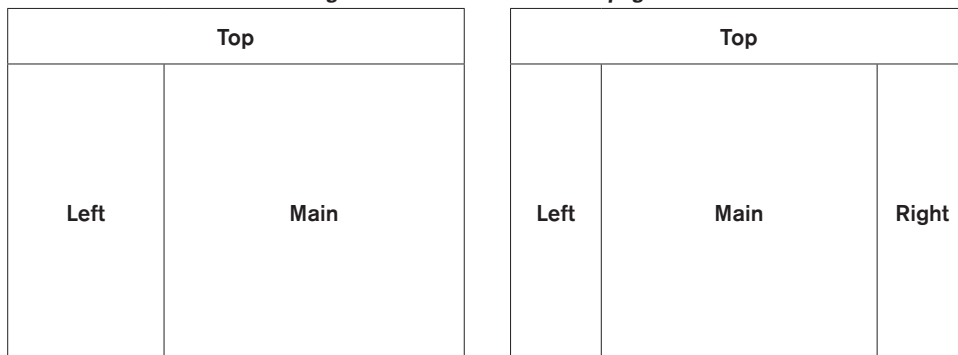
Source: Own

In the next research phase, Jyxo.cz was left out because of its small percentage of usage. Research from the Czech statistical office shows the most bought assortments in e-shops (Fig. 3).

Some of the assortment names were used as keywords in single internet search engines, then we looked for the same links from the first ten po-

text search refers to a technique for searching a computer-stored document or database. In a full text search, the search engine examines all of the words in every stored document as it tries to match the search words supplied by the user. Centrum.cz has some different kinds of full text search. Centrum.cz uses its own developed

Fig. 4: Structures of web sites pages



Source: Own

Morfeo searching technology. Morfeo searching technology is a full text search technology oriented to the Czech language. Links in table 3 have been found 15.11.2008 and 16.11.2008. It can be supposed, if we would use same keywords in internet search engines today that we would get some different links back. This is because of the possible changes in keywords and generally SEO done by e-shops web pages developers and providers.

In seznam.cz, google.cz, and atlas.cz, an average of four or five of the same links were found (Table 4). It is interesting to note that few of the same links were found by the using names of an assortment of clothes and cosmetics. It can be deduced that many of the web sites which deal with clothes and cosmetics are provided by private persons, mostly girls who want to offer to make-up and generally persons, which do not know the fundamentals of SEO.

The web sites with the same links that were found on the internet search engines are usually kept by big dealers firms. These firms have a sufficient number of financial resources to invest it for supporting SEO (and PPC) and modern web technologies.

Every internet search engine uses special algorithms of web sites sorting which are usually secret. An exception is google.cz. In public, google.cz presents the use of PageRank. PageRank is a qualitative value of web sites used for sorting the web sites found by google.cz. Significant conditions for support to get "good" position in google.cz are web sites content and count of back links. Because some of the mentioned same

links were found in seznam.cz and google.cz, it can be deduced that seznam.cz uses PageRank, too (as was mentioned above with atlas.cz using google.cz).

Centrum.cz has a special search algorithm and small rate of users. Because of its small number of web sites developers optimize web pages for centrum.cz.

All of the found web sites pages have two structures (Fig. 4). The present trend is using CSS (Cascading Style Sheets).

Shown structures (Fig. 4) are typical for the almost web sites pages. It can be considered as an unwritten rule for the web sites pages development. These structures relate to, among others, human visual perceptions.

### 3. Fundamentals of Correct SEO

Generally, all internet search engines work in three steps:

- web browsing,
- indexing,
- and searching.

Because the search algorithms are usually hidden in internet search engines, we are not able to explicitly define the fundamentals of optimization web sites code for special internet search engines. All rules used in SEO came in to being especially by testing. Unique rules do not exist. We only have a quiet number of recommendations (for example W3C recommendation).

The first recommendation is the right defined structure of a HTML (today XHTML) document.



One of the recommended structure of HTML code is typed in the following:

```
<!DOCTYPE html
PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
„http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
    <meta http-equiv="Content-Language" content="cs" />
    <meta name="description" content="Page caption" />
    <meta name="keywords" content="e-business, e-shop, e-commerce, seo, research" />
    <meta name="author" content="Petr Suchánek" />
    <title>Page title </title>
    <style type="text/css" media="all">
    @import „css/style.css“;
    </style>
  </head>
  <body>
    <p>Page content </p>
  </body>
</html>
```

In the above example, charset UTF-8 is used. We can also use, for example, Windows-1250 (cp-1250), but UTF-8 is better for SEO purposes. The page title is inserted between the tags <title>...</title>. The page title should be evident, apposite, and bound to the page content. The general principle is not to use general names such as Start page, etc.

Keywords play an important role in your search engine results. Generally, keywords can be defined as a word, or words, which identify something on a page. For SEO, keywords are defined as the exact phrases used by prospects to search for something. SEO requires the identification of the exact phrases because the page will rarely appear under similar keyword phrases. Keywords can simply be words included in the body text of the document, or added to the header using meta tags to increase the number of keywords. We should continuously alternate and add keywords. If we do not know what keywords to use, a lot of internet pages can help us. One of the links is <https://adwords.google.com/select/>

KeywordToolExternal. This tool is part of google.cz. In general, conditions which support SEO effectiveness are:

- code validity for XHTML 1.0 and next versions,
- titles marked by tags <h1>...</h1> and <h2>...</h2>,
- text marked by paragraphs,
- frequent updates of web sites,
- use of internal hypertext links from text (it is better to use hypertext links from keywords),
- do not use inline CSS and Javascripts (all CSS and scripts should be in external files),
- do not use frames,
- do not use hidden text,
- do not use duplicate text,
- use latest versions of scripts languages,
- use multitude of back links (SEO off-page factors),
- use short URL,
- web sites should have simple and transparent architecture with exact navigation,
- use HTML links,
- do registering of web sites to main internet search engines and departmental catalogues,
- monitor web sites visit rate and to do its scoring.

SEO is a very large problem. Above-mentioned SEO fundamentals are assumed from books [2], [14], web sites pages on internet [5], [10], and especially own experiences.

### 3.1 Forbidden SEO Tactics

In connection with SEO, it is necessary to make reference to forbidden SEO tactics. Forbidden SEO tactics (often called black hat SEO tactics) are tricky methods used by the web sites pages developers. Although these methods oppose fundamentals of the web sites pages development, are very often used. Black hat SEO tactics can be:

- keyword stuffing,
- hidden text,
- cloaking,
- doorway pages,
- redirects,
- duplicate sites,
- interlinking,
- reporting your competitors.

Black hat SEO tactics causes a file size enhancement and generally break the ethics code

rules. In most cases, black hat SEO tactics are not able to disclose. Although we can suppose black hat SEO tactics are used in many e-shop web sites pages, research in this article is not focused on it.

### 3.2 SEO and PPC

Besides SEO, paid links called PPC (Pay-Per-Click) campaigns can be used. PPC campaigns are at the most, a goal-directed form of internet advertisement. With PPC we can order advertisement campaigns onto some tens of catalogues, internet search engines and portals with any number of keywords and phrases. In regards the Czech projects, a PPC campaign can be established in Google AdWords ([adwords.google.com/select/Login](http://adwords.google.com/select/Login)), eTarget (<http://www.etransfer.cz/>) or [www.ppc-reklama.cz](http://www.ppc-reklama.cz), and to the foreign projects in Overture (<http://searchmarketing.yahoo.com/overture.php>).

SEO and PPC are used with the aim of the web sites visit rate increasing. It results in the increasing of competitive advantage. Both methods increase the conversion ratio, market share, and decrements spending on the customer.

SEO, as well as PPC, has an irreplaceable place in internet marketing. SEO ensures fixed attractive costs. If we want high conformability, it is more suitable to use PPC. The most suitable way is to use a combination of both methods. SEO should supply a standard stage and guard the main web subject. PPC is suitable to use for action or time-limited offers, for the start of new project, and so on.

Many firms deal with SEO and offer a lot of services. Every web site's developers and businessman or firms operating e-shop web sites should consider investment to SEO or PPC and return on investments.

### Conclusion

Nowadays e-business and e-commerce are important for entrepreneurial environment. E-shops' profit increases every year. If we want an e-shop to be successful, it has to be developed with the support of the most up-to-date web technologies and the fundamental conditions of internet shop realization have to be kept. One of the fundamental conditions of e-shops effectiveness is the need for e-shops to be displayed in

one of the first positions on the internet search engine after the user request. Many research results show a dependence between the presentation of web sites in one of the first places in internet search engine and the number of conversions from users to customers. We are able to use SEO and PPC. Every internet search engine uses special web sites algorithms for sorting, but these algorithms are usually a secret. By experiences and testing we can define many common conditions of successful SEOs. All conditions of efficient SEOs as are remarked in this article, are common conditions for every internet search engine. Because of the total number of individual internet search engines users, it is best to optimize e-shop web sites for [seznam.cz](http://seznam.cz) and [google.cz](http://google.cz). E-shop development and SEO demand some entering capital investments. Investments have to be returned.

### References

- [1] BOSWELL, W. What is a search engine [online]. About.com, 2009. [cit. 20.7.2009]. Available from: <http://websearch.about.com/od/enginesanddirectories/a/searchengine.htm>.
- [2] GRAPPONE, J., COUZIN, G. *Search Engine Optimization: An Hour a Day*. Sybex, 2008. 384 p. ISBN 978-0470226643.
- [3] JACKSON, P. *eBusiness Fundamentals (Routledge Textbooks Inebusiness) (Hardcover)*. London: Routledge, 2003. 224 p. ISBN 978-0415255943.
- [4] KING, A. *Website Optimization: Speed, Search Engine & Conversion Rate Secrets*. 1. Edition. O'Reilly Media, Inc., 2008. 394 p. ISBN 978-0596515089.
- [5] KORANDA, P. SEO - optimalizace pro vyhledávače [online]. *PeakPointNet*, 2009. [cit. 25.7.2009]. Available from: <http://www.peakpointnet.cz/cz/piseme/clanky/seo-optimalizace-pro-vyhledavace>.
- [6] LEDFORD, J. *SEO: Search Engine Optimization Bible*. Wiley, 2009. 528 p. ISBN 978-0470452646.
- [7] MA, M., WILKES-GIBBS, D., KAPLAN, A. IDTV broadcast applications for a handheld device. Communications, 2004. *IEEE International Conference on Volume 1*, Issue, 20-24 June 2004 Page(s): 85 - 89 Vol. 1
- [8] RANA, N. e-Marketing Intelligence - *Transforming Brand and Increasing Sales - Tips and*

*Tricks with Best Practices*. Self-Help Publishers, 2009. 332 p. ISBN 978-0981163802.

[9] RAYNOLDS, J. *The Complete E-Commerce Book: Design, Build and Maintain a Successful Web-Based Business*. San Francisco: CMP Books, 2004. 359 p. ISBN 978-1578203123.

[10] SEO LAB. *Zásady SEO - optimalizace webových stránek pro vyhledávače*. SEO LAB, 2009. [cit. 25.7.2009]. Available from: < <http://www.seolab.cz/seo/>>.

[11] SCHERMAN, CH. A New F-Word for Google Search Results [online]. Search Engine Watch. March 8, 2005. [cit. 15.7.2009]. Available from: <<http://searchenginewatch.com/showPage.html?page=3488076>>.

[12] SCHILLER, J., VOISARD, A. *Location-based services*. Morgan Kaufmann, 2004. 255 p. ISBN 978-1558609297.

[13] SUCHÁNEK, P. E-business Development Key Areas. In *5-th International Symposium on Business Administration*. Çanakale: Çanakale Onsekiz Mart University, 2008. s. 537-543. ISBN 978-975-8100-78-1.

[14] VINEY, D. *Get to the Top on Google: Tips and Techniques to Get Your Site to the Top of the Search Engine Rankings and Stay There*. Nicholas Brealey Publishing, 2008. 240 p. ISBN 978-1857885026.

[15] WEBOPEDIA. Search engine. [cit. 12. 2. 2009]. Available from: <[http://www.webopedia.com/TERM/s/search\\_engine.html](http://www.webopedia.com/TERM/s/search_engine.html)>.

**Mgr. Petr Suchánek, Ph.D.**

Slezská univerzita v Opavě  
Obchodně podnikatelská fakulta v Karviné  
Katedra informatiky  
suchanek@opf.slu.cz

Doručeno redakci: 26. 3. 2009

Recenzováno: 27. 4. 2009; 3. 5. 2009; 12. 5. 2009

Schváleno k publikování: 12. 4. 2010

**ABSTRACT****THE FUNDAMENTALS OF A PROSPEROUS E-SHOP IN CONNECTION TO SEARCH ENGINE OPTIMIZATION****Petr Suchánek**

*Electronic business (e-business) is burgeoning area. E-business presents alternatives having amongst and significantly supports profitability and competitive advantage production and business subjects. E-shops are one of extension of e-business. There are millions of e-shop web pages on the internet. If we want e-shop to be successful, it has to be seen in one of the first positions on the internet search engines. This can be achieved with the support of search engine optimization (SEO). SEO deals with the localization and searching of individual web sites. The principal aim of every shop is to obtain many customers. Customer of e-shop is user who visited a web site and placed an order. Research results show a dependence between the presentation of web sites in one of the first positions on the internet search engine and the count of conversions from users to customers. The principle aim of this article is the endeavor to confront the most often used internet search engines in the Czech Republic in connection to the searching of e-shop web sites. Source information of research were percentage of the most often used internet search engines and the most often purchased products in e-shops in the Czech Republic. We wanted to know the count of the same links found in the first ten positions on the internet search engines. For the purpose of research, we found 40 links for every keyword (these were always the first ten on every internet search engine). There were 320 links in total. For purpose of research, seznam.cz, google.cz, atlas.cz and centrum.cz were used. All of the basic research results are described in the article. This research was done individually and some of its outputs will be used for an inaugural dissertation.*

**Key Words:** e-business, e-commerce, e-shop, internet search engine, search engine optimization.

**JEL Classification:** M29, M30, M39.