

# Coping with the COVID-19 pandemic: the technical, moral and facilitating role of management control

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## Abstract

**Purpose** – The study analyses how management control supports the organisation’s response to the COVID-19 pandemic lockdown.

**Design/methodology/approach** – Video interviews with top and middle-level managers who were directly involved in handling the response to the COVID-19 crisis in late winter and spring 2020 form the empirical base. The object-of-control framework and the distinction between organic and mechanistic management controls inform the exploratory case analysis of a large food retail cooperative in Italy.

**Findings** – Both organic and mechanistic management control mechanisms enabled an immediate response and management of the crisis. The use of cultural, action and results controls supported employees’ health and safety coordination, a tight monitoring of financial performance and social interventions in support of the local community.

**Originality/value** – The study provides original exploratory insights on the use and role of management control in the context of an unprecedented emergency and an unplanned setting (i.e. a pandemic crisis), which is an under-investigated topic in the accounting literature. The study shows how management control operated, linking moral and technical aspects as well as facilitating organisational adaptation and pandemic effects mitigation.

**Keywords** Management control system, Accounting, COVID-19, Crisis, Pandemic

**Paper type** Research paper

## 1. Introduction

A defining feature of crises is their unpredictable nature. Compared to previous crises, such as the 2008 financial crisis or the Ebola pandemic, the COVID-19 pandemic’s economic and social effects have been and also will be broader (as more States and business sectors are directly concerned), more profound (the estimated magnitude of the economic and social impacts is dramatically larger) and both short-term and long-term oriented, triggering



inequalities (Nicola *et al.*, 2020). It is also important to emphasise that neither corporates' misbehaviours nor deficiencies in control systems caused the pandemic crisis (Zattoni and Pugliese, 2021). For these reasons, the COVID-19 global outbreak offers a unique opportunity to study how organisations have responded to a systemic crisis through the mobilisation of management control.

To this end, this study analyses how management control supports the organisation's response to the COVID-19 pandemic in the lockdown period, focussing on a large food retail cooperative operating in Italy. Italy was one of the first countries that had to face the spread of the pandemic and where the authorities imposed a strict national lockdown between March and May 2020 (KPMG, 2020). Globally, owing to the food retail sector's provision of essential goods, this sector was one of the few to remain open during the entire lockdown. The present case analysis analyses the use of management control in an unprecedented emergency and unplanned context. The analysis of the lockdown period enables studying how management control operates in a unique and extreme social and economic event, providing insights concerning the intersection between accounting, organisational and social aspects (Parker, 2020; Sargiacomo, 2015).

The COVID-19 pandemic forced organisations to quickly adjust to new circumstances, exploring real-time solutions and adjusting their goals, decisions, actions and communications. Managers may however have lacked experience in how to deal with a pandemic, thereby generating uncertainty about the actions and processes to be undertaken and objectives to be achieved. Management control can assist in a swift adjustment to new circumstances by coordinating appropriate organisational actions and processes for tackling the crisis and by supporting managers in taking rapid decisions. This topic is, however, under-researched. Accounting and management control literature has addressed financial crises (Becker *et al.*, 2016) and natural disasters (Sargiacomo, 2014, 2015), but has not engaged with the analysis of pandemic events, which have become more frequent over the past 15 years (Rahaman *et al.*, 2010; Schaltegger, 2020).

We adopt the object-of-control framework to interpret the exploratory case analysis's findings (Merchant and Van der Stede, 2012), and we complete the analysis by drawing on the distinction between organic and mechanistic management controls (Chenhall, 2003). We argue that the COVID-19 pandemic's complexity calls for the use of management control that is more social-oriented than its traditional focus on financial and competitive aspects. The topic is related to issues discussed in literature studying how the design and the role of management control vary depending on the social and organisational contexts and their characteristics (Feger and Mermet, 2017; Macintosh and Quattrone, 2010; Van der Kolk *et al.*, 2015).

This study makes two original contributions. Firstly, it presents an exploratory empirical analysis of management control's role in the context of the COVID-19 pandemic, adding to literature that has started to address COVID-19 issues at the organisational level (De Vito and Gomez, 2020; Parker, 2020). Our study responds directly to Merchant and Otley's call (2020) for more field studies on how organisations face real control issues showing that an interlinked set of management control mechanisms enabled the response to the multiple control problems emerged. Both organic and mechanistic management controls were mobilised to deal with the emergency and its effects. Secondly, the study contributes to analysing management control's role in extreme natural disasters (Sargiacomo, 2014). The management control operated as a moral and technical facilitative mechanism mitigating the complex pandemic effects at both organisational and social levels.

## 2. Previous literature and theoretical framework

The increasing occurrence of financial, humanitarian, industrial and natural crises around the world has stressed that it is important to advance the understanding of the possible roles

that accounting and management control might play in such circumstances (Parker, 2020; Sargiacomo, 2014)

A first stream of literature analyses management control role and characteristics in macro-financial crises (Becker *et al.*, 2016; Janke *et al.*, 2014; Rikhardsson *et al.*, 2021), state austerity (Makrygiannakis and Jack, 2016; Van der Kolk *et al.*, 2015) and firms in financial crisis (Bourmistrov and Kaarbøe, 2017; Ezzamel and Bourne, 1990). During a macro-financial crisis, the use of certain tools (i.e. variance analysis or a budget for planning and resources allocation) becomes more frequent or changes while other tools were not used more extensively or did not change compared to the period before the crisis (Pavlatos and Kostakis, 2015). Van der Kolk *et al.* (2015) also emphasise that management control would include “both facilitating and constraining MC elements without overemphasising one of the two types” (p. 955) in order to deal with financial crises effectively. Recent evidences indicate that both organic and mechanistic controls are concurrently used in the context of a (financial) crisis, as a single category of control is not sufficient to deal with the complex and multiple effects that a crisis trigger (Bedford and Malmi, 2015; Rikhardsson *et al.*, 2021). These studies offer an interesting starting point to analyse the topic, given the key role assigned to management control in dealing with crises and their effects.

A second stream of literature analyses the role of accounting during extreme natural disasters. These contributions present different roles for accounting and analyse different disasters’ phases. Some studies emphasise a facilitating and moral role for accounting. Accounting is considered as a key technology in monitoring and evaluating how recovery projects of families affected by a drought perform (Walker, 2014). It has also been shown that accounting facilitated socialising, such as trust, dialogue and mutual understanding, amongst the multiple actors affected by a flood and involved in the recovery phase. Sargiacomo *et al.* (2014) and Sargiacomo (2015) report that accounting is more than a calculative act and an inactive recording of events. Accounting was initially mobilised focussing on alleviating the suffering of people involved in the disaster while progressively switching to economic calculations as a tool for calculating the costs of an earthquake and for justifying financial provision for the victims.

Other studies provide more critical pieces of evidence. Baker (2014) evidences breakdowns in the scope of accountability in the case of Hurricane Katrina’s natural disaster. He argues the importance of going beyond calculative accountability to achieve a moral dimension of analysis inclined to a responsibility towards others. Taylor *et al.* (2014) describe that a downward accountability did not emerge in a post-bushfire-disaster scenario.

The analysis shows a moral (i.e. focussed on social needs and the health of people) and technical (i.e. focussed on economic calculations and aspects) dimension for accounting (Cooper *et al.*, 2011; Everett and Friesen, 2010). The analysis of the literature also emphasises the relevance to learn about the intersection between (natural, humanitarian and pandemic) crises and management control to understand better how management control operates in such extraordinary settings with interrelated financial, organisational and societal aspects to consider. Particularly, there is still much to learn about the role of accounting and management control during and after pandemic events (Rahaman *et al.*, 2010). Parker (2020) argues that management control mechanisms may enable to minimise specific pandemic risks and effects.

In this research, we adopt Merchant and Van der Stede’s (2012) object-of-control framework to analyse the topic. The object-of-control framework has informed previous literature providing important theoretical and empirical insights into different organisational dynamics (Passetti *et al.*, 2020; Van der Kolk *et al.*, 2020; Vélez *et al.*, 2008). This framework, which considers four types of controls (i.e. action, results, personnel and cultural), enables a comprehensive understanding of the management controls that an organisation can mobilise in response to the COVID-19 crisis to promote organisational adaptation and pandemic effects mitigation. Table 1 summarises the framework.

	Results controls	Action controls	Personnel controls	Cultural controls
Mode of control	Direct control based on monitoring and rewarding the results and targets	Direct control based on expected behavioural aspects	Indirect control based on the fulfilment of job requirements and alignment with organisational requisites	Indirect control through the establishment of shared values, social norms and beliefs
Definition	Defining performance goals and targets, their monitoring and evaluation at individual and organisational levels	Designing and controlling behaviours, procedures, rules, responsibilities and job descriptions that employees must engage with for task accomplishment	Designing prerequisites in order to foster individual motivation and self-monitoring	Defining expected norms and values to shape an organisation's environment and influence employees' mindsets
Examples of control techniques (non-exhaustive list)	<ol style="list-style-type: none"> <li>(1) Accounting performance measures (e.g. ROI; operating margin)</li> <li>(2) Monitoring performance in relation to budget</li> <li>(3) Non-financial measures (e.g. number of accidents at work, product quality level, customer satisfaction level)</li> </ol>	<ol style="list-style-type: none"> <li>(1) Procedure guide and operating manuals</li> <li>(2) Physical or administrative restrictions</li> <li>(3) Definition of managerial responsibilities</li> </ol>	<ol style="list-style-type: none"> <li>(1) Training programmes</li> <li>(2) Job design and provision of necessary resources</li> <li>(3) Selection and placement of employees</li> </ol>	<ol style="list-style-type: none"> <li>(1) Codes of conduct and value principles</li> <li>(2) Regular informal controls of other employees' activities</li> </ol>

**Table 1.**  
A summary of the  
object-of-control  
framework

The distinction between organic and mechanistic management controls is also considered. Mechanistic controls “rely on formal rules, standardised operating procedures and routines. Organic systems are more flexible, responsive, involve fewer rules and standardised procedures and tend to be richer in data” (Chenhall, 2003, pp. 131–132). Organic controls include organisational values and principles and communication channels. Organic controls ensure that employees are motivated to participate in decision-making and also motivated to provide ideas for helping focus attention on strategic issues. The mechanistic controls help codify best practices, making them easier to adopt more efficiently. Mechanistic controls also make existing knowledge and skills more explicit (Ylinen and Gullkvist, 2014). This distinction complements the analysis of management control mechanisms and enables to discuss how management control operates in crisis settings (Bedford and Malmi, 2015; Rikhardsson *et al.*, 2021).

### 3. Research method

The research presents a single exploratory case study of a large food retail cooperative operating in Italy where the enterprise is a significant player in a wide territorial area. We collected the data via video-recorded semi-structured interviews in June 2020. The interview

protocol aimed to investigate the enterprise’s response during the first national lockdown in Italy between late winter and spring 2020. The protocol focussed on information about the most critical issues that the enterprise faced during the lockdown; the protocol also focussed on gaining a comprehensive understanding of management control mechanisms once mobilised [1].

We interviewed a total of 11 top and middle managers from the organisational functions mostly involved in the management of the crisis (Table 2). The majority of these managers were also part of the pandemic crisis unit created *ad hoc* by the enterprise. As requested by the company, the research team conducted group interviews enabling the research team to obtain a more joint account of management decisions. The research team transcribed all the interviews verbatim in order to develop an analysis based on a manual codification.

A process of data reduction, display and interpretation followed. The research team organised the evidence collected in accordance with the object-of-control framework and organic/mechanistic aspects. The analysis was completed by literature on accounting for crises and disasters. The evidence eventually has been clustered into the three types of responses implemented by the enterprise as explained in section 4. The picture that unfolded showed the complexity of the COVID-19 crisis and the mobilisation of management control mechanisms.

#### 4. Case analysis

##### 4.1 Management control for business-operational continuity plan and COVID-19 health and safety

Since the beginning of the national emergency, the food retail enterprise immediately started designing and implementing a structured response that they updated continuously according

Function(s)	Duration	Responsibilities during the crisis	References to management control mechanisms
<i>Directorate</i> (1) President (Pres) (2) CEO (CEO)	100 min	Defining the overall emergency plan	11
<i>Social policy</i> (1) Social policy director (SPD) (2) Stakeholder manager (SM) (3) Social policy middle manager (SPMM)	120 min	Interacting with the local community	15
<i>Operations</i> (1) Operations director (OPD) (2) Health and safety manager (H&SM) (3) Health and safety middle manager (H&SMM) (4) Environmental manager (EM)	165 min	Defining the overall emergency plan with a focus on safe business operational continuity	23
<i>Accounting and control</i> (1) Financial risk and management control manager (FRMCM) (2) Product quality and supply chain manager (PQSCM)	70 min	Financial analyses	11
<b>Table 2.</b> Summary of interviews	455 min		60

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to the Italian Government's regulation and according to internal and specific organisational choices.

The enterprise's managers rapidly implemented new action controls, such as COVID-19-related occupational health and safety (OH&S) procedures, protective barriers and a new mobile application for reserving shops' entrances to customers. The target was to stop the virus diffusion and protect employees, customers and suppliers. The managerial workforce (around 250 employees) quickly switched to remote working and, concurrently, the 3,300 store employees across the 96 stores were informed about the new procedures. These control mechanisms enabled a first organisational response using physical barriers, behavioural constraints and new standardised procedures, which protected the organisation from spreading the virus:

We were among the first retailers to use protective barriers between our employees and our customers – we managed to do that very quickly. We also stockpiled enough personal protective equipment and sanitising products as soon as we realised that they were essential in ensuring an adequate level of safety. (OPD)

For the customers who were uncomfortable while experiencing the queue outside the stores and the overcrowds at the beginning of the lockdown [...], we developed a specific app to stagger the entrance in the stores, reducing the queues and avoiding overcrowds. Customers can also use the app to order online and pick up the shopping without entering the stores. (OPD)

We designed new OH&S procedures, which were continuously updated with nine revisions over three months. For each new version of the Government's decree, we promptly discussed the organisational implications and adapted our procedures accordingly, which were then communicated to all the relevant parties. (OPD)

The action controls were rigorous and mechanistic, as it was necessary to ensure that all the employees adopted them consistently to reduce virus diffusion. The new OH&S procedures were then extended externally to various groups of stakeholders. The action controls aligned the internal OH&S choices with suppliers' safety needs, enabling stakeholder management and awareness of virus mitigation actions:

To keep our business operating during the lockdown, various interactions with externals remained vital, such as those with the suppliers. We, therefore, decided to extend our new procedures to the suppliers, sharing all the information on our new safety rules via our website. (H&SM)

The use of existing control mechanisms together with the design and implementation of new training and communication activities completed the initial response of the organisation, revealing the personnel controls' relevance. The enterprise adopted *ad-hoc* new solutions to accelerate information transfer and implementation at the shop level. The entire workforce was informed about the new OH&S procedures, enabling the action controls to become more effective:

In order to communicate the new rules promptly, we relied at first on existing communication tools that were already in use. We put up posters inside our retail shops and we also used the intranet with the software that was already in place. All our employees could access the intranet quickly at any time, also using mobile devices outside their workplace. We also produced a user-friendly video, which was posted on YouTube for easy access. This video was for employees, giving them guidance on what to do. (H&SM)

Management also encouraged proactive communication to advance organisational resilience:

It was essential to maintain an ongoing and open communication channel with all our employees. Every time new concerns emerged, workers' representatives for safety were involved and facilitated the adoption of *ad-hoc* solutions, which were then often collectively adopted. (H&SMM)

As the key targets were to limit virus diffusion and workforce stress in terms of employee absence, the results controls showed satisfactory outcomes in line with the pre-COVID-19 phase:

None of the performance indexes related to human resource management, including absences, reached an extraordinary level; all indexes remained within usual levels. (Pres)

With 3,600 employees, we managed to have only seven registered cases of infection [. . .]. It is clear that we have been effective in protecting our employees and, thereby, indirectly all our customers. (CEO)

The cultural controls expressed in terms of social values and beliefs were a key organic mechanism in shaping organisational resilience. These controls were influential in communicating values, motivating employees and giving direction to the enterprise as highlighted by different managers. The cultural controls enabled the action controls, such as new OH&S procedures, to operate rapidly, outlining the organisation's core values. As the pandemic grew in severity, the organisation's management continued to emphasise social values and beliefs:

The emergency has highlighted the difference between the nature of our cooperative enterprise and the nature of other retailers that are operated under different business values. It was clear from the beginning that the top priority was our employees' and customers' health and safety. We put the people first. (OPD)

During this emergency, our cooperative has shown that it takes care of its people and that their health and safety is a top priority [. . .]. We were committed from the very beginning to comply with our duty to provide a safe environment for all, an environment where people could work and buy essential products without significant concerns, which is traditionally one of our top values. (Pres)

The management control mechanisms' mobilisation gave visibility to employees, customers and supplier's need for safety. This mobilisation supported individual and collective responsibility, which functioned as reinforcing (i.e. the personnel controls over the action controls) and enabling (i.e. cultural controls over action controls) interdependent mechanisms (Bedford, 2020).

#### *4.2 Management control for COVID-19 financial control*

The management control mechanisms also enabled to monitor and assess the COVID-19 lockdown's financial implications. The lockdown-related economic scenario and its complex future trends enhanced the results controls' day-to-day relevance compared to the usual way in which the enterprise conducts its business analysis. Cost information and commercial indicators (such as the average of customers' expense, products' sales budgets, types of products sold, operating margin and variable costs) began to be monitored more quickly in order for the managers to understand the economic effects of the lockdown and the changed consumption habits. A manager highlighted the relevance of the very short-term period of analysis to understand the lockdown's impact:

Since the beginning of the lockdown, we monitored the data on sales daily to understand what was going on. (FRMCM)

*Ad-hoc* analyses were also carried out to calculate the pandemic-related costs. The enterprise started to track and allocate COVID-19 costs, such as sanitation costs, protective masks and additional shop entrance security, to a specific accounting item. The latter was created *ad hoc* to monitor a number of the pandemic's economic effects accurately. The monitoring of such costs generated extended internal coordination because it involved the whole organisation and drove the common goal of safety and virus containment:

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We currently incur extraordinary costs to guarantee the safety of our employees and customers, which affects our contracts substantially with a total of around €3,000,000. (CEO)

In various cases, we had to chase the numbers because they differed from our assumptions: The actual numbers took different paths from the numbers we assumed. Collecting the COVID-19 costs was a complex activity that required the direct involvement of all the managers responsible for those costs. (FRMCM)

The emergency management also increased the importance of the scenario analysis, considering the upcoming summer season and the number of tourists that usually would arrive in the retail stores. The scenario analysis became incredibly complex and unstable due to the high infection level at national and worldwide levels. It, therefore, became impossible to plan accurately for the upcoming months, also considering the need to prioritise safety issues:

Our sales in March and April went well, which was positive. However, these sales numbers made us concerned about whether purchasing habits were changing and which consequences these changes would have in the mid-term (i.e. summertime). We intensified the revenue and costs consolidation analysis. We ran different scenario analyses to understand how the lockdown could impact our performance, but it was very complicated. (FRMCM)

Furthermore, the revenue budget was continually being set aside and reformulated during the lockdown – with a growing “informational intensity” (Hopwood, 2009, p. 799) around key economic parameters – to analyse the variance compared with the original budget and to identify the pandemic’s economic effects. Despite their importance, the revenue budget and related analyses were unable to fully show all the COVID-19 financial implications, as many economic variables became less predictable due to the high uncertainty in the market and society.

One of the consequences of high uncertainty was the need to monitor cost management issues accurately. The control of the finances focussed on the control mechanisms that were already used, such as consolidation analyses, cost centres and variable-costs analysis:

The cost structure is solid because even in a too complicated situation like this, it keeps us running reasonably smoothly. We saved variable costs like energy. By keeping the shops closed, we also saved overtime hours of work, especially on Sundays. (Pres)

When we consolidated March and April, we found significant savings on the cooperative’s ordinary activities. These savings were, for example, linked to advertising because in the pandemic’s harshest period it was decided to stop flyer promotion and other activities. The circulation of the flyers, for instance, was much more limited – stopping distribution costs. (FRMCM)

The dynamic of the variable costs revealed a reduction of the traditional ones (energy, advertising and labour costs), while the safety costs for COVID-19 increased. The latter was higher than the former. (FRMCM)

The lockdown’s economic impact was twofold. It reduced the number of purchases by customers, especially during the lockdown’s initial stage. At the same time, the lockdown allowed saving variable costs due to stores’ closure during weekends. The value of each receipt, however, increased significantly (+68% on average) in March–April 2020 compared to the same months of 2019. The increased use of the financial results controls with *ad-hoc* investigations revealed that management accounting operated in continuous time and that the financial information flows assumed an ever greater salience in managing finances (Hopwood, 2009). The intensity of the crisis and the complicated situation, however, gave precedence to virus risk containment and health aspects, revealing the search for a balance between accounting’s moral and technical dimensions.

The enterprise also paid an additional voluntary economic incentive to 98% of the employees to recognise the sense of commitment and responsibility demonstrated during the



entire lockdown phase. The economic incentive was paid despite the economic uncertainty surrounding the enterprise's financial performance and market dynamics. Relations with customers and suppliers also provided evidence for the role of the cultural controls. The enterprise maintained the price of 2,000 of the supermarket's brand products at a fixed level and the top managers took a decision not to increase those prices until the end of September 2020 despite an increase in the overall supply chain costs for the cooperative as reported by a manager:

A problem led to a shortage of production for various fresh goods, increasing their prices; however, we did not pass the price increase on to the consumers. We kept the prices locked on all goods [...]. I believe that this is something that not all retailers have decided to do. (OPD)

The analysis revealed the relevance not only of short-term financial information but also of medium scenario analyses. The forecasting analysis became a pivotal instrument to use. The intensity of financial analyses increased due to the need to map and understand the crisis's economic effects with additional analyses that would not have been carried out in a no-pandemic situation. This data adds empirical evidence to Hopwood's argumentation (2009) about financial information intensity in a crisis context, evidencing both mechanistic and organic aspects of the control mechanisms used. While specific control mechanisms were modified or used more intensively (i.e. the scenario analysis and revenue budget) during the lockdown, others concerning the organisation's finances did not change. The separation of employees' duties and stock counts or tracking as types of action controls did not change and many personnel controls continued to operate as they did before the crisis.

#### *4.3 Management control for the local community*

A third and essential aspect characterising pandemic emergency management was the attention to the local community's needs. The mobilisation of management control mechanisms supported the local community's relationship to help those population groups most affected by the pandemic and curb the effects of the inequalities generated by the COVID-19 pandemic. The collaboration involved relationships with 63 non-profit associations and 18 municipalities. The cooperative's values as a critical cultural control mechanism led to the implementation of several solidarity initiatives:

The Italian cooperative system as a whole, – and also our organisation, – immediately tried to implement a series of support actions for the local community groups. An example was an extra discount on vouchers issued by local councils for the most precarious situations. (SPD)

These actions were implemented in collaboration with the historical network of local associations, but new relationships were also established to support vulnerable groups and respond to increased requests for assistance and services. The financial and non-financial measures allowed to evaluate the initiatives implemented, giving the initiatives internal visibility as many quotations prove:

By mid-June, we delivered 3,760 shopping items worth €175,000 to people at home. At the end of the lockdown, we delivered approximately 3,780 grocery-shopping items at no extra delivery costs to people shielding at home. (SPMM)

In Rome, we won a bid for delivering around 44,760 food packages in a month for a value of over €1,000,000. We did not profit from that bid; the economic margin was used to cover the operation's organisational costs. We won the bid because we had the organisational capacities to respond timely to the crisis. (SPD)

The cooperative facilitated a large number of purchases by offering exceptional discounts of 10% to many voluntary organisations, including the Red Cross – and the 10% discount means a less significant margin for us. (SPD)

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Following feedbacks collected from local associations involved in our stores, we can affirm that the quantities of goods collected for charities during the lockdown, – over 100 tons of products, – exceeded the standard solidarity initiatives [. . .]. (SPMM)

The results controls enabled monitoring. The results controls and the cultural controls operated interdependently, thereby showing quantitative information and emphasising the outcomes of the socially responsible initiatives that were carried out. In certain cases, the analysis of performance merged accounting figures with the solidarity principle:

The initiative raised €20,000, which the cooperative doubled in value to €40,000. The amount raised will be transformed into shopping vouchers and divided amongst the local voluntary associations, which, in turn, will use them to shop for their associates or to buy necessities for the canteens that they manage. (SPMM)

The financial resources dedicated to the local associations made the commitment credible, reinforcing trust and mutual responsibility between the cooperative and the network of associations. The management control mechanisms that were mobilised for the local community enabled massive coordination between the cooperative and the extended network of the associations. This mitigated, at least temporally, the adverse social effects generated by the pandemic, which would potentially cause a spike in social inequalities:

We have signed a memorandum of understanding with dozens of non-profit organisations and local associations [ed. the final number was 63], guaranteeing their priority access to supermarkets and giving back €5 for each shopping made in order to contribute to service and transportation costs. (SPD)

Furthermore, the action controls reinforced the relevance of solidarity activities, adding formal operative mechanisms to the collaborations and engagement activities:

We activated a monitoring method through a bar code system. Each local association was assigned an identification code, which was then used for every shopping transaction to track the total activities. The COVID-19 emergency initiated a series of new collaborations characterised by social purposes. (SPMM)

The use of management control mechanisms enabled an engagement act amongst the enterprise, not-for-profit organisations and people in need. The control mechanisms internalised stakeholders' requests, guiding the organisation towards managing those requests. These mechanisms favoured actions to create better conditions for the local community and concurrently reduce the inequalities triggered by the COVID-19 emergency. These inequalities, for example, include the impossibility for several people and families to visit the shops or pay for the shopping. In shaping collaborations, management control mechanisms rendered the enterprise's responsibilities to others and the generation of new ideas visible. The external-oriented use of the action and results controls gave visibility to the local community's needs. These controls also promoted a sense of inter-dependency and trustworthiness between the cooperative and the not-for-profit associations that culminated in implementing several solidarity activities. The use of these controls is an example of a reinforcing interdependent effect between control mechanisms (Bedford, 2020) based on financial and operational monitoring.

## 5. Discussion and conclusions

The study analysed how management control supported the organisation's response to the COVID-19 pandemic during the first lockdown period in Italy. Linnenluecke (2017) indicates that employee strengths, adaptable business models and a better supply chain design are key to respond to external threats and foster organisational resilience. This study reveals that management control is an additional critical factor to consider in order to support the

organisation's response. Both mechanistic and organic control mechanisms enabled an immediate response to the crisis. At an organisational level, management control facilitated a tight internal coordination and gave visibility to the OH&S objectives, supporting the redefinition of different operational practices within the stores and monitoring the financial and pandemic-related results. At a social level, the effects concerned implementing several actions for the local community through a direct collaboration with non-profit associations and municipalities. The external-oriented management control mechanisms operated organically, creating dialogue, trust and opportunities to mitigate the pandemic's inequalities.

Management control mechanisms give visibility to the increased complexity generated by the crisis. The action controls enabled strict operational coordination and extraordinary OH&S procedures to minimise virus spread. The cultural controls established safety as a priority for employees, customers, suppliers and extraordinary solidarity activities benefitting the local community. In the early stage of the lockdown, the analysis processes triggered by the cultural and action controls avoided organisational tensions relating to the most critical emergency pandemic issues that had to be addressed. The results controls monitored the COVID-19-related financial, health and solidarity issues, providing information that was apt to monitor organisational performance and social outcomes. The financial results were compared with previous financial goals and targets. The personnel controls were less mobilised, as most of these controls did not intervene directly in response to the COVID-19 crisis, except for online COVID-19-related training activities.

The first contribution concerns management control analysis during pandemic events. By doing so, it details [Parker's \(2020\)](#) ideas on the role and characteristics of management control in a pandemic environment, adding empirical evidence to the literature that has begun to address COVID-19 at an organisational level ([De Vito and Gomez, 2020](#); [Parker, 2020](#)). The study shows a facilitating use of management control. While the literature indicates that management control operates internally, this study shows that control mechanisms are also used externally to deal with the pandemic crisis's multifaced nature. [Otley \(2016\)](#) indicates that "control systems [are] increasingly required to operate across organisational boundaries" (p. 45). Previous literature has evidenced an external role of management control focussed on the analysis of external organisational needs ([Conaty and Robbins, 2018](#); [Jollands et al., 2018](#); [Rikhardsson et al., 2021](#)). The case findings complete this literature, showing that management control was used for social purposes alleviating the pandemic's negative social effects. The management control allowed for the identification of local community needs as key objective for the enterprise. Thereby, the management control revealed a moral dimension that guided and coordinated the different external social projects and activities and included "the partners' activities as objects for management and control" ([Mouritsen et al., 2001](#), p. 221).

The analysis showed that the control mechanisms were used both mechanistically and organically without a single characteristic – mechanistic or organic – to describe the entire organisational approach to controlling during the first lockdown period. These findings add empirical evidence to an emerging stream of management control literature that discusses the concomitant and different use of multiple control mechanisms to deal with unplanned situations ([Bedford and Malmi, 2015](#); [Rikhardsson et al., 2021](#); [Van der Kolk et al., 2015](#)), investigating management control during the unfolding of a pandemic crisis.

The controls evolved rapidly, as individual managers and specialised teams used existing controls as well as newly designed and implemented controls to deal with unplanned events. The combination of the different management control mechanisms has produced enabling and reinforcing effects ([Bedford, 2020](#)) to effectively deal with the multiple problems of the pandemic. There was no space, however, for a general design of the entire control system because the different control mechanisms were used and evolved under the responsibility of different organisational units in order to respond rapidly to different needs ([Chown, 2020](#);

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Otley, 2016). Collectively, this shows that management control enabled coping with the unfolding of a crisis and simultaneously to look to the future in order to design the foundations of a more resilient organisation.

The second contribution relates to the analysis of the role of management control in extreme natural events. The literature evidences the inherent conflict between the moral and the technical dimensions of accounting in coping with the crisis (Cooper *et al.*, 2011; Everett and Friesen, 2010). Instead, the present study shows that the moral and technical dimensions of management control reinforced each other, not generating conflict but rather a synergic response. The moral dimension highlighted the appropriateness and the relevance to respond to the actors' needs triggered by the pandemic. The technical dimension focussed on the financial analysis and the implementation of operational issues. Theoretically, this indicates that the two dimensions are not necessarily conflictual. This point resonates and offers empirical evidence to the arguments of Sargiacomo *et al.* (2014) according to which accounting should "look in two ethical directions at once, downward in an 'accountability to the other', where the focus is on the intrinsic value of people, and upward in an 'accounting for itself', where the focus is on market value" (p. 667).

Thereby, this study agrees with literature that considers accounting and management control as a facilitative mechanism in the context of natural crises (Lai *et al.*, 2014; Sargiacomo *et al.*, 2014; Walker, 2014). The analysis shows the centrality of management control in building trust and relationships (Lai *et al.*, 2014) and monitoring the different results achieved (Walker, 2014). It also shows that management control "underpinned by broader values" (Burns and Jollands, 2020, p. 507) has the potential to provide knowledge and understanding of social issues while concurrently providing financial support to implement actions that respond to social needs. The study extends previous literature that has investigated the ex-post and recovery phases of an emergency (Lai *et al.*, 2014; Sargiacomo *et al.*, 2014; Walker, 2014), thereby addressing the pandemic crisis's real-time issues. The study provides detailed evidence not only of management control characteristics in the context of a systemic crisis but also of the intersections between the governance of crises and management control, which have been emphasised as two important issues to address (Sargiacomo, 2014). In terms of practical contribution, the findings show that using different management control mechanisms in different manner assists comprehensively and effectively in exogenous (pandemic) crisis management, thereby prompting that management control does not support internal managerial aspects exclusively but also the analysis of stakeholders' needs. For these reasons, organisations should design and use a comprehensive management control system in order to coping with future (?) pandemic crises. A limitation of the present research is the absence of internal documentation to complete the case analysis.

This study opens the door to future research avenues. The first avenue is to investigate how management control operates at the end of the COVID-19 lockdown, seeking specific issues, such as re-budgeting or the rolling forecasts dynamic. A second opportunity is to deepen the investigation of whether and how management control has helped internalise stakeholders' requests that emerged during the COVID-19 pandemic by investigating the relationship between management control and the accountability process in other types of organisations. A third avenue for future research could be to analyse how the COVID-19 pandemic has changed the manner in which business organisations consider the complex intersection between sustainability issues, social inequalities and a pandemic and the related role of management control. The longitudinal analysis could address whether and how the use of management control mechanisms for pandemic-related issues has become an integral part of the control system. A final investigation could address the role of management control in curbing employees' anxiety related to COVID-19 in the context of organisational health programmes.

**Note**

1. The interview protocol was not included due to space constraints. The protocol is, however, available to the reader upon request to the corresponding author.

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