

# IS THE WEBSITE MARKETING STRATEGY CORRELATED WITH THE COMPANIES OUTCOMES? EVIDENCE FROM ROMANIAN IT INDUSTRY

**Constantinescu-Dobra Anca**  
*Technical University of Cluj-Napoca*  
*Electrical Engineering Faculty*

*With a constant yearly growth of more than 20% over the last five years and adding up to 10% of the GDP, the Romanian Information Technology (IT) sector has an important potential for development. Emphasizing on websites marketing in this sector could enhance more profitability. Even though this tool is considered to be much depersonalized, the users like getting a sense of the company behind the website. Having a wide range of information facilitates this understanding. In a very competitive environment, the IT managers have to realize that the overall site is what represents their organization to users. Prospectors look at product pages and read the site content when they are evaluating an organization as a possible vendor, business partner, employer, investment opportunity. Therefore, websites marketing is one of aspects that need to be constantly reevaluated in an ever-changing word of communication.*

*Given this facts, the present study identifies the extent to which the most valuable IT Romanian companies practice webpage's marketing. Specifically, we examine the content, in-time communication tools, navigability and style of the websites in correlation with their outcome and size. Moreover, the paper analyzes the differences between websites characteristics of Romanian IT SMEs and large companies from top 100, according to their turnover. The specific objectives in order to investigate the websites marketing of Romanian IT companies are:*

*-To evaluate the websites marketing policies of the software developer, hardware and IT distributors;*

*-To analyze in depth the Romanian IT companies websites performance in correlation with their profit, turnover and number of employees;*

*-To assess the differences between websites policy of SMEs and large companies from Romanian IT industry;*

*This study is exploratory and consists in a qualitative assessment of websites from top 100 software, hardware and IT distributor companies. The sample consists of 93 functional websites. The corporate website of each company was analyzed and subsequently codified on 97 variables clustered in four dimensions: content, handling, interactivity and layout. The results outline the fact that firms engage in websites marketing activities to a relatively high extent. There is a strong correlation between websites content and companies' turnover, profits and number of employees. Moreover, a positive correlation was revealed between interactivity and turnover.*

*The research outcomes reflect high disparity between Internet marketing policy of software, hardware and distributors.*

*Key words: websites marketing, SME, IT industry, Romania*

*JEL Codes: M31, M15*

## **Introduction**

The IT sector is considered strategic for the development of the national economy, as it can drive and enhance development and competitiveness of every other industry.

Romania is one of the strongest markets in Europe for technology investment and trade, with a highly skilled technology workforce and good cost/quality balance. Romania has a competitive advantage in the following IT areas (Tartavulea et al. 2010: 97-105): mechanical engineering sourcing, research and development, systems integration and security software development outsourcing. In Romanian IT industry is acting more than 45% SMEs.

Many studies (Manyka and Roxburgh 2011:1-10; Mattos 2007:1-4; Pavic et al. 2007:320-351) proved that productivity in the case of companies which are using the Internet is at least 10% bigger. In addition, evidence shows that these companies grow and export about twice as much as the others. However, there is a lack of analyses on the webpage quality of companies acting in IT industries. Visitors to companies' web pages want to determine whether the organization has experience, proven success, and an understanding of the challenges unique to their business. Marketers should also make it easy for customers to write reviews and leave comments on product and service pages because partners are more likely to purchase something based on current-user comments.

Therefore, the present study performs *the correlations between best Romanian companies' web pages quality and their outcomes and size. Moreover, we intend to analyze the SMEs in comparison with large companies that are in top 100 of Romanian IT ranks.*

*In addition, the papers emphasize on disparities between the main object of activity, according the studied dimensions.*

The following questions were addressed in order to investigate the websites marketing of Romanian IT companies:

-Which of the investigated dimensions are prominent in this sector?

-What is the situation of websites marketing policies in the three main field of activity: software, hardware and distributors?

-Does the performance of websites marketing depend on their size and financial results?

-Which are differences between websites policy of SMEs and large companies from Romanian IT industry?

This study is exploratory and consists in a qualitative assessment of websites. The paper is divided in five sections. The following part depicts the most used methods from assessing web pages. The next chapter describes the applied methodology for exploratory research and after that, the results are presented. The discussions and conclusion provide a summary of implications.

### **Theory and research review**

In the literature, there are wide ranges of websites assessment methods that are continuously evolving directly related with the growing efficiency of a company website. The environments movements, especially concerning IT progress and consumers behavior, have determined the existence of different perspective in evaluation techniques of the sites quality. A great number of authors made recommendations about how to create a quality website (Head 2000:1-220, Mich et al. 2003:34-43; Nielsen 2008:1-253). There are also official e-government guidelines that have been produced by the Office of the E-envoy (2008). The most used criteria encountered in almost every specialists approach include elements such as purpose, source/authority, content, currency, style and functionality.

Other researches (Chakraborty et al. 2002:51-72; Nielsen 2008:116-121) demonstrate that effectiveness of a website is influenced of, *level of information, organization, transaction-related interactivity, and personalization* while other factors have no direct impact: non-transaction-related interactivity, privacy/security, accessibility, and entertainment.

*Perceived information quality affects perceived value and loyalty* intentions and perceived value influences loyalty intentions toward IT websites (Kim and Niehm 2009:221-233). In addition, entertainment and trust directly influence perceived value, while online completeness and entertainment strongly affects the loyalty.

On the other hand, the *most of IT sites from CEE are business- to- business (B2B)*. Nielsen, one of the gurus in websites assessment, considers that *ought to emphasize usability more*, because they must help users accomplish tasks that are more advanced and research more specialized products. B2B sites *must provide a much wider range of information than what is common in*

*business-to-consumer (B2C)*. It must also offer information to help prospects understand concepts like total cost of ownership, ROI, and whether and how the product or service will integrate with the customer's existing environment.

In relation to the approaches for assessment (comparison and improvement of websites quality), the literature specifies the following:

1.) *Methodologies focused on the Websites technical quality* that use models or standards of software quality and methods focused on the usability, derived from research in human-computer interaction area: analyzing the degree of conformity with IT - quality assessment of Internet resources (Bauern and Scharl 2000:31-41), based upon the used software (Mendoza et al. 2002:70-84), methods from the offered on-line services perspective (Diniz et al. 2005:41-50), methods focusing on transaction security and trust (Schubert 2002:51-80), from browsing perspective (Schubert 2002:51-80).

2.) *Methodologies focused on the Websites content quality*, approach emphasizing on design and the importance of the interface (Rocha and Victor 2010:173-178) *taking into account the user's view* (Bernstam et al. 2005:3-19).

The present study uses methodology for assessing the *technical quality of a website*.

### Research methodology

The present study is an exploratory study of websites policies of Romanian IT companies.

The study goal is *to analyze the degree by which best Romanian IT companies use websites as a marketing tool in order to become more competitive on the market*. Specifically, we are going to reach the following objectives:

*-To examine the websites marketing of the software developer, hardware and IT distributors;*

*-To analyze in depth the Romanian IT companies websites performance in correlation with their profit, turnover and number of employees;*

*-To assess the differences between websites policy of SMEs and large companies from Romanian IT industry;*

The data was collected during the period January -February 2012. We assessed the software, hardware and distributors companies in top 100 IT/2011 according to their turnover (from 2010) made by doingbusiness.ro. The research sample consists of 93 websites, because at the assessment time, 7 sites were under construction or were not functional.

The sample structure by size and fields of activity is displayed in (figure no1). The majority in the sample is represented by software developers (58%), followed by distributors (25%) and, finally, by hardware producers (17%).The SMEs are predominant in distributors' field (59.11%).

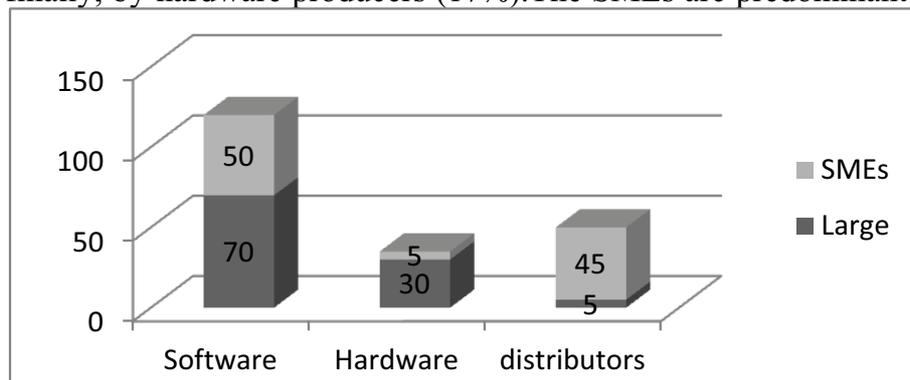


Figure no 1. *The structure of the research sample by size and fields of activity*

Source: made by the author

In order to accomplish our goal, we use specific dimension for assessing IT sites, based on *Profnet Institute from Munster website assessment method*, aiming at ranking worldwide web

sites in different branches ([www.profnet.de](http://www.profnet.de)). In this approach, all the items will be clustered in four criteria: content, navigation, interactivity and layout.

We have cut some of criteria according to Nielsen's recommendations described in the above section. Finally, every websites in the sample were *qualitatively* assessed through 97 criteria, grouped around the above-mentioned complex variables, as following: 38 criteria for *content*, 24 criteria for *handling*, 19 criteria for *interactivity* and 16 criteria for *layout*.

For each criteria, we got 1 point for the existence and we have considered the same importance rate for each of items. The maximum score of a site is 100 points, split on the four variables as following: 40 points for *content* and 20 points for each of the other three variables (layout, handling and interactivity). For example, some of analyzed dimension for content are: history, download forms, information about products/services, calendar events, frequently asked questions, information about industry, the managers, jobs, contact. For navigation, we have evaluated: the navigation path, holding a security certificate, search functions, for interactivity: Intranet/Extranet, personalized pages for the customer, callback service, hotline, e-cards, chat, online tour, schedules, online activities as well as online request for company information and for layout: the presence of Avatars, live images, a web camera, phone web, etc.

We have computed the data in SPSS 17. For a better correlation between websites quality and their turnover, profit and number of employees we applied Pearson correlation.

## Results and discussion

Using the methodology and procedures described above, we have obtained the scores of the 93 sites according to their quality, at the time of assessment. Table 1 presents the average scores of Romanian sites by field of activity and the company size.

*The findings reveal an upper medium propensity of Romanian IT company toward using websites policy* (64.2 points from 100 possible). This result is related to the fact that IT companies have the necessary know-how (and required hardware) for implementing and properly managing their websites. The gap between large companies and SMEs is, surprisingly, rather small (69.33 vs. 59.11points). This means that SMEs try hardly to be active by offering actual and meaningful information, through adequate and fast access supports, possibility to interact and an elaborate design for websites public. Moreover, the hardware field got the lowest score (58.55 points) and the distributors the higher one (70.2 points). These disparities are present mainly due to different target segments: businesses vs. businesses and consumers. Distributors display more transparency and flexibility than the others; meantime the software websites try to build more credibility for potential partners.

Table no 1. Relative quality of the IT SMEs websites by field of activity and size

Average scores		Content 40)	Handling (max 20)	Interactiv. (max 20)	Layout (max 20)	TOTAL
<b>Software</b>	Large companies	25.3	17.2	10.1	17.5	70.1
	SMEs	21.03	15.2	8.7	12.8	57.73
<b>Hardware</b>	Large companies	26.1	14.9	8.5	16.9	66.4
	SMEs	17.2	14.1	7.8	11.6	50.7
<b>Distributors</b>	Large companies	24.8	15.6	14.3	16.8	71.5
	SMEs	25.6	14.9	13.2	15.2	68.9
<b>Whole sample</b>		<b>23.34</b>	<b>15.32</b>	<b>10.43</b>	<b>15.13</b>	<b>64.22</b>

Source: made by the author

As we expected, a facile navigation is present, *handling* getting the higher score (15.32 points from 20 possible). IT companies are adapting very fast to IT progress. Therefore, the great majority of companies in the sample *offer a different version for* widgets and mobile that make it

easy to access needed information (*adapted version for I Pad, I Phone, Blackberry, Android, Windows phone7 etc.*).

*Interactivity* is the feature most neglected by managers operating in Romanian IT industry (10.43 points from 20 possible). The explanation for this result can be the particular business model such as outsourcing. The most companies in the sample are software companies and have only few (large) clients, usually international ones. Therefore, the IT managers probably consider that there is no need to disseminate information for other category of prospective clients. Although, we have to mention a positive fact: 42% of companies posted comments on industry blogs with a track-back link to their own sites. Customers and prospects can share stories and tips, interact with the company directly and find new ways to use products.

The *content* dimension is also average (23.34 points from 40 possible). Stakeholders can be involved in a proactive relation through offering industrial information and could enhance preferences in the future, with no extra cost.

The feature “*Layout*” has upper medium scores (15.13 points from 20 possible). Regarding the presentation style, IT companies have a very impressive business style, using the latest specific soft version in the field (very good resolution vs. speed ratio). However, IT industry does not make any connections to audio-visual identification system (company colors, slogan, logo etc.) meaning that the managers do not pay much attention on unitary marketing strategy.

***The relation between IT SMEs size and outcomes and their websites performance***

The results regarding connections between IT SMEs turnover and their websites performance are presented in (table no 2).

Table no 2. *Pearson correlation between the assessed four dimensions and turnover, profit and number of employees*

		content	handling	interactivity	layout
turnover	Pearson Correlation	.362**	.024	.329**	.017
	Sig. (2-tailed)	.733	.049	.624	.034
profit	Pearson Correlation	.059**	.074	.024	.027
	Sig. (2-tailed)	.786	.054	.714	.484
No of employees	Pearson Correlation	.254**	.013	.071	.044
	Sig. (2-tailed)	.521	.062	.036	.016
	N	93	93	93	93

\*\* . Correlation is significant at the 0.01 level (2-tailed); Source: computed by the author

The outcomes validate the existence of *three direct strong correlations between content and turnover/profit/number of employees*, which means the more employees and important (and profitable) business IT companies run, the more information is in the content section. Probably a bigger company can afford to administrate itself its websites marketing activities and has more achievements than another smaller. Another reason could be the overall marketing strategy that is more important when the company is more developed than in previous stage. But this assumption has to be further investigated. Finally, another positive correlation is revealed: those between interactivity and turnover. This fact proves *that websites can be a great tool to increase the sales*, mainly due to B2C online platforms, which implies more possibilities for gaining prospective consumers.

## Conclusion

Our research sheds new light on websites marketing policy of the best Romanian IT companies and helps explain how managers can improve content, interactivity, handling and layout. The most efficient companies according to their turnover deploy an “*upper-medium*” *development stage of websites marketing*.

Nevertheless, navigation tools and layout are more sophisticated while content and interactivity are pointing an average level. The Romanian IT companies (especially SMEs) do not fully use the advantage offered by Internet. Even though they have unlimited free space to be used, most of the companies in the sample display minimum information.

The results pointed out strong correlation between the displayed content and their turnover and profitability. The interactivity dimension is directly related with the sales: the larger the company is, the more information on the websites is available.

*Finally, given that the main trend under economic crisis is outsourcing in Far East, Romanian IT companies should be aware of their competitive advantage that could be threatened. Thus, we consider that even though the best companies in Romanian IT have good websites positions, they have to improve their websites marketing and to offer a complete online instrument as an “offensive wall.”* It manager should consider to improve the real time communication with current, prospective partners and to enhance trust and credibility by displaying general and specific information related to the business and to their target segment interests.

## Acknowledgement

This study has been performed in the framework of PN II-RU research grant “Development of an electronic marketing plan for Romanian SMEs in order to increase their competitiveness”, PD 58/2010, supported by CNCISIS-UEFISCSU.

## References

- Head, Alison. Design Wise: A guide for evaluating the interface design of information resources. New Jersey: CyberAge books, 2000.
- Bauern, Christian and Scharl, Arno “Quantitative evaluation of Web site content and structure Internet Research”. Electronic Networking Applications and Policy, vol 10, no. 1/2000:31-44.
- Bernstam, Elmer, Shelton, David and Walji, Meric-Bernstam “Instruments to assess the quality of health information on the World Wide Web: What can our patients actually use?”. Int J Med Inform, 74(2005):13-19.
- Chakraborty, Goutam, Lala, Vishal and Warren, David “An empirical investigation of antecedents of B2B Websites’ effectiveness”. Journal of Interactive Marketing, Volume 16, Issue 4 (2002):51-72.
- Diniz, Eduardo, Porto, Rosali and Adachi, Tomi “Internet Banking in Brasil: Evaluation of Functionality, Reliability and Usability”. The Electronic Journal of Information Systems Evaluation, vol. 8, Iss 1(2005):41-50.
- Kim, Hyejeng and Niehm Linda “The Impact of Website Quality on Information Quality, Value, and Loyalty Intentions in Apparel Retailing”. Journal of Interactive Marketing, Volume 23, Issue 3, August (2009): 221-233.
- Manyka, James and Roxburgh, Charles. “The great transformer: The impact of the Internet on economic growth and prosperity”. Mc Kinsey Publication (2009) Accessed April, 2012. [http://www.mckinsey.com/mgi/publications/great\\_transformer/pdfs/McKinsey\\_the\\_great\\_transformer.pdf](http://www.mckinsey.com/mgi/publications/great_transformer/pdfs/McKinsey_the_great_transformer.pdf).
- Mattos, Jose Carlos “Using Ict And Trade Facilitation Tools For Sme Development—Options For Latin America And The Caribbean”. FAL Bulletin No. 254, October (2007):1-4.
- Mendoza, Luis, Griman, Anna., Perez, Maria and Rojas Teresita “Evaluation of Environments for portals Development: a case study”. Information Systems Management vol. 19, Iss.

2,(2002):70 – 84. Accessed April, 2012.  
[http://www.lisi.usb.ve/publicaciones/02%20calidad%20sistemica/calidad\\_50.pdf](http://www.lisi.usb.ve/publicaciones/02%20calidad%20sistemica/calidad_50.pdf).

Mich, Luisa, Franch, Mariangela and Gaio Loris “Evaluating and Designing Web Site Quality”. IEEE Multimedia, Janeiro-Março (2003):34-43.

Nielsen, Jacob “About Us -Information on Websites”.Nielsen Norman Group Report: (2008) Corporate Image: Usability Guidelines for Presenting Company Information in a Website's "About Us" Area, Accessed April, 2012. <http://www.nngroup.com/reports/about/>.

Pavic, Suzana, Koh, Simpson and Padmore ”Could e-business create a competitive advantage in UK SMEs?”. Benchmarking an International Journal, 14[3], (2007):320-351.

Rocha Alvaro, Victor, Jose Avelino „Quality of hotels websites – proposal for the development of an assessment methodology”.Tourismos: an international multidisciplinary journal of tourism Volume 5, Number 1, Autumn (2010):173-178.

Schubert, Petra „Extended Web Assessment Method (EWAM): Evaluation of Electronic Commerce Applications from the Customer's Viewpoint”, International Journal of Electronic Commerce, Volume 7, Number 2 / Winter 2002 / 03 (2002):51-80.

Tartavulea, Ramona, Belu, Mihaela and Filip Radu „The competitive advantage of Romania in the context of economic recovery”. Analele Facultatii de Stiinte Economice Oradea, Vol. 1/ 2010, (2010):97-105, Accessed April, 2012.  
<http://anale.steconomieuoradea.ro/volume/2010/n1/013.pdf>.

Doing business. “Top 100 IT Romania”. 2011, Accessed April, 2012.  
<http://mcir.doingbusiness.ro/ro/top-companii/it-c/it>.