

# Do Financial Websites Meet the Users' Information Needs ? A Survey From the Italian Context

Alberto Quagli – Università di Genova – DITEA- Italy  
Patrizia Riva – Università Piemonte Orientale – SIT - Italy

Contact Address: [quaglia@economia.unige.it](mailto:quaglia@economia.unige.it)

## Abstract

*This paper shows the results of an empirical research on the expert users' behaviour in visiting websites to acquire financial information about listed companies. Italian financial analysts and corporate lenders are investigated through a questionnaire to understand (1) how they use both listed companies websites and financial news websites (financial portals) and (2) whether their information needs are satisfied using the Internet channel. This research also raises two additional issues: (a) both user groups exploit the Internet in a very large way and adopt a similar behaviour in using the websites, and (b) financial news websites play an important role in expert users behaviour, acting as a preliminary information switching point from which professional operators address towards specific listed corporate websites. This paper gives a contribution to the study of the demand side of corporate web reporting, rather neglected by previous academic research if compared to the analysis of the information offered by corporate websites.*

**Keywords:** *Financial reporting, Internet, company websites, users' information needs*

## 1. Introduction: the “demand - side” of corporate Web reporting

The strong interest of both scholars and practitioners towards financial web reporting has driven many researches to analyse this topic using different approaches evolved from the simple description of this “new” business practice to more sophisticated analysis.

The first studies could be labelled as the “descriptive phase”, presenting a review of the information content and format features of corporate websites. These researches are both country-specific (Petravick – Gillet, 1998; Gowthorpe – Amat, 1999, Hedlin, 1999; Holm, 2000: Ettredge *et alii*, 2001) and present international comparisons (Lymer – Tallberg, 1997; Deller *et alii*, 1999).

In a second phase (“the explanatory phase”), partially overlapping with the preceding one, scholars enlarge the focus beginning the study of the determinants of web reporting (Asbaugh *et alii*, 1999; Craven – Marston, 1999; Pichegger – Wagenhofer, 1999; Debreceny *et alii*, 2002; Ettredge *et alii*, 2002: Marston, 2003; Avallone – Veneziani, 2003; Marston – Polei, 2004).

Some normative studies (FASB 2000, and Lymer *et alii*, 1999) including either a review of corporate websites, the identification of relevant trends and a list of recommendations, appeared due to interest of professional accounting agencies. The evaluation of future trends in corporate web reporting is an “evergreen” subject (Lymer, 1999, Jones *et alii*, 2001; Jones – Xiao, 2004), because of the rapid technological progress of digital tools and the transformation of business context.

Another approach concerns the impact either of electronic web reporting distinctive features and of new technological trends such as XML-XBRL, developing methodologies to evaluate the impact on information searching activity and subsequent decision usefulness (Debreceeny – Gray, 2001; Bovee *et alii*, 2001; Dulla *et alii*, 2004; Hodge *et alii*, 2004).

In general, all those studies deal with the offer of financial information by listed companies' websites. From the demand side, there are instead very few analyses (see the following paragraph), so up to now it is very difficult to establish whether the IR website channel satisfies the users' information needs.

Through a questionnaire, this paper aims at analysing the users' behaviour about corporate web reporting to understand whether the offer of information available online is thought to be sufficient and to which extent corporate websites are considered useful and reliable financial information sources. As users, we choose to select only "professional" users of financial information: financial analysts and institutional investors such as corporate lenders, whose information needs are more sophisticated.

It would be interesting to study non professional users of financial information, such as retail investors, for which company websites seem at a first look even more useful than for professionals. In effect, while financial analysts and institutional investors can already access other financial information sources (direct contact with the IR staff, specialized data bases, and so on), retail investors are often lacking a similar direct and easy access, so the availability of the information required in a website could represent a very useful support for them. Face to this relevance, there is a severe constraint for a direct investigation on retail investors in the Italian context, due to the lack of an easy way to contact a significant sample of them (list of members of an association, list of customers of financial institutions and so on).

Before presenting the results of our analysis we are first going to examine the few existing empirical evidences concerning the "demand – side" of corporate financial information.

## **2. Prior literature**

There are very few empirical studies pursuing a "demand approach" in the field of corporate web reporting (thereafter CWR).

A first example could be regarded in the research of Ettredge *et alii*, 1999. The aim of their work consists in analysing the relationship between some corporate website features and users' characteristics. They find that "the information provided at web sites varies systematically with companies' levels of analyst following and retail ownership. Higher levels of analyst following are associated with relatively objective, more extensive data, and higher levels of retail ownership are associated with relatively subjective, more abbreviated information". This research uses an indirect approach to analyse the fit between the users' demand and the corporate web reporting offer

Concerning studies based on a direct analysis of the information demand-side, in our knowledge, there are only Beattie and Pratt, 2001 and 2003, and Gowthorpe 2004.

Gowthorpe's study is based on an indirect test of the demand of online financial information users' needs through 20 interviews with finance directors of UK small listed companies (period 2000-2001). Its main question concerns the method used by corporate managers to assess the information needs of their stakeholders and the extent they thought of meeting them with the website disclosure. The picture emerging from

this work draws a very intuitive (and a bit naïve) approach by the companies. Corporate managers overall use their experience to imagine the stakeholders' needs, in a very unsystematic way, and consequently build the online information content. In particular, the beliefs of the senior executives have a strong influence on it. Managers are often used to visit the competitors' websites to get new ideas about the information content. Regulation duties are another information source, meaning that companies try to upload on their website the mandatory disclosure in the same day of release. From those evidences, Gowthorpe derives the image of an "asymmetrical dialogue" with the stakeholders: companies talk but don't listen up.

The studies of Beattie and Pratt use a similar approach. We mainly refer to the second study of Beattie and Pratt (here after BP) which is based on a large direct analysis carried out in UK (year 2000) with questionnaires. The people targeted belong to all the groups involved in corporate web reporting: expert users (investment analysts, fund managers, and corporate lenders), non-expert users (private shareholders), preparers (finance directors) and auditors (audit partners). The authors submit four topics to their sample: frequency of use of Internet, attitudes to define the scope, the frequency and the structure of web-based reporting, usefulness of navigation and search aids, and portability of information-file formats. We will discuss over some specific issues, comparing them with our results. But the principal aim of Beattie and Pratt' research consists in defining the intra-group and inter-group similarity of preferences in such a way that a policy maker could obtain an important input for subsequent decisions to establish some common rules. They find that all the expert user subgroups (investment analysts, fund managers, and corporate lenders, who are the same subjects of our analysis) express very similar preferences so "there appears to be no need for future research to consider their needs on such matters separately" (BP, 2003, p. 180). But they find some important inter-group (expert users, non - expert users, auditors, and preparers) differences, which request more attention for a policy - maker.

In the Italian context the unique study on the "demand side" of CWR is carried out by Quagli, 2001, using 30 questionnaires returned by financial analysts belonging to AIAF (Italian Association of Financial Analysts). The study investigates how frequently the respondents access to listed companies' websites, the functionalities they use, their evaluation of information contents, and their judgement about strengths and weaknesses of this communication channel. A global satisfaction emerges from their answers, with the impression of a consolidated practice with these websites. The availability of a wide picture of the company, not only financial, is deemed as the main strength of the corporate website.

### **3. Research objectives and hypothesis**

*The assessment of preference differences among website user groups, as investigated in the BP's work* is the first general objective of our study. The feature has not only theoretical interest but also practical implications because we think that a company can derive relevant suggestions from the emerging results to establish whether to segment the website structure and information content of its IR website depending on user different profiles.

In general, our study differs from BP's work in two main aspects which give original insights on the CWR phenomenon: first, we do not consider the abstract preferences of the expert users but we mainly concentrate the focus on their actual behaviour and satisfaction in acquiring information from websites. Second and more

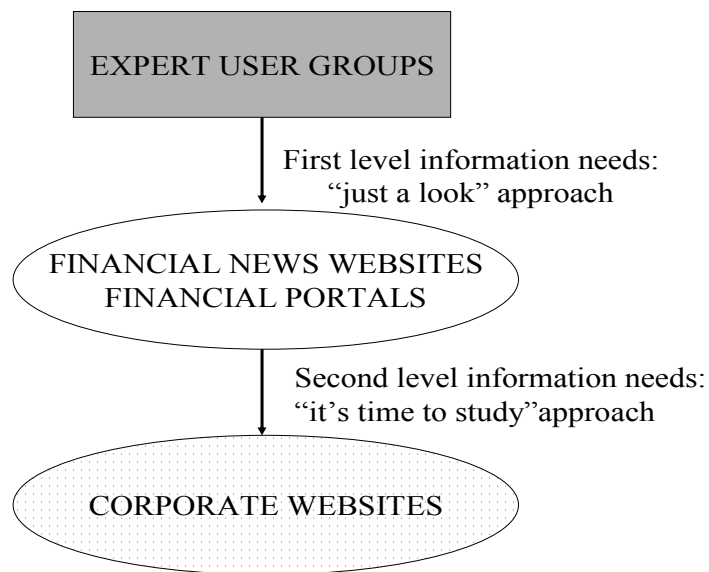
important, *we compare the use (and the consequent level of satisfaction) of corporate websites with the use of other websites (financial portals and news websites) by the same user groups.* We think that current studies in CWR are too narrowed in this aspect. They usually deal with companies websites only, neglecting the large phenomenon of the “derivate” or “secondary” financial information, that is, the information disseminated from sources different from the same companies objects of the message (the “primary” financial information). Users exploit the Internet in a wider way than a simple navigation in the corporate website pages and the interaction between these two kinds of websites is still a black-box.

*The comparison of the two website categories (company websites and financial news websites) concerning their relative importance for the identified user groups, is then our second general objective.* We think that this second objective encompasses practical effects for a company. If we demonstrate that the IR website visitors strongly use other kinds of websites, a company must deal with new questions concerning its website structure and information content: from the use of hyperlinks to empower the relationships among websites to the choice of including or excluding some information duplicated in the financial portals or to the valuation of eventual agreements with the financial news websites to achieve a larger dissemination of its financial data and information.

With regard to the user groups investigated our study differs from BP’s analysis because it lacks of an analysis on private shareholders (the BP non – expert users) due to the aforementioned reason, while BP could use the support of the UK Shareholders’ Association. We hope to gain a similar support for our future works in the Italian context; to date, we limit the analysis to expert users.

Other more specific results are then discussed, in comparison with the evidences achieved from this research.

*Our hypothesis is that expert user groups currently acquire financial data from both corporate websites and financial news websites. In particular, we are interested to test whether these two website categories are equally exploited as reciprocal surrogate or whether the financial news websites represent the first information source, and the corporate websites form the “insight” information level, to deepen the more sophisticated questions.* We believe in this second explanation, as depicted in figure 1.



*Figure 1: The two levels of web information sources*

In synthesis:

*Hp 1: Both financial analysts and corporate lenders have a similar behaviour in financial information acquisition from the World Wide Web.*

*Hp 2: Both user groups exploit different website categories in a different way: financial news websites and financial portals to first alert, corporate websites to deepen information.*

More specific topics are then investigated.

Preliminary, for both user groups, we test the perceived importance of online financial information, compared to the traditional one (paper). This is a fundamental control to define the relevance of our analysis for the selected sample (paragraph 4.1).

First we analyse the relative importance for expert user groups of the different website categories and their access frequency (paragraph 4.2).

Second, we analyse the different kinds of usage (document download, stock prices consultation, and so on) of the two website categories, studying also the relative importance attributed by each user group (paragraph 4.3).

Third, we explore the perceived degree of efficiency (easiness in accessing websites, navigating them, and obtaining the required items) and efficacy (richness of information contents, reliability) of these websites categories (paragraph 4.4).

A final paragraph includes our conclusions.

### **3. Sample selection and research methodology**

The survey was carried out in Italy in May-August 2004 with reference to two different subject samples: corporate lenders and financial analysts.

First of all, the survey involved corporate lenders: the questionnaire was sent to the corporate lender officers of the first twenty Italian banks. To select the sample, the

rating (built considering the deposits collected) of the main Italian corporate lenders available on the Mediobanca website in May 2004 was taken into account, as drawn up on the basis of the data disclosed in the financial statements of the years 2002 and 2001. At times, this special category of operators has a relatively traditionalist culture, and at the same time represents a group of stakeholders that need regular and reliable information flows from the companies. Therefore, it is of great interest to try to understand to which extent these operators make use of the Internet to get the data they look for, which are the modes of use of the information media they turn to most frequently, and what is the overall perceived usefulness of this new and different *modus operandi*.

The response rate was equal to 75% (15 questionnaires filled in, out of 20 that were sent).

The survey also involved approximately 60% of the entire population of financial analysts that were members of the *Associazione Italiana degli Analisti Finanziari* (AIAF) at the beginning of May 2004. Again, to identify the reference sample the data available on the Internet were used. In particular, it was made reference to the “list of members” made available by the Association itself on the website [www.aiaf.it](http://www.aiaf.it). Approximately 600 out of 1000 members were contacted either by e-mail or by fax, and all answers obtained within the end of August 2004 were taken into account. As reported in the AIAF introductory pages available on the above-mentioned website, and as it was possible to ascertain during the research execution, the contacted analysts mainly work in financial trusts, securities brokerage companies, merchant corporate lenders, investment management companies, trustee companies and financial, fundamental and technical analysis companies. This special group of operators was involved on the basis of our belief that this second category of stakeholders, if assessed as a whole, was likely to have a less traditionalist culture than the first one, and could be more inclined to innovative behaviour patterns such as those coming from the online financial information.

The response rate obtained was equal to approximately 17% (101 questionnaires filled in, out of 600 that were sent).

The questionnaire submitted to the two groups of operators provides for several closed questions and for some open questions. The interviewees were requested to specify what are the main lacks in the websites visited and which lacks can be therefore considered the main critical issues of online financial information.

The questions were asked with reference to both the listed companies’ websites and the websites that collect, reprocess and make available information relevant to listed companies, first listed then generally referred to as “other financial news”.

## **4. Results and analysis**

### **4.1. Perceived relevance of online financial information**

The preliminary question is testing what level of importance individual operators give to online financial information compared, of course, to the traditional one. This was directly asked by our questionnaire to all the participants and table no. 4) summarizes the results obtained.

*Table no. 1) – Recognition of the website relevance*

category	corporate lenders			financial analysts			t test	
	nr.	mean	std. dev.	nr.	mean	std. dev.	t value	pr >  t
Relevance	15	4,7333	0,4577	99	4,6263	0,5068	0,77	0,4421

Virtually all respondents, irrespective of the sample they belong to, considered the websites either important (4 points) or very important (5 points); most of them expressed the most positive judgement in the proposed scale (1-5). Therefore, it can be stated that this tool has changed the operators' behaviour, and risks isolating all those who, due to incapacity or lack of confidence in the instrument itself, remain loyal to printed paper, or all those who, although using both tools, are still psychologically bound to the "tangible" media. The difference between the two user groups is not relevant (p-value 0,44).

#### 4.2. Access frequency to websites and relative importance

The first operative question proposed to our sample provides for a list of website categories that can be considered, as a whole, the offer of financial information available in the Internet. The respondents were requested to assign each category a rating from 1 to 5, where 1 is the minimum point corresponding to the non-use of the website, and 5 is the maximum point corresponding to the very frequent use of this source of information. Table no. 2) summarizes the results obtained.

Table no. 2) – Importance of the different website categories

category	corporate lenders			financial analysts			t test	
	nr.	mean	std. dev.	nr.	mean	std. dev.	t value	pr >  t
Listed companies' sites	15	4,6667	0,6172	98	4,0306	1,1705	<b>2,06</b>	<b>0,0422</b>
Institutional bodies' sites (Consob, Borsa italiana, etc.)	15	3,9333	1,0328	98	3,9082	1,0849	0,08	0,9331
Stockbrokers' sites	15	2,0667	0,8837	98	2,2245	1,0986	-0,53	0,5971
Financial news website (Bloomberg, Reuters, Yahoo finance, etc.)	15	3,6667	1,5430	98	3,6531	1,3168	0,04	0,9710
Economic media sites (Il Sole 24ore, Financial Times, etc.)	15	3,4000	1,0556	98	3,2245	1,1800	0,54	0,5880

For both groups, the most important websites turned out to be the listed companies' websites, to which all respondents, on average, assigned a rating higher than 4. Then, with a rating higher than 3 there are both the institutional bodies' websites (such as the websites of Consob - the Italian Security Commission - and of the Italian Stock Exchange), the financial news websites (such as Bloomberg, Reuters), and the economic newspapers' websites. The websites of stockbrokers only reached level 2.

Interestingly, the answers given by the two groups are not very different, and reach very close fractions on the same levels of the scale adopted. Moreover, the two groups never assigned an average rating equal to zero or 1. This means that all available online financial information is deemed a necessary information source, and the Internet is an important "place" where operators usually search for various data, thus reducing

the condition of information asymmetry they work in. If we apply T-Test (last column of table 2), the two groups are characterized by a statistically significant difference (at 5% level) with reference to the first item, the importance of the listed companies' websites, valued more relevant by corporate lenders than by analysts.

The second question aims at finding out whether access to websites to obtain corporate data is a habit of the operators, being therefore a frequent action, or whether it is an extraordinary *modus operandi*, only occasionally used by the involved operators. It is worth pointing out again that the answers obtained allow highlighting the importance given by the operators to their behaviour, yet do not have the character of objective case measurement. In order to obtain such results, it would have been necessary, for example, to count the number of accesses gained through a certain password on a specific website that offers information.

The respondents were requested to declare whether the frequency of access is at least daily (5 points), weekly (4 points), monthly (3 points) or yearly (2 points), or whether they never have access (1 point) with reference to both the listed companies' websites and other websites offering financial news on listed companies. This way we meant to indicate, in the remainder of the questionnaire, all websites other than those of the listed companies, that were analytically brought to the respondents' attention by the first question. Table no. 3a) summarizes the results obtained.

Table no.3a) – Access frequency to listed companies' and financial news websites

Frequency of visiting of listed companies' sites	corporate lenders				financial analysts			
	pt.	nr.	pdt.	%	pt.	nr.	pdt.	%
At least once a day	5	7	35	46,67%	5	15	75	15,46%
At least once a week	4	5	20	33,33%	4	47	188	48,45%
At least once a month	3	2	6	13,33%	3	23	69	23,71%
At least once a year	2	1	2	6,67%	2	10	20	10,31%
Never	1	0	0	0,00%	1	2	2	2,06%
Total		15	63			97	354	
Mean			4,2000				3,6495	
Frequency of visiting of financial news website	corporate lenders				financial analysts			
	pt.	nr.	pdt.	%	pt.	nr.	pdt.	%
At least once a day	5	13	65	86,67%	5	66	330	73,33%
At least once a week	4	1	4	6,67%	4	16	64	17,78%
At least once a month	3	1	3	6,67%	3	7	21	7,78%
At least once a year	2	0	0	0,00%	2	1	2	1,11%
Never	1	0	0	0,00%	1	0	0	0,00%
Total		15	72			90	417	
Mean			4,8000				4,6333	



category	corporate lenders			financial analysts			t test	
	nr.	mean	std. dev.	nr.	mean	std. dev.	t value	pr >  t
listed companies' sites	15	4,2000	0,9411	97	3,6495	0,9359	2,12	0,0364
financial news website	15	4,8000	0,5606	104	4,6333	0,6769	0,90	0,3696

The answers show that 87% of the corporate lenders and 73% of the financial analysts visit financial news websites on a daily basis. Hardly any operator declared to visit these websites less frequently than on a monthly basis.

Direct access to the listed companies' websites, maybe contrary to what expected, is much less frequent: only 47% of the corporate lenders and, surprisingly, only 15% of financial analysts declare a daily frequency of access. In any case, this source of information is considered of primary importance, even though it is used less frequently: 33% of the corporate lenders gain access at least once a week, and 13% at least once a month; 48% of the financial analysts visit it at least once a week, and 24% at least once a month.

This different access frequency between listed companies' websites and financial news websites clearly results from Table 3b), where the two user groups are considered as a whole. The answers given by both groups of operators show a marked preference, statistically very relevant (P-value < 0,1%), for financial news websites

Table no.3b) – Difference in access frequency between listed companies' and financial news websites

	both user groups			t test	
	nr.	Mean	std. dev.	t value	pr >  t
freq_listed -freq_financial news	104	-0,952	1,1353	-8,55	<0.0001

These results are very important to test our second hypothesis. The lower frequency of access to the listed companies' websites, in our opinion, can be considered the sign of a sort of "systematic delay" in the access to these websites, compared to the access to the financial news websites. This is probably due to a more-than-rational behaviour. The operators, apart from special and exclusive monitoring of specific business realities, declare to have daily recourse to the concise and general outlines provided for by the news websites. This way they are able to understand, though on a macro level, whether significant changes have occurred in any company. Once identified a noteworthy event, or something the operators usually pay attention to, the search for information allowing a deeper investigation cannot disregard visiting the primary source of data, namely the listed company's website.

We have to note that corporate lenders are used to visit listed companies' websites with more frequency than financial analysts (p-value 3,64%). This result is coherent with the one emerging from table 2, that is, corporate lenders rely on listed companies' websites more than financial analysts.

With regard to the results of a prior research in the Italian context (Quagli, 2001), only referred to financial analysts, a more frequent access to listed companies' websites clearly emerges (see Table no. 4).

Table no. 4) – Comparison of analysts' access frequency to companies websites

<i>Frequency</i>	<i>Quagli, 2001</i>	<i>Quagli-Riva, 2004</i>
<i>At least once a day</i>	0%	15%
<i>At least once a week</i>	20%	48%
<i>At least once a month</i>	50%	24%
<i>At least once a year</i>	23%	11%
<i>Never</i>	7%	2%
	100%	100%

This growing practice emphasizes the rise of the companies' websites as a financial information source for professional use.

The frequency of access is certainly evidence of the great importance given to online financial information, which seems to have just replaced, or at least reached the same level of, the traditional hardcopy communication with increasingly greater strength. In the part of the questionnaire dedicated to open questions, the respondents often pointed out that the new tool is irreplaceable, since it allows a skilful operator to develop important competitive advantages over the operators that, due to incapacity or inertia, still have recourse to papers. In fact, timeliness turns out to be the basis of a sort of change in the game rules: those who work on the basis of information obtained on an "intangible" but real-time medium, have more efficient behaviours than those who work starting from data usable on a "tangible" medium but with a delay of some hours or days.

The results so long analysed allow us also to say that users make a different use for different website categories in a different way. This means that the second hypothesis seems confirmed. Financial news websites come out to be more frequently used, but only to understand whether more investigations are needed, while listed companies' sites are visited to deepen the analysis. Similar behaviours and trends are registered for both financial analysts and corporate lenders, even if the second group emphasizes the importance of listed companies websites.

#### **4.3. Usage and importance of website functionalities**

We tried to identify what the main potentials of the visited websites are, namely what is the most frequent use of the websites by the expert users.

Tables no. 5) and table no. 6) summarize the results obtained.

*Table no. 5) – Comparison between listed companies' and financial news websites in order to different kinds of usage (both financial analysts and corporate lenders)*

category	listed companies	financial news website	differences	t test	
				t value	pr >  t
Download of corporate financial statements	3,9310	2,0575	1,8736	<b>10,30</b>	<b>&lt;,0001</b>
Download of other financial documents (fact book, presentations, etc.)	3,6897	2,2529	1,4368	<b>6,71</b>	<b>&lt;,0001</b>
Download of non-financial documents	2,5632	2,0115	0,5517	<b>3,31</b>	<b>0,0014</b>
Consultation of the corporate securities stock prices trend	1,6512	2,9186	-1,2674	<b>-5,79</b>	<b>&lt;,0001</b>
Consultation of corporate press releases	3,5402	2,3563	1,1839	<b>6,20</b>	<b>&lt;,0001</b>
Webcast for corporate meetings and presentations	2,4253	1,7011	0,7241	<b>4,37</b>	<b>&lt;,0001</b>

Table no. 6) – Comparison between corporate lenders and analysts in order to different kinds of usage

category		corporate lenders			financial analysts			differences	t test	
		nr.	mean	std. dev.	nr.	mean	std. dev.		t value	pr >  t
Download of corporate financial statements	listed companies' sites	13	4,3846	0,7679	74	3,8514	1,2680	0,5333	1,47	0,1465
	financial news website	13	2,0769	1,3205	74	2,0541	1,3334	0,0229	0,06	0,9546
Download of other financial documents (fact book, presentations, etc.)	listed companies' sites	13	3,9231	1,4412	74	3,6486	1,3286	0,2744	0,68	0,4993
	financial news website	13	2,2308	1,3634	74	2,2568	1,3953	-0,0260	-0,06	0,9506
Download of non-financial documents	listed companies' sites	13	2,3077	1,3775	74	2,6081	1,2694	-0,3004	-0,78	0,4392
	financial news website	13	1,9231	1,3821	74	2,0270	1,1100	-0,1040	-0,30	0,7649
Consultation of the corporate securities stock prices trend	listed companies' sites	13	1,0000	0	73	1,7671	1,1728	-0,7671	<b>-2,35</b>	<b>0,0213</b>
	financial news website	13	2,6154	1,8502	74	2,9459	1,6543	-0,3306	-0,65	0,5155
Consultation of corporate press releases	listed companies' sites	13	4,0769	0,8623	74	3,4459	1,3153	0,6310	1,66	0,0999
	financial news website	13	1,9231	1,3821	74	2,4324	1,3857	-0,5094	-1,22	0,2248
Webcast for corporate meetings and presentations	listed companies' sites	13	3,3077	1,3775	74	2,2703	1,3779	1,0374	<b>2,50</b>	<b>0,0142</b>
	financial news website	13	1,5385	1,1266	74	1,7297	1,0765	-0,1913	-0,59	0,5588

When the two identified user groups are considered as a whole, the behaviour of the two samples shows similar trends on average (table no. 5). In fact, with the exception of the activity of “consulting the trends of the securities stock prices”, both groups give much higher importance to the listed companies’ websites for the same activities we have proposed, with a significant p-value (P-value less than 0,1%).

The listed companies’ websites are used to a greater extent for downloading the companies’ financial statements, other financial and non-financial documents, but also for consulting press releases and using webcast for corporate meetings and presentations.

In particular, if the answers given for each individual grid item are analyzed, it can be pointed out that the answers given by operators belonging to either group and referring to the financial news websites are quite aligned: financial analysts seem to assign slightly higher ratings than the corporate lenders do (table no. 6).

The answers seem to be more varied when referred to the listed companies’ websites: the corporate lenders declare to visit them more frequently than financial analysts do for downloading financial statements and other financial documents, for examining press releases and making use of webcast for corporate meetings and presentations. Instead, financial analysts show a higher frequency than the corporate lenders when activities taken into account are consulting corporate securities stock prices and downloading non-financial documentation.

The only differences statistically significant between the two groups consist in the use of listed companies' websites to consult stock prices, less preferred by corporate lenders than by financial analysts (P-value 2,13%), and in the use of listed companies' websites to attend webcast meetings and presentations, more preferred by corporate lenders than by financial analysts (P-value 1,4%). Especially in the second case, the difference can be explained by the fact that financial analysts are more used than corporate lenders to attend directly to the companies meetings, diminishing the importance of this website functionality.

If we compare the results displayed in Table 3 with those registered in Table 5, it seems to be a contradiction. All operators first declare they gain more frequent access to the financial news websites than to those of the listed companies, and soon after they acknowledge that, when they have to deal with specific investigation activities, they prefer the listed companies' websites rather than the financial news ones. This outcome actually confirms the above remarks on the different role the operators assign to the two categories of websites. In order to monitor each day several corporate realities simultaneously, they have recourse to the news websites, which are useful for their showing more or less selected baskets of data drawing their attention to specific situations that are worth looking into. Then, in order to assess individual situations, direct access to the company website becomes indispensable.

Therefore we could say that the financial news website is assigned a role of synthesis, or more precisely, the task of maintaining a common interpretation screen of a reality that appears to be too complex and changing to be dominated by a single operator. However, as shown by the answers to the second question, an operator willing to keep his independence of judgement, usually has no recourse to a single news provider, but to several ones. This way, he can compare the various results, ask himself some questions, and maybe just by noticing any possible difference between the opinions expressed in these virtual places, he can establish some guiding principles for any subsequent deeper investigation that will certainly involve the listed companies' websites.

The following question aimed at finding out what are the most significant characteristics of the websites in the interviewees' opinion. This time, the aim was not getting an opinion on the actual way the expert users exploit the various functionalities, but rather obtaining the assignment of a relative importance to nine different characteristics of an imaginary website. Table no. 7) highlights the results obtained in relation to the listed companies' websites, separating the content features (items 1-5) from the navigation ones (items 6-8).

*Table no. 7) – Comparison between corporate lenders and analysts in order to importance of listed companies' website different functionalities*

category		corporate lenders			financial analysts			differences	t test	
		nr.	mean	std. dev.	nr.	mean	std. dev.		t value	pr >  t
Webcast for corporate presentations/meetings	listed companies' sites	15	3,7333	1,1629	96	2,6875	1,3244	1,0458	<b>2,89</b>	<b>0,0047</b>
	financial news website	15	2,4667	1,5523	96	2,0313	1,3095	0,4354	1,17	0,2455
Availability of information, even non-financial, on the entire management (products, strategies, etc.)	listed companies' sites	15	3,9333	1,1629	96	3,7708	1,2689	0,1625	0,47	0,6421
	financial news website	15	3,0000	1,5119	96	2,7604	1,4991	0,2396	0,58	0,5665
Real-time information updating	listed companies' sites	15	3,8667	1,4573	96	3,8021	1,4114	0,0646	0,16	0,8699
	financial news website	15	3,9333	1,5796	96	3,5417	1,6474	0,3917	0,86	0,3913
Possibility to download official documents (financial statements)	listed companies' sites	15	4,7333	0,4577	96	4,3854	1,0399	0,3479	1,27	0,2058
	financial news website	15	3,3333	1,7593	96	2,9271	1,6303	0,4063	0,89	0,3764
Interaction (subscription to company newsletters, e-mail, notifications)	listed companies' sites	15	3,6667	0,9759	96	3,0417	1,2890	0,6250	1,80	0,0752
	financial news website	15	2,5333	1,2459	96	2,5313	1,3989	0,0021	0,01	0,9957
Graphics	listed companies' sites	15	3,0667	1,0328	96	2,4792	1,0461	0,5875	<b>2,03</b>	<b>0,0452</b>
	financial news website	15	2,8667	1,2459	96	2,3125	1,2167	0,5542	1,64	0,1048
Site layout	listed companies' sites	15	3,1333	0,9904	96	2,6563	1,0645	0,4771	1,63	0,1063
	financial news website	15	3,0667	1,1629	96	2,4479	1,2555	0,6188	1,79	0,0760
Easiness of access	listed companies' sites	15	4,0667	0,7988	96	3,5833	1,1847	0,4833	1,52	0,1305
	financial news website	15	3,8667	1,3558	96	3,1458	1,4580	0,7208	1,80	0,0752

With regard to listed companies' website content features, the comparison between the two user groups demonstrates a strong similarity, with the exception of the items "webcast meetings and presentations" (P-value 0,47%) to which we can extend the above possible explanation: financial analysts are more "company specific" and usually assist personally to corporate meetings, reducing the importance of their fruition through the website. For both groups the most important feature remains the "classic" possibility to download official reports. More interesting, the content feature rated second for both groups, is the download of documents containing also non-financial information on the entire management rated third. These documents include information on mission and strategy, internal processes, customers, employees, relationships with the environment and stakeholders. If the aim is really to create a confidence with the stakeholders based on the value of information transparency, financial reports cannot be considered a mere instrument for determining the income and the invested capital, even though these are unique and basic elements. Since the aim of financial reports is meeting the needs of users, who have to understand the current situation of the company and make an estimate of future development of the business, the financial data should be integrated (FASB, 1996, DiPiazza Eccles, 2002). Non-financial information of different nature should be added, namely qualitative information, meaning, by this, the performance measures that consist of statistical or non-accounting surveys, as well as quality information in the exact sense of the word, namely the description of plans and strategies adopted (Riva, 2001).

It is worth remarking that the capability to allow direct interaction via website with the company (for example through the subscription to newsletters or the possibility to communicate by e-mail, if necessary, with the Investor Relators) it is not so important for both groups; nevertheless this feature is reputed by the practice a blueprint for IR website section. A possible explanation could consist in the existence of more efficient alternative communication channels for expert users, such as the direct talking with the IR office. Perhaps the interaction via website represents a valid tool for retail

investors who cannot receive an adequate singular attention from the IR office, similar to expert users.

Regarding the navigation features (items n° 6, 7, and 8), the easiness of access largely leads the preferences of both corporate lenders and analysts. The only relevant distinction between the two groups deals with the item “graphic”, preferred most by corporate lenders (P-value 4,5%). But in general it seems that the expert user is not so much interested in the appearance of the website as in the possibility to find rich real-time information, as we have seen. The web pages layout, the colour or number of images that can be downloaded are not considered so important, provided that sufficient levels of comprehensibility are reached, and, probably, provided that a location mapping of the information searched for by the user exists.

If we consider the compared importance of the functionalities of the listed companies’ websites and the financial news’ ones perceived by the whole sample (table no. 8), we can observe the consequence of the different effective role of these kinds of websites.

*Table no. 8) – Comparison between listed companies’ and financial news websites in order to importance of listed companies’ websites different functionalities*

category	listed companies	financial news website	differences	t test	
				t value	pr >  t
Webcast for corporate presentations/meetings	2,8288	2,0901	0,7387	<b>5,30</b>	<b>&lt;,0001</b>
Availability of information, even non-financial, on the entire management (products, strategies, etc.)	3,7928	2,7928	1,0000	<b>6,40</b>	<b>&lt;,0001</b>
Real-time information updating	3,8108	3,5946	0,2162	1,18	0,2399
Possibility to download official documents (financial statements)	4,4324	2,9820	1,4505	<b>8,75</b>	<b>&lt;,0001</b>
Interaction (subscription to company newsletters, e-mail, notifications)	3,1261	2,5315	0,5946	<b>4,29</b>	<b>&lt;,0001</b>
Graphics	2,5586	2,3874	0,1712	1,65	0,1022
Site layout	2,7207	2,5315	0,1892	<b>2,14</b>	<b>0,0342</b>
Easiness of access	3,6486	3,2432	0,4054	<b>3,39</b>	<b>0,001</b>

If the characteristics that rated at the same position in both website types are taken into account, it can be noticed that the levels reached for listed companies are always higher than those reached by the financial news websites. This outcome points out again how essential and unique the relationship with the listed companies is perceived. On the contrary, the websites that reprocess data and make financial news available, though representing an essential reference for carrying out their work, are perceived by the expert users as replaceable suppliers. Should the desired characteristics be unavailable, the operators could use the “exit option”, namely visit another provider’s website. If the counterpart was the listed company, they could not do the same, at least if the difficulty lies exclusively in finding the information, not in the contents of the information itself.

At a significant level (P-value less than 0,1%), the listed companies' websites are reputed more important in order to almost all the information content items: webcast of meetings and presentations, availability of non financial information, download of official reports, interaction. Financial news websites are valued more important only for the real-time updated information, but not at a significant level (P-value > 5%). This difference between website categories is also reflected by the navigation features: layout and easiness of access, at a significant level are valued more important for listed companies' websites than for the financial news ones.

This result is rather obvious if we think that in many financial news sites there are not some of the proposed content features. The larger part of financial news websites usually does not permit the download of official reports or the webcast of corporate meetings and presentations. But the question help us to comprehend that the sample generally works only with "traditional" financial news websites. In fact, today there is a new category of financial portals websites, such as [www.earnings.com](http://www.earnings.com) and other (see Quagli, Ramassa, 2005), where there is the possibility to assist to webcast of corporate meetings or to download official reports of a large number of companies (then the definition of "aggregator websites"). Our sample, instead, denotes familiarity with financial news websites that are used for a very strict scope, such as news updating and stock prices display.

In synthesis, the classification of the importance of websites features by the expert users is consistent with the above mentioned remarks: the listed companies' websites are, for both interviewed groups, the place to go to look into the matter, once the need has been understood through a previous examination of the data synthetically found at the financial news websites.

Taken the results from this question as a whole, a comparison with the corresponding issues of Beattie and Pratt (p. 170) is only partially possible. The number of website functionalities investigated by BP is wider than ours. Nevertheless, it is impressive that in our survey the easier and more standardized website functions, such as the download of corporate reports and presentations or the consultation of corporate press releases continue to be the most used ones by expert users. At the same time, more sophisticated capabilities, such as webcast meetings, are less used than it emerges from the BP results. In the expert users' practice, companies' websites then seem to be actually used as a repository, easily accessible, of packaged reports.

#### **4.4 The opinions about the websites utility and accessibility**

Once made clear that online financial information is strongly exploited by the expert users, and assessed the importance of the various website features, the following questions aim at finding out what are the possible obstacles to an effective and efficient use.

In order to understand the capability of the demand itself to fully exploit the websites potentiality, the questionnaire asked what degree of difficulty the users of our sample had encountered while accessing and using the listed companies' and financial news sites, respectively. Table no. 9) summarizes the results.

*Table no. 9) – Degree of difficulty in accessing and navigating the websites*

Usability of listed companies' sites	corporate lenders				financial analysts			
	pt.	nr.	pdt.	%	pt.	nr.	pdt.	%
Very easy	5	4	20	26,67%	5	16	80	16,49%
Easy	4	10	40	66,67%	4	67	268	69,07%
Quite difficult	3	1	3	6,67%	3	13	39	13,40%
Difficult	2	0	0	0,00%	2	1	2	1,03%
Very difficult	1	0	0	0,00%	1	0	0	0,00%
Total		15	63			97	389	
Mean			4,2000				4,0103	
Usability of financial news website	corporate lenders				financial analysts			
	pt.	nr.	pdt.	%	pt.	nr.	pdt.	%
Very easy	5	4	20	26,67%	5	21	105	23,33%
Easy	4	10	40	66,67%	4	58	232	64,44%
Quite difficult	3	1	3	6,67%	3	11	33	12,22%
Difficult	2	0	0	0,00%	2	0	0	0,00%
Very difficult	1	0	0	0,00%	1	0	0	0,00%
Total		15	63			90	370	
Mean			4,2000				4,1111	
category	corporate lenders			financial analysts			t test	
	nr.	mean	std. dev.	nr.	mean	std. dev.	t value	pr >  t
listed companies' sites	15	4,2000	0,5606	97	4,0103	0,5862	1,17	0,2434
financial news website	15	4,2000	0,5606	90	4,1111	0,5891	0,54	0,5873

The answers obtained with reference to the listed companies' websites are very similar for both samples: only 7% of the corporate lenders and 13% of financial analysts consider the information searching activity in the listed companies' websites quite difficult, 1% of the financial analysts consider it difficult, none considers it very difficult. A higher percentage of respondents of the corporate lenders sample (23%) compared to the financial analysts sample (16%) considers such activity very easy.

The answers regarding the activity of searching for financial information in the financial news websites do not change when only the corporate lenders sample is taken into account, whereas they slightly change in the financial analysts sample, but with a not significant statistical level (P-value > 5%). While surfing listed companies' websites is considered very easy by 16% of the respondents, the financial news websites are qualified as such by 23%. The activity remains quite difficult for 12% of the analysts, while neither sample considers it difficult or very difficult.

Therefore, based on the survey results, it can be stated that both corporate lenders and financial analysts have a positive opinion of online financial information, and consider their ability to use this information channel more than adequate, not finding any particular difficulties in accessing data; on the contrary, in most cases they consider access to data easy or very easy.



The following question asks to judge the effectiveness and the efficiency of the websites usually visited on the basis of a five-step scale, where 1 is the minimum rating and 5 the maximum rating. Table no. 10) and no. 11) summarize the results obtained.

*Table no 10) –Judgement of effectiveness and efficiency: comparison between listed companies’ websites and financial news websites*

category	listed companies	financial news website	differences	t test	
				t value	pr >   t
Information contents	3,4364	3,1091	0,3273	<b>2,61</b>	<b>0,0103</b>
Reliability compared to other sources	3,7818	3,0000	0,7818	<b>6,33</b>	<b>&lt;,0001</b>
Easiness of surfing	3,4091	3,1909	0,2182	<b>2,00</b>	<b>0,048</b>
Updating timeliness	3,0182	3,2727	-0,2545	-1,84	0,0681

*Table no 11) –Judgement of effectiveness and efficiency: comparison between corporate lenders and financial analysts*

category		corporate lenders			financial analysts			differences	t test	
		nr.	mean	std. dev.	nr.	mean	std. dev.		t value	pr >   t
Information contents	listed companies' sites	15	3,9333	0,7988	95	3,3579	0,9444	0,5754	<b>2,23</b>	<b>0,0275</b>
	financial news website	15	3,3333	1,2344	95	3,0737	1,2398	0,2596	0,75	0,4524
Reliability compared to other sources	listed companies' sites	15	4,4000	1,0556	95	3,6842	1,0843	0,7158	<b>2,38</b>	<b>0,0189</b>
	financial news website	15	3,2667	1,1629	95	2,9579	1,2370	0,3088	0,91	0,3673
Easiness of surfing	listed companies' sites	15	3,5333	0,7432	95	3,3895	1,0447	0,1439	0,51	0,6095
	financial news website	15	3,3333	1,1127	95	3,1684	1,2347	0,1649	0,49	0,6275
Updating timeliness	listed companies' sites	15	3,4000	0,9103	95	2,9579	1,1478	0,4421	1,42	0,1582
	financial news website	15	3,7333	1,0328	95	3,2000	1,3960	0,5333	1,42	0,1593

Following the other work in the Italian context (Quagli, 2001), effectiveness is a complex synthesis of very different characteristics and is linked to the utility of information in the user decisional processes. Then as a proxy of effectiveness, we have selected the information content and the reliability of data acquired via websites, compared to the one referred to other traditional sources (paper documents), and the timeliness of information updating in the websites. An information could be deemed effective if it has the requested content, it is reliable and updated. As a proxy of efficiency, we have chosen the easiness of navigation on which depends the time consumption to reach and acquire the desired information.

Our sample considers the listed companies’ websites more effective than the financial news ones (Table 10) having more information content, more reliability, and more easiness of navigation, at a significant level (P-value respectively 1%, 0,01%, and 4,8%). The financial news websites seem more up-to-date (but with a P-value of 6,8%).

A common characteristic of these websites is their “reliability”, as defined by some respondents in the part of the questionnaire dedicated to open questions; this characteristic is the result of the combination of three components “richness, reliability and timeliness of the information given”.

If we compare the judgements of the two groups (Table 11), it results that the rating assigned by financial analysts is slightly more cautious for both kinds of website, with values that are lower by half percent point. Especially with reference to the judgment on listed companies' websites, the difference is significant both for effectiveness of information content (P-value 2,7%) and for data reliability (P-value 1,9%), in the sense that corporate lenders are more confident than financial analysts. In any case, the assessment made by the two groups falls between level 3 and level 4, showing the users' overall satisfaction.

Comparing these issues with the results of Quagli, 2001, regarding the opinion expressed by analysts about the company websites, we see a stable average rating assigned to updating timeliness (2,97 in 2000, 2,91 in 2004) and to information content (3,27 in 2000, 3,32 in 2004). Only the easiness of navigation got better, passing from the 2,57 in 2000 up to 3,33 in 2004. In this sense, it is possible to assess a real change only in the more technical aspects of the Internet (navigation aids) rather than in a more evolved approach to a greater satisfaction of the expert users' needs.

The investigation ends with two additional questions asked to the interlocutors; in this case no close form was provided, without distinction between listed companies' websites and news websites, because we was interested in the general capability of the Internet as a medium for financial information. These questions aimed at finding out the level of satisfaction of the information demand. The choice to make use of a different method of collecting the answers is justified by our intention to widen the range of possible options in an inductive way. First, we asked to point out additional critical issues encountered in the use of websites. Tables no. 12) highlights the results reached with reference to the two groups.

*Table no. 12) – Websites' additional critical issues*

category	corporate lenders		financial analysts	
	nr.	%	nr.	%
Prompt data updating	5	33,33%	28	28,00%
Lack of retraceable information	1	6,67%	24	24,00%
Easiness/Difficulty of access	2	13,33%	10	10,00%
Unavailability of some documents or impossibility to download them	3	20,00%	6	6,00%
Lower efficiency of the Italian issuing companies' sites compared to the foreign ones	0	0,00%	2	2,00%
Unreliability of the published data	1	6,67%	2	2,00%
Risk of excessive dispersion	0	0,00%	2	2,00%
Information manipulated and exploited for mere advertisement purposes	0	0,00%	2	2,00%
It often represents the only information channel that can be used to get to know the companies	0	0,00%	1	1,00%
Inaccurate graphics	0	0,00%	1	1,00%
Very accurate graphics, but poor information	0	0,00%	1	1,00%
Lack of areas dedicated to the investors and different categories	1	6,67%	0	0,00%
Total sample	15		100	

The respondents of both groups do not give any particularly new indications that differ from those found out with the deductive method of the previous multiple choices. The need is insistently reasserted for the websites to include four characteristics already qualified as being of primary importance: timeliness, easiness of access, reliability and information contents richness. In particular, the corporate lenders would like the websites to be structured as areas entirely and exclusively dedicated to investors. The financial analysts, making reference to the listed companies' websites, point out, on one side, that they are often the only information channel that can be used to get in touch with the company (thus highlighting a very positive aspect of the online communication use), and on the other side, that this channel is often manipulated and exploited exclusively for institutional marketing purposes. In this sense, too accurate use of the website layout and graphics is pointed out, which sometimes aims at confusing the non-professional investor, as the "good look" of the virtual place corresponds to the absence of data and useful financial information to make portfolio decisions.

Finally, the last question asked to recall the lacks most commonly found in the websites visited. Table no. 13) highlights the results obtained.

category	corporate lenders		financial analysts	
	nr.	%	nr.	%
Absence of supplementary documents	5	33,33%	35	35,00%
Untimely data updating	5	33,33%	26	26,00%
Large sites, difficult to surf, download too slow when possible	2	13,33%	11	11,00%
Poor presence of vertical (for historical series) and horizontal	0	0,00%	7	7,00%
Incomplete information	0	0,00%	1	1,00%
Total sample	15		100	

Table no. 13) – Websites' most commonly found lacks

Both samples, with a similar frequency, supplied answers that can be referred to the same categories. It is extremely interesting to notice that the lack most frequently found in the websites is the absence of supplementary documents integrating the traditional ones, above all the financial statements. This result seems similar to Quagli, 2001, where the most severe perceived limitation was the low quality of information available online. When above the respondents were asked to classify several characteristics of the websites, both groups declared to consider the possibility to download documents containing non-financial information –namely non-accounting data and qualitative descriptions relevant to the entire management– as an essential issue

Users usually give these specifications and different types of information, provided on a voluntary basis by the listed company, a great value. The repeated request here confirms the above remarks, and recalls the results of researches carried out in the United States (Di Piazza, Eccles, 2002) by the scholars, but also by accounting Bodies such as AICPA (AICPA, 1994) and FASB (FASB, 2002) later on, as well as in Italy ( Riva, 2001; Quagli, Teodori, 2005).

## 5. Conclusion and implications for further research

The analysis carried out so far allows making some interesting remarks with regard to the subject in question.

First of all, the strong interest in the subject by both the considered samples should be noticed; such interest is proved by the enthusiasm, rapidity and exhaustiveness of co-operation by the interviewees, as well as by the great importance given by both populations analysed to the spreading of financial and non-financial news through the Internet.

The data that came out with regard to web access frequency is a consequence of this statement. In fact, it turns out a nearly daily visiting of the financial news websites

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and at least a weekly visiting of the listed companies' websites, with a strong growth since 2001. As previously stated, it is possible to interpret this result in the light of the different information needs met. The financial news websites (Bloomberg, Reuters, Yahoo Finance and so on) allow the user to get a real-time overall view and obtain general information. After any changes have been detected with regard to individual and specific realities, consulting the listed companies' websites allows conducting deeper studies and researches, so that the latter category is commonly considered as having the major impact within the working activity. This result implies a strong relationship, from the demand side, between corporate websites and financial news websites or portals. Companies should then structure their websites taking in consideration the impact of this relationship: for instance links to financial news websites should be added and to make visitors join them some information could be omitted if already included in these websites.

Future research on corporate web reporting, and the same practice of the online IR, shall enlarge the focus from the "traditional" company website to embrace other website categories, because the actual behaviour of the expert users in financial information sourcing is more complex than that one depicted to date. The listed companies' websites, in fact, turn out to be the most reliable sources of information relevant to financial statements, various financial documents and company presentations; on the other side, the financial news websites are the most visited ones to obtain information about the changes of the trends of the companies' securities stock prices.

From the answers given, it can be deduced that the possibility to download official documents, the real-time updating and the availability of information, even non-financial one, about the entire management, are the three most important characteristics of the websites; even though corporate lenders and financial analysts assigned different orders of preference according to the website type (listed companies or financial news). Therefore, it is not surprising to notice that the absence of supplementary documents and prompt updating of some websites are the main lacks perceived and considered the most serious, when encountered.

At a more general level of analysis, the most critical issue, as pointed out by both populations investigated, is again the constant and prompt updating of news and data made available on the Internet and the easiness of access and navigation of the websites. This last characteristic is anyhow widely and commonly experimented by both samples and for both website categories. Anyway, our study confirms (like BP research) the richness of websites allowed by recent technological developments (multimedia, interactive tools) is still not fully appreciated by expert users, especially if considered with the primary functions attributed to websites, that is, timeliness and easiness in the access.

Besides, the analysis reported the more-than-satisfactory judgement expressed by information users about the effectiveness and efficiency of websites, both the listed companies' and financial news' ones, with a praise to the reliability of the news reported by the former, and the updating timeliness of the latter.

Finally, regarding the similarities between corporate lenders and financial analysts, it is possible to say that the opinions expressed are not so different.

If the general trend of the answers obtained is taken into consideration it is possible to say that corporate lenders seem to be a bit more confident than financial analysts are. The longer experience in getting information from websites, the habit to

interact with companies' IR and to attend directly companies meetings could be the main reasons of the more prudential approach expressed by the analysts.

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