

Web Site Quality: Users' vs. Professionals' Perspective

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Abstract: Today, almost every firm has the web site which is used for presentation, communication, and interaction with visitors: actual or potential customers. That specific new business environment is highly competitive and it is necessary to implement an accurate on-line business strategy in order to achieve business success. Even though there are many factors affecting the development of a high quality web site, the basic guidelines when structuring, designing and managing a quality web site should be customers' wishes and requirements. Further, there are several strategies, tools and evaluation methods which should be used in managing the web site quality. The objective of this work is to examine the difference in the perception of the web site quality between professionals and users. With this intention the field research on the sample of Croatian firms was conducted as well as the research on a sample of neutral users who visited the examined firms' web sites and evaluated the web site quality from their point of view. Consequently, the impact of the web site quality management for the business success was established.

Introduction

Today the attendance of companies of different profiles and proportions on the web continually grows, while web becomes more important marketing-communication channel that helps to realise important business tasks. To concept, realise and maintain qualitative *web* site represents a complex task. Company's web site has to perform a line of functions, any time, continuously: to present a company, to enable all actual and potential clients to register necessary information which have to be precise and updated, easy accessible, clear and written in a simple language that enables users to perform a range of simple or more complex operations. Company's web site enriches its business image and ensures direct benefits such as an increase of e-sale or those indirect as browsing the information, branding, different services [1]

Realisation of a successful web site isn't possible unless the management and all other interested parties properly analyse the complexity of designing a successful and qualitative web site. Managers do often underestimate the cost, effort and resources needed for successful realisation and implementation of business throughout *web*. Simultaneously they have to recognise the form and quantity of a profit that companies can actually earn by being on the web, keeping at the same time an investment-gain balance [2]. Anyway it is important to have a carefully developed strategy, clearly defined goals and balance between implemented new technologies and users' satisfaction, respectively their cognitive-emotionally aspects. Investment itself has no meaning unless its aims are not fully achieved. In this process of knowledge, experience and creativity a professional team for development and maintenance of a web site has a crucial role. A good starting point for IT managers is to identify those web site's functionalities that are of most importance for users in order to adjust them with design that follows such a strategy.

Current problems and hypotheses

Today the Internet is used more widely furthermore the users use online technology so their expectations towards type and availability of services provided become higher [3]. To obtain a competitive advantage by using the IT today represents a challenge for most of companies [4]. A complete usage of IT potentials implies understanding of qualitative and ideal web from users' point of view, since this particular web site is indeed designed for them.

Today companies invest major resources in a web site's development without a clear understanding of factors that influence its quality and without a proper knowledge of methods which measure success of business making throughout the *web* [5]. Though Internet enables companies to accumulate a high level of information, the intangibility of some aspects of e-business complicates measuring of specific initiatives' contribution over the complete business results [6]. A study [7] has discovered that analytical tools for web sites are mostly used in browsing of statistical data for different types of reports, instead of making strategic decisions upon the given information. All study examinees have stated that the most important task of web site was to sell a product, while only 3% of them considered their analysis of a web site's visit was critical to success. Numerous benefits of e-business, such as better service for users, enlarged servicing, fast delivery and generally investments in different information systems (that also include web sites) are intangible and are difficult to financially express. For this reasons numerous tools and methods for measuring success and quality of web sites were developed, with special attention given to: SITEQUAL [8], eTailQ [9], SiteQual [10], WebQual [11], E-S-QUAL[12]. There are many other resources that provide a list of literature relevant for quality of services offered by the Internet for different web site types [13], an overview of quality dimensions across studies [14] and another review of the literature on a web quality [15]. Being familiar with these tools and their categories and subcategories is essential for web design. Furthermore, it is important to understand the importance of the users in evaluating the quality of the web. Web evaluation by users should be regularly and accurately conducted with the most appropriate common tool or the adjusted version that matches the specificities of web and its users. A constant inclusion and communication with users is the only way to ensure a qualitative and successful web.

In order to examine the difference of perceived role of elements that impact the web site quality and the divergence of perception the quality of the certain web site between professionals and users the following hypotheses have been defined:

H1: There is no difference between users and professionals in their perceptions of importance of the factors that influence the visitors' retention on the web site.

H2: There is a similarity in grading the most important web site's elements by users and professionals.

H3: The companies which regularly optimize and update their web sites, implement new technologies and regularly apply methods and tools for evaluating the users' satisfaction and goals' achievement on sites has been highly graded by users.

Research methodology

In order to analyse a perception of web site's quality importance for managing the business of companies which operate in Croatian economy and to define whether these companies possess a strategy of web site's management, respectively how much attention they give to web site's development, an empirical research has been conducted. The first phase of the research was

conducted on a sample of 66 Croatian companies included on a list of the most successful companies based on a criterion of added value. In that phase of the research professionals responsible for designing and managing firm's web site answered questions about elements and strategies which are important for designing the web site. The results have been published in a paper [16]. The second phase of a research which results have been presented in this paper was suppose to explore differences in the perceptions of web sites' quality given by users oppose to already given results by professionals, gathered in the first phase of a research. In the second phase of the research 35 students of information science and entrepreneurship analysed each of 66 web sites from users' point of view through three questions that were posed also to professionals in the first part of research. Respondents have answered the questions by online questionnaires during a few hours spent in classrooms supervised by teachers. Due to incomplete answers, finally 57 graded seats were considered and compared to the first part of research.

Research results

It was assumed by hypothesis H1 that there is no difference between users and professionals in their perceptions of importance of the factors that influence the visitors' retention on the web site. The users and professionals marked on the 5 point Likert scale (where 1 represents the lowest and 5 the highest grade) the importance of different elements. The comparison of results has been given in Table 1.

	Professionals		Users	
	Mean	SD	Mean	SD
Visual design	4,123	,9272	4,123	,9272
Information and content	4,649	,7904	4,649	,7904
Specificity of offer	4,246	,9118	4,246	,9118
Web site reliability and security	3,982	1,0772	3,982	1,0772
Price of products and services	3,193	1,3685	3,193	1,3685

Table 1 Source: Research results

In order to determine whether there is a statistically significant difference between professionals' and users' grades a paired samples t-test has been conducted. A statistically significant difference hasn't been established for none pair of variables, so it can be concluded that professionals and users similarly perceive importance of a certain variable when retaining the users on a web site. Professionals and users have similarly graded importance of specific variables and both groups of respondents consider that information and content mostly contribute to retaining the users on the *web*, while products' and services' price contribute the least. This proved the hypothesis H1.

The H2 states that there is a similarity in grading the most important web site's elements by users and professionals. In order to determine whether there is a match between the grades of web sites' visitors and professionals authorised for maintaining the same, a correlation analysis has been conducted by applying the Pearson's correlation coefficient. Firstly the analysis of answers has been undertaken where users and professionals had to grade with marks 1 – 5 each of category that certainly influences the quality of web site. The offered categories were: *easy to navigate, technical support, interactivity, content, response time, reliability and security, and visual design*. A mean of grades for each category given by the professional who works in a specific company has been observed together with mean of all calculated averages for a certain web site. A statistically significant correlation between professionals' and users' grades for this variable has been not established ($r = .142$, $p = .294$).

The same method has been used in comparing the answers about the presence of certain information on a specific web site such as: *information about a company, information about products and services, prerequisites of using the services, site map, visitor's comments and contact*. This time there also hasn't been determined a statistically significant correlation between grades given by users and professional about a mentioned variable ($r = .102$, $p = .451$). All this leads to a conclusion that professionals and users differently evaluate quality of a certain web site, so it disproves the hypothesis H2.

In order to prove whether the web site quality of companies which regularly optimize and update their sites, implement new technologies and know well and regularly apply methods and tools for evaluating the users' satisfaction and goals' achievement on sites is highly graded by users (H3), correlation analysis has been conducted by using the Pearson's correlation coefficient which indicated:

a) there is a statistically significant connection between grading the web site quality by users (variable "Categories that certainly influences the quality of web site") and evaluating the statement: "Web site of a company is regularly being optimised, contents are being updated and new technologies are being implemented in order to increase visitors' satisfaction" from professionals' point of view ($r = .288$, $p = .03$).

b) Similar has been done with the variable "Applying the methods which analyse how much the users' interest have been satisfied by a specific web site". Professionals' answers to this question have been compared together with the average grades for individual web sites provided by users when variables "Categories that certainly influences the quality of web site" and "The presence of certain information on a specific web site" are concerned. A statistically significant correlation between variable "Applying the methods which analyse how much the users' interest have been satisfied by a specific web site" and variables "Categories that certainly influences the quality of web site" ($r = .499$, $p = .000$) and "The presence of certain information on a specific web site" ($r = .382$, $p = .003$) has been defined. Consequently, it can be concluded that those companies which understand and apply methods for questioning the level in which a specific web site satisfies users' interest achieve better quality evaluations made by users.

Question can be posed whether those companies which have a strategy for managing web sites of a company have also more qualitative web sites from the users' point of view. This thesis has been analysed by applying the independent samples t-test. It has been concluded that there is a statistically significant difference between companies which have a strategy and those which don't have one for variable "*Categories that certainly influences the quality of web site*" ($t = 2.221, p = .03$). Those companies which have a strategy received a mean 3.91, stand. dev. 0.28 in comparison to companies which don't have such strategy (mean 3.71, stand. dev. 0.38). The results obtained confirm the variable H3.

Discussion and conclusions

Finalised second phase of research where users graded certain categories that correspond to web site quality indicated a comprehensive and objective evaluation of individual elements that influence the web site quality, so areas where grades of users and professionals matched have been identified (general opinions about the relevance of elements important for retaining the users on any web site), while their evaluation of specific elements for the observed web sites have been considerably different. This proves that employees of certain companies, regardless to their competence and knowledge, are subjective in evaluating the web site of the company so it is necessary to regularly observe users' satisfaction and consider their attitudes as basis in creating and maintaining the web sites. The research results indicate that those companies which regularly update, optimize and implement new technologies have web sites that are better graded by users than those companies which neglect the same. Furthermore, in the first phase of the research the research results showed that there was a statistically significant connection between variable "Regular update of contents and implementation of new technologies" and the business performance. Those companies which regularly update content and implement new technologies in order to increase the satisfaction of visitors accomplish a better business success. Regular implementation of tools and methods which measure how much the web site satisfies users' results in higher grades of the most important web site elements described by users, and since the first phase of research considered only 16.7 % of companies which regularly apply these methods, these results are somewhat stimulation to web sites' owners. Same conclusions have been made about higher grades given by users for web sites of companies which have a strategy for managing the web site that implies how all companies should have a detailed strategy, instead of only 60% as displayed in the first phase of a research. All mentioned in combination with the both phases of research imply that creation and maintenance of a qualitative web site requires a comprehensive knowledge by web site's author, while web site's quality positively influences the success of company's business. In order to achieve these goals it is required to continuously monitor users' satisfaction and to apply knowledge in web site's quality management.

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