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How did the Pandemic Crisis Affect the Financial, Economic, and Social Performance of Social Enterprises? Insights from Italian Social Cooperatives

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Abstract: The COVID-19 crisis affected the world's economic and social system in many ways. Social enterprises (SEs) play a necessary role in delivering social value during such crises (Bacq, S., and G. T. Lumpkin. 2020. "Social Entrepreneurship and COVID-19." *Journal of Management Studies* 58 (1): 285–8; Sarma, S. K., K. K. Kumar, and S. K. Mishra. 2022. "Strategic Response to COVID-19: How Do Social Enterprises Navigate Crisis Situations?" *Social Enterprise Journal* 18 (4): 626–42; Weaver, R. L. 2020. "The Impact of COVID-19 on the Social Enterprise Sector." *Journal of Social Entrepreneurship* 14 (2): 177–85). However, there is still a lack of empirical evidence that analyzes the impact of the pandemic on the performance of SEs and how that performance differs from traditional, non-social companies. Therefore, the purpose of this contribution is to fill this gap. This study compares two types of organizations in the same Italian context: social cooperatives and private limited companies. We present and compare their performance using ratio analysis in a three-dimensional perspective: economic, financial, and social, where the latter concerns the ability to create and distribute value-added to stakeholders (Riahi-Belkaoui, A. 1996. *Performance Results in Value Added Reporting*. Westport: Quorum Books), with particular emphasis on distributional fairness (Haller, A., C. J. van Staden, and C. Landis. 2018. "Value Added as part of Sustainability Reporting: Reporting on Distributional Fairness or Obfuscation?" *Journal of Business Ethics* 152: 763–81). In addition to policy recommendations, this study provides guidance on how to use existing accounting data to approximate social elements in business.

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1 Introduction

In the last two decades, social enterprises have been studied from several different perspectives: business models (Defourny, Nyssens, and Brolis 2021; Poledrini and Borzaga 2021), legal typologies (Fici 2016; Galera and Borzaga 2009; Young, Searing, and Brewer 2016), theoretical aspects (Dart 2004; Poledrini 2015; Santos 2012), financial structure (Lall and Park 2020; Périlleux 2015; Searing et al. 2022), strategic management (Haigh et al. 2015; Liu, Takeda, and Ko 2012), and many others. However, the recent economic, financial, and social crisis generated by the COVID-19 pandemic has opened a new avenue of research, allowing us to examine two related research questions: how such social enterprises have performed under duress and how their impact on society is different from those of their non-social organizational peers (Bacq and Lumpkin 2020; Sarma, Kumar, and Mishra 2022; Weaver 2020).

To answer our questions, we extract data on two comparable corporate forms from the AIDA¹ database. This data contains detailed economic, financial, and contact data of Italian companies of various corporate forms. First, we select ATECO² sectors where both social and traditional enterprises are active: sectors 87 (residential social assistance services) and 88 (non-residential social assistance). We extract records for Italian social cooperatives and, as a comparison group, the records for private limited companies from the same above-mentioned sectors (87 and 88). The choice of these ATECO codes made it possible to focus attention on the sectors of economic activity in which the form of social cooperatives is widespread in Italy (Borzaga and Galera 2016; Poledrini and Tortia 2020). All enterprises of both corporate types have between 5 and 250 employees, and we use a short panel of years (2018–2021) to capture pre-pandemic, pandemic, and post-pandemic conditions.

Our findings generally align with our expectations, though with notable exceptions. First, though we expected a negative impact from the crisis and a strong post-pandemic recovery for both social cooperatives and private limited companies, we find that recovery happened to different degrees in the three dimensions considered. We also found that the two corporate forms differ significantly in distributional fairness, with social cooperatives maintaining their pre-pandemic

¹ AIDA is a database created by Bureau Van Dijk (<http://bvcinfo.com>) that collects economic, financial, and contact data of Italian companies.

² ATECO is a type of classification adopted by the Italian National Institute of Statistics (ISTAT). It is used for national statistical revelations of an economic nature and represents the nomenclature of economic activities (NACE) created by Eurostat.

pro-social distribution to preserve mission even at the cost of their financial and economic health. We also find a significant impact from government support programs, illustrating their efficacy as a policy tool during such crises.

The article is structured as follows. The next section briefly introduces the debate on how to evaluate the performance of social enterprises, while Section 3 details the methods used in the study. Section 4 describes the AIDA data used for the comparison, and Section 5 presents the econometric findings on the three dimensions. Section 6 discusses the implications, while Section 7 concludes.

2 Literature Review

The issue of social enterprise performance has been studied from two main points of view. The first perspective focuses on accountability in social enterprises, which involves not only activities but also how they communicate about their activities (Bagnoli and Toccafondi 2011; Bradford, Luke, and Furneaux 2018; Connolly and Kelly 2011). The second perspective involves an assessment of the economic, financial, and social actions carried out by social enterprises (Arena, Azzone, and Bengo 2015; Bagnoli and Megali 2011). This article focuses on the second perspective in trying to assess the performance of the organization.

The literature belonging to this second perspective can be grouped into three main methodological approaches. The first approach analyzes financial statements to assess the social impact generated by the social enterprises (Poledrini, Searing, and Montrone 2022). The second approach evaluates the activities carried out and their consequent social and societal impacts (Bagnoli and Toccafondi 2011; Connolly and Kelly 2011). Finally, the third approach is a hybrid methodology because it uses both abovementioned methods, such as in the case of the balanced scorecard (Somers 2005). This study builds a case, consistent with the literature, that the measurement of social enterprises' performance cannot be limited only to the economic and financial dimension, but it must also consider the social dimension (Arena, Azzone, and Bengo 2015; Bagnoli and Megali 2011).

2.1 Determining Purpose and Value in Social Cooperatives and Private Limited Companies

Measurements of performance across sectors often become mired in measuring the social component. If measuring community impact, then the measure becomes highly contextual and difficult to compare across environments and organizations.

Instead, we sought measures that used commonly available information in both social cooperatives and private limited companies that signify a goal other than outright profit maximization.

Therefore, thorough measurement must use ratios representing the different impact of social cooperatives and private limited companies in terms of creation and dissemination of wealth and well-being on the economic and social context. Profit is still important – though not the primary purpose of social cooperatives, it is useful for strengthening the capital structure. To the extent that social cooperatives do not distribute profits and do not raise significant initial capital, the accumulation of reserves represents for them a mandatory path for adequate capitalization. Profit, on the other hand, remains a qualifying element of private limited companies, though there is still discussion over the “right” amount in relation to other possible purposes (Coda 1988). The problems of the measure and quality of profit have been widely debated in literature, revealing at least some reservations about it (Eccles and Pyburn 1992; Ehrbar 1999). Therefore, especially since our focus are sectors with a strong social impact, we need measures other than profit.

One such measure is the value added (Haller and Stolowy 1998; Haller and Van Staden 2014; Montrone 2000; Rees 1990). The value added can be, on the one hand, defined as the greater wealth created by the company but, on the other hand, as a source of distribution of the same wealth among the subjects who contributed to the productive activity (Montrone 2000). Value added can therefore be very useful for judging the sociality of the company based on its ability to create new wealth sufficient to satisfy the expectations of the various stakeholders (Haller and Van Staden 2014).

Though several configurations of value added are possible through the re-arrangement of the income statement, we prefer the distributable value added since it represents the real link between the process of creating new wealth and the process of its distribution (Haller and Van Staden 2014; Montrone 2000) among the following categories of stakeholders:

- employees, who receive various forms of remuneration, both direct and indirect, immediate but also deferred;
- lenders, who earn interest on the capital lent;
- public administration, which acquires a part of the wealth produced by the company thanks to taxation;
- shareholders, remunerated through any distribution of profits;
- the company itself, which strengthens its capital structure thanks to self-financing (retention of profit).

2.2 The Measurement of the Financial, Economic, and Social Performance of Social Cooperatives and Private Limited Companies

We present a framework of common indicators as an accessible three-dimensional measure of organizational performance. The financial dimension is evaluated using the current ratio, warranty ratio, and the equity multiplier; the economic dimension is analyzed through return on assets (ROA), return on investment (ROI), and sustainability of financing charges (SFC); the (Sostero et al. 2016). Finally, the analysis of the social dimension concerns the measurement of the ability to create and distribute value-added to stakeholders (Haller and Van Staden 2014; Haller, van Staden, and Landis 2018; Riahi-Belkaoui 1996), which provides an accessible measure of a non-profit-maximizing goal that has meaning to both social cooperatives (which is the most common social enterprise legal form in Italy) and private limited companies. The social dimension is specifically measured using the distribution of value-added (both per euro of assets and per employee), and a measure of capital intensity (the amount of assets per employee). All three dimensions are integral to a full understanding of value, and they are explained below.

Each stakeholder holds different expectations in terms of financial, economic, and social perspectives. Lenders are concerned about companies' solvency and tend to evaluate their ability to generate adequate cash flow (Sostero et al. 2016). Shareholders favor the economic perspective, using the traditional profitability ratios such as ROA, ROE and ROI (Teodori 2000). The company's social context is primarily interested in its social impact, often measured in terms of jobs created for disadvantaged groups. However, all of the above expectations taken individually are partial; therefore, an analysis that considers all three dimensions is necessary to avoid incomplete and even misleading assessments.

To measure and compare the performance of social cooperatives and private limited companies in the triple dimension (economic, financial, and social), we chose to calculate and compare nine ratios. Three ratios aim at verifying the presence of financial balance, three regard the evaluation of economic balance, and three concern the issue of social impact, focused on value added.

Specifically, the three financial ratios individually aim to:

- outline the company's solvency conditions in the short term (*current ratio*, given by the ratio between current assets and short-term liabilities);
- indicate the existence of an adequate capital solidity with a significant contribution of equity in the financing of fixed assets (*warranty ratio*, given by the ratio between equity and fixed assets);

- express the correct setting of the financial structure in its composition between equity and debts (*equity multiplier*, given by the ratio between total assets and equity).

The three economic ratios are individually designed to:

- measure the overall economic performance of the company (*ROA*, given by the ratio between net income and total assets);
- focus the contribution of the core business to the overall economic performance (*ROI*, given by the ratio between EBITDA and total assets);
- verify the Sustainability of the Financing Charges in terms of economic impact (*SFC*, given by the ratio between interest expense and sales revenues).

Finally, the three social ratios individually aim to:

- capture changes in the productivity of the workforce (value added per employee, given by the ratio between distributable value added and average number of employees). The value added per employee is a valid indicator of changes in the efficiency and productivity of the workforce, but it is also useful in setting up a correct and sustainable policy to increase the remuneration of workers (Burchell, Clubb, and Hopwood 1985; Riahi-Belkaoui 1992);
- measure the company's ability to generate new wealth in relation to the capital employed (return of assets in terms of value added, given by the ratio between distributable value added and total assets). The return of assets in terms of value added can be considered as a measure of productivity of the overall capital invested in the business (Riahi-Belkaoui 1992). It has a high social value, as well as economic, as it highlights to what extent the company increases the resources absorbed, playing a constructive (or harmful) role in its socio-economic context;
- indicate capital intensity (ratio between total assets and average number of employees), capable of highlighting the “labour intensive” or “capital intensive” nature of the company. The measure of labour productivity is connected to capital productivity through the ratio of capital intensity (Montrone 2016).

Specifically, following Poledrini, Searing, and Montrone (2022), we selected the financial and the economic ratios based on their importance in predicting organization-level crisis. The existing Italian literature on the financial statements analysis considers these ratios as highly significant (Montrone 2016; Sostero et al. 2016).

3 Data and Methodology

We carry out a comparative analysis using the above mentioned financial, economic, and social performance ratios in two groups of companies. The first group are social enterprises established in the legal form of social cooperatives; the second group are companies established in legal form of for-profit capital companies, restricting it only to limited liability companies (in Italian “Società a Responsabilità Limitata – SRL”) to obtain an adequate comparison to social cooperatives in terms of complexity and size.

The analysis was limited to the sectors of economic activity in which the social cooperatives mainly operate (Borzaga and Galera 2016; Poledrini and Tortia 2020): ATECO sectors 87 (residential social assistance services) and 88 (non-residential social assistance). Comparing companies operating in the same sectors makes the analysis by benchmark more appropriate, even if we are dealing with two corporate types.

We did not attempt to match organizations based on geographic location. First, the geographical distribution patterns do not vary significantly between social cooperatives and private limited companies (Castelnovo, Morretta, and Vecchi 2020; Picciotti et al. 2014). Though literature shows that there is different performance amongst social cooperatives between regions, there is a parallel regional trend followed by the private limited companies (Costa and Carini 2016; Costa et al. 2012; Fusco and Migliaccio 2018). Therefore, the comparison between the two groups of companies, with similar sectors and geographies, is correct and significant to appreciate the different financial, economic, and social performances of the two different legal forms.

We deliberately chose years in relation to the pandemic, which effectively began in March 2020 (start of the lock-down in Italy) and continued (albeit with different intensity) for the rest of the year. By including years through 2021 in the analysis, we can measure the negative impact of the pandemic on social cooperatives and private limited companies, taking as a benchmark their “pre-pandemic” situation (2018–2019) to capture pandemic (2020) and initial post-pandemic (2021) conditions.

The AIDA database contains the population of the Italian social cooperatives and private limited companies belonging to ATECO sectors 87 and 88. We acquired four years (2018–2021) of financial statement information and other significant parameters of companies, such as the number of employees. We did limit the data to those organizations of both types with more than 5 employees, but less than 250 to enhance comparability and minimize outliers. The exclusion of companies from 1 to 5 employees (defined in Italy as “micro-companies”) and more than 250 is motivated both by the lack of much financial information in the database for the “micro”,

and to make the group of companies more homogeneous in size since there are very few big social cooperatives. Finally, if the organizations did not file for every year of the analysis or was missing relevant data, we removed them. The final analysis considers 1,438 social cooperatives and 1,007 private limited companies belonging to the ATECO sectors 87 and 88.

4 Descriptive Findings

Table 1 displays the averages for different measures of size and other basic parameters for social cooperatives (abbreviated as SCs in the following Tables) and private limited companies (abbreviated as PLCs in the following Tables).

On average, social cooperatives are smaller than private limited companies in terms of revenues and, even more so, in terms of assets. Further, social cooperatives are less capital intensive than private limited companies: they have less equipment, but more employees (see Table 1). This employment will later be a key part of the greater social role of social cooperatives due to employment's importance to the community.

Social cooperatives are on average smaller in terms of revenues, showing a sharp decrease and a gap compared to private limited companies that is especially pronounced during the 2020 pandemic. However, a stronger recovery follows in 2021.

The smaller size (by revenues) of social cooperatives is mirrored by the size and trend of total assets (see Table 1). These are on average significantly higher in private limited companies, and the gap grows over time. It is interesting to note that trend of asset growth includes the pandemic time period, perhaps because of a slow in the ability to deliver services.

The third parameter of company size, represented by the average number of employees, shows, on the contrary, a decidedly larger size of the social cooperatives

Table 1: Average values of dimensional parameters and economic results – years 2018–2021.

	Revenues (th €)		Total assets (th€)		Employees (n)		Net Income (the€)		Value added (the€)	
	SCs	PLCs	SCs	PLCs	SCs	PLCs	SCs	PLCs	SCs	PLCs
2021	1411.22	1583.77	1449.56	2189.41	40.01	26.56	20.47	18.44	952.84	790.83
2020	1252.71	1521.99	1393.96	2080.75	39.78	26.07	6.87	10.00	850.89	745.31
2019	1378.43	1554.32	1345.57	1925.53	40.41	24.20	16.12	44.73	930.48	756.98
2018	1375.56	1470.65	1329.86	1825.55	40.53	22.80	21.83	41.99	905.64	701.58

with substantial stability in employment levels over the years (see Table 1). This illustrates the large role of social cooperatives in the local economy and the potential need to protect employment as a means of promoting community resilience.

The decline in net income makes the criticality of the year 2020 evident. Social cooperatives show an increasingly lower measure of net income in the pre-pandemic years, which likely indicates a lower priority on this measure during normal operating conditions. However, this lower level of net income seems to be more resilient since, in the pandemic year 2020, the gap between social cooperatives and private limited companies is sharply reduced. In the post-pandemic year 2021, the recovery is more robust in social cooperatives (see Table 1).

Finally, social cooperatives demonstrate the superior ability of to add value and have a positive impact on the socio-economic context (see Table 1). Throughout the full period, social cooperatives have a higher value added, and in 2021 the recovery is so sharp that value added is even higher than the pre-pandemic figure. For a more detailed analysis, we now present the three-fold ratio analyses.

4.1 Financial Ratio Analysis

The average ratio values useful for assessing the financial balance are shown in Table 2, again comparing the two types of legal forms.

The current ratio is positioned at satisfactory levels for both categories (with roughly two to three times as much in short term assets as they have short term liabilities). This means that, on average, both types of organizations maintain enough liquidity to cover their immediate debt obligations. Nevertheless, the performance of the social cooperatives is better through all years (see Table 2); this demonstrates better financial balance in the short term or, in other words, greater reliability in terms of remaining solvent.

Table 2: Average values of financial ratios – years 2018–2021.

	Current ratio		Warranty ratio		Equity multiplier	
	SCs	PLCs	SCs	PLCs	SCs	PLCs
2021	3.1	2.0	6.0	2.9	10.5	10.3
2020	3.1	2.0	5.7	2.5	15.1	6.0
2019	2.8	1.8	5.6	2.3	15.4	10.0
2018	2.9	1.8	5.6	1.9	12.3	12.9

The warranty ratio shows in both categories the existence of an adequate capital solidity with a significant contribution of equity in the financing of fixed assets (see Table 2). Again, values in the social cooperatives are decidedly better, but plausibly due to the lower amount of investments in fixed assets.

Finally, the equity multiplier demonstrates that much of the capital of both corporate forms is not directly owned (see Table 2). The situation of social cooperatives is worse, indicating their inadequate capitalisation. However, there is a clear improvement in 2021 for social cooperatives but not for private limited companies, so much so that for the first time they are positioned almost on the same level.

So, overall, the financial balance unexpectedly shows an improvement in 2020 and 2021 compared to the previous years, which may seem anomalous in consideration of the difficulties caused by the pandemic. This can be explained by the emergency measures issued by the Italian government during the pandemic to support businesses, aimed at providing them with the financial resources necessary to overcome the most difficult period. However, as you will see in the following section dedicated to economic ratios, these emergency measures did not affect the deeper causes of the worsening economic performance.

4.2 Economic Ratio Analysis

The following Table 3 shows the average values of both legal forms for the second group of ratios, useful for assessing the economic performance. Observing the data in Table 3, it is evident that 2020 is a difficult year for both social cooperatives and private limited companies.

ROA is lower in social cooperatives than in private limited companies, although it is less variable over the years, even in the 2020 pandemic year (see Table 3). Specifically, in 2020, ROA average value is negative for both categories, meaning that

Table 3: Average values of economic ratios – years 2018–2021.

	ROA (%)		ROI (%)		SFC (%)	
	SCs	PLCs	SCs	PLCs	SCs	PLCs
2021	0.5 %	1.1 %	1.5 %	4.0 %	0.7 %	1.0 %
2020	−0.4 %	−1.4 %	0.5 %	0.9 %	0.8 %	1.0 %
2019	0.7 %	1.6 %	1.7 %	4.7 %	0.7 %	1.1 %
2018	0.6 %	1.0 %	1.9 %	4.5 %	0.7 %	1.1 %

there was a net loss per Euro of total assets. However, the deterioration is more marked in private limited companies while a recovery occurs in 2021 for both, with values returning positive (but lower than they were in 2019).

The social cooperatives' performance in terms of ROI is comparatively low, meaning that there is not much EBITDA per Euro of total assets (see Table 3). There is also a negative gap in this ratio compared to private limited companies. However, the two categories share a significant worsening in 2020 (sharper in the private limited companies) and a significant recovery in 2021 (but reaching values lower than in 2019).

Finally, the ratio between interest expense and sales revenues (SFC) is stable over time and positioned at similar values, demonstrating an adequate sustainability of the financing choices in terms of their economic impact (see Table 3). This is encouraging given the prevalence of debt compared to equity capital already highlighted by the equity multiplier.

4.3 Social Ratio Analysis

The social performance can be examined starting from value added per employee and comparing it with the more traditional (but less “social”) labour productivity ratio represented by revenues per employee (see Table 4).

Social cooperatives have less value added per employee, which is always lower than that obtained by the private limited companies (see Table 4). However, this is unsurprising since social cooperatives utilize more labour (as shown in Table 1) and create job opportunities that are on average almost double that of private limited companies.

Moreover, in terms of revenues per employee, the social cooperatives' disadvantage appears even worse (see Table 4), but again this is likely due to less emphasis

Table 4: Average values of social ratios (labour) – years 2018–2021.

	Value added per employee (th €)		Revenues per employee (th €)	
	SCs	PLCs	SCs	PLCs
2021	23.74	27.84	38.06	61.46
2020	22.06	27.59	35.43	65.96
2019	24.42	30.67	39.73	77.58
2018	23.56	32.31	40.21	93.63

Table 5: Average values of social ratios (capital) – years 2018–2021.

	Total assets/N. Employees (th €)		Value added/Total assets (%)	
	SCs	PLCs	SCs	PLCs
2021	45.1	80.5	93.0 %	79.3 %
2020	46.2	88.5	84.7 %	76.2 %
2019	44.2	93.9	99.5 %	91.2 %
2018	43.4	117.1	97.6 %	83.9 %

on profitability and a larger number of employees. For both ratios, once more 2020 is a difficult year, but social cooperatives prove to be more resilient with a smaller decrease (see Table 4). In 2021, the value added per employee recovers in social cooperatives while it stagnates in the private limited companies.

Finally, the analysis regarding the social ratios with respect to capital, also considering the different level of capital intensity, completes the analysis in the social dimension (see Table 5).

The data emerging from the capital intensity ratio (Total assets/N. employees) denotes again the social cooperatives' less capital intensive nature, resulting in 2018 in the endowment of means of production per employee about one-third of that in private limited companies (see Table 5). However, observing the four-year trend, there is substantial stability in the social cooperatives, but the value of capital intensity drops sharply in private limited companies, even in 2021 despite the average number of employees remaining just above 26.

The social cooperatives' average performance in value added on total assets (see Table 5) is always higher than that of private limited companies, although in both categories the difficulties of 2020 led to significant deterioration. The recovery in 2021 is also sharper in the social cooperatives, even if they remain below the pre-pandemic values.

5 Econometric Findings

Though the descriptive results are very informative, we also conducted more rigorous testing to better isolate the role of corporate form. This was done in two stages: two-sided *t*-tests of means between the two corporate forms and OLS regression with each of the nine indicators as the dependent variable.

The results for the tests for significant differences in means between private limited companies and social cooperatives is shown in Table 6. The tests are two-sided without the assumption of equal variance (though the imposition of this assumption did not change the findings.).

Beyond the confirmation of the importance of the differences between the two organization types generally, one of the most important takeaways is we are not able to reject the possibility that the difference in means in the equity multiplier is not zero. Since the gap in the equity multiplier appeared to have a worrying jump in liability exposure for social cooperatives compared to private limited companies, these findings ease the concern.

Now that we have confirmation of a difference between the two corporate forms for seven of nine of the indicators, we further press into the impact of each factor via OLS regression analysis. Since the creation of “kitchen sink” regression with all indicators would introduce issues with endogeneity in the financial variables, we instead use each of the nine indicators as a dependent variable. The primary independent variable is the corporate form, with subsector, year, and location included as control variables (see Table 7). As expected from the *t*-tests, the models for the Equity Multiplier and, to a lesser extent, ROA should be interpreted with caution due to the insignificant *p*-value for the regressions. Each regression clusters the errors on the level of the organization, and the base category for the subsector is ATECO code 87.

As seen in Table 7, being a social cooperative has a statistically significant impact on most of the indicators even with other factors considered. This does not mean that a private limited company has to transform into a social cooperative to achieve better performance; indeed, this would be a complex process with many

Table 6: Testing of difference in Means.

	Mean (PLC)-Mean (SC)	SE Diff	Satterthwaite's df	t	Pr (T > t) = 0	Significance
CR	-1.0850	0.0919	9,243.44	-11.8095	0.000	***
WR	-3.3019	0.4331	9,125.93	-7.6236	0.000	***
EM	-3.5221	2.5760	6,193.41	-1.3673	0.172	
ROA	0.0021	0.0046	5,201.92	0.4617	0.644	
ROI	0.2134	0.0047	5,125.04	4.5047	0.000	***
SFC	0.0030	0.0006	5,744.35	5.3420	0.000	***
VaxE	6.1578	0.6631	5,171.21	9.2860	0.000	***
VAT	-0.1106	0.0146	8,362.58	-7.5659	0.000	***
TD	50.2522	4.5207	4,440.34	11.1160	0.000	***

Table 7: Role of corporate form in Performance.

VAR	(1) Current Ratio	(2) Warranty Ratio	(3) Equity Multiplier	(4) ROA	(5) ROI	(6) SFC	(7) Value Added xEmployee	(8) VAT	(9) TD
SocialCoop	0.9140*** (0.173)	2.3201*** (0.796)	4.1760 (4.909)	-0.0085 (0.006)	-0.0291*** (0.006)	-0.0029** (0.001)	-5.4521*** (0.926)	0.1245*** (0.034)	-42.7078*** (6.193)
2.Subsector	-0.6556 (0.458)	-0.9340 (0.792)	-0.6053 (4.292)	-0.0113 (0.014)	-0.0118 (0.015)	0.0009 (0.002)	-0.2970 (2.252)	0.0987 (0.064)	17.0837 (19.625)
3.Subsector	-0.6414 (0.418)	-0.0387 (1.202)	-0.6927 (4.175)	0.0068 (0.012)	0.0119 (0.013)	0.0029 (0.003)	3.8150* (2.285)	0.0236 (0.061)	-4.1223 (15.223)
4.Subsector	-1.3204*** (0.377)	-0.5878 (1.152)	1.6203 (5.251)	-0.0170* (0.009)	-0.0150 (0.010)	-0.0008 (0.001)	-8.2087*** (1.656)	0.2846*** (0.057)	-28.1847*** (14.025)
5.Subsector	-0.6819 (0.479)	2.6424 (1.648)	2.4274 (6.617)	-0.0065 (0.009)	-0.0001 (0.010)	0.0011 (0.003)	-3.7936** (1.860)	-0.0317 (0.053)	-14.7119 (12.880)
6.Subsector	-0.2765 (0.500)	0.2389 (1.509)	-2.3523 (4.638)	-0.0051 (0.008)	-0.0029 (0.009)	-0.0024* (0.001)	-6.9616*** (1.468)	0.2058*** (0.056)	-36.7256*** (11.666)
7.Subsector	-0.8046* (0.424)	1.7839 (1.197)	3.5354 (7.786)	-0.0040 (0.008)	0.0004 (0.009)	-0.0005 (0.002)	-7.1440*** (1.757)	0.2815*** (0.063)	-30.1862*** (12.913)
8.Subsector	-1.3246** (0.555)	-0.6754 (1.380)	19.2273 (13.401)	0.0154 (0.019)	0.0277 (0.021)	0.0043 (0.005)	-8.0208*** (2.842)	0.2368 (0.183)	-43.4454*** (14.266)
9.Subsector	-0.7525* (0.395)	0.9394 (1.167)	2.8630 (5.266)	-0.0104 (0.009)	-0.0105 (0.010)	-0.0026* (0.001)	-16.4249*** (1.464)	0.4099*** (0.053)	-72.8488*** (12.732)
10.Subsector	-0.6497 (0.451)	1.6826 (1.188)	0.1691 (5.276)	0.0045 (0.008)	0.0076 (0.009)	-0.0005 (0.002)	-5.7103*** (1.733)	0.1136** (0.055)	-23.2715* (12.688)
year	0.0922* (0.051)	0.2021 (0.194)	-0.8108 (1.177)	-0.0021 (0.002)	-0.0037** (0.002)	-0.0002 (0.000)	-0.7863*** (0.276)	-0.0286*** (0.004)	-4.3411** (1.742)
Roma	0.2190 (0.144)	1.2151 (1.084)	3.0722 (4.769)	0.0043 (0.008)	0.0090 (0.009)	-0.0018** (0.001)	-0.8118 (0.981)	-0.0421 (0.038)	-13.3472** (6.791)

Table 7: (continued)

VAR	(1) Current Ratio	(2) Warranty Ratio	(3) Equity Multiplier	(4) ROA	(5) ROI	(6) SFC	(7) Value Added xEmployee	(8) VAT	(9) TD
Napoli	1.0015* (0.589)	4.0925** (1.834)	-5.8556 (4.636)	0.0238*** (0.009)	0.0286*** (0.009)	0.0003 (0.001)	-3.4384 (2.557)	-0.2139*** (0.045)	-1.3330 (8.472)
Milano	-0.3175* (0.164)	-1.5637 (1.813)	9.8936 (7.138)	-0.0167 (0.015)	-0.0174 (0.016)	0.0004 (0.001)	9.9489*** (3.802)	-0.1043** (0.046)	42.4800* (23.182)
Genova	-0.0782 (0.271)	0.0083 (1.834)	10.9455 (12.066)	-0.0141 (0.011)	-0.0139 (0.012)	-0.0038*** (0.001)	3.2247 (3.154)	0.2828** (0.112)	3.2660 (22.406)
Catania	-0.2822 (0.188)	1.9574 (2.149)	-3.0882 (6.084)	-0.0020 (0.012)	-0.0035 (0.013)	-0.0005 (0.001)	-7.3657*** (1.247)	0.0950 (0.069)	-34.3359*** (7.044)
Constant	-183.4458* (102.298)	-405.8956 (392.407)	1,644.9776 (2,376.290)	4.1605 (3.143)	7.4800** (3.271)	0.4656 (0.336)	1,623.4707*** (557.737)	58.4834*** (7.834)	8,883.7904** (3,522.408)
Observations	9,780	9,780	9,780	9,780	9,780	9,780	9,780	9,780	9,780
R-squared	0.019	0.010	0.001	0.003	0.006	0.009	0.053	0.053	0.038
Prob > F	0.000	0.000	0.174	0.041	0.000	0.000	0.000	0.000	0.000

Robust standard errors in parentheses, ***p < 0.01, **p < 0.05, *p < 0.1.

stakeholders that need consultation. Rather, the regression analysis illustrates, given similar organizations in all other ways, that a social cooperative will show better performance in its Current Ratio, Warranty Ratio, and Value Added per Total Assets than a private limited company, especially in terms of better reaction to the impact of the pandemic.

On the other hand, there is a slight penalty to being a social cooperative in terms of ROI and SFC, plus the larger numbers of employees means that the social indicators which ask about the value added per employee are negatively impacted. However, all social indicators are strongly influenced by the subsectors, which suggests that capital intensiveness is likely tied to the subsector and business model. Organizations in Naples also fared particularly well on the financial and economic ratios, which warrants future research.

6 Discussion

Though scholars have dedicated significant attention to policy instruments during the COVID-19 crisis, much less scholarship examines the role of existing companies in economic recovery. In particular, with social enterprises having their own literature, the comparison of the impacts of social versus traditional companies is especially relevant. How would the crisis affect the performance of both kinds of corporate entity?

Considering that social cooperatives play a more relevant role in terms of the creation of well-being for the widest audience of all stakeholders, we decided to widen the analysis beyond economic and financial aspects to also look to aspects of social performance. Moreover, as social cooperatives achieve a higher level of added value, they play a more positive role in terms of distributing this value. This means turning over greater wealth and well-being to more stakeholders, ranging from employees (where social cooperatives are larger employers than private limited companies) to beneficiaries of social assistance and to the entire socio-economic context.

In other words, value added and the derived ratios are of considerable utility in measuring both the economic and social performance of social cooperatives, whose results are thus put into a more appropriate perspective. Further, such analysis demonstrates their strengths in comparison with the private limited companies operating in the same business sectors and of similar size. More specifically, the monetary measure of value added and the relativized measure of the rate of return on investment in terms of value added show a clear superiority of the social cooperatives' model, even in terms of a more effective response to the pandemic

crisis. This is demonstrated by a stronger and quicker recovery than the private limited companies.

The better performance of social organizations during times of crisis again proves what was observed by Costa and Carini (2016), who found that social cooperatives had better performance between 2008 and 2011 than for-profit companies in the same period. The better performance can also be motivated by the fact that for the paid workforce, social cooperatives reach higher levels of job satisfaction than traditional corporations do, which means less employee turnover and loss of institutional knowledge (Borzaga and Tortia 2006).

Nevertheless, with reference to the labour force, a less positive finding concerns the lower labour productivity expressed by value added per employee. However, this is largely counterbalanced by the ability demonstrated by the social cooperatives to generate job opportunities and to value them to greater extent, thus fully responding to the social role they should play. Moreover, the lower level of labour productivity needs to be evaluated considering the different configuration and role of the labour factor in the two categories of companies. Not only do social cooperatives employ more people, but the percentage of part-time work is decidedly higher. This means that, although the number of employees listed is correct, this can result in the appearance of lower productivity, compared to an exclusive or predominant use of full-time work (von Ravensburg et al. 2021; Tortia et al. 2022). On the other hand, in private limited companies it is frequent that in the ATECO 87 and 88 sectors owners or shareholders carry out a part of the work, but they do not appear among the employees. Such a condition underestimates the number of employees considered in calculation of these productivity ratios, so amplifying their measure (Corbetta 1995; Corbetta and Montemerlo 1999). Nevertheless, the unfavourable gap for social cooperatives is much sharper considering the “traditional” ratio than that based on value added.

This study does have several limitations. The first limitation of this work consists in having considered only the data up to 2021 (the most recent year with wide availability of financial statements on the AIDA database). While it would have been interesting to verify what happened in 2022 to give a more complete picture of post-pandemic, the data was not available at the time. This also represents an opportunity for future research.

Another limitation lies in not having the ability to investigate which stakeholders receive different portions of the distribution of value. We do not know which parties received what proportion of the value added, as this would likely require qualitative work. Most importantly, this analysis does not capture the social impact on the service recipient unless this is adequately captured in the sales. This is a side effect of our desire to make an accessible evaluation instrument with public information, usable by anyone. Even in this case, however, the limit could be a

starting point for future research focusing on the different strategies in the distribution of the value added created that are tailored for each type of social activity.

7 Conclusions and Policy Recommendations

We should not overlook the contribution to the recovery from the COVID-19 crisis offered by corporate forms and policies already in existence. However, to truly conduct such a comparison, it is necessary to incorporate measures which rely on both widely available data and can reflect the financial, economic, and social aspects of an organization. Since COVID-19 influences every aspect of society, we need to be similarly comprehensive in evaluating the health and contributions of the organizations within it.

This approach allows, in our opinion, a wider mean of comparison for the performance and responsiveness to crises such as the one triggered by the COVID-19 pandemic. Different types of companies (social cooperatives and private limited companies), although sharing the same size and sector of economic activity, have a distinctly different legal form and purpose. Data relating to the year 2020 show a higher level of resilience in social cooperatives compared with private limited companies, and the results of the different ratios in 2021 demonstrate a more effective and stronger response of social cooperatives in terms of recovery following the pandemic crisis with respect to the private limited companies' benchmark.

As seen in terms of econometric findings, being a social cooperative compared to a private limited company has an impact on most of the indicators and provides a boost to the Current Ratio, Warranty Ratio, and Value Added on Total Assets. On the other hand, there is a slight penalty in terms of ROI and SFC, plus the larger numbers of employees means that the value added per employee is lower in social cooperatives when compared to private limited companies.

In terms of policy, state support should be partially based not only on the needs of the singular organization, but also on the possible redistribution of value that any boost provided to the organization would provide to the community. A social cooperative deserves support and funding not because it is the most profitable or is in a financially balanced condition; in fact, directing assistance to social cooperatives in such a positive condition may be unnecessary, as they are able to provide for themselves and do not need support to continue operating. Rather, a social cooperative deserves support for growth if it shows an overall positive impact on the socio-economic environment through the quantity and quality of the services it provides.

The extraordinary difficulties caused by the COVID crisis have made it quite normal, and even essential, to provide public support to for-profit companies. Crises

of such severity alter the normal economic and financial balance, legitimizing the introduction of extraordinary and sometimes innovative economic policies. Further, as seen in this study, companies of all kinds can utilize such interventions to rebound and avoid organizational calamity. However, investments in social enterprises such as social cooperatives can accomplish even more impact.

During the pandemic crisis, we witnessed a new wave of popular support for a wide variety of economic activities. We recommend public interventions aimed at benefiting social enterprises and, consequently, the communities they serve, as we are convinced that since public financial resources are limited and there are ethical implications for their optimal use, it is extremely important to direct them in a way that maximizes positive outcomes on the economic and, above all, social environment (Thomas and Trafford 2013).

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