

Web communication of CSR and financial performance: A study of catalan meat companies

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Abstract

Purpose: The objective was to examine the relationship between CSR communication on corporate websites and the financial performance of Catalan meat companies.

Design/methodology: A qualitative and quantitative analysis of the CSR communication variables of corporate websites was carried out to identify the companies with the best CSR web communication practices, and an economic and financial comparative analysis was undertaken. The financial returns were modelled to determine whether CSR communication, as an independent variable, affects the net profit generated in relation to the investment of stakeholders. A set of 130 Catalan meat companies was analysed.

Findings: The report provides a diagnosis of the CSR web communication and the financial health of the companies in the study period. The study contributes to the discussion of the relationship between CSR and financial performance.

Research limitations/implications: Longer periods of economic and financial analysis would be beneficial, as would a more in-depth study of the online communication strategy to incorporate the views of those responsible for the strategy and stakeholders.

Practical implications: The analysis provides a better understanding of current corporate web communication, and the economic and financial situation of the companies analysed. It could help in the definition of a strategy to improve relationships with stakeholders, and it allows us to assess the forecast for the meat sector in Catalonia in the study period.

Social implications: The results of the study allow the industry to see the future prospects of the meat sector and make the necessary changes. The results lead to improved transparency and responsible behaviour.

Originality/value: The analysis allows stakeholders in the meat industry to evaluate a company's social behaviour, to assess its financial health, and to take appropriate future actions.

Keywords: CSR communication, Intangible, Economic and financial analysis

Jel Codes: M41

1. Introduction

Currently, there is widespread agreement in the business management area on the potential of intangible assets to create value and boost sustainable business growth. The management of intangible assets and methods for measuring their impact on business activity have been a focus of debate and management research in recent years. In addition, the study of corporate communication's role in the construction of intangible assets has gained importance. However, there is still no consensus on how to calculate the business and social value of intangible assets, and no definitive evidence to correlate them with financial results. Stakeholders may still find it hard to obtain full information (accounting and non-accounting) on the risks associated with a company's management of intangible assets. Corporate communication, as a business information system, is the main link with stakeholders and the company's image and reputation. Efficient communication makes a company's policies transparent, and increases the visibility of its resource management and the good practices involved in good corporate governance that contribute to a company's performance.

Corporate Social Responsibility (Observatorio de la RSC, 2014) is one of the intangible assets that have gained importance in Spanish society in recent decades. However, in companies, it is still not widely recognized by stakeholders. According to the Adecco Report (Fundación Adecco, 2014), 65% of

Spanish citizens do not know the meaning of CSR. This situation is partly due to shortcomings in corporate communication and investment. Investments in CSR in Spain have been made only recently and are still relatively low (Domènec, 2004). According to a report by the SERES Foundation (Fundación Sociedad Y Empresa Responsable-SERES, 2014), investment in social action programmes stands at only 2.8% of profits. In terms of communication, SMEs may engage in “silent CSR”: they undertake actions but do not communicate them. Furthermore, the 2013 Report by the CSR Observatory indicates that the big IBEX-35 companies’ annual reports still do not provide information on the risks that stakeholders are exposed to due to the company’s activities.

The general aim of this study was to provide information on the relationship between financial indicators and CSR, taking into account the efficiency of web communication of CSR and business size. The agrifood sector was chosen for the analysis, due to its economic, social and environmental impact on the community and the region. The study was carried out on a set of companies from the meat sector in Catalonia. A combination of qualitative and quantitative methods was used to identify common CSR communication variables on corporate websites, and to relate the companies’ financial results with their CSR practices.

After the Introduction, the paper continues with a literature review and the definition of objectives. The analytical method is divided into two parts. In the first part, the web communication of CSR is analysed to identify the most common variables and the companies with the best practices, and to relate these with company size. In the second part, a financial and economic analysis is carried out to compare the group of companies in the meat sector with the group of companies that have the best CSR communication. The financial results are determined for each group of companies.

Finally, the results and conclusions are presented, and future areas of research and relevant suggestions are discussed.

2. Literature review

The literature review is divided into two sections: the association of CSR with financial indicators; and corporate communication of CSR.

2.1. CSR and business results

Many studies examine whether corporate social responsibility influences business results. An indirect way of demonstrating that CSR is a competitive asset is to relate it with financial results (Longinos & Rubio, 2008).

The most common indicators of business results in CSR studies (Peloza, 2009) are share price, return on equity (ROE), return on assets (ROA) and return on sales (ROS). However, the main measure that is used is share price.

The widely cited paper by Griffin and Mahon (1997) summarizes studies carried out between 1972 and 1997 that analyse empirical evidence of an association between CSR and financial results. Most studies found a positive association, although some found a negative relationship, and others even found positive and negative relationships concurrently.

The results of sector studies were also inconclusive. A study of a sample of commercial banks (Simpson & Koher, 2002) found a positive relationship between CSR and financial results; no significant difference between the two variables was found for Canadian companies listed on the stock exchange (Mahoney & Roberts, 2007); and studies of agrifood companies (Martínez, Briones & De Nieves, 2011) concluded that social responsibility (and cooperation between companies) influences business results. The conclusion of a meta-analysis (Orlitzky, Schmidt & Reines, 2003) was that there is a slight positive relationship between CSR and companies' financial results.

According to Reverte (2009), business performance does not explain CSR. The author, who analysed all IBEX 35 companies, considers that the variables that have the greatest influence on CSR are a company's media exposure, followed by its size, and the industrial sector to which it belongs. As mentioned by the author, many studies have found a positive relationship between CSR and business performance (Belkaoui & Karpik, 1989; Cowen, Ferreri & Parker, 1987; Ismail & Chandler, 2005; Roberts, 1992; Ullmann, 1985), although some empirical studies do not confirm this positive relationship (Archel, 2003; Brammer & Pavelin, 2008; Carmona & Carrasco, 1988; García-Ayuso & Larrinaga, 2003; Moneva & Llena, 1996).

Therefore, we can conclude that there is no consensus on the relationship between CSR and business results.

2.2. Corporate communication of CSR

Communication is a key element in CSR management (Laivaite, 2011). It is "the process of communicating the social and environmental effects of organizations' economic actions to particular interest groups within society and to society at large" (Gray, Owen & Adams, 1996). Communication strategies may be proactive or reactive (Wagner, Lutz & Weitz, 2009). Decisions in this area are complex as they involve many factors: the investment; the form of communication, which could be online (Branco & Rodrigues, 2006) or traditional; the frequency of communication; the audience; interactivity (Capriotti & Moreno, 2007; Chaudhri & Wang, 2007); social media activity with different groups and objectives (to create and share information), which may be participative or collaborative in real-time (Kwak, Lee, Park & Moon, 2010).

The efficiency of CSR communication depends on having a clear strategy (Dawkins, 2004) that both delivers messages to different audiences and assesses stakeholders' opportunities and risks (Bhattacharya & Sen, 2004).

In online communication, the success of a website (Palmer, 2002) is associated with the web navigation (organization, structure, composition and sequencing) and the content (the amount and variety of information on a topic). From the user's perspective, usability should be considered in relation to expectations and satisfaction (Araque & Montero, 2006). Usability is based on various factors, such as speed of information access, interactivity (customization) and response capacity (feedback options and frequently asked questions). Some authors (Huertas Roig & Xifra Triadú, 2009) consider that simple, easy-to-use iconography creates a positive image, whilst large, complicated sites that take a long time to open and have a disorganized internal structure create negative attitudes and prompt users to leave the website (Sutcliffe, 2010).

In Spain, the use of corporate websites and social networks has increased considerably in recent decades (ONTSI, 2012), but the figures are still low, and it is not always an effective practice. The use of websites is led by large companies that have an approach to CSR as part of their corporate strategy, and have created specialized CSR departments (Domènec, 2004). Corporate communication of CSR in Spanish companies has focused on traditional areas: sustainability reports, position on international sustainability indices (such as the Dow Jones Sustainability Indices and the FTSE4Good), active

participation in forums and associations to promote CSR, and the creation of codes of ethics. Some of these actions are designed to change stakeholders' negative perceptions of the use of communication, in order to create a positive corporate image and reputation without involving a company's internal procedures (Dixon, 2007). According to the Adecco Report (Fundación Adecco, 2014), 70% of citizens consider that Spanish companies are less responsible than other European companies.

3. Study objectives and method

The general objective of this study was to determine the relationship between financial indicators and CSR, taking into account the efficiency of web communication of CSR and company size. The analysis was carried out using a sample of 130 meat companies associated with the Catalan Federation of Meat Industries (FECIC). The study combined quantitative and qualitative methods to analyse websites and the relationship of CSR with financial indicators. In addition to the standard analysis, information was drawn from the statement of changes in equity (SOCE) and the cash flow statement. The financial and economic information was obtained from the SABI database, using averages of financial indicators for the 2007-2011 period. Concentration was an important characteristic (27% of the companies employ over 100 employees, account for 61% of sales and are mainly located in the Province of Barcelona).

The study was carried out in two parts:

- In the first part, the content and ease of navigation of the companies' websites was analysed to determine the nature of web communication of CSR, and to identify the companies with the best practices. The relationship with business size was assessed to determine whether large companies communicated CSR more effectively than SMEs.
- In the second part, we analysed the economic and financial situation of the 130 selected companies, and of the subgroup of companies with the best CSR communication. We examined whether the companies with the best CSR communication obtained better results. In this part of the study, we modelled financial performance according to a range of variables, including CSR, to find out whether CSR influenced financial performance.

Finally, the results and conclusions were presented.

4. CSR on corporate websites

The analysis of websites was divided into the three areas that determine the efficiency of web communication with different audiences: design, content and ease of navigation. Figure 1 shows the categories of variables in each area.

Information on the websites of the 130 companies was gathered in an analysis template designed to record, organize and measure information on 33 entries or data items for the variables of every company under study, grouped into the three categories shown in Figure 1. The category “Design” is descriptive, and includes data and general information on the company and the website; descriptive, visual and technical corporate information; descriptive, visual and technical information about the product and/or services; information and interactive elements on social media; languages and references to the company’s international markets. The “Content” category contains information about the website’s corporate sections, CSR, and the three dimensions of CSR. To measure the category “Ease of navigation”, we analysed information on the site map, information of general use to the user, and the search tool options. Tables 1 and 2 show the variables for the categories of content and navigability used to in the frequency analysis, as well as the scoring system, which ranges from 0 to 5.

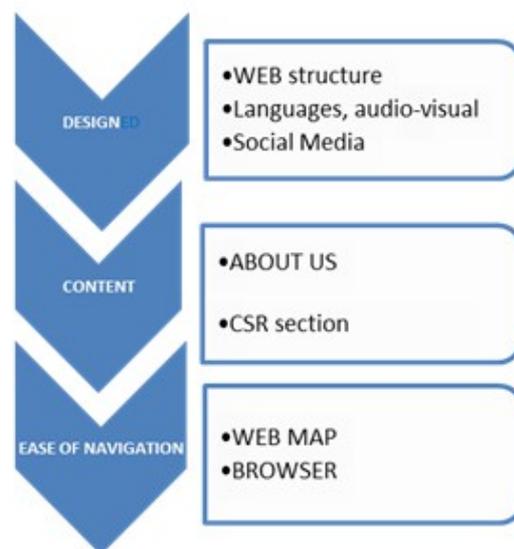


Figure 1. Categories and variables in the website analysis

The information was gathered in May 2013. In February 2014, it was checked whether companies had changed their web communication strategy during this period. Significant changes were not detected on the websites.

4.1. Web design

Corporate websites contain a wide range of elements of different kinds: text, graphics, animation, video, audio, etc. They include interactive elements, decentralized structures and hyperlinks, all in constant evolution, which made it hard to define valid descriptive categories for the study. Therefore, the “web design” analysis is descriptive. The notable characteristics of the 130 Catalan meat companies are listed below:

- Online communication. Not all companies have websites. Out of the sample of 130 companies, 77% (102 companies) had websites.
- Corporate elements. Companies used the main corporate colours from their logos in their websites. The selected images evoked the company’s activity, but advertising campaigns were not included.
- Electronic commerce. Only four companies had a specific section for e-commerce.
- Interactivity and social media. A total of 85.3% of companies in the sample did not have interactive tools available and functioning. Seventeen companies used social networks: Facebook was the most commonly used platform (11.3%), followed by Twitter (8.2%).
- International focus/languages. The presentation of websites in different languages could indirectly indicate a company’s interest in entering foreign markets. The most frequently used languages by order of priority were: Spanish, English, Catalan and French, followed by German, Italian and Russian (in fewer than 25 companies, but over 10). Only three companies gave their foreign sales figures.

4.2. Content analysis: CSR in the corporate web

The content analysis, which is a method used in systematic, quantitative studies of communication (Berelson, 1952), was based on the objective of the web content: to create a public image of the company and strengthen ties with stakeholders. “About us” is the main section in web communication, as it explains essential aspects of the company, its philosophy and reason for existence (its mission, vision and values), as well as other information about the company and the people who work there (Pollach, 2005; Dou & Krishnamurthy, 2007). It also contains elements of customer support (how to contact the company, frequently asked questions and employment opportunities) and social information (events, sponsorship, social responsibility, etc.). Table 1 shows the categories of variables used in the analysis, and the scores assigned to each one.

A total of 67% of the websites that were analysed had a score of two points or less on the corporate section. Only 34% of companies provided basic information on their organization to build a corporate reputation. Out of the companies in the sample, only 13% included elements of corporate identity.

A total of 93% of websites did not have a specific section on CSR. Only 7.8% of companies provided full information on CSR (all three dimensions) in a specific section. Most of the companies included information on CSR in different sections of the website. Figure 2 shows the frequency of the CSR dimensions.

Companies focused CSR communication on environmental variables (their waste management plan, eco-efficiency, emissions reduction etc.), and stressed that their processes are developed throughout the production chain (production of feeds, drugs, machinery and chemical products, etc.) according to management plans and legal and technical regulations. They listed the certificates they had obtained from Spanish and international institutions. However, only 18.6% of companies described their specific internal policies. These were large companies with over 100 employees, with three exceptions, including two small companies with fewer than 30 employees and full CSR practices.

CONTENT	ABOUT US	CORPORATE SECTIONS	Scores
		Includes elements of corporate identity: vision, mission and values	5
	History (development) of the organization	4	
	Company description	3	
	About us: not available but there are references to corporate identity (company presentation)	2	
	Does not work	1	
	Not available	0	
	CSR. Is there a specific section/tab on social responsibility?		
	YES	1	
	NO	0	
	DIMENSIONS OF CSR		
	All dimensions of CSR are covered: environmental, social, economic	5	
	Two dimensions are covered	4	
	One dimension of CSR is covered	3	
	There is no specific section on CSR, but it is referred to in the company presentation	2	
	Does not work	1	
	Not available	0	

Table 1. Categories and variables used in the web content analysis

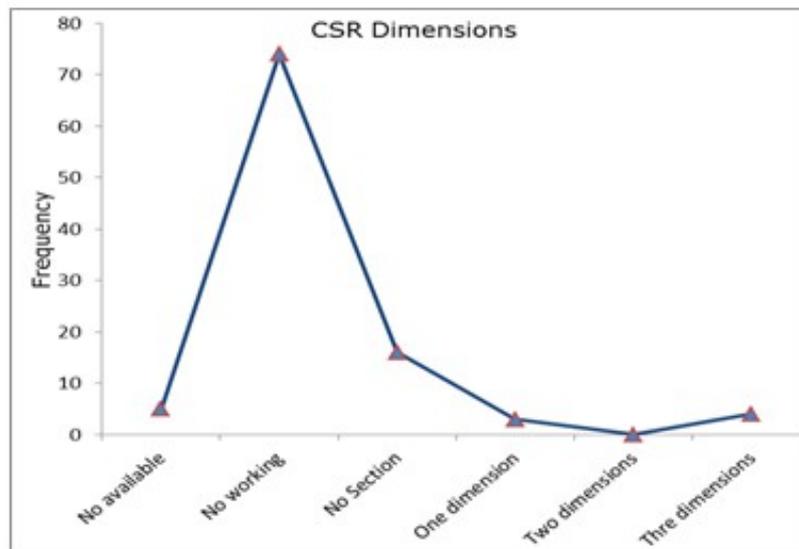


Figure 2. Frequency of CSR dimensions on the websites

The web communication strategy for the social dimension of CSR varied depending on the company’s activity and the audiences. The websites of companies with industrial clients had detailed information about the “quality” of the product and the production process (traceability, animal welfare, etc.). The information itself was high quality in terms of both content and presentation, and was clearly better quality than information aimed at end consumers and employees. This indicates that companies are

interested in having different relationships depending on the type of stakeholder. Only seven companies disclosed their human resources policy: training, promotion, occupational hazards, equality plans, etc. The web communication of companies that sell directly to end customers was focused on product innovation, adaptation to new social needs, collaborative strategies of "advice and recipes", and contact by e-mail. However, these communication actions were basically one-way.

4.3. Analysis of ease of navigation

Despite the importance of web design, there are no internationally recognized standards or specific regulations for elements of navigation, considered from the perspective and expectations of web users. Most websites include: a search tool, a site map to recognize the diversity of public interest, different feedback mechanisms, and a statement of information privacy and security (Dou & Krishnamurthy 2007; Díaz Sánchez, Martín-Consuegra & Esteban, 2008). Table 2 shows the navigation elements that were analysed on the companies' websites.

EASE OF NAVIGATION	SITE MAP	MAIN INFORMATION	
		Map in the layout	5
		Both applications are always visible or available in the Main Menu	4
		Site map on the home page	3
		Navigation route	2
		Not working	1
		Not available	0
		USEFUL INFORMATION.	
		FAQs, Comments, User support	
		Frequently updated information: events, news, articles, etc.	
		YES	1
		NO	0
	SEARCH TOOL	INTERNAL SEARCH	
		In the layout	5
		Is always visible	4
		Can be accessed from the Home page	3
		Is in the section	2
		Not working	1
Not available	0		

Table 2. Categories and variables of the ease of navigation analysis in relation to CSR

In the site map analysis, only 17% of companies obtained a score above three points for the variable "main information", and 68% did not show the route around their website. In terms of "useful information" (FAQ, news, recipes, etc.), 65% of the websites provided a full set of user tools, but

spread out in different sections to increase usability and enhance the user's experience. For the "search tool" variable, 85% of companies did not provide effective search options.

The companies with the best CSR communication on corporate websites had higher scores than average for "content and ease of navigation". These companies are shown in Table 3 ordered by number of employees, to relate company size with the efficiency of web communication of CSR. Table 3 also includes economic and financial indicators for these companies. As explained in Section 5, indicators of the solvency, liabilities and performance of the companies with the "best web communication of CSR" generally had similar values to the average for the group of 130 companies. The exception was Company 15, which performed badly, but was among the best companies in terms of web communication practices.

Company	No. of employees	Total assets (thousands of €)	Net sales (thousands of €)	Net worth (thousands of €)
*Company 1	3,730	10.00	874,049.06	195,850.76
*Company 3	700	70,840.32	116,808.08	23,494.31
*Company 5	300	47,297.22	52,658.42	20,513.56
*Company 7	244	47,602.54	129,096.28	30,701.70
**Company 9	101	20,482.48	80,035.12	10,233.56
***Company 13	30	4,334.28	12,503.01	1,617.70
***Company 15	40	6,792.67	6,693.85	2,376.77
***Company 17	6	257.57	655.92	215.31

*Large company

**Medium-sized company

***Small company

Company	Net income (thousands of €)	Solvency ratio	Debt ratio	Net return on assets	Position according to score
*Company 1	30,290.90	1.24	0.49	10%	1
*Company 3	1,035.03	1.15	0.66	4%	4
*Company 5	1,439.50	1.00	0.55	6%	3
*Company 7	5,653.16	3.18	0.35	15%	5
**Company 9	1,463.67	2.56	0.50	11%	6
***Company 13	82.76	1.25	0.63	3%	1
***Company 15	-598.29	0.65	0.65	-8%	5
***Company 17	33.88	7.78	0.16	18%	2

*Large company

**Medium-sized company

***Small company

Table 3. Profile of companies with the best web communication of CSR

The ranking of companies with the best CSR communication, given in the column “Position according to score” in Table 3, shows two companies in first place. One was a large company and the other small: Company 1 had 3,700 employees and a turnover of 870 million euros on average during the study period, whereas Company 13 had 30 employees and net sales of 12.5 million euros.

A similar situation was found for the companies in fifth position in the ranking. This position was shared by a company with 244 employees (Company 7) and a small company with only 40 employees (Company 15). We should stress that the generally negative returns of the small company during the study period did not affect its strategy of good communication of CSR on the corporate website.

Company 17, which was second in the ranking and had 6 employees, is an example of efficient communication, good governance and corporate culture of a small company. Company 9 is an example of a medium-sized company with an intermediate level of activity in the production chain that has good web communication practices.

The initial analysis indicates that companies in the Catalan meat sector use corporate websites mainly to inform the public (only four companies had a specific section for e-commerce). The level of interactivity is low (only 17 companies used social networks). The analysis did not find evidence of a correlation between company size and effective communication of CSR in the industry.

5. Comparison of the economic and financial analysis of the Catalan meat sector and of the meat companies with the best CSR communication

5.1. Comparison of the financial situation in the short-term

The main objective of the analysis of the financial situation in the short-term was to determine the capacity of the meat companies to meet their payment obligations in the short-term. First, we show the average total assets and their distribution in Catalan meat companies and the companies with the best CSR communication (Figures 3 and 4).

In the Catalan meat companies with the best CSR communication, the non-current assets were higher than the average for the Catalan meat sector. Therefore, these companies had more long-term investments.

The working capital was positive in both groups and increased in the study period (Figure 5).

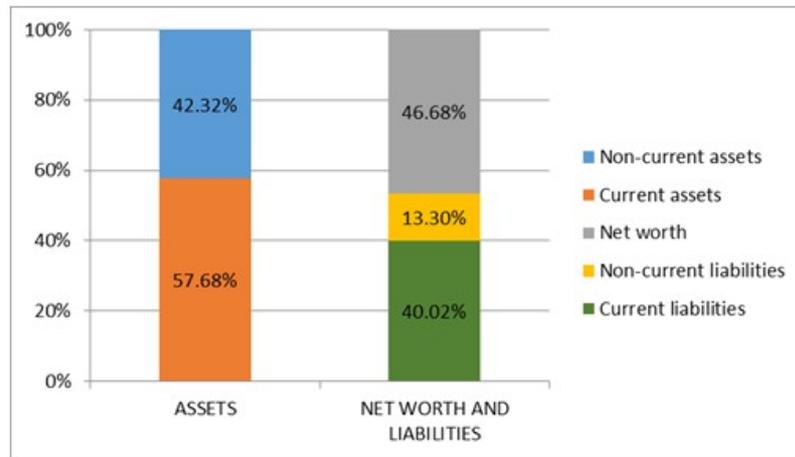


Figure 3. Catalan meat sector: balance sheet and average total assets for 2007-2011

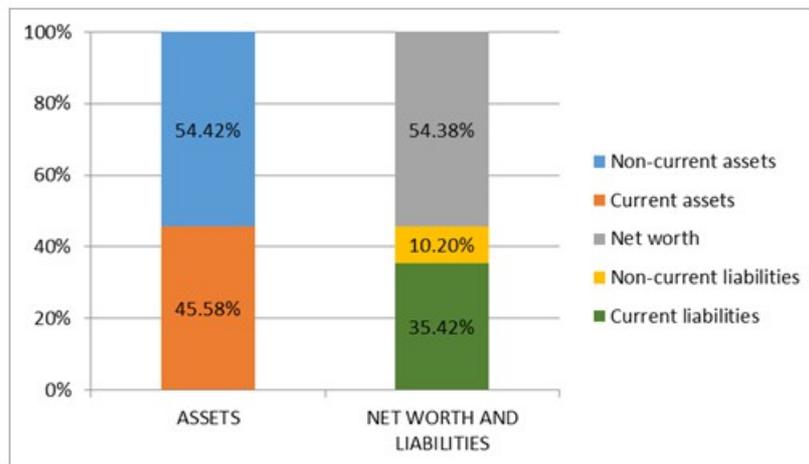


Figure 4. Meat companies with the best CSR communication – balance sheet and average total assets for 2007-2011

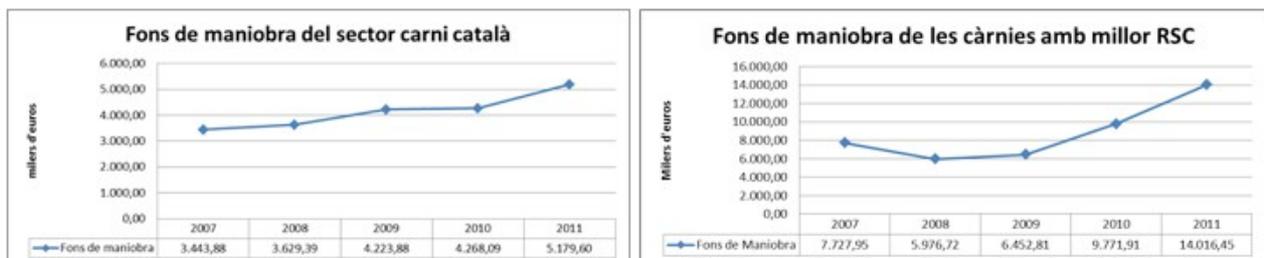


Figure 5. Comparison of working capital in the Catalan meat sector and the Catalan meat companies with the best CSR communication

The short-term solvency ratio measures a company's ability to pay debts in the short-term, using current assets. In the five financial years and in both groups, the companies could meet their liabilities in the short-term. However, the meat companies with the best CSR communication were more solvent in the short-term. Idle current assets could lose value over time if they are inappropriately invested (Figure 6).

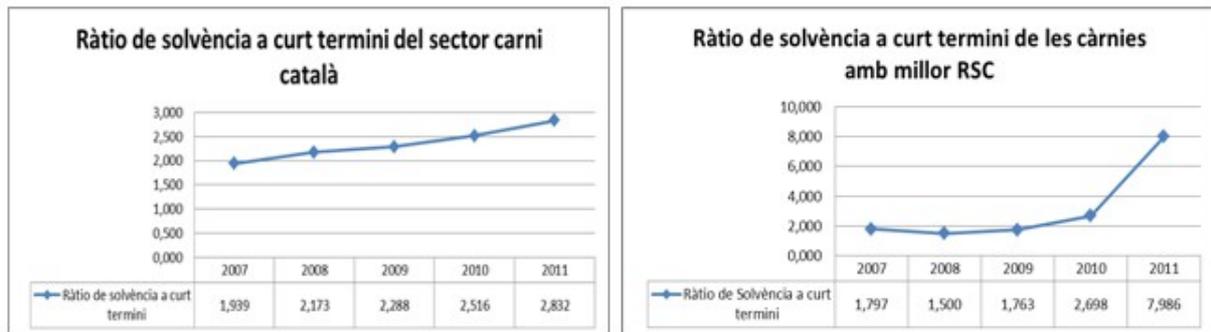


Figure 6. Comparison of short-term solvency in the Catalan meat sector and in the Catalan meat companies with the best CSR communication

The short-term solvency ratio is also related with positive values for operating activities in the cash flow statement. In both groups, cash flows from operating activities were positive, which indicates that more payments were collected than made in the operating activities (Figure 7).

Therefore, the short-term financial situation of the Catalan meat companies and the meat companies with the best CSR communication was good. However, it should be considered that the meat companies with the best CSR communication had very high short-term solvency in the study period.

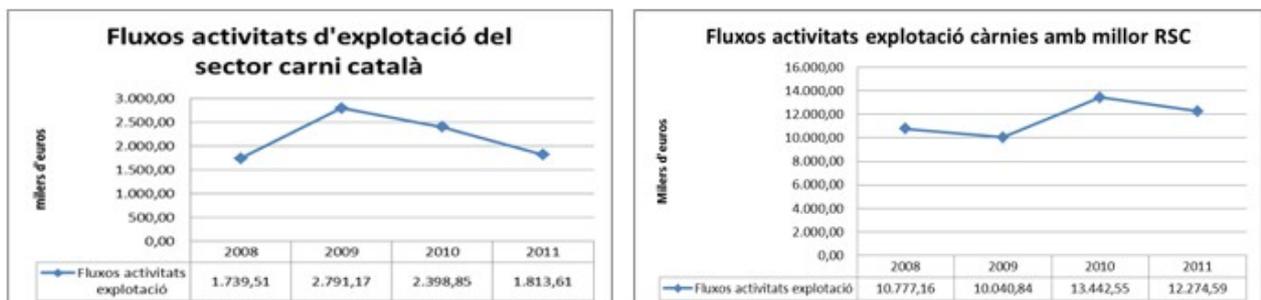


Figure 7. Comparison of cash flows from operating activities in the Catalan meat sector and in Catalan meat companies with the best CSR communication

5.2. Comparison of the long-term financial situation

The main aim of an analysis of the long-term financial situation is to assess a company's ability to pay debts in the long-term.

According to criteria on balanced economic growth provided by Amat and Perramon (2012), in the study period the Catalan meat companies managed their assets efficiently (sales growth was greater than asset growth), and their financial management was prudent (the increase in liabilities was lower than the asset growth). However, they did not manage spending well (performance declined, despite the increase in sales). The meat companies with the best CSR communication did not obtain any of the three indicators of balanced growth (assets and spending were not managed efficiently, and the financial management was not prudent) (Table 4).

	Asset management		Prudent financial management		Management of spending	
	Δ Sales	Δ Assets	Δ Assets	Δ Debts	Δ Results	Δ Sales
Growth of Catalan meat companies	24%	17%	17%	15%	-8%	24%
Growth of meat companies with the best CSR communication	21%	36%	36%	48%	0%	21%

Table 4. Comparison of the balanced growth in the Catalan meat sector and the Catalan meat companies with the best CSR communication

The companies in both groups built-up capital, but the assets of the companies with the best CSR communication increased more in the study period (27% increase).

In Catalan meat companies, liabilities increased by 15%, assets increased by 17%, and sales by 24% as a result of exportation. In contrast, in the meat companies with the best CSR communication, liabilities increased by 48%, assets by 36%, and sales by 21% (these are companies with more liabilities and more assets). The companies with the best CSR communication had higher net income. There were notable differences in comprehensive income, which increased 32% in Catalan meat companies and dropped 4% in the meat companies with the best CSR communication (Table 5).

Catalan meat companies	2007	2008	2009	2010	2011
Net worth	10,257.22	10,687.33	10,647.86	11,082.63	12,161.97
Liabilities	11,777.36	12,610.93	12,054.54	12,646.52	13,557.96
Comprehensive income	n.d.	776.95	761.03	1,252.41	1,025.69
Assets	22,034.57	23,298.26	22,702.42	23,729.16	25,718.71
Sales	44,761.32	48,993.80	45,648.97	49,378.62	55,375.99
Net income	1,123.72	818.45	778.87	1,167.98	1,036.44

Meat companies with the best CSR communication	2007	2008	2009	2010	2011
Net worth	42,058.58	47,073.09	43,675.15	48,895.94	53,540.90
Liabilities	31,642.04	37,702.41	37,461.05	43,791.83	46,751.97
Comprehensive income	n.d.	6,922.03	5,065.96	6,654.82	6,644.15
Assets	73,700.62	84,775.50	81,136.33	92,687.89	100,292.99
Sales	190,950.60	223,236.26	186,840.72	204,675.45	231,088.81
Net income	6,676.99	6,831.72	5,146.25	6,653.69	6,674.09

Table 5. Comparison of financial indicators for the Catalan meat sector and the meat companies with the best CSR communication

Continuing with the analysis, the total asset turnover, which shows the average time to recover the value of assets, indicated that companies in both groups took under a year to recover the value of assets. Specifically, meat companies with the best CSR communication took just 30 days (Figure 8).

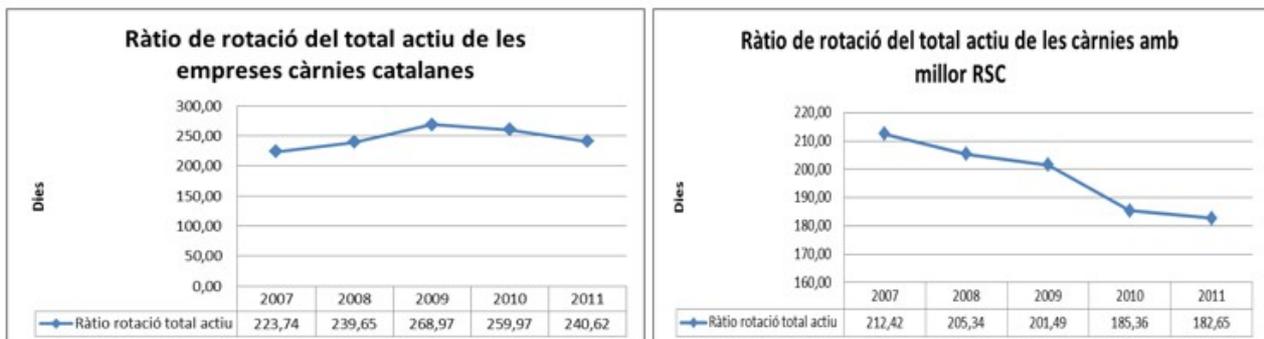


Figure 8. Comparison of the asset turnover ratio in the Catalan meat sector and the Catalan meat companies with the best CSR communication

Both groups of companies had acceptable levels of debt, between 50%-60%, but the quality was poor as short-term liabilities comprised 70-80%. However, there was a general trend to reduce levels of debt and improve quality (Figure 9).

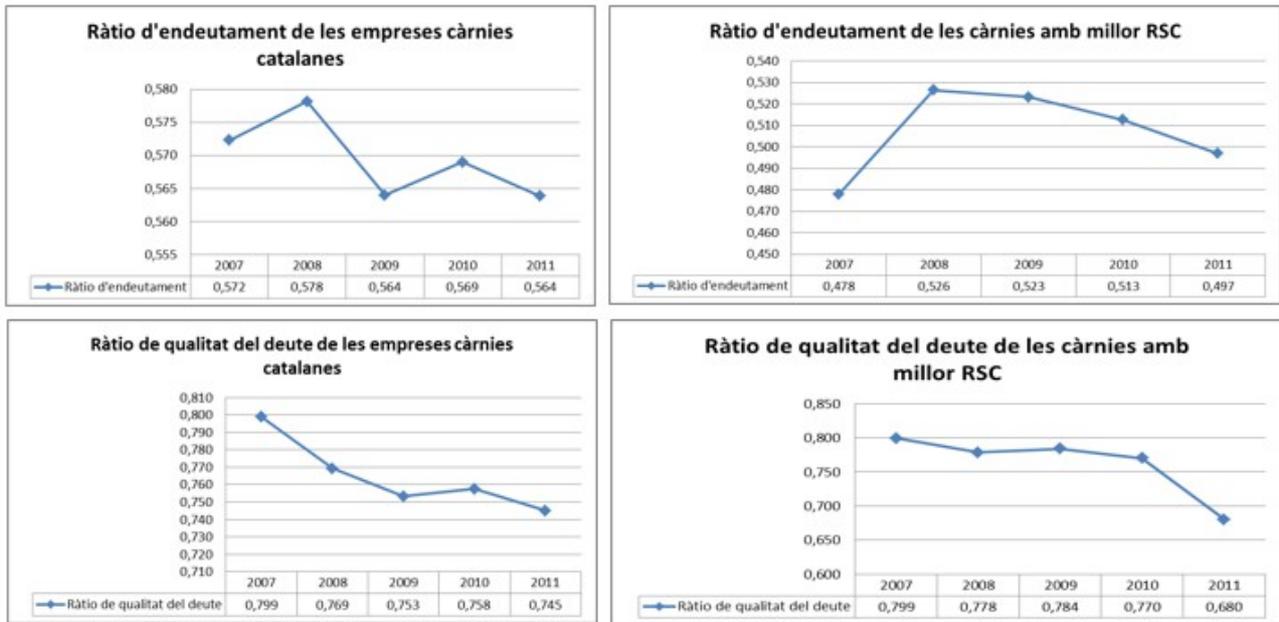


Figure 9. Comparison of the debt ratio and debt quality in the Catalan meat sector and Catalan meat companies with the best CSR communication

Therefore, the two groups had a good long-term financial position, although it would be advisable to improve the quality of their debts and the management of spending in the two groups under study, and enhance the financial management of assets in the companies with the best CSR communication.

5.3. Comparison of the economic analysis

The aim of the economic analysis was to explain how the results of these companies were produced, and identify the reasons for the variation in results in the study period.

The evolution of staff costs compared to sales was similar in both groups, although the percentage of staff costs was slightly higher in the group of Catalan meat companies. In both groups, staff costs reached the highest levels compared to sales in 2009 (Table 6).

	2007	2008	2009	2010	2011
Catalan meat companies	8.78%	8.63%	9.68%	9.21%	8.73%
Meat companies with the best CSR communication	8.15%	7.63%	8.53%	8.21%	7.43%

Table 6. Comparison of staff costs/sales in the Catalan meat sector and in the meat companies with the best CSR communication

In the analysis of performance, Catalan meat companies' figures for return on equity (ROE) and return on assets (ROA) decreased 39% and 40% respectively during the study period; and the ROE was higher than the ROA. The debt level would not be detrimental to Catalan meat companies (Figure 10).

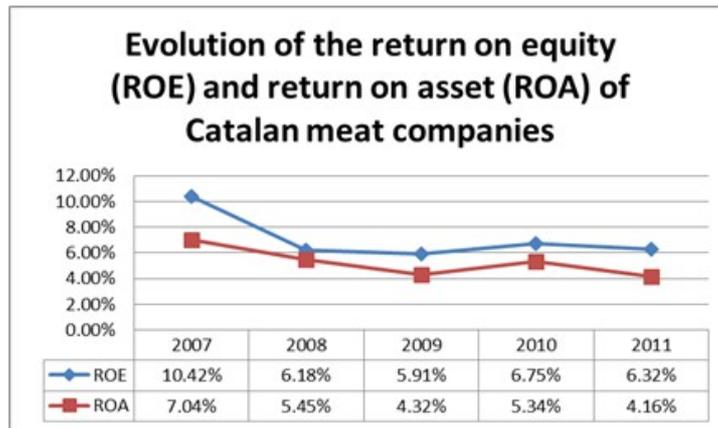


Figure 10. Evolution of the ROE and ROA in the Catalan meat sector

In contrast, in the analysis of the performance of meat companies with the best CSR communication, the return on equity was very unstable (particularly in 2008 and 2009), and the return on asset behaved in a similar way. The ROE fell in 2009 to reach a value lower than the ROA, but then increased and recovered its previous value (Figure 11).

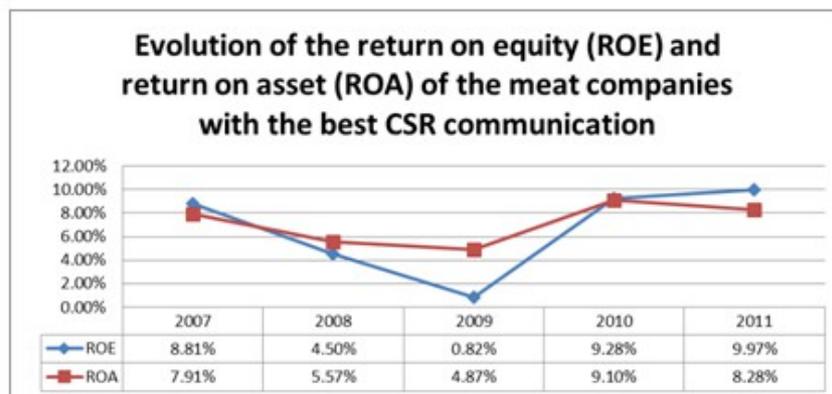


Figure 11. Evolution of ROE and ROA in the meat companies with the best CSR communication

To sum up, the performance of Catalan meat companies remained stable over the study period, but the return on equity of the meat companies with the best CSR communication was less stable (particularly in 2009). The ROE of Catalan meat companies and of those with the best CSR communication did not depend on the corporate social responsibility activities carried out by companies, according to the model that was used. Specifically, we drew up a model to assess the relationships between return on equity (ROE) (as a dependent variable), and the return on asset (ROA), ongoing capital (OC), the asset/net worth ratio (A/NW) and corporate social responsibility (CSR) (as independent variables) for Catalan meat companies and the meat companies with the best CSR communication. We modelled the return on equity as this indicator is highly significant, and to evaluate whether the independent variables, including CSR, affected the net earnings generated in relation to the investments of the owners.

Model:

$$ROE_t = \beta_0 + \beta_1 OC + \beta_2 ROA + \beta_3 A/NW + \beta_4 CSR + \varepsilon_t$$

For the sample of 130 meat companies in the 2007-2011 period, the proposed model had a very low coefficient of determination (0.279) and only one explanatory variable, the assets to net worth ratio. The rest of the variables were not explanatory, and therefore CSR does not affect ROE (Tables 7 and 8).

Model	R	R ²	Corrected R ²	Standard error in the calculation
	.528 ^a	.279	.256	.23614

Table 7. Coefficient of determination for the model of Catalan meat companies

Model	Non-standardized coefficients		Standardized coefficients	t	Sig.
	B	Standard error	Beta		
(Constant)	.099	.036		2.707	.008
Own resources	-3.799E-010	.000	-.039	-.472	.638
ROA	.563	.311	.146	1.811	.073
A_NW	-.008	.001	-.507	-6.484	.000
CSR %	.076	3.658	.002	.021	.983

Table 8. Significance of coefficients for the model of Catalan meat companies

For the companies with the best CSR communication in the 2007-2011 period, the proposed model had a very high coefficient of determination (0.971) and two variables were explanatory: ROA and the asset to net worth ratio. The other variables were not explanatory, and therefore the CSR did not affect the ROE (Tables 9 and 10).

Model	R	R ²	Corrected R ²	Standard error in the calculation
	.986 ^a	.971	.933	.03226

Table 9. Coefficient of determination for the meat companies with the best CSR communication

Model	Non-standardized coefficients		Standardized coefficients	t	Sig.
	B	Standard error	Beta		
(Constant)	-.512	.162		-3.168	.051
Own resources	1.039E-010	.000	.072	.664	.554
ROA	2.838	.428	1.689	6.633	.007
A_NW	.150	.046	.870	3.293	.046
CSR %	1.498	2.790	.062	.537	.629

Table 10. Significance of coefficients for the model of the meat companies with the best CSR communication

5.4. Comparison of the statement of changes in equity

After the standard analysis of the financial statements of Catalan meat companies for the 2007-2011 period, we added information from the statement of changes in equity (SOCE), to assess the comprehensive income of the companies, that is, the result that covers the net income, the income and expense attributed to the net worth, and transfers to profits and losses. In the first SOCE document, the statement of recognized income and expense, the entry that had the most influence on net income and comprehensive income in both groups was that of subsidies (Table 11).

Meat companies of Catalonia	2007	2008	2009	2010	2011
Net income (NI)	1,133.30	818.45	778.87	1,177.46	1,026.89
Comprehensive income (CI)	n.d.	776.95	761.03	1,262.58	1,042.21
Meat companies with the best CSR communication	2007	2008	2009	2010	2011
Net income (NI)	6,676.99	6,831.72	5,146.25	6,653.69	6,674.09
Comprehensive income (CI)	n.d.	6,922.03	5,065.96	6,654.82	6,644.15

Table 11. Comparison of the net income and comprehensive income in the Catalan meat sector and the Catalan meat companies with the best CSR communication

The evolution of the net income and comprehensive income was similar in both cases. However, in the case of the Catalan meat companies, there was a considerable increase in income in 2010, which was followed by a drop. In contrast, in the Catalan meat companies with the best CSR communication, there was a sharp decrease in income in 2009, followed by a recovery.

The second SOCE document, the statement of total changes in equity, showed the capital increase of the companies in the two groups during the study period (assets increased 17% in Catalan meat companies and 27% in the meat companies with the best CSR communication) (Table 12, Figure 12).

Net worth	Catalan meat companies	Meat companies with the best CSR communication
2007	10,257.22	42,058.58
2008	10,687.33	47,073.09
2009	10,647.86	43,675.15
2010	11,082.63	48,895.94
2011	12,161.97	53,540.90

Table 12. Comparison of net worth in the Catalan meat sector and the Catalan meat companies with the best CSR communication

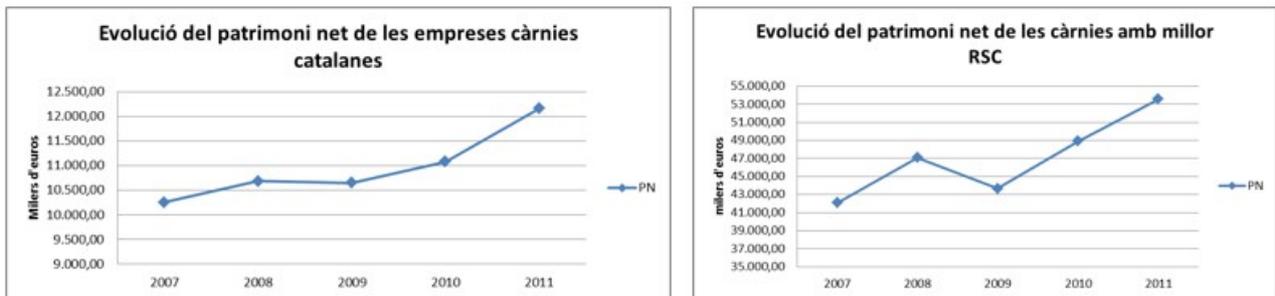


Figure 12. Comparison of net worth in the Catalan meat sector and in the Catalan meat companies with the best CSR communication

The increase in assets was more pronounced in the Catalan meat companies with the best CSR communication.

5.5. Comparison of the cash flow statement

The cash flow statement refers to the movement of cash and other equivalent liquid assets in the study period. In other words, it explains the effects of collecting and making payments during the period, according to their relation to operating activity, investment or financing (Table 13).

Cash flow statement for Catalan meat companies	2008	2009	2010	2011
A) Operating cash flow	1,739.51	2,791.17	2,398.85	1,813.61
B) Investing cash flow	-2,680.73	-1,971.11	-1,393.56	-1,588.79
C) Financing cash flow	971.28	-581.72	-746.65	-122.19
Cash flow statement for meat companies with the best CSR communication	2008	2009	2010	2011
A) Operating cash flow	10,777.16	10,040.84	13,442.55	12,274.59
B) Investing cash flow	-12,275.62	-9,238.91	-8,024.34	-9,270.63
C) Financing cash flow	1,276.54	-518.65	-2,968.21	-2,057.70

Table 13. Comparison of cash flows from operating, investment and financing activities for the Catalan meat industry and the Catalan meat companies that best communicate CSR

In both groups, the operating cash flows were positive, given that the payments collected were higher than the payments made for operating activities, and companies could cover their payments in the short-term. The investing cash flows were negative, which shows that the companies invested throughout the period (particularly the companies with the best CSR communication). The financing cash flows were also negative, which shows that loans were returned (except in financial year 2008, when there was a need for financing). The companies with the best CSR communication had larger operating, investing and financing cash flows. In other words, they were companies with greater short-term solvency and considerable investments, which returned large amounts of loans to credit institutions.

6. Conclusions

The analysis of corporate websites reveals that not all companies in the sector have websites, and that the main objective of existing sites is to provide information without prioritizing e-commerce and interactivity with stakeholders. The structure of the websites enhanced the ease of navigation, and made a positive contribution to the user's experience. However, some areas could be greatly improved. The main dimension of CSR is the environment, followed by the social dimension to promote relations with the customers and, less directly, with employees. Only eight companies had a specific CSR section on the website. Most companies presented CSR information in different sections, and only seven companies explained their human resources policy (training, promotion, occupational hazards, and equality plans). In terms of company size, the study did not reveal any notable correlation between company size and the web communication of CSR in the groups of companies. In addition, the web contents showed evidence that companies carry out CSR activities that they do not report on their websites. We can conclude that companies in the meat sector should review their CSR communication strategy.

In terms of the economic and financial analysis of Catalan meat companies and the meat companies with the best CSR communication, the two groups had good economic and financial positions in the 2007-2011 period, with some notable differences:

In the short-term analysis, the two groups had a similar distribution of average total assets, but the economic structure of the companies with the best CSR communication had higher non-current assets (54%). The average assets increased throughout the study period in both groups. In addition, the working capital was positive and evolved in a similar way in both groups. The short-term solvency was good, although the companies with the best CSR communication may have had idle assets in financial years 2010 and 2011. The high operating cash flows also indicate the companies' good short-term solvency.

The long term analysis indicates that the growth of the companies with the best CSR communication is not balanced, as they do not manage their assets and spending effectively, or manage their finances prudently. In contrast, the companies in the Catalan meat sector managed finances prudently and assets effectively. In both groups, debts, assets and sales increased throughout the study period, and the total asset turnover diminished, particularly in the companies with the best CSR communication. The debt ratio and the debt quality behaved similarly in both groups.

The economic analysis indicates that the staff costs behaved in a similar way in both groups during financial years 2007-2011. In terms of performance, the return on equity was stable in the Catalan meat sector, and with no notable downturns. In contrast, in the group of companies with the best CSR communication, the ROE reached a value below the ROA in 2009. In addition, the modelling of return of assets indicates that the CSR is not an explanatory variable of ROE in the two groups.

There were two notable aspects in the analysis of the statement of changes in equity (SOCE). First, the behaviour of the net income remained similar in both groups, whilst the trend in comprehensive income was totally different. In Catalan meat companies the comprehensive income rose over the study period, but it dropped in the companies with the best CSR communication. Finally, the cash flow statement indicates that there were no short-term solvency problems in the groups, and that the companies are investing and can return loans to credit institutions.

Notable future challenges for Catalan meat companies' online communication of CSR include improving interactive methods and practices, and boosting the use of social networks in internal and external communication. It would also be advisable to increase and/or complement the companies' information and responsible activities on the websites, and to include policies to increase the visibility of CSR practices in the corporate communication strategy and its implementation plan.

Finally, the meat industry is an important sector and would benefit from a handbook of good practices, to improve CSR communication.

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