

Urszula Garczarek-Bąk

Poznań University of Economics and Business, Faculty of Management,
Department of Market Research and Services Management
urszula.garczarek@ue.poznan.pl

**TRENDS IN WEBSITE DEVELOPMENT
BASED ON THE CHOSEN
FUNCTIONALITIES IN QUALITATIVE
ASPECT**

Abstract: The aim of this paper is to examine the essential features of every good business website. This article presents the ways of improving both the efficiency of website and the performance of the system. The methodology is based on literature research and Internet resources, since those are the most up to date information sources about new trends in web page development. The key elements of a high quality website (including site characteristics) and crucial information that indicates the quality of the content were analyzed. Particular attention was devoted to the trends driving the future of websites that could result in significant image improvement without high expense. Most websites have flaws for a number of reasons, not only related to the limitation of resources, but also due to the ignorance or inattention of webmasters, so the website quality aspects in relation to new trends, identified in this paper, can be used as insights for the improvement of web pages' quality.

Keywords: website quality, usability, functionality, content, design.

JEL classification: M15, M39.

TRENDY W TWORZENIE STRON WWW NA PODSTAWIE WYBRANEJ FUNKCJONALNOŚCI W ASPEKCIE JAKOŚCI

Streszczenie: Celem artykułu jest ukazanie głównych cech, którymi powinna się charakteryzować biznesowa strona internetowa. W artykule zaprezentowano metody umożliwiające poprawę zarówno jakości użytkowania strony internetowej, jak i wydajności systemu informatycznego. Metodologia badawcza została oparta na studiach literaturowych oraz źródłach internetowych, jako że jest to najbardziej aktualny zbiór informacji dotyczących trendów w rozwoju stron www. Analizie poddane zostały kluczowe elementy dobrej jakościowo strony internetowej (z uwzględnieniem jej charakterystyk) oraz niezbędne informacje, które świadczą o wysokiej jakości treści na niej zamieszczonej. Szczególną uwagę poświęcono trendom, które w przyszłości mogą skutkować znaczną poprawą jakości wizerunku firmy, bez ponoszenia wysokich wydatków. Większość stron posiada usterki wynikające z wielu różnych przyczyn powiązanych nie tylko z ograniczeniami budżetowymi, ale także z ignorancją bądź nieuwagą administratorów. Zaprezentowane w artykule aspekty jakościowe w nawiązaniu do nowych trendów mogą służyć jako wskazówki służące poprawie jakości stron internetowych.

Słowa kluczowe: jakość serwisu, użyteczność, funkcjonalność, zawartość i wygląd stron internetowych.

Introduction

On the basis of the development of technology (both hardware and software facilities), not only has the Internet become an essential part of our lives, but also a part of business activity. According to Hasan and Abuelrub [2011, p. 11], this progress offers new opportunities and wider perspectives on all aspects of business, enabling one to find and satisfy customer needs. Baltzan [2014] emphasizes that one of the greatest benefits of the Internet is its ability to allow any organization to do business without significant time involved. Introducing products and services on the web pages, where customers can easily and quickly gather information, enables firms and organizations to reach a wide customer base in order to maximize their benefits. As Fan and Tsai [2010] have stressed, a well designed user interface can have a positive effect on a customer, who will use the friendly website again and again.

The main purpose of this paper is to emphasize the importance of quantitative evaluation of websites. Currently, in terms of fast IT development, it is essential for companies conducting business on the Internet to understand that it is not only about buying and selling goods, but also serving customers and collaborating with partners. It means that e-business websites must create a buzz, add value, be innovative and, what has often been forgotten, provide useful information. In a nutshell, the site has to build a sense of community, ultimately becoming “the port of entry for business” [Baltzan, p. 65].

1. Internet users

It is important to understand the characteristics that can affect the effectiveness of online investment. Generally, an unattractive or poorly designed website will do more harm than good. As around 40% of the world's population today has Internet access, companies must be prepared to attract their attention using modern technology. In comparison, two decades ago, the number of users was less than 1%. Only between 1999 and 2013 did the number of Internet users increase tenfold. The third billion of global users was reached in 2014. At the moment (15 April 2015), the number of Internet users in the world amounts to 3,104,751,319. You can track Internet users in real time via <http://www.internetlivestats.com/watch/internet-users/>. The country users' overview is listed in Table 1. Poland, with a share of world Internet users below 1%, comes last in this short list (complete collation includes 198 countries). In 2014, nearly 75% of all internet users in the world lived in the top 20 countries. The remaining 25% was distributed among the other countries (each representing less than 1% of total users). Worth mentioning is that China, the country with most users, represents nearly 22% of the total, and has more users than the next three countries combined (US, India, and Japan). It should be also underlined that among the top 20 countries, only India has a really low penetration of 19%. At the opposite end of the range are countries where over 80% (US, Japan, Germany, UK, France) and over 90% (South Korea and Canada) of the population has an internet connection. Internet dissemination seems quite good, close to 70% (with 2% growth a year, which was a rather slow rise; while in Russia it was a 10% growth, in Asia 10%, and in the US, 7%). Thus, the Internet seems to be effectively making its way into the market.

Table 1. Internet users^a by country in 2014

Rank	Country	Internet users	Total country population	Dissemination (% of pop. with Internet)	Country's share of world Internet users
1	China	641,601,070	1,393,783,836	46.03%	21.97%
2	United States	279,834,232	322,583,006	86.75%	9.58%
3	India	243,198,922	1,267,401,849	19.19%	8.33%
4	Japan	109,252,912	126,999,808	86.03%	3.74%
5	Brazil	107,822,831	202,033,670	53.37%	3.69%
6	Russia	84,437,793	142,467,651	59.27%	2.89%
7	Germany	71,727,551	82,652,256	86.78%	2.46%
8	Nigeria	67,101,452	178,516,904	37.59%	2.30%
9	United Kingdom	57,075,826	63,489,234	89.90%	1.95%
10	France	55,429,382	64,641,279	85.75%	1.90%
11	Mexico	50,923,060	123,799,215	41.13%	1.74%
12	South Korea	45,314,248	49,512,026	91.52%	1.55%
13	Indonesia	42,258,824	252,812,245	16.72%	1.45%
14	Egypt	40,311,562	83,386,739	48.34%	1.38%
15	Vietnam	39,772,424	92,547,959	42.97%	1.36%
16	Philippines	39,470,845	100,096,496	39.43%	1.35%
17	Italy	36,593,969	61,070,224	59.92%	1.25%
18	Turkey	35,358,888	75,837,020	46.62%	1.21%
19	Spain	35,010,273	47,066,402	74.38%	1.20%
20	Canada	33,000,381	35,524,732	92.89%	1.13%
21	Poland	25,666,238	38,220,543	67.15%	0.88%

^a An Internet user is defined as an individual who has access to the Internet at home, via computer or mobile device.

Source: Personal insights based on: [www.internetlivestats.com access: 11.04.2015].

2. Web site quality

Quality aspects of web pages are widely discussed in the research literature. Moreover, many studies evaluating quality of a website provide empirical evidence that both users and designers consider quality to be a multi-dimensional construct [Kim and Stoel 2004].

Thus, webmasters and designers must definitely focus on users' needs and requirements. It is the only way to facilitate large user experiences on the Internet [Lindgaard *et al.* 2006]. If you look at the factors perceived by webmasters as critical 15 years ago – service quality, system usage, playfulness and quality of system design – you will notice that quality significantly contributed to site development. These four aspects are important in order to realize how people interact with sites, what their motivation to do this is, how they use the Web, and to grasp the outcome of diverse activities and interactions [Liu and Arnett 2000].

It is important to underline that while usability and user experience are securely defined and studied, there are fewer studies on webmasters' perceptions, experiences, and explanations on website quality. There is no doubt that the design quality of a webpage is based on many characteristics and it is quite difficult to improve its quality due to its complex nature reliant on human expectations [Lee and Koubek 2010] and due to the fact that website design quality appraisal includes a combination of quantitative and qualitative factors that may affect the supposed design quality (from the customer's viewpoint) [Cocquebert, Trentesaux, and Tahon 2010].

Research considering the perceived design quality of web pages was conducted. The majority of research is about one or two characteristics. Definitely fewer of them use multiple attribute techniques. However, it is important to consider all characteristics at once, including occurring interactions among design characteristics (which are still being ignored).

Apart from the design aspect, it is also worthwhile to assess some other requirements. In my view, consistent with Sørum, Norman Anders, and Chemmensen [2013], website quality consists mainly of content, categorization of information, updates, downloading time and effective navigation. However, I do not examine Tan's, Tung's, and Xu's [2009, p. 156] categories, such as: "[...] colors, font style and size, mix of text and graphical information and sort, shape, size and placement of links," which are less important in case of quality components. As per Barnes and Vidgen [2005], quality aspects can be categorized into five aspects: design, information, trust, empathy and usability. I found strong support for the importance of all of these categories.

3. Key elements of a high quality web site

It is important to stress the webmaster's role in the process of designing the web to achieve usability and introducing the design required by an or-

dering company. The significance of website usability is apparent, as a usable web page creates not only a positive attitude toward online stores or increases revisiting rates to company sites, but also provides benefits to e-business by reducing maintenance and support costs [Green and Pearson 2006]. There is an international standard ISO 9241-11 that defines usability as: “The extent to which a product can be used by specified user’s to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.” So, usability means designing systems that are easy to use and can be matched to user needs. It is about effectiveness (in completing tasks), efficiency (required users’ effort to cover their needs) and satisfaction (users’ final opinions). Nevertheless, usability should not be confused with functionality, as functionality is merely associated with functions and features of the site and does not affect whether users use them or not.

In general, good websites have several traits in common. To start with, they must be easy to use, navigate and understand. Then, it is significant to provide direct, efficient information that is relevant to users’ queries. Another matter is the delivery of high quality, engagement and credibility of content and professional design (provided for modern browsers) [Chua 2014]. Fast page loading speed is also a characteristic of a high quality web page. There are many methods to assess a web page. It is worth to enumerate following: loading time, popularity, byte size, diversity of graphic elements and finally user satisfaction. Generally speaking, a good descriptive label for webpage quality should be specific, quantifiable and inexpensive in measurement. To sum up, the main quality characteristics include usability, functionality, reliability, efficiency, portability and maintainability, on which I will elaborate later.

4. Web content

In particular, the nature of Web applications is a combination of information content, functionalities, and services. In 1996, Bill Gates wrote the essay “Content Is King,” explaining that content is where people expect much of the real money will be made on the Internet, meaning that content is the success factor of any website. Similarly, Nielsen emphasizes: “Ultimately, users visit your Web site for its contents. Everything else is just the backdrop. [...] Content is number one” [Stein 2003, p. 144]. Usability studies indicate an explicit content focus among users. While testing a new webpage, people look immediately at the main content area and scan it for headlines

and other indicators of what the site is about and decide whether it is worth staying on it or not.

Thinking about the process of preparation of high quality content, the main issue is how to specify and measure this aspect. Olsina, Covella, and Rossi [2006, pp. 107–130] have identified four major sub-concepts for the content characteristics. Considering the following categories, it is possible to evaluate information quality requirements:

- Information accuracy, which is the extent to which information is correct, credible, unbiased, unambiguous,
- Information suitability, associated with consumers’ goals and tasks; content must be considered within the context of use; information must be appropriate, complete, concise and current,
- Accessibility, the technical aspects of websites or applications must be accessible to users with disabilities,
- Legal compliance, in which published information must adhere to standards and legal norms.

Table 2. Essential information that indicates the quality content of every business page

Quality content
• Domain name representative of business name, • URL (Uniform Resource Locator) should be easy to remember and spell, • Complete contact and postal details (including postal code, dialing code, etc.), • Possibility to speak to a real person (contact and visit details), • Links to its presence on social media websites, • Photos/graphics/videos placed on the web in high quality, • There is no redundant / duplicate content, • Visible release or last update date, • Website provides substantial value when compared to the competition, • A fair balance between content and ads and ads should be clearly distinguishable from the content

Source: Personal insights based on: [www.seomark.co.uk, access: 13.04.2015].

Moreover, the content should be unique (both within the site itself and comparing to the competition) and cannot contain spelling or grammar mistakes. It is good to use small paragraphs to make reading easier, and add images, infographics or short movies to make content more appealing. Nowadays, it is not unusual to find advertisements or promotions on a webpage, but these should not distract users from finding the needed information quickly. The key to creating a great website is to assure people

that they can find it useful and unique (that they may come back again or link content on their own websites). It is vital to verify if the content is useful and informative, more valuable and useful than other sites, credible and engaging. The list of things that can make visitors not trust a site (or even leave it) includes primarily errors (such as broken links or wrong information), grammar or spelling mistakes and, the most irritating, excessive amount of ads and spam. The most important aspects necessary for every business site are listed in Table 2.

There are many ways to check if a company website has low-quality content. The best place to start is to look through website analytics software. You can use a free tool, for example, Google Analytics, to review your own and customer webpages. Viewing the Top content report gives helpful information to improve the site by rewriting page's content. What is more, by looking at the pages with a very low average time spent on it or a high exit rate of visitors, you can try to identify the problems those pages face.

5. High quality web site characteristics

It is necessary to understand that although a website with good content may be of some quality, this factor is not enough to determine that. Content is one of the most important aspects that separate low quality websites from high quality ones; however, it must be accompanied by other determinants.

These characteristics can make or break the effectiveness of online investment, because an unattractive or poorly built site will cause more hurt than benefit. The most effective website will reflect best practices across all of these elements. In this article, there are two general components involved in making a website successful. A critical, but frequently overlooked trait is the degree of usability. Generally, a business website must be easy to read, navigate, and understand. Key usability elements include simplicity (in terms of valuable content, good organization and attractive design), fast-loading and being pleasant to use. As mentioned, avoiding errors is really important when it comes to making a good impression on the user. Every component should work quickly and correctly, because broken or poorly constructed components will leave visitors frustrated.

Website functionality is defined by the ease with which a viewer can navigate through the site and obtain the information they are seeking. There is a saying that a website without functionality is a one-way street. Since the Internet is designed to allow more than one channel of com-

munication, it is pointless to have a website that does not provide some form of visitor interactivity. Across the spectrum, everything should work as expected, including hyperlinks, contact forms, site search, event registration, and so on. A good website should be easy to navigate (and easy to find/look up/search), have a clear indication of where the user is, work on multiple browsers, and include often-updated content. A professional-looking website with interesting content that is easy to navigate and can be found in search engines is sure to bring value to your business. In Table 3, the basic ingredients of a successful website are explained. It is worthwhile to know them, because missing an ingredient can result in a poor aftertaste for website visitors.

Table 3. Web site usability and functionality dimensions and definitions

Usability	
Effectiveness – the completeness and accuracy at which users achieve appointed goals	– Users task are fully and successfully completed – Users goals were met
Efficiency – the website loads fast (in less than 3 seconds)	Users completed the task quickly and without much effort
Level of engagement – using pleasant, interesting, satisfying interface	– Pleasant experience while working on the task – User is satisfied with the way in which the website supported the task
Error tolerance – avoiding errors and being able to help the user to recover from any unexpected situation	– Preventing from: Server configuration, content issues, blocked links, page limits, used defined errors, HTTP status codes, IETF RFCs, script errors – The user interface helped people avoid making errors
Ease of learning – website supports initial orientation and further learning	– The organization of website was predictable – Web site is user friendly – After learning how to use one part of the website, the user can easily use another part
Functionality	
Accessibility/compatibility – mobile and tablet users can access the website without any problems	Versions for non PC users: Android, Blackberry, Chrome, Internet Explorer, Firefox, Opera, Safari, Netscape, iPhone/iPad
Easy to navigate	– If visitors find it difficult to navigate from one page to another, they get frustrated and leave the website – Convincing them to come back and visit the site will be extremely difficult
Optimization for search engines	Has many benefits, but it is important not to overdo it

Table 3 – cont.

Search options	Webpages offer both simple and advanced search strategies and enable additional eliminations of retrieved results
Updating content on a regular basis	If content is not updated often, visitors of the website have no reason to visit the site regularly, because the real factor that drives a website towards becoming successful is the content
Social media promotion	It is expected that a good product have good reviews, Facebook likes, and Tweets
User interaction	Users interact with the content by adding comments, making suggestions, and getting into conversations
Layout consistency	It is essential to follow a certain layout in order to maintain a theme and uniformity
Security – having the SSL encrypted pages if dealing with monetary transactions	Monetary transactions done through SSL encrypted pages that interface directly in real-time with our payment gateways ensure that they do not retain any personal or credit card information
Services	The purposive services or facilities were offered to assist the customer in achieving the related goal of the site
Customizability	The flexibility to change website navigation to a level that meets users' needs

Source: [Green and Pearson 2006, p. 69; Calisir *et al.* 2010; web.clubrunner.ca, access: 18.04.2015].

6. User interface design

The last key element of an effective website is the design. The design quality of a website is known to have a positive impact on user attention, so it is crucial to remember that a website must be visually appealing, polished, balanced and professional. In many cases, the website is the first and sometimes the only impression of a company that a potential customer receives. Good design guidelines are as follows [<http://www.spritzweb.com>]:

- Proper use of color – an appropriate color scheme contains 2 or 3 primary colors which create a proper mood for business. If you overuse the color, you can distract readers from the written content.
- Easy to read text – the most popular and easily read combination is a black text on a white background. However, many other combinations are acceptable if there is a contrast within a proper range. However, the

font size is what really matters. Use fonts that are easy to read and can be found on every valid computer system. Be aware that some different characters are used in specific countries and it is worth using universal fonts to make sure that information can be read by foreigners. The recommended font size for text is between 10 and 12 pts; for headings, use a slightly bigger one.

- **Specific graphics** – posting them is valuable if they create visual variety, but they must be linked with the content (otherwise they will represent a boring page of text). One should realize how important quality photography is when it comes to increasing visual appeal. Regardless of the business the company conducts via the Internet, high quality product images or videos are important for online transactions. Last but not least, keeping the site simple and allowing for some white space means that your page has an uncluttered layout and users can focus on your message. Moderation in posting complex design, animation or other effects is required in order to not overwhelm viewers.

7. Trends driving the future of websites

Although the development of Internet technology is extremely dynamic, and thus difficult to predict, we can observe some trends that prognosticate further development in the coming years. Many trends emerging in the web design realm pay more attention to creating less complicated and more sophisticated designs. Twelve of the most popular coming trends are presented, in order, from design to usability and functionality.

1. **Richer backgrounds on web sites** – give a big opportunity to attract visitors' attention, as one good picture is worth a thousand words. Nowadays, there is an ongoing tendency to use large, high quality graphics, photos or videos. It is also worth emphasizing that there is a possibility to make backgrounds more than just static images, which opens a new world of potential design. Increasingly, companies embed fully responsive HD videos in the background, as the central point in the overall design strategy of a web page. That will become a truly captivating medium not only by creating an adequate atmosphere, but also helping to forward the brand message to potential customers. In this area, two different ways of using colors are predicted. Firstly, monochromatic design is becoming more and more popular. Designers tend to choose one vibrant color and various shades thereof, and then offset it against a neu-

tral background, which creates an elegant looking interface. Another method, called hypercolour, uses the whole rainbow, so although this multicolored approach can be garish or distracting for some, it seems to work particularly with flat design [www.webdesignerdepot.com].

2. **Considering flat design** – with this kind of design, a website makes it even and smooth for visitors to search for the information they need. This can be possible by minimizing the elements of design, because users appreciate its simplicity and intuitiveness [www.business2community.com]. Flat design continues to prosper, as it keeps the website clear, fast, and content focused, with minimal, no-frills everywhere [www.siteforbiz.com]. Moreover, flat design is perfect for mobile devices, providing an intangible page structure. As search giant Google revealed by adopting **material design** as their new directive, the concept adheres to principles of flat design and the final result is homage to real-life material, reminiscent of paper and ink [www.torquemag.io].
3. **Card based design** – as content needs to fit on different screen sizes, preparing a card-based design will make it easier to work across platforms. A card design is a good way to keep things modular, clean, and simple without versatility. Some sources also call it the grid design. However, both names refer to a popular style typically used on sites that need large content lists, for instance social media feeds, online magazines or photo galleries [www.webdesignledger.com]. Experts predict that it will gain more importance in the coming years, as it can become a standard practice for organizing information on the website. However, it is not just about the visual site; card design is also very functional due to the fact that it enables one to unclutter the layout. Furthermore, it can prompt users to perform sharing, liking, pinning or purchasing a product [www.classesforwebdesign.com].
4. **Big and bold typography and less text** – a new trend, large visual headers will continue as the preferred choice for many designers. Nowadays, typography is a focal point on websites. As designers create more and more clear sites, large fonts can be eye-catching and user friendly, because they give users instant confirmation that they found the content they were looking for. Oversized headlines work, and they have a great impact on the visitor [www.designmodo.com]. Similarly, reducing the amount of text will be useful. Presently, websites are becoming less text-heavy. Moreover, some applications and web pages have almost no visible text, and only by clicking proper images or icons can you convey information to the user. When a homepage contains fewer words, the

user is vulnerable to read the content and this makes it more understandable.

5. **Animated content** – there will be more interaction than ever. Designers in the age of Big Data are still looking for ways to collect and present data that will be attractive to users. For example, by posting infographics or other data visualization in an interactive form, it can provide more information than a simple text and will be more enjoyable and memorable so it can have an impact on visitor's emotional involvement and the time spend on browsing that site [www.econsultancy.com].
6. **Responsive storytelling** – one of the most meaningful ways to connect and communicate with web site users recently. As mobile and social technologies reach critical mass, one of the biggest shifts in marketing communications is telling authentic stories about brands and their consumers. These informative news stories, driven by the transparency of a socially-connected world, are supposed to generate traffic on sites. This strategic change was driven by modifying consumer behavior requirements (including their ability to engage) and improve data analytics [www.bizcommunity.com]. So, knowing buyers' needs and crafting the entire web page experience will be useful to tell a story about business in a way they can relate to [www.edelman.com].
7. **Split screens** – this interesting trend is the layout, in which some kind of vertical break divides portions of the site into two or more parts. It is recommended that companies have two valuable products or services they want to promote. In this case, a company gives the prominence to multiple items, instead of ranking them in a particular order. In a mastered split-screen design on the left side, the company explains its services, whereas on the right one, they link users to samples of their work [www.huffingtonpost.com].
8. **Scrolling over clicking** – a trend becoming more popular, because scrolling through webpages is much quicker, so it helps to convey a mass of information. Moreover, it is a non-committal action that does not require any thought. With the increase in use of mobile phones or tablets to surf the web, users have become accustomed to scrolling, because it is more intuitive and cuts down on load time. However, scrolling through a website which contains all the information about a company, products or services on one page can have a potential impact on SEO. On the other hand, one page of proper implemented navigation menus that use drop-down cards can offer an elegant and effective interface. When it comes to websites whose pur-

pose is interactive storytelling, scrolling is the perfect solution [www.americanexpress.com].

9. **Parallax scrolling** – referred to by designers as the hottest technique in web design. Although it can backfire if overused because of being overwhelming, it is now a great trend that provides a nice, subtle element of depth. It is good to know that with new technologies like HTML5 and CSS3, it is becoming possible to create more advanced and remarkable effects in the browser. This type of scrolling mesmerizes the user, who expects to see a highly innovative, narrative-driven website. In this technique, the background images move slower than foreground images, which create an illusion of depth in a 2D scene, so the website seems to be remarkable and memorable [www.creativebloq.com]. **Modular scrolling** is also worth mentioning; it takes place when it is possible to scroll individual columns, as well as whole pages.
10. **Hidden menus** (sometimes called **hamburger menus** because of the icon most often used to represent them) have increased in popularity. The trend toward greater simplicity is to hide navigation off-screen until the visitor interacts with an element towards the top right (or left) of the screen, so the menu is only revealed when needed. But there is anxiety with incomprehension of the hamburger menu meaning, so there can be a subtle change in it, as retailers can use the icon and the word “menu” in tandem [www.practicalecommerce.com].
11. **Ghost buttons** (called also empty, naked or hollow) are designed to be semi-transparent or even empty by default. They have a recognizable shape and borders with a very thin line, designed not to distract viewers but to attract their attention in a very subtle way. This style follows in the footsteps of highlighted flat user interface design, where buttons use a single color background with a seemingly 2D appearance. Minimal, stylish ghost buttons with the subtle hover animation are delightful to use and add a touch of elegance to the website, and are well-paired with large background images or videos [www.webdesignledger.com; www.sitepoint.com].
12. **Optimizing mobile web design** is important to make applications that fit across various devices and platforms, so that users can comfortably navigate them. Considering the affordable price of smartphones, it is possible to open new opportunities for marketing and commerce, especially in emerging markets where many consumers previously had no Internet access. Meanwhile, in mature markets, smartphones are rapidly shifting the paradigm for consumer media usage by revealing

the need for marketers to be more mobile-centric. According to new figures from eMarketer (see Figure 1), the number of smartphone users worldwide will surpass 2 billion in 2016, and will be over one-third of consumers worldwide in 2018 (figures also represent over half of all mobile phone users globally) [www.emarketer.com]. In comparison, in 2014, Poland ranked 24th place in smartphone users, about 12.7 million, and it is estimated that in 2016, it will be 17.4 million (and above 20 in 2018). Thus, just because a website can be viewed on a mobile device does not make it mobile-friendly. Designers must adopt a responsive approach towards websites, because it is no longer a “nice-to-have,” but a must. Therefore, if companies want to gain leading and customers from their websites, they must be optimized for mobile devices [www.business2community.com].

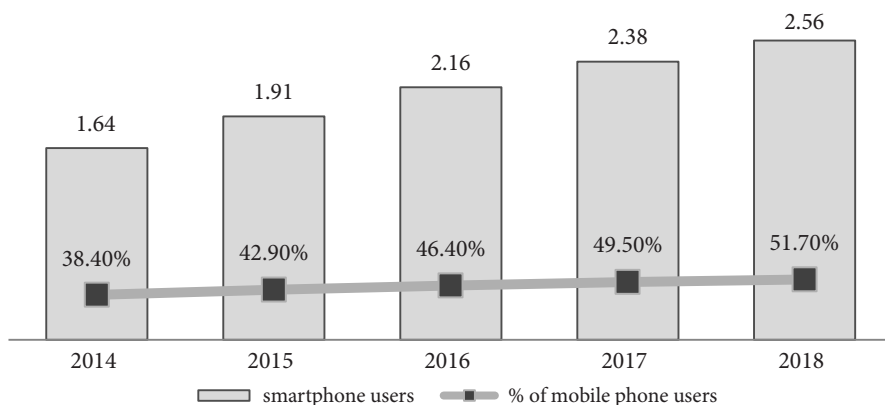


Figure 1. Smartphone users and Worldwide dissemination, 2014–2018 (billions, % of mobile users)

Source: Personal insights based on: [www.e.marketer.com, access: 22.04.2015]

8. A piece of advice – to check list

As presented, to succeed online in the long term, a company needs to have a high quality website. The content quality is really an important factor, and it is considered a driving force in the process of influencing users to return to a website. However, usability and functionality are other crucial dimensions of a broader concept which enable users to acquaint themselves with posted information. There are many other hints to improve the quality of

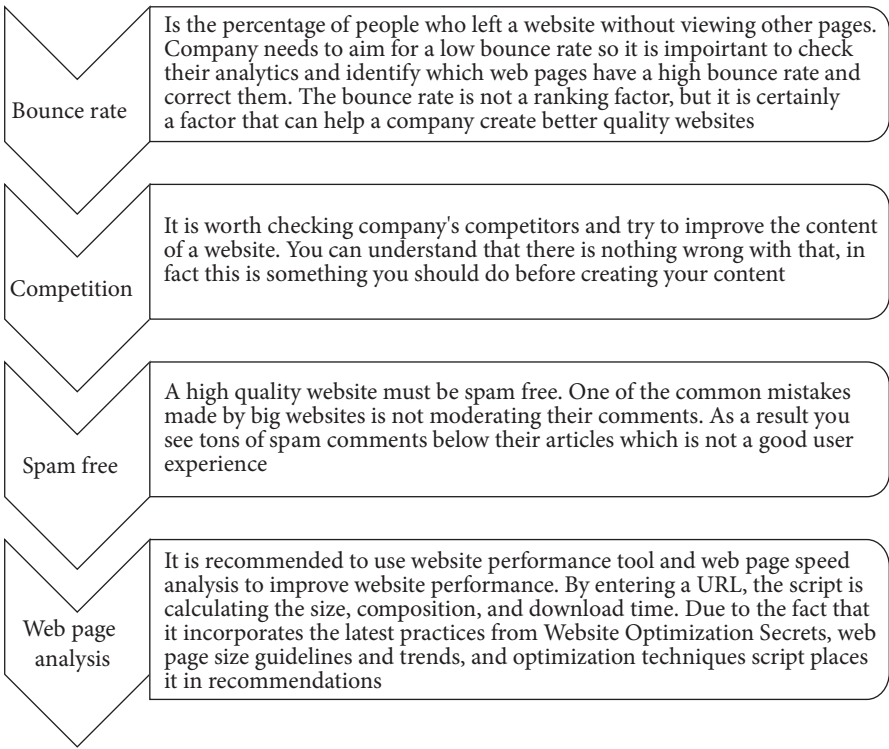


Figure 2. A high quality web site performance measure

Source: Personal insights based on: [www.websiteoptimization.com; www.reliablesoft.net access: 21.04.2015]

a website. The check list of the measures that a company primarily needs to monitor is presented below.

Last but not least, it is worth finding out what are the most popular webpages among users. This is the best way to perceive new, interesting trends that are used on such sites and to decide whether to apply them when rebuilding or updating the website. The ten top sites in Poland, compared to the global sites, are ordered by their month traffic rank in table 4 prepared by Alexa, a subsidiary company of Amazon.com which provides commercial web traffic data. Its ranking sites are based mainly on tracking a sample set of internet traffic. Global traffic rank is a measure of how a website is doing against all other sites on the web over the past 3 months. So, the rank is calculated using a methodology that combines a site's estimated average of daily unique visitors and its estimated number of page

views over the last three months. In comparison, the collation of ten top sites in Poland generated by another measuring online behavior worldwide company – similarweb.com – shows almost the same web pages (instead of gazeta.pl there was interia.pl), but their order was only slightly different.

In the ultra-competitive world of the Internet, many websites have come and gone over the years. But there are some that have taken hold of the public's imagination. The most popular websites across the world (and also in Poland) are:

- **Google.com**, which enables users to search the world's information, including webpages, images, and videos,
- **Youtube.com**, which is a way to get your videos to the people who matter to you,
- **Facebook.com**, a social utility that connects people, to keep up with friends, upload photos, share links and so on: [www.alex.com, access: 24.04.2015].

It is good to know that some of the world's most popular websites include some names you have probably never heard before: Baidu, Tencent or Yandex. These are the most popular websites in places like China, Belarus and Russia (because of the huge population, popular websites in these countries are also very popular in the global ranking).

Table 4. Ten top sites in Poland and across the world

No.	Top sites in Poland	Top sites on the web
1	Google.pl	Google.com
2	Facebook.com	Facebook.com
3	Google.com	Youtube.com
4	Allegro.pl	Baidu.com
5	Onet.pl	Yahoo.com
6	Youtube.com	Wikipedia.org
7	Wp.pl	Amazon.com
8	Wikipedia.org	Twitter.com
9	Olx.pl	Taobao.com
10	Gazeta.pl	Qq.com

Sources: Author's Compilation based on: [http://www.alex.com/topsites, access: 24.04.2015].

It is interesting that the list of the top ten most-visited websites in the world has remained virtually unchanged for quite a while now. Critical in keeping these websites on top is the ability to anticipate future changes in

the industry (and reacting quickly to them). The most successful websites stand out from the crowd. There are a number of factors that can make a website stand out: better design, high quality articles, a blog, a newsletter, some type of resource or tool. It is good practice to find something that would be appealing to the specific target market.

Moreover, there is an opportunity to obtain a similar country-specific ranking that can give the company a measurement of how a website ranks in a given country relative to other sites over the last month. Benchmarking a company website can give useful information that helps winning audience and mindshare over their closest competitors. Analytics transform data into significant insights that lead to an advantage over the competition. Basic analytics include inter alia, historical traffic trends, traffic metrics, engagement metrics, reputation metrics and traffic sources.

Conclusions

In this paper, a few general components involved in the process of making a successful website were considered. The importance of quality is apparent. In general, usability and functionality are the crucial factors in commercial website success that play a key role in gaining and sustaining the trust of visitors. But without proper content, adjusted to the reader's knowledge and interests, it is not possible to talk of a quality website.

Nowadays, companies' websites contain numerous problems, such as poor quality design, difficulty in navigation, broken links, lack of clear and transparent communication, browser incompatibility, and lack of a mobile version. Another problematic issue is the poor readability. Using non-contrasting or high contrasting colors, non-specific page titles and too small fonts, can make text difficult to read. A further problem is the overuse of text or of ads. The last major problem is not providing a search option. Many people know exactly what they are seeking and do not want to waste their time learning the website's navigation structure, so they start looking for a search box as they open the page.

Understanding the importance of website quality and providing some references for designers concerning site-quality aspects may lead to the prioritization and focus on aspects that will satisfy both professionals' aspirations and final users' needs. The presented quality requirements and oncoming trends may be useful insights in the process of improving and developing the website in terms of quality. At present, there are many meth-

ods available for business website comparison or ranking and it is good to use metrics that offer specific and quantifiable information. Such evaluation research is necessary not only to monitor a website, but also to draw conclusions that will allow a company to gain an advantage over the competition and finally to satisfy customers and even win their loyalty.

References

- An Index System for Quality Synthesis Evaluation of BtoC Business Website, <http://aye.comp.nus.edu.sg/~forecite/services/omnipage/thang/pdf/33.pdf>.
- Baltzan, P., University of Denver Business Driven Information Systems, http://highered.mheducation.com/sites/0073376892/information_center_view0/about_the_authors.html.
- Barnes, S., Vidgen, R., 2005, *Data Triangulation in Action: Using Comment Analysis to Refine Web Quality Metrics*, Proceedings of the 13th European Conference on Information Systems (ECIS 2005), Regensburg, Germany.
- Calisir, F., Elvan Bayraktaroğlu, A., Gumussoy, C.A., İlker Topcu, Y., Mutlu, T., 2010, *The Relative Importance of Usability and Functionality Factors for Online Auction and Shopping Web Sites*, Online Information Review, vol. 34, iss. 3, pp. 420–439.
- Chua, J., 2014, *The Beginners Guide to SEO*, <http://wordpress.glumace.com/wp-content/uploads/2014/10/SEO.pdf>.
- Cocquebert, E., Trentesaux, D., Tahon, C., 2010, *WISDOM: A Website Design Method Based on Reusing Design and Software Solutions*, Information and Software Technology, 52 (12), pp. 1272–1285.
- econsultancy.com/blog/65898-17-crucial-web-design-trends-for-2015/.
- Fan, W.S., Tsai, M.C., 2010, *Factors Driving Website Success: The Key Role of Internet Customisation and the Influence of Website Design Quality and Internet Marketing Strategy*, Total Quality Management in Business, no. 21 (11), pp. 1141–115.
- Gates, B., *Content Is King*, http://www.craigbailey.net/content-is-king-by-bill-gates/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+CraigBaileysThoughts+%28Craig+Bailey%27s+thoughts%29.
- Green, D., Pearson, J.M., 2006, *Development of a Web Site Usability Instrument Based on ISO 9241-11*, Journal of Computer Information Systems, no. 47, pp. 66–72.
- Hasan, L., Abuelrub, E., 2011, *Assessing the quality of web sites*, Applied Computing and Informatics, 9 (1), pp. 11–29.
- Kim, S., Stoel, L., 2004, *Dimensional Hierarchy of Retail Website Quality*, Information & Management, vol. 41, no. 5, pp. 619–633.

- Lee, S., Koubek, R.J., 2010, *The Effects of Usability and Web Design Attributes on User Preference for e-commerce Web Sites*, Computers in Industry, no. 61 (4), pp. 329–341.
- Lindgaard, G., Fernandes, G., Dudek, C., Brown, J., 2006, *Attention Web Designers: You Have 50 Milliseconds to Make a Good First Impression!*, Behaviour & Information Technology, vol. 25, no. 2, pp. 115–126.
- Olsina, L., Covella, G., Rossi, G., 2006, *Web Quality*, in: Mendes, E. (ed.), *Web Engineering*, Mosley N., Heidelberg.
- Stein, S., 2003, *Sociology on the Web: A Student Guide*, New York.
- Sørum, H., Normann Andersen, K., Clemmensen, T., 2013, *Website Quality in Government*, Transforming Government: People, Process and Policy, vol. 7, iss. 3, pp. 322–341.
- Tan, F.B., Tung, L.L., Xu, Y., 2009, *A Study of Web-designers' Criteria for Effective B2C Websites using the Repertory Grid Technique*, Journal of Electronic Commerce Research, vol. 10, no. 3, pp. 155–177.
- www.alexa.com/topsites.
- www.alexa.com/topsites/countries/pl.
- www.americanexpress.com/us/small-business/openforum/articles/three-top-web-design-trends-business-look-implement-2015/.
- www.bizcommunity.com/Article/196/686/123134.html.
- www.business2community.com/online-marketing/website-design-trends-stay-ahead-curve-2015-01148554#rYH5GMJFhXUjgsKZ.99.
- www.classesforwebdesign.com/webdesigntrends2015/.
- www.creativebloq.com/web-design/parallax-scrolling-1131762.
- www.designmodo.com/web-design-trends-2015/.
- www.edelman.com/post/storytelling-age-social-news-consumption/.
- www.internetlivestats.com/internet-users-by-country.
- www.emarketer.com/Article/2-Billion-Consumers-Worldwide-Smartphones-by-2016/1011694#sthash.7yAiRTvG.dpuf.
- www.huffingtonpost.com/larry-alton/7-web-design-trends-youll_b_6933974.html.
- www.practicalecommerce.com/articles/77729-6-Ecommerce-Design-Trends-for-2015.
- www.reliablesoft.net/what-is-a-high-quality-web-site-in-the-eyes-of-google/.
- www.seomark.co.uk/high-quality-websites/#ixzz3VIHH34ds.
- www.similarweb.com/country/poland.
- www.siteforbiz.com/website-design-trends-2015/.
- www.sitepoint.com/rise-ghost-button/.
- www.spritzweb.com/resources/good-website-characteristics.html.
- www.torquemag.io/14-wordpress-web-design-trends-2015/.
- www.web.clubrunner.ca/inner-lang-1-1.aspx?pageid=204.
- www.webdesignerdepot.com/2015/03/6-essential-website-photography-trends-for-2015/.

www.webdesignledger.com/inspiration/25-awe-inspiring-websites-using-ghost-buttons.

www.webdesignledger.com/trends-2/web-design-trends.

www.websiteoptimization.com/services/analyze/.