

PORT SECTOR SUSTAINABILITY REPORTING: THE CASE OF THE PORT OF GENOA

Claudio Ferrari, Faculty of Economics, University of Genova, Italy

Elena Morchio, Faculty of Economics, University of Genova, Italy

Simona Sanguineti, Faculty of Economics, University of Genova, Italy¹

1. INTRODUCTION

The role played by firms has been evolved with a social and environmental dimension of management, beside the economic and financial ones, in a framework of increasing attention to sustainable development. Consciousness keeping pace with a necessary communication politics of this new social role, firms have increasingly adopted corporate sustainability reporting principles.

The logistics and transportation sector has a variety of impacts affecting the economic, environmental, and social dimensions of society in positive as well as negative ways. With the steady increase of trade flows and maritime and port traffic, getting goods (and people) to and from their respective destinations while containing negative externalities presents a major challenge for ports around the world.

Planned together with Genoa provincial administration, present study aims at creating a sustainability framework report for the port of Genoa, to satisfy the information needs of external and internal stakeholders (employers, shareholder, customers, supplier, associations, local authorities, communities) in terms of social and environmental performance of the port, meant as the community of different actors involved in the rendering of the port service.

The work will be based mainly on the “G3” Guidelines, i.e. the so-called “Third Generation” of the GRI’s Sustainability Reporting Guidelines, with special attention to the Logistics and Transportation Sector Supplement. The Supplement content was developed to be globally applicable to all organisations regardless of their size or specific range of activities within the logistics and transportation sector (e.g., express or mail services) that use single or multiple modes of transportation to move goods, primarily for logistical purposes.

The main features distinguishing this case study from “traditional” sustainability reporting are represented by the need to identify the port community, i.e. to select relevant categories and actors involved, by the number and complexity of multilateral relations existing among them, and by the expected difficulties in obtaining relevant information.

¹ Corresponding author - e-mail: sanguineti@economia.unige.it

The research work will include the analysis of balance sheets of selected firms and a number of interviews in order to obtain measures of the impact or effect of the actors involved divided into integrated, economic, environmental, and social performance indicators.

2. BRIEF INTRODUCTION TO SUSTAINABILITY REPORTING

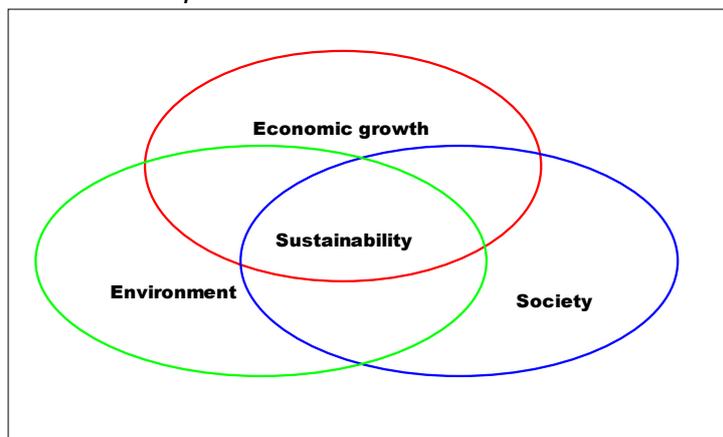
Search for a definition of sustainable development is misleading because the concept has a variety of political, social and scientific roots. The most commonly used definition of sustainable development is the one provided by the World Commission on Environment and Development (1987), which set that

“Is a process in which exploitation of resources, the direction of investments, the orientation of technological development, and institutional changes are all in harmony and enhance current and future potential to meet human needs and aspiration”.

However one of the main problems normally met in measuring sustainability is that of defining a quantifiable measurement, this is due to different and complex factors involved in the process. There are different frameworks for sustainability reporting; most of them focus on social, economic and environmental performances of a company. This is also called *triple bottom line* (J. Elkington, 1993). In practical terms, triple bottom line accounting refer to the expansion of the traditional reporting framework in order to take into account also ecological and social performance in addition to financial performance, normally included in the balance sheet.

The concept of triple bottom line demands that the company's responsibility need to be reported with attention to stakeholders rather than shareholders. In this case, "stakeholders" refers to anyone who is influenced, either directly or indirectly, by the actions of a firm. According to the stakeholder theory, firms should be used as a vehicle for coordinating stakeholder interests, instead of maximizing shareholder (owner) profit.

Fig. 1 – Triple bottom line concept.



Some frameworks for sustainability reporting measure sustainability performance of a company using monetary values, others, like GRI (Global Reporting Initiative), use a wide range of different indicators. GRI is the best-known framework for voluntary reporting based on the triple bottom line.

The latest version of the GRI Sustainability Guidelines is dated 2002 and define itself as

“a long-term, multi-stakeholder, international process whose mission is to develop and disseminate globally applicable Sustainable Reporting Guidelines” (GRI, 2002).

GRI framework provide a hierarchy of the performance indicators, based on: categories (areas of economic, environmental and social issues), aspects (a given category may be defined in terms of issues, impacts, etc.) and indicators. Indicators may be (GRI, 2002):

1. *Core indicators*, relevant to most reporters and of interest to most stakeholders;
2. *Additional indicators*, specific for a kind of business and of interest to stakeholders more relevant for the reporting activity.

In our research we used a series indicators defined after an accurate reading of the GRI guidelines. The decision of following that framework is further justified by the fact that GRI provide a high level of sector specialization giving also Sector Supplements guidelines. Therefore we refer to the *GRI Logistics and Transportation Sector Supplement*. The supplement has been developed by a multi-stakeholder working group co-convened by the GRI and the Logistics and Transportation Corporate Citizenship Initiative (L&TCCI) of the World Economic Forum (GRI, 2006). The supplements consider the specific aspect of each industry or sector, giving most suitable indicators.

3. THE CASE OF THE PORT OF GENOA

The research project illustrated in this paper has been planned together with Genoa provincial administration. Main goal of the research is the drafting of a Sustainable Reporting of the port of Genoa.

The innovative aspect of the study is the attempt to define a report that refers to a set of firms and not only to a single company. The Sustainability Report in this case concern businesses belonging to the same sector and operating on the same area, but it consider a large number of different independent and sometimes competing firms. This report could also be seen as a starting point for defining the social impact of a port.

However this innovative side raises also the problem that in this case the drafting of the Sustainable Report is not a decision born inside a business, but it is a request of another entity. Therefore companies have to give their data to an external researcher and they are often reluctant in doing that, or simply they could not have interest in the report.

Because of the very high number of businesses (directly or indirectly) linked to the port industry, we decide to limit this first study to the firms authorized by the local Port Authority to operate inside the perimeter of the harbour in 2009, focusing on three categories of firms:

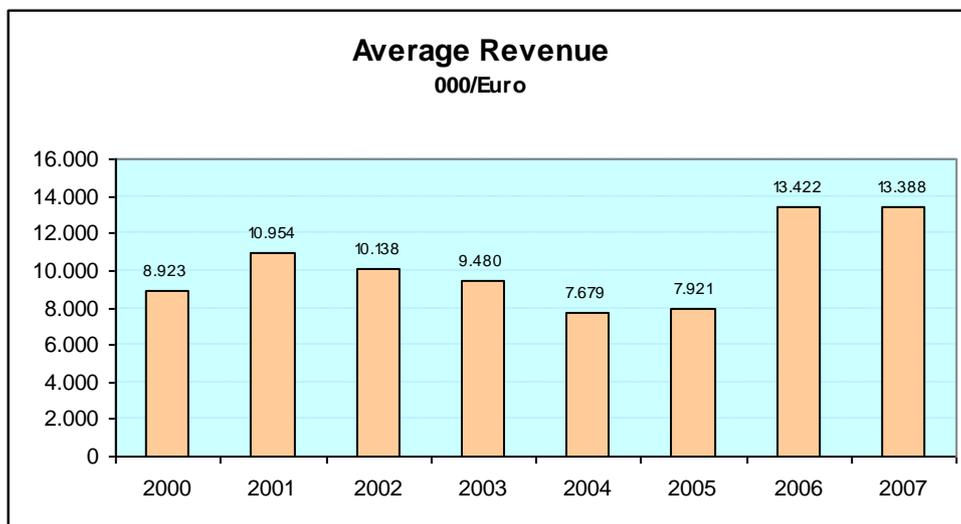
terminal container, ship and container repairing. We investigate a total of 80 companies, the greater part of them involved in ship repairing activities.

In the previous section we stated that a Sustainability Report include in its analysis three different aspects: economic, social and environmental performance. The results obtained about the three topics are set out in the following of the paper. Section 3.1 highlight the economic performance of the firms involved. We use data from the Balance Sheets of the companies available in the AIDA database Bureau Van Dijk. Social and environmental performances are described in Section 3.2. For these aspects we obtained data from a suitable survey supplied to the firms.

3.1 Financial analysis of firms

Financial analysis (also referred to as financial statement analysis or accounting analysis) refers to an assessment of the viability, stability and profitability of a business. At its most basic, financial analysis involves looking at financial statements to determine if a company is healthy. Account analysis is performed by professionals who prepare reports using ratios that make use of information taken from financial statements and other reports. In this study we refer to the data available in the AIDA database provided by Bureau Van Dijk. We found data for 73 companies: 16 terminals, 49 ship repairing and 8 container repairing. The number of companies present in the dataset is still increasing: quasi raddoppiato dal 2000, anno di partenza per la ricerca. Fig. 2 shows the Average Revenue trend. After a continuous decline from 2001 to 2005 in the last two years not only increased again but even at a level never reached before.

Fig. 2 - Average revenue (thousands of Euro)



Source: own elaboration on AIDA data

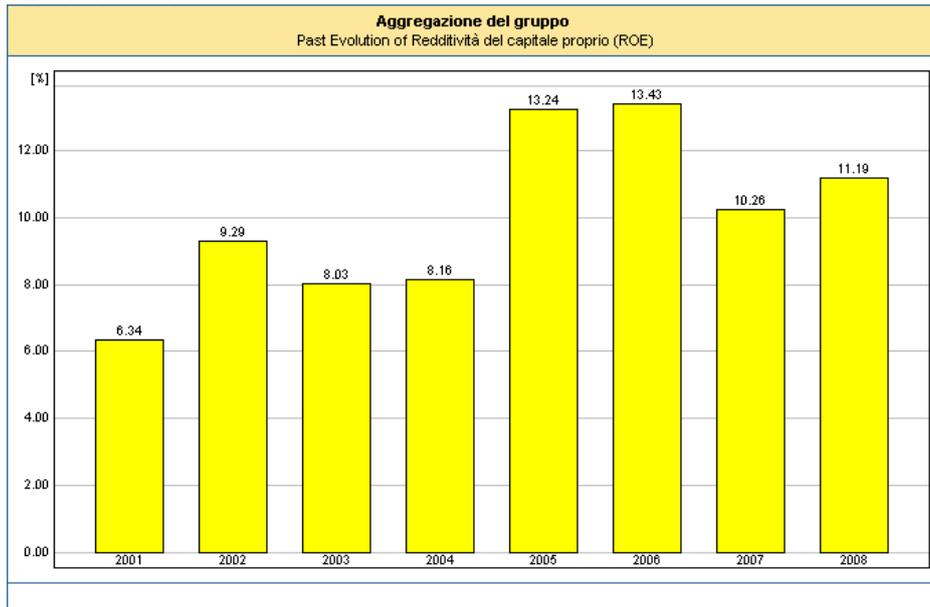
Return on Equity (ROE) measures the rate of return on the shareholder's equity of the common stock owners. It indicates a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested. ROE is the most popular

measures of financial performance and it is expressed as a percentage and calculated as: Return on Equity = Net Income/Shareholder's Equity.

This ratio shows how a company uses investment to generate earning growth. However not necessarily a high value of ROE means that the company is making good investments because of the possibility of leverage effects.

The graph below shows the evolution of ROE for the companies considered in our analysis. Compared to the market rate of interest the values are quite high, especially in the 2005 and 2006.

Fig. 3 – ROE evolution.

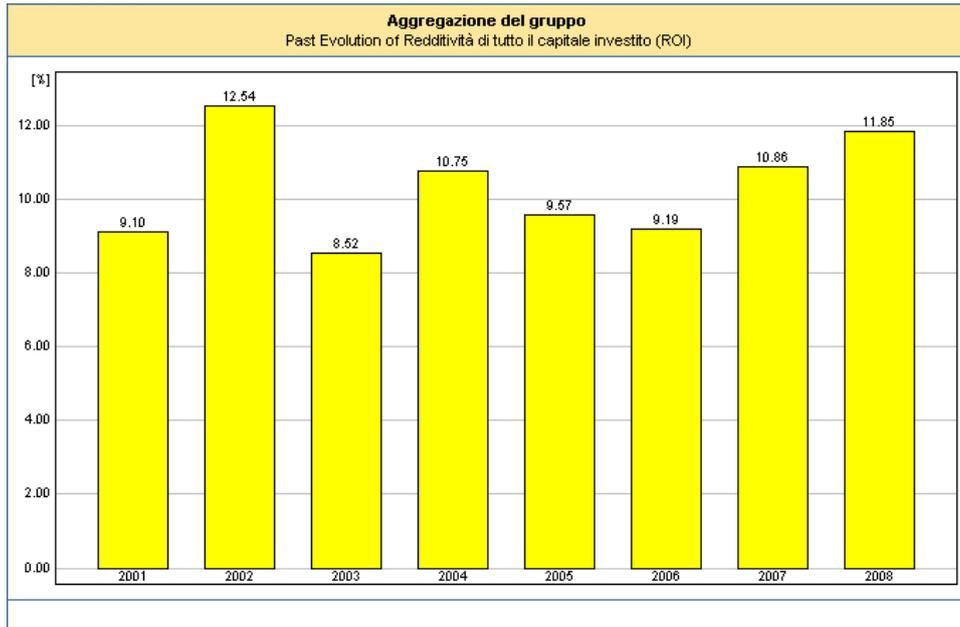


Source: AIDA

Return On Investment (ROI) is a performance measure used to evaluate the efficiency of an investment in a company. To calculate ROI, the return of an investment is divided by the cost of the investment; the result is expressed as a percentage or a ratio. ROI is also known as a profitability ratio, because it provides information about management's performance in using the resources of the firms to generate income. The value of ROI should be higher than interest rate available through a bank loan or other low-risk investments. However, many factors can influence ROI (such as changes in price, volume, or expenses, as well as the purchase of assets or the borrowing of money).

Figure 4 shows the evolution of ROI for the analyzed companies. Its value share from a minimum of 8.5% to a maximum of 12.54%. ROI suffered a fall between 2002 and 2003, and is growing in the last years. It should be highlighted that the value of ROI is quite high respect to interest rate on bank loan.

Fig.4 – ROI evolution.

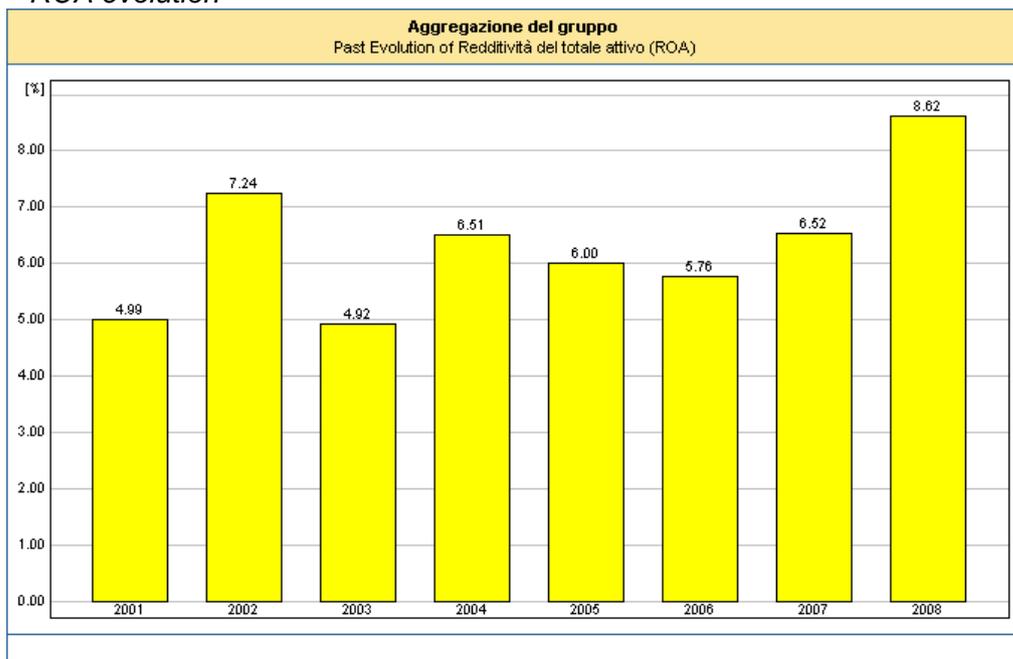


Source: AIDA

Another commonly used financial ratio is *Return On Assets (ROA)*, that shows the percentage of profit that a company earns in relation to its overall resources. It is commonly defined as net income (or pretax profit) / total assets. ROA is also known as a profitability or productivity ratio, because it provides information about management's performance in using the assets of the small business to generate income.

The average value of this ratio for the companies included (figure 5) in the research show a trend quite similar to the one of ROI ratio, growing in the last three years and ranging from 4.9 in 2003 to 8.6 in 2008, the highest value of the time series considered.

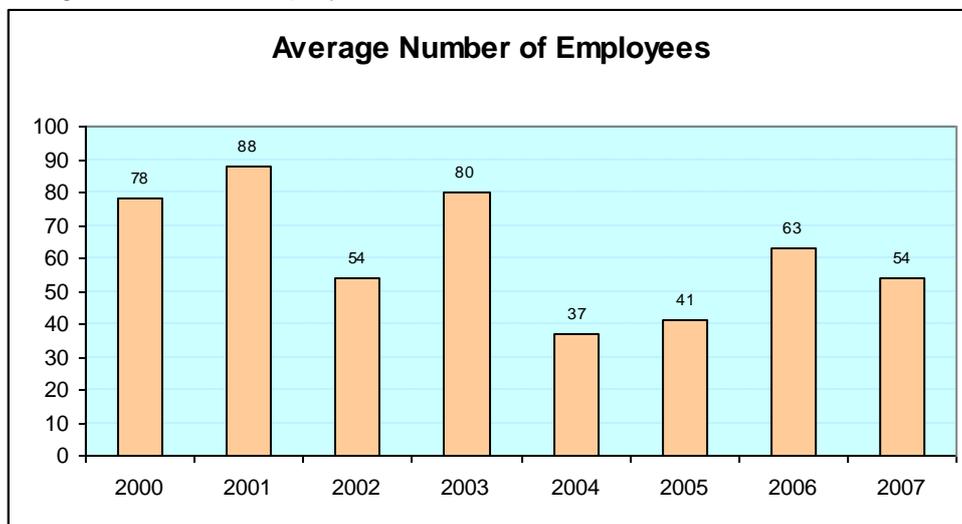
Fig.5 – ROA evolution



Source: AIDA

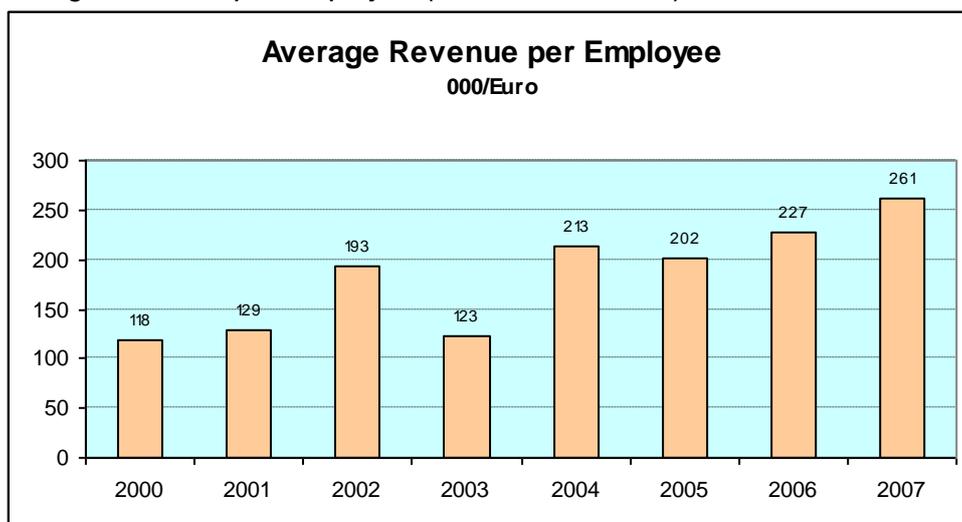
The following three graphs show the same data about the companies involved in the research. Figure 6 shows the average number of employees, which varies quite a lot between the years. This may be justified by the fact that the number of firms included in the database varies year by year. However, when a firm starts to be included in the utilized database it usually continues to be inserted in it. Therefore, high changes in the average number of employees are not easily understandable without deeper analysis. They can be highlighted especially between 2001 and 2004. Figure 7 gives the evolution of the average revenue per employee. The trend is growing and this is in line with the increasing total revenue in figure 2 and the variation in the average number of employees in figure 6. The last graph (figure 8) is related to the Added Value produced by each employee. After a decline in 2003 the index grew again reaching a value of 90.000 euro of Added Value per worker.

Fig.6 – Average Number of Employees



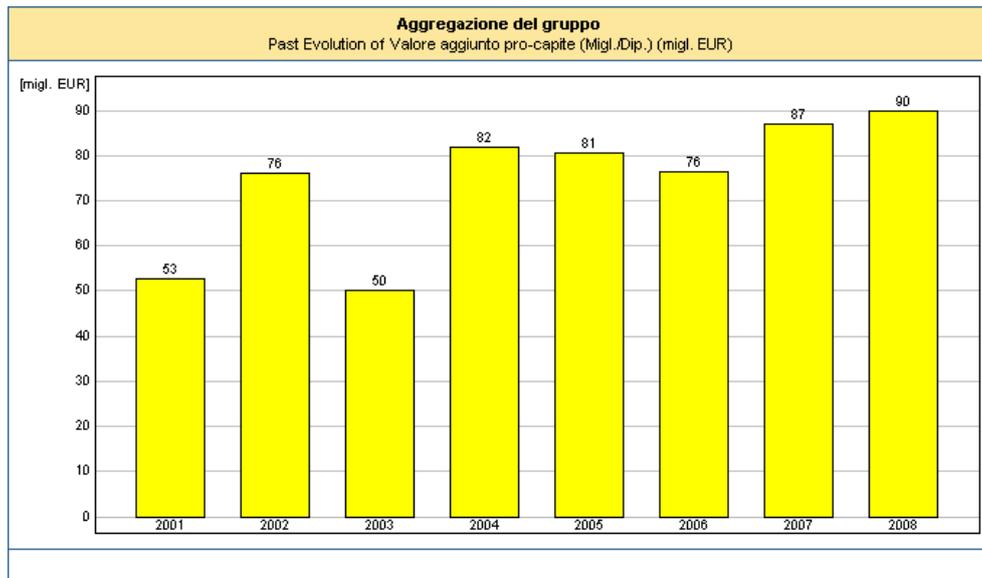
Source: own elaboration on AIDA data

Fig. 7 – Average Revenue per Employee (thousands of Euro)



Source: own elaboration on AIDA data

Fig. 8 – Added Value per Employee (thousands of Euro)



Source: AIDA

3.2 Survey analysis

In order to obtain the essential data for a proper drafting of a sustainability report of the port of Genoa, we proceeded by compiling a survey to be submitted to firms operating in the port sector.

To define the main relevant topics to investigate and the questions to insert in the survey we refer to the above mentioned *GRI Logistics and Transportation Sector Supplement*. We try to balance the level of detail of the information and the time required to the companies to fill the questionnaire; certain that a high number of questions is a first deterrent for obtaining answers, especially from small firms like the majority of the ones involved in our research.

The survey is composed of eight different groups of questions:

1. *Company profile*: e.g. name, legal form, total revenue, n. of employees, served markets, origin of suppliers;
2. *Community*: e.g. initiative in favour of the area in which the company operates, like sport, cultural, voluntary sponsor; customer satisfaction; partnership with universities or research project; etc.;
3. *Environment*: e.g. environmental audit; energy, water and waste consumption; reduction in consumption; reduction in emission levels; recycling; use of new technologies; etc.);
4. *Employment*: e.g. worker status, age of workers, type of contract, origin of workers);
5. *Training*: e.g. percentage of worker involved in training, worker status, sectors of training, etc. and worker initiatives: e.g. flexitime, nursery school, equal opportunity policies, social audit, worker satisfaction, etc.;

6. *Safety*: e.g. number of injuries, people involved in safety training, etc.;
7. *Social Responsibility*: e.g. percentage of employees represented by independent trade union organisations, Breakdown of workforce, stakeholder initiatives, social or environmental company report, etc.;
8. *Finance*: e.g. investment in ethic founds, ethic banks, etc..

The survey has been sent to 80 firms authorized by the local Port Authority to operate inside the perimeter of the harbour in 2009, focusing on three categories of firms: terminal container, ship and container repairing.

The survey was mailed or faxed various times to each company and followed by telephone calls. However only few of them filled the questionnaire: 14 out of 80 (17,5%).

The greater part of the firms that replied to the survey are limited liability companies and the others are stock companies. Most of them (65%) are medium-small firms, with maximum 5 millions euros of total revenue; The 14% have a revenue higher than 20 millions of euros. Six firms have less than 20 workers, three between 21 and 49 workers, and five have 50 workers or more. The market of these companies is mainly located in the North of Italy, even if some of them export in EU and Extra-EU Countries.

13 out of 14 companies indicated at least one initiative in favour of the community, i.e. the area in which the company operates. Half of the firms involved is sponsor for sporting and/or cultural and/or voluntary activities (one of them is active in the three fields); 50% is also the percentage of the companies that conducted customer satisfaction in order to better know the needs of customers and better satisfy their requirements. Some firms collaborate on project with universities or others research institutes (21%).

Environmental indicators present the worst performance of the firms who replied to the survey. Only two of them stated that they proceed with environmental process certifications and only one out of fourteen indicate a reduction in water and waste (specifying the percentage). No other answers have been pointed out in this section.

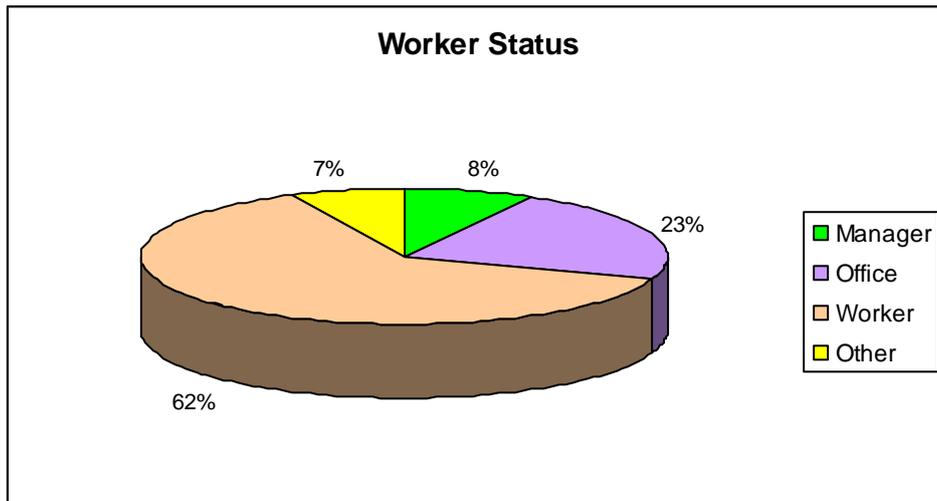
With reference to company report on environmental or social aspect two firms stated that published a social report and another one an environmental report.

Totally blank cells was reported for the part 8 related to investment in ethic founds or the use of ethic banks and similar.

Follows some graphs and comments about the workers employed in the firms involved and the training activities addressed to them.

Dealing with port industrial firms the majority of the people employed have status of workers (62%) followed by office employees (23%), managers (8%), others (7%). About the percentage of women involved in the different categories, most of them works in office; 42% of the office employees are women, the 11% of the managers and only the 1% of the workers, this is evident stated the hard type of work is normally carried out inside a port.

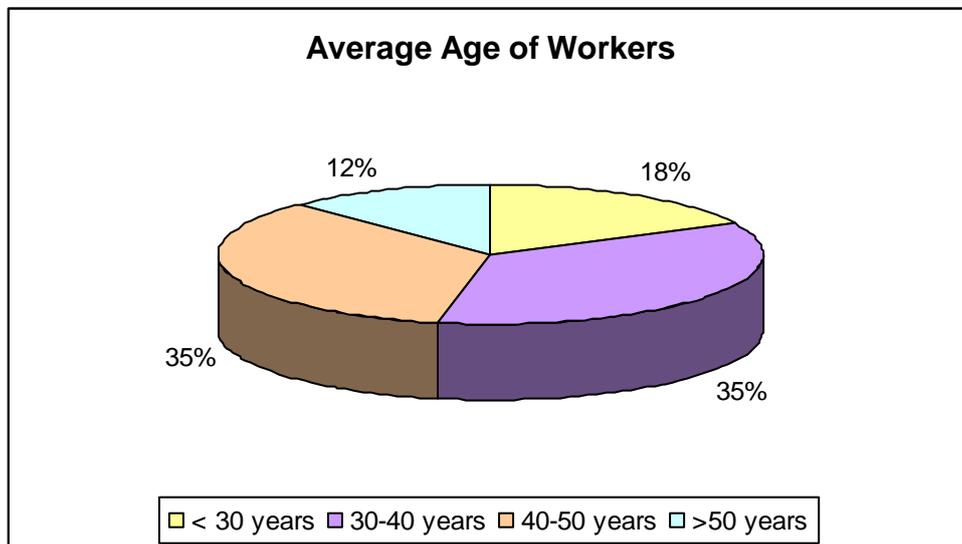
Fig. 9 – Status of workers



Source: own elaboration

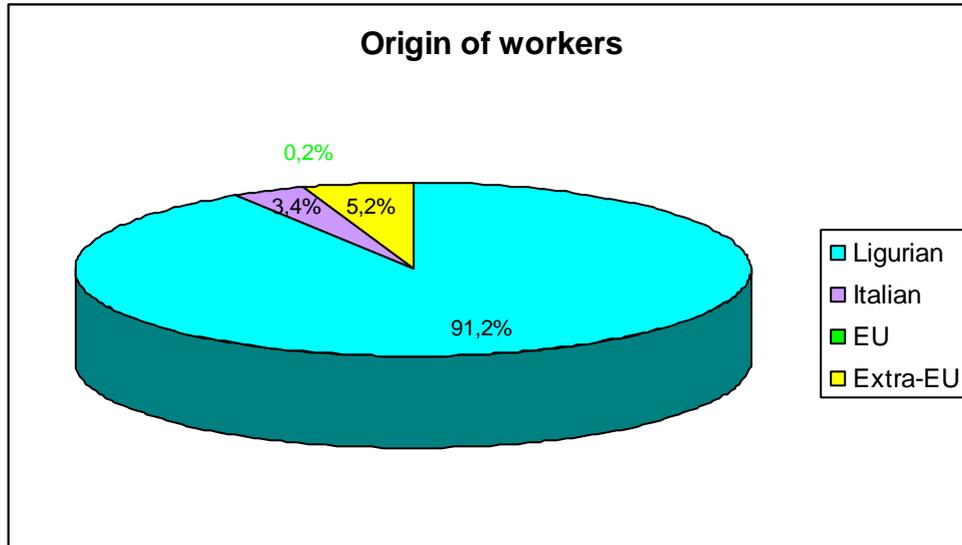
More than two third of the workers are aged from 30 to 50 years old (35% between 30 to 40 years and another 35% from 40 to 50 years). Follows the range less than 30 years old (18%) and finally 12% of the worker is over 50 years old. The great majority of the employees comes from the Region in which the port is located, Liguria, the 3.4% from other Italian Regions, only the 0.2% from EU Countries and the 5.2% from extra-EU Countries (Fig.11).

Fig. 10 – Average age of workers



Source: own elaboration

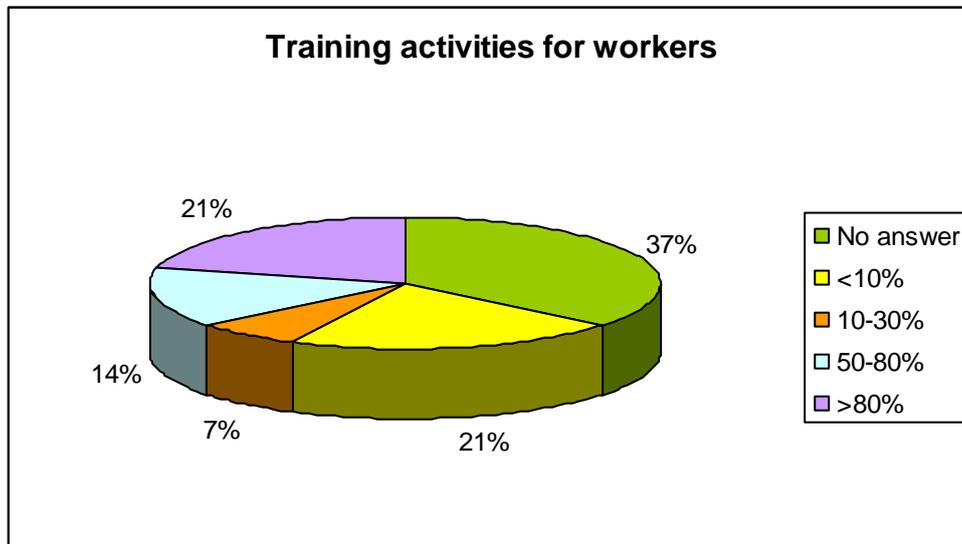
Fig. 11 – Origin of workers



Source: own elaboration

With reference to training activities imparted to workers 37% of the firms did not give any answer. The 21% of the companies involves more the 80% of the employed people in training. On the opposite side, the same percentage refer to firms that involve less than 10% of the total people. Usually training activities are addressed to workers and office employees.

Fig. 12 – Training activities for workers



Source: own elaboration

Finally, half of the interviewed firms have safety certifications and two third involve in their management process safety delegate of workers. Some of the initiatives taken for the employees are: flexitime, worker satisfaction surveys.

4. CONCLUSIONS

Looking at the financial performances of the firms considered in the study and described in section 3.2, it is possible to highlight a trend in elevated values of ratios. As explained in the paper, sometimes too high percentage of ROE, ROI and ROA is not consequence of good investment of stocks or efficiency in production, but due to other factors or effect, like leverage effect. Total Revenue and Added Value per employees have been growing in the last year; however, the last index should be influenced by the decreasing in the average number of workers.

Concerning the part that directly involved the companies, we have to point out the low level of answers received. Less than 20% of the firms filled the questionnaire. As said in the paper this could be due to the problem that the drafting of the Sustainable Report is not a decision born inside a business, but it is a request of another entity; companies can be reluctant to give their data to external researchers. Another important remark is about the poor attention to environment that appear from the results.

A partial justification could be found the current recession of economy that affects all business. As consequence companies have scarce resources available and give less attention to social and environmental aspects.

REFERENCES

- Elkington, J. (1993). Coming Clean: The rise and rise of the corporate environmental report: *Business Strategy and the Environment*, 2(2), 42-44.
- GRI (2002). GRI Sustainability Guidelines.
- GRI (2006). GRI Logistics and Transportation Sector Supplement.
- World Commission On Environment and Development (1987). *Our common future*. Oxford University Press. UK.