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Managing for integration:
A longitudinal analysis of management control for sustainability

Abstract

Based on a longitudinal eight-year study (2006-2014) in a large Italian food co-operative, this paper analysis whether and how the development and the use of sustainability control systems have been able to promote the integration of sustainability within organisational strategy. The co-operative has implemented three main managerial instruments (sustainability reports, sustainability annual plans and participatory social plans), which have been able to promote sustainability integration by inducing technical integration and reinforcing the cognitive enablers. However, strong cognitive (and organisational) barriers have gradually stifled the cognitive enablers and have not enabled sustainability to be fixed into the organisational strategy. As such, the integration process was marginalised, also due to the negative economic performance of the co-operative. The paper shows that sustainability integration remains a fragile concept even in a co-operative, despite the similarities between co-operative values and the principles of corporate social responsibility. Theoretically, the paper offers empirical evidences concerning management control literature for sustainability.

Key words: organisational strategy, co-operative enterprise, management control system, sustainability control system, social and environmental accounting

Introduction

Management control system(s) involve coordination, resource allocation, motivation, and the performance measurement of human, physical and financial resources. At the same time, management control system(s) may be also effective for embedding sustainability issues into organisational strategy (Baker & Schaltegger, 2015; Burritt & Schaltegger, 2010; Schaltegger & Burritt, 2010). Using management control system(s) to integrate sustainability into organisational strategy can reduce the use of natural resources, promote healthy work spaces, and provide a better view of how business might be impacted by environmental and social changes and challenges (Bebbington & Thomson, 2013). Through the integration between sustainability and strategy, promoted by management control system(s), the requests of stakeholders can be considered within planning and reporting activities, and accountability can become more transparent (Ball & Milne, 2005). Integration may increase the awareness of managers and employees (Contrafatto, 2014), leading to changes at operational, commercial and strategic levels (Epstein & Buhovac, 2014). However, integrating sustainability within organisational strategy is not straightforward, since it requires the alignment of several interrelated technical, organisational and cognitive aspects together with the use (diagnostic and/or interactive) of management control systems (MCSs) and sustainability control systems (SCSs) (Gond, Grubnic, Herzig & Moon, 2012).

To date, as indicated by Baker, Brown and Malmi (2012) and Crutzen and Herzig (2013) only a few studies have analysed the role of MCSs in the integration of sustainability into organisational strategy, and few have addressed the development, structure and use of SCSs (Ditillo & Lisi, 2014). Durden (2008), for example, found that MCSs do not measure or monitor social responsibility, and that therefore they do not contribute to sustainability integration. On the other hand, Riccaboni and Leone (2010) empirically shown indicated that management control systems are able to promote sustainability integration. The importance of integrating, and studying, specific SCSs with the more traditional MCSs has also been highlighted, as this helps to ensure that business operations are run in conjunction with sustainability issues (Buhr & Gray 2012; Henri & Journeault, 2010; Schaltegger, 2011). In fact, if SCSs are used as 'autonomous' tools and do not inform a company's conventional MCS, they may "remain peripheral and decoupled from core business activities and fail to reshape strategy" (Gond et al., 2012, p. 206).

The aim of this paper is thus to investigate whether and how the development and use of SCSs have been able to integrate sustainability within organisational strategy. Data were collected through a longitudinal study of a large Italian co-operative food retailer, the COOPERATIVE, which

was investigated over a period of eight years (2006-2014). As a theoretical framework, the study adopts the model of Gond et al. (2012) and analyses technical, organisational and cognitive integration and the different uses of SCSs and MCSs. To the best of the authors' knowledge, the present study represents the first analysis that investigates, from the lens of the management control system, the integration of sustainability into organisational strategy in the context of co-operative enterprises (see the special issues in *Business History* (2012) Vol. 56 No. 6, and in *Organization* (2014) Vol. 21 No. 5, for recent analyses concerning the management of co-operative enterprises).

Co-operative enterprises represent an interesting empirical setting to study sustainability issues because, since their origin, they have contributed to eradicating poverty, creating employment, and facilitating social cohesion (Zamagni & Zamagni, 2008), all related to the topic of sustainability. In addition, co-operatives have a set of particular principles (e.g. democratic participation) comparable with corporate social responsibility principles that influence how these organisations are administered (Heras-Saizarbitoria, 2014). Theoretically, co-operative enterprises have an "innate advantage" concerning the management, measurement and communication of sustainability. However, this "innate advantage" is not a sufficient condition for the integration of sustainability within organisational strategy because the co-operatives' values and corporate social responsibility principles can only be effectively embedded into organisational strategy through the development and use of appropriate MCSs and SCSs (Arjalies & Mundy, 2013; Mundy, 2010),

The paper enriches Gond et al.'s (2012) theoretical conceptualisation of the integration between SCSs and MCSs in two main ways. Firstly, the longitudinal analysis responds to Gond et al.'s (2012, p. 220) call for extended studies aimed at empirically investigating organisational transformation concerning sustainability integration. Longitudinal studies are fundamental in assessing sustainability because sustainability integration occurs over a long period of time (Contrafatto & Burns, 2013). Secondly, the paper sheds light on sustainability integration through a variety of control systems and the related enablers and/or barriers by examining how such integration takes place (Moon, Gond, Grubnic & Herzig, 2011). In doing so, the study adds empirical findings to the literature on management control for sustainability (Bebbington & Thomson, 2013; Crutzen & Herzig, 2013; Henri & Journeault, 2010).

The paper is structured as follows. Section 2 introduces the theoretical framework used. Section 3 highlights the core traits of co-operative enterprises. Section 4 presents the research method. Section 5 describes the key characteristics of the organisation, presenting the case

analysis. Section 6 discusses the results. The final section presents the conclusions and possible future research.

2. The theoretical framework

Management control represents a set of 'formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities' (Simons, 1995, p. 5). As demonstrated, MCSs play a significant role in ensuring that environmental and social activities are incorporated into an organisation's strategic plans and objectives (Arjalies & Mundy, 2013). In order to evaluate the modes of sustainability integration within organisational strategy, Gond et al. (2012) focus on the various uses of both MCSs and SCSs – diagnostic vs. interactive – as well as their level of integration on three dimensions (technical, organisational and cognitive) to delineate eight ideal-types of organisational configurations. The framework is based on the concept of 'control system use' (Simons, 1995). As highlighted by Simons (1995), the use of control systems can be diagnostic or interactive. Diagnostic control systems are "formal information systems that managers use to monitor organizational outcomes and correct deviations from pre-set standards of performance" (Simons, 1995, p. 59). Diagnostic control systems can be used to monitor compliance with external regulations and standards, to facilitate decision making, and to provide information on social and environmental activities and performance for external stakeholders. Interactive control systems on the other hand, focus on strategic uncertainties, i.e. the emerging threats and opportunities upon which the current strategy is based. They offer an opportunity for learning by stimulating attention and dialogue on internal and external aspects. When a top manager decides to use a tool in an interactive way, he/she requires the employees to be involved in the analysis of environmental uncertainty and in the ways to change and improve managerial and operational aspects. Interactive systems are used to control and correct actors' actions, focusing the actors' attention on key goals and supporting changes aligned with strategic objectives. They require intensive dialogue and frequent personal interactions between top managers and subordinates.

Arjalies and Mundy (2013) showed that a variety of MCSs, such as the environmental management system, the code of conduct and formal meetings are used to discuss corporate social responsibility practices in relation to strategic objectives. Rodrigue et al. (2013) showed that the use of internal environmental performance indicators, both in a diagnostic and interactive way, has embedded environmental issues into organisational decisions. Both studies recognise the

important role of MCSs in managing threats and opportunities linked with sustainability and in stimulating the integration of sustainability. According to Gond et al. (2012), integration is perceived as a socio-technical process based on the level of overlap between the MCSs and SCSs. This level depends on technical, organisational/social and cognitive components.

Technical Integration refers to the need to consider the individual practices of sustainability control within a broader system of management control. This is defined as "the integration of regular MCSs with activities and systems that can be described as internal sustainability control systems but are dealt with outside the management control function of organizations" (Gond et al., 2012, p. 209). Technical integration involves, for example, the links between the two types of systems, such as a common information system to gather information, and the integration of sustainability indicators within a performance measurement system. In fact, a lack of environmental and social information is considered as a barrier to effective analyses to support decision making (Battaglia, Passetti & Frey 2014; Dillard, 2008).

Organisational integration refers to how actors and processes are organised around sustainability, and whether hybridisation and socialisation occur between different actors and structures in order to focus on sustainability. The central assumption of organisational integration is that sustainability issues can be adequately managed and measured only if the roles and formal structure of organisations are established in a way that facilitates an analysis and discussion on the topics among all the staff. Organisational integration mobilises the focus on environmental and social issues that are considered important, thus facilitating more inclusive managerial and operational designs that incorporate a greater range of values, interests, and objectives (Passetti, Cinquini, Marelli & Tenucci, 2014).

Cognitive integration refers to what people think of sustainability. It requires knowledge that is exchanged and assimilated by the respective individuals own knowledge structures. A cognitive frame is a "mental template that individuals impose on an information environment to give it form and meaning" (Walsh 1995, p. 281), which acts as "cognitive filters that admit certain bits of information into the strategizing process while excluding others" (Porac & Thomas, 2002, p. 178). Hahn, Preuss, Pinkse and Figge (2014) present theoretical argumentations to explain how differences between cognitive content and structure influence the three stages of the sense-making process (managerial scanning, interpreting, and responding) with regard to sustainability issues. Their argumentations explain why managers rarely push for radical change when facing complex and ambiguous sustainability issues.

According to Gond et al. (2012) a complete overlap is achieved when there is a common frame of reference- among different managers and in the mindset of the actors; in this regard sustainability has a central role. In organisational contexts, characterised by high levels of integration, MCSs and SCSs are tightly coupled, whereas in low integration contexts they are only loosely coupled. The dichotomy between MCSs and SCSs highlights that the object of SCS control should be mainly based on environmental and social issues, while conventional MCSs may also address some sustainability aspects, in addition to economic ones. Gond et al. (2012) identify eight ideal-types of organisational configurations, which depend on the integration logic (low vs. high) of the three dimensions and on the type of use of MCSs and SCSs (diagnostic vs. interactive). The eight ideal-types (Table 1) range from no integration (A - dormant decoupled strategy) to high integration (H - integrated sustainability strategy), representing the different ways in which an organisation can integrate sustainability into its organisational strategy.

These configurations indicate different modes of managing, monitoring and controlling sustainability, as well as their importance in relation to internal decision-making and external accountability and relationships with stakeholders. For example, less robust sustainability strategies are described in configurations A, C and E than in the configurations B, F, G and H. Configurations B, F, G and H differ from each other as a result of the role of cognitive barriers and the opportunity that the interactive use of MCSs and SCSs can provide for the renewal of strategies. The first four configurations also differ in terms of organisational, market and regulatory factors. Configuration D is more complex in terms of performances. Moore (2013) for example reported a case study of a public water organisation evidencing a compliance-driven sustainability strategy (see also Moon et al., 2011 for other empirical examples on sustainability configurations). Due to the dynamic nature of integration reflected by changes in the use of control systems, the framework also presents different stages of integration and marginalisation that an organisation can follow. Systemic integration (a move from a low to a high integration level) vs. dissociation (a move from a high to a low level of integration), and strategic mobilisation (a move from a diagnostic to an interactive use of systems) vs. demobilisation (a move from an interactive to a diagnostic use) characterise the importance of sustainability over time, the associated changes and the level of sustainability integration.

Unlike other frameworks and studies in the management control literature (Berry et al., 2009; Malmi & Brown 2008; Ferreira & Otley, 2009), the framework of Gond et al. represents the first accurate model that openly considers and delineates a set of possible relationships between

sustainability issues and management control systems as well as organisational strategy. This last observation justifies its adoption for analysing and discussing qualitative materials in this study. Not sure what you are referring to here

Table 1: The eight organisational configurations

Organisational Configuration	Main characteristics	Level of integration of control systems	Use of control systems
Dormant decoupled strategy (A)	A situation in which the organisation has parallel systems of control for management and sustainability. Neither is used to deploy any kind of strategy	Low (decoupling)	Diagnostic use of MCSs and of SCSs
Strategy emergence through sustainability (B)	MCSs and SCSs are still not integrated, but the sustainability system is used strategically by the top management team to deploy a sustainability strategy. The strategy 'emerges' from the sustainability area	Low (decoupling)	Diagnostic use of MCSs and interactive use of SCSs
Compliance driven sustainability strategy (C)	One of the MCSs is activated for strategy development. Little attention is devoted to sustainability issues, which are managed diagnostically through a system that operates in parallel to the dominant MCS	Low (decoupling)	Interactive use of MCSs and diagnostic use of SCSs
Schizoid sustainability strategy (D)	Characterised by contradictory sustainability and traditional strategies which are followed and deployed through parallel MCSs and SCSs	Low (decoupling)	Interactive use of MCSs and SCSs
Dormant integrated strategy (E)	Similar to A, but given a lack of strategic vision, sustainability strategizing is more probable because the potential interactive engagement with one of the two systems may be sufficient, in order to move towards a configuration where there is high potential for integrating sustainability	High (Tight coupling)	Diagnostic use of MCSs and of SCSs
Sustainability-driven organizational strategy (F)	MCSs are not used interactively and the strategy-making process is driven by sustainability through the interactive use of SCSs	High (Tight coupling)	Diagnostic use of MCSs and interactive use of SCSs
Peripheral sustainability integration (G)	Only regular MCSs are used interactively to deploy the strategy, while SCSs are used as a diagnostic tool.	High (Tight coupling)	Interactive use of MCSs and diagnostic use of SCSs
Integrated sustainability strategy (H)	Sustainability strategy and strategy-making overlap completely, leading to the deployment and renewal of a sustainability strategy through the use of coherently integrated systems	High (Tight coupling)	Interactive use of MCSs and SCSs

3. Main traits of co-operatives

A co-operative is a people-centred organisation, jointly owned and democratically controlled by its members. Co-operatives are trading enterprises, providing goods and services, and generating profits (Heras-Saizarbitoria, 2014). The profits are not taken by outside shareholders, as with investor-owned businesses, but are under the control of the members, who decide democratically how they should be used. Co-operatives also invest in education and training for their members,

enabling them to contribute more effectively to the sustainable development of the organisation. Co-operatives are rooted in and work for the sustainable development of their communities, and they are based on the values of self-help, self-responsibility, democracy, equality and solidarity (Birchall, 2010; 2013). This set of principles is closely related to corporate social responsibility (CSR) principles (see Carrasco, 2007). In this sense, the European Commission (2002, p. 10) affirmed that "cooperatives […] have a long tradition of combining economic viability with social responsibility. They ensure this through stakeholder dialogue and participative management". The similarities between CSR principles and co-operative principles are summarised in Table 2[1].

Table 2
A comparison between co-operatives and corporate social responsibility principles

Co-operative principles	Corporate social responsibility
Voluntary and open participation	Voluntary nature of CSR
Democratic member control	Open corporate governance
Member economic participation	Economic sustainability
Education, training and information	Credibility, transparency and accountability of CSR practices
Cooperation among cooperatives	Long term relationship between organisation and its stakeholders
Concern for community	Focus on social and environmental issues at local level
Attention to future generations	Contribution of enterprise to sustainable development

In order to maintain the advantage of their specific characteristics over other entities (where maximising profits is the only aim), co-operatives may integrate CSR practices into management and daily operations, searching for synergies and mutual benefits with their stakeholders (Birchall, 2010). Parallel to the integration of CSRs into policies, a system of internal communication and performance evaluations is fundamental, which records and analyses the information on the environmental, economic and social effects and consequences derived from the activities carried out (Mayo, 2011). The engagement of the members and stakeholders in co-operative decision-making differentiates co-operatives from other companies Thus co-operatives should be accountable through the publication of external reports (Salani, 2004) in order to inform stakeholders regarding the actions that have been carried out for the development and evaluation of their core principles (Seguí-Mas, Araya & Garrido, 2015). Also governance mechanisms and decision making should involve the participation of the members and other stakeholders (Zamagni & Zamagni, 2008). Empirically, Sabatini et al. (2014) found that the inclusive and democratic

[1] We refer to CSR principles as synonymous with sustainability principles as noted by Montiel (2008).

features of governance in co-operatives favor the emergence of trust within the organisations themselves thanks to their inherent participatory, horizontal and fair nature. A link has been found between the CSR principles and co-operative enterprise management that indicates that co-operatives, because of their social nature, their commitment to the development of society and the integration of stakeholders in their management, should perceive the integration of CSR into their organisational strategy as crucial (Salani, 2004). Thus both MCSs and SCSs may help to identify, analyse and monitor not only the efficiency and competitiveness aspects but also the needs of different stakeholders together with social and environmental issues, including them within strategic and operational activities (see Arjalies & Mundy, 2013 for an analysis of the relationship between sustainability, CSR principles and MCSs). MCSs and SCSs can thus contribute concretely to the "innate advantage" of the co-operative enterprise, by formally (and informally) including corporate social responsibility principles and co-operative principles into the managerial discourse.

4. Research method

The study was carried out using an action research approach. Action research originated primarily from the work of Kurt Lewin and colleagues, aimed at both taking action and creating knowledge or theories regarding that action (Lewin, 1947). Engagement research represents an effective approach to explore organisational phenomena from the 'inside', and to produce a more grounded and contextualised comprehension of the rationale through which actors behave and individual and organisational actions are constructed (Adams & Larrinaga, 2007). Action research includes several characteristics such as the engagement with an organisation, its interactive process, analysing changes over time and producing scientific knowledge (see Coughlan & Coghlan, 2002 for a precise analysis). In the social and environmental accounting literature, research approaches that facilitate engagement are important in enhancing the analysis and theoretical understanding of the processes, and dynamics of sustainability and the related accounting and accountability techniques (Correa & Larrinaga, 2015; Parker, 2005). Also in the field of management control, engagement approaches and, in particular, action research is considered important to extend scientific knowledge (Berry et al., 2009).

In addition, longitudinal studies provide an opportunity to study change from both vertical (i.e. the process by which change is delivered) and horizontal (i.e. the sequence of events that describe

how things change over time) perspectives (Pettigrew, 1990. Large data sets can also be created to assess the research experience (Thomson, 2007). Interactions over a longer time create more familiarity with researchers and organisations as well as a better understanding of the organisation's characteristics. This provides ''repeated trials for approximating and understanding a research question or topic'' (Van de Ven & Johnson, 2006, p. 813). In longitudinal studies, *case time* and *research time* may coincide only at certain intervals. If this occurs, the research must also be based on retrospective data. Longitudinal analyses have been considered important in analysing management control (Gond et al., 2012) and the changes concerning the management and measurement of sustainability issues (Bebbington, 2007; Contrafatto & Burns, 2013).

In the present study, the four authors of this paper were fully involved in the organisational life of the COOPERATIVE and had a close relationship with the president and the top management that began in 2006[2]. We worked with the stakeholders and corporate responsibility manager (i.e. CSR manager) and with the human resources (HR) manager. We helped design the various SCSs, such as drafting the sustainability report, the sustainability annual plan, the stakeholders' engagement programme as well as the analysis of environmental and social performance. We frequently visited the enterprise, and also hosted employees at our research institute. We were directly engaged in the analysis and activities of the enterprise, supporting middle and top managers in the execution of various initiatives. In the year of greatest involvement (i.e. 2010) we conducted more than fifty meetings with the enterprise's representatives. For example, between 2009 and 2011, we coordinated all the meetings concerning the participatory social plan (13 meetings). From 2008 to 2011 we conducted at least two meetings a year with the coordinator of research, the president and the HR manager. Contact with the CSR manager was ongoing throughout the period, in order to keep up to date with activities and projects.

Qualitative data were obtained through different types of sources. Usually, semi-structured interviews were used to collect information. They were not recorded in order to allow a greater confidential fluency between the researchers and the staff. In these cases, extensive notes were taken and reviewed immediately after the interviews. Direct participation and observation in official management meetings, focus groups and stakeholder meetings were used and detailed descriptions were produced as a result of direct observations (Patton, 2001). Informal talks with employees concerning the activities developed over the years were also held with a regular

[2] The group of researchers was composed of a professor of management and three researchers specialised in environmental management, human resources management, and accounting, respectively.

frequency. The documents analysed included triennial strategic plans, commercial activity plans, reports on activities planned and implemented regarding members, financial reports, budget plans, sustainability reports and other official documentation related to social, environmental and stakeholder issues. Overall, the data collection process was an iterative collaboration between us and the COOPERATIVE, whereby project evaluations, formal presentations, testimonials, and feedback meetings provided the basis for data clarification and, in some cases, additional data collection. This, in turn was used to influence the project outcomes and to question underlying assumptions. The collection of qualitative, quantitative and direct observations led to a rich and in depth knowledge of the COOPERATIVE's characteristics as well as the political and cultural aspects, thus stimulating inquiries and continuous learning.

The qualitative data were analysed through a process of reflection, and going back-and-forth between the data collected, the literature concerning the management and the measurement of sustainability, and the enterprise. The research data set was organised on the basis of a table that listed the interactions with the company, and the following data were recorded (when applicable): date of the meeting, participants, topics discussed, critical aspects, time length, link to the meeting notes and to the COOPERATIVE documents. A detailed interpretation of the data set, accompanying notes and documents was undertaken independently by the four authors. A continuous reading of the data set was informed by the Gond et al.'s (2012) framework and the related literature. The findings was discussed and compared and the data was used for the analysis, and to focus on those events that seemed the most interesting. The writing of the paper was also supported by an in depth process of reflexivity with several discussions between the researchers concerning the characteristics of action research experience (Correa & Larrinaga, 2015).

Action research has been criticised for a potential lack of impartiality, scientific rigour and validity of data (Jönsson & Lukka, 2006). A potential bias of action research is that the researcher may selectively look for empirical evidence and guide the research process towards the expected findings. In other words, there is a risk of producing action without quality (Greenwood & Levin, 2007). In the case of this research, we believe that we managed to successfully limit such bias. The length of the research process and the access to different data sources provided many different kinds of empirical evidence which were helpful in examining the complexity of integrating sustainability into organisational strategy. In addition, the managers of the COOPERATIVE expected results of practical relevance which provided an incentive for them to be involved and to

spend time with us discussing ideas, possible solutions and providing feedback on results. As such, the objective of making actual changes in practice counters researchers' biases, because of the active involvement of organisational members and the empirical facts (Adams & Larrinaga, 2007).

In order to improve impartiality, scientific rigour, validity and the societal relevance of the findings of an intervention/action research project, Lukka & Soumela (2014) propose balancing the *techne*, *episteme* and *phronesis* intellectual virtues promoted by Aristotle. The reflection on action research output(s) following the logic of the three intellectual virtues is oriented to represents "knowledge that meets the dual hurdles of relevance and rigor for theory as well as practice in a given domain" (Van de Ven & Johnson 2006, p. 809). Episteme is related to the production of insights that are theoretically relevant for the scientific debate. Phronesis, although closely connected to action and context-dependent, indicates that scientific knowledge should be aimed at producing results that are also relevant at a societal level. Techne is aimed at producing concrete context-dependent knowledge, based on practical instrumental rationality in order to respond to operational oriented issues. However it should be noted that tension between the three virtues is possible because, for example, the production of epistemic knowledge does not necessarily produce the generation of techne knowledge and vice versa (Lukka & Soumela, 2014). These three intellectual virtues will be discussed in the conclusion.

5. The rise of the COOPERATIVE

The COOPERATIVE is a large Italian food retailer. It was established by local workers aimed at mutual aid among members, with the provision of fair and quality products as well as the protection of the local community and future generations. At the time of the research, the COOPERATIVE had more than 100 stores, spread over four regions, with roughly 900,000 members and more than 6,000 employees. In the 1980s it was one of the most influential actors in the Italian retail market, and for a long time was the only company operating as a food retailer in the coastal area of Tuscany. As shown in Table 3, since the 1990s, the COOPERATIVE has experienced an intense growth regarding the number of locations, as well as stores, products offered, clients served, and the number of local suppliers involved in its supply chain.

Table 3
The intense growth of the COOPERATIVE over time[3]

Year	Members	Employees	Stores	Provinces / Regions served
1945 – foundation	30	3	1	1/1
1945 – by the end of the year	3,686	6	2	1/1
1955	roughly 8,000	94	25	1/1
1973	roughly 44,000	704	46	4/2
1986	roughly 176,500	1,653	38	4/2
1994	roughly 278,000	2,444	40	6/2
2003	roughly 554,000	5,517	52	8/4
2013	942,466	5,195	112	12/4

The expansion was induced by an attempt to export the mutual benefits and co-operative principles to new locations and to re-invest the huge amount of profits made by the original stores during the 1980s. The COOPERATIVE expanded into Latium which had a weak tradition for supporting co-operatives and then Campania, which had no tradition at all. In these areas, the COOPERATIVE was one of the market players, with little interest on the part of consumers in its co-operative principles. In addition, while in the new locations, the co-operative principles were barely applied, in the traditional areas new players had entered in the market.

Gradually, the huge increase in geographical distribution led to a growing detachment from the logic of mutuality, generating a difficulty in responding satisfactorily to members' needs (Battilani & Zamagni, 2012). The large increase in size generated a series of effects related to the concept of demutualisation (Battilani & Schröter, 2012). Demutualisation is common to many co-operatives worldwide and it starts when a co-operative enterprise loses its traditional value system (Gurney, 2012). In the case of the COOPERATIVE, members began to shop mainly in terms of price and product quality, as they would for any other food retailer in the market. In addition, their active participation, as well as that of other stakeholders (suppliers, local community, non-profit associations, employees and members) in decision making and in social activities gradually decreased and the COOPERATIVE's governance practices became weakly connected by its mutuality principles.

The next three sub-sections build up a chronological picture of the different stages of the COOPERATIVE regarding the managing of demutualisation and the integration/marginalisation of sustainability within its organisational strategy through the development and use of SCSs as

[3] The data shown in the Table 3 were considered by the researchers as the most reliable and authentic considering the archival information available.

proposed by Gond et al. (2012). The discussion starts from 2006, and identifies three main time periods (2006–2008; 2009–2011; 2012–2014).

5.1 Awareness and the initial stage of sustainability integration (2006-2008)

In the early 2000s top management began to be aware of the importance of revitalising the mutuality and market positioning of the COOPERATIVE. Top managers, and in particular the president, decided to tackle mutuality and market challenges by focusing on the management and the integration of sustainability. This was considered the best approach given the strong interconnections and synergies between the co-operative's principles and the potential contribution of co-operative enterprises to sustainable development (Salani, 2004).

The management of sustainability issues focused on stimulating the COOPERATIVE to re-acquire a central market role in local areas by enhancing its distinct values system (i.e. mutuality, solidarity, focus on local communities, as well as the safety of consumers and value for money). The initial step in 2004 was the creation of the new position of CSR manager, in staff to the presidency. Her role was to promote and coordinate initiatives aimed at integrating sustainability into organisational strategy. Between 2004 and 2006, the CSR manager identified two main gaps. The first was the lack of accountability tools and processes between the COOPERATIVE, its members and stakeholders. The second gap was the lack of a management control system capable of enhancing the co-operative's principles. On this basis, top management decided to design and use a managerial control system dedicated to sustainability by implementing new projects and tools aimed at encouraging the progressive integration of sustainability into organisational strategy.

In 2006 the promotion of the charter of values amongst the employees and the members was the starting point of the project. This charter described the value system of the COOPERATIVE, underlying as core mutuality principles, the centrality of mutual aid, the importance of labour, as well as the enhancement of the principles of democracy, equality, equity, and solidarity. The importance of the principles in the charter was diffused through specific training and seminars at managerial and operative (i.e. stores) levels over a one-year period. In 2007, a code of conduct composed of a binding set of managerial and ethical principles and rules, was also approved and diffused amongst employees. These two tools were used respectively as beliefs, in the case of the

charter of values, and as boundaries in terms of the code of conduct. At the same time, the COOPERATIVE modernised its social report[4].

In 2001 the COOPERATIVE began drafting social reports which until that time had been used as a tool for publishing information externally. However, the social report had never been a strategic managerial tool because it was not based on an accurate mapping of stakeholders, nor did it use specific indicators to support internal decision making and to improve the transparency within the COOPERATIVE itself. The update of the social report was considered as the most suitable initiative for communicating with members and stakeholders concerning the importance of sustainability and the activities carried out in order to promote the value system (i.e. the entire set of the co-operative's principles). The objective of the social report was to stimulate more active participation by members and stakeholders in defining and executing the COOPERATIVE's mutuality initiatives. The new version in 2006 was designed in accordance with the Italian social report guidelines framework. It was characterised by a more rigorous methodological approach for stakeholder mapping and by a strict selection of indicators aimed at measuring co-operative performances in terms of managing the relationship with stakeholders.

External stakeholders were also actively involved through dedicated projects (Table 4) in order to mobilise their attention and participation in mutuality aspects and sustainability issues. The focus on stakeholders was important in order to mitigate the negative effects of demutualisation and to re-activate participative decision making on specifics issues related to the co-operative value system.

[4] In the case of retail co-operative enterprises, the publication of an annual social report is a mandatory tool stipulated by the National Statute of their Association.

Table 4
Projects implemented in 2007 and 2008

Project	Year	Stakeholders involved	Brief description
Civic testing	2007	Members, employees, NGOs and associations of citizens	Design of new stores aimed at removing architectural barriers for disabled persons
Design of an ethical local label	2008	Employees and local suppliers	Selection of new suppliers characterised by ethical behaviour in order to increase the number of fair trade products on sale
Enhancing and managing the diversity program	2008	Employees, members and trade unions	Awareness-raising regarding innovative practices in the management of diversities (gender, disabilities, etc.) within stores

The drafting of the social report was characterised by various critical technical and organisational aspects. While middle managers belonging to four functions (organisational development, internal efficiency, human resources, and quality management) were actively involved in the drafting of the new social report by generating an embryonic form of organisational integration, other middle managers, less involved in the drafting of the report, tended to operate independently concerning the collection of data, with little awareness of the possible opportunities from sharing certain issues and information. However, the top and middle finance and commercial managers were resistant to the environmental and social aspects because they did not consider sustainability issues capable of renewing the organisational strategy. Moreover, the MCSs, composed of the economic and financial budgeting and reporting system and used diagnostically, were not able to measure the social and environmental performance and the relationship with the stakeholders (such as suppliers and local communities), because they were focused on measuring the economic and financial performance.

There was a lack of performance indicators to monitor the consumption of energy resources, an ineffective management system regarding waste management and a lack of data concerning staff training. Theoretically, linking these events to the Gond et al. (2012) model, the starting point of the COOPERATIVE, in 2004, refers to configuration A, namely the “Dormant decoupled strategy”. This was characterised by the budgeting system, the social report and the charter of values. In 2004, none of these tools were used interactively but rather to diagnostically measure economic and financial results in the case of the budgeting system, and to generally inform members in the case of the social report. As highlighted by Gond et al. (2012), this configuration is typical of those organisations that enjoy a high level of monopoly in their market, but whose power is declining

due to the entry of new more dynamic competitors. However in this stage some seeds of the incoming importance of sustainability had been sown as witnessed by the creation of the CSR manager.

The period 2006-2008 can be mainly associated with configuration B, namely the "Strategy emergence through sustainability". Configuration B arose because the top management and in particular the president decided to build up a strategic renewal through sustainability. The social report in conjunction with the charter of value and the code of conduct represented the basis of the future SCSs. Internally, the social report was used for promoting organisational integration and learning (Mitchell, Curtis & Davison, 2012). Its revamping created internal awareness concerning the strategic importance of managing and measuring environmental and social issues (Adams & Frost, 2008). The report operated mainly as a controlling tool, increasing internal transparency, information sharing and generating enterprise adaptability to the new strategic orientation. MCSs and SCSs were still not fully integrated with the SCSs under a progressive development. The high level of integration concerned the organisational dimension, which was also supported by the projects, developed in conjunction with the stakeholders. The technical dimension highlighted the inconsistency of the information system to collect and supply social and environmental data, as well as the importance of the adoption of the Italian social report guidelines framework as a boundary to identify and develop more appropriate environmental and social performance indicators.

Much friction was evident at cognitive levels. Sustainability integration was perceived very skeptically by two important top managers, and consequently by their middle managers. The determination of the President was very important but not sufficient to induce openness in the mental model and approach of these two managers. Commercial and finance managers did not share the strategic renovation based on sustainability. On the other hand, there was greater openness between the other top managers. It is worth noting that the cognitive dimension was less influenced by the development of the first tools of the future SCSs.

5.2 The development of SCSs with the integration of sustainability (2009-2011)

In order to consolidate the previous initiatives promoted by the CSR manager, the president decided to focus more heavily on the management of sustainability and corporate social responsibility. The core priorities identified were: a) the progressive integration of other functions

in designing and managing sustainability initiatives, and 2) the development and use of other managerial tools and processes to better structure the SCSs.

In 2009, the first initiative was to transform the social report into a sustainability report. The social report was unable to interpret the triple bottom line approach needed for the effective promotion of sustainability within the organisational strategy. The structure was changed from social report guidelines (SRG) to Global Reporting Initiative (GRI) guidelines. This change involved a shift from a structure aimed primarily at measuring the effects on stakeholders, to a structure aimed at measuring the social, environmental and economic performance. The information system was gradually updated and the various departments within the company were increasingly able to provide structured data and indicators for the sustainability report. The change from SRG to GRI gradually generated more collaboration and increased knowledge, leading to a more in-depth discussion of the various sustainability issues, as well as the link between the management of sustainability issues and the COOPERATIVE's values.

Between 2006 and 2011 the number of middle managers involved in meetings and gathering information and data increased from 16 to 34. Top management were also increasingly involved. In 2006, only the president and the head of human resources had participated in drafting the social report. In 2011 the entire top management team (six directors and the president) were involved in discussing the links between their roles and the management of sustainability issues. The commercial and finance directors, who had previously been skeptical, also showed a greater willingness to promote the management, measurement, and communication of sustainability. There was a widespread belief that, in the context of the financial global downturn, the market distinction based on a sustainability-driven strategy would represent a competitive advantage in the local area in which it operated. The focus on sustainability integration also seemed to be perceived as a concrete demonstration of the COOPERATIVE's distinct values due to the fact that the sustainability report was used as an official document to account for the COOPERATIVE's performance during the annual meetings of the members.

New managerial tools and processes were implemented to complete the SCSs such as the *sustainability annual plan* (2008) and the *participatory social plan* (2010). The aim of the sustainability annual plan was to assess in advance the social, environmental and economic impacts of the initiatives planned. The annual plan operated in a similar way to a master budget plan. It helped to identify goals, economic resources, deadlines, responsibilities and the potential impacts on the stakeholders with regard to the actions planned. The tool introduced sustainability

themes into the planning of the COOPERATIVE, with a close link to the sustainability report. As such, the achievement of the targets could be verified in the following year both by the managers and the stakeholders. The sustainability report operated as a diagnostic control tool, measuring the results obtained and comparing them with the initial targets. It also provided information for the implementation of new projects and actions to be promoted in the following years, moving towards a more interactive analysis. In 2011 the sustainability annual plan was distributed to members at the check-out counters of the 112 stores

The participatory social plan aimed to facilitate the engagement of stakeholders and was based on a bottom-up approach. The COOPERATIVE had had stakeholders' engagement since 2006. However, in the period 2006-2008, the engagement process was still in an embryonic form and thus did not have any strategic role in promoting sustainability issues. From 2010 the process was formalised and integrated within the COOPERATIVE's decision making process. It engaged members and stakeholders in decision-making, comparing and discussing specific sustainability issues. There were different thematic groups composed of employees from different divisions, local members, and other external stakeholders (local institutions, consumer representatives, local suppliers, cultural associations, and environmental associations). Each group selected a number of proposals, which the top management then evaluated. The actions chosen by top management were then inserted within the sustainability annual plan.

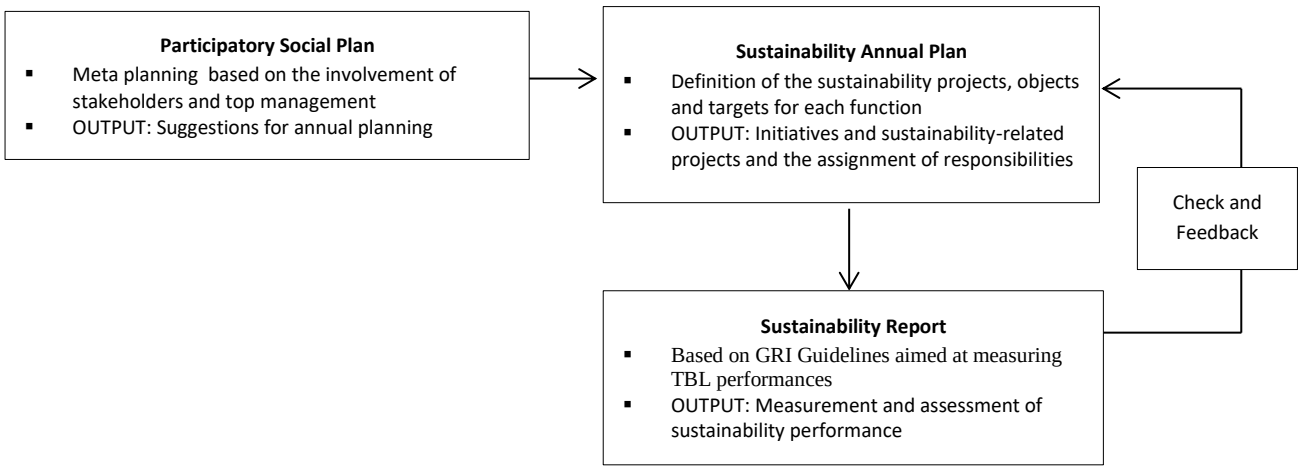
Four themes were identified as priorities by the fifty seven stakeholders, twelve members and fourteen employees involved in the discussion. The four themes were food safety, environmental protection and the efficient management of resources, diversity management, and social inclusion. Examples of the projects implemented from 2009 to 2011 are described in Table 5.

Table 5
Projects implemented from 2009 to 2011

Project	Year	Stakeholders involved	Brief description
Energy auditing	2009	Employees, Environment	Annual planning for internal energy audits aimed at designing new plants with high energy efficiency
Environmental management system (EMS)	2010	Employees, Local communities, Suppliers	Environmental audits in the stores and new internal procedures for environmental management and internal audit
Health and safety management system (HSMS)	2010	Employees, Trade unions	Implementation of HSMS certified OHSAS18001
Food safety	2010	Members, Local suppliers, Customers	External audits of local suppliers aimed at verifying their excellence in food safety
Social capital assessment	2011	Members, Local communities	Research on relations between the local social capital and local economic performance

The link between the participatory social plan and the sustainability annual plan and the sustainability report completed the planning and control phase, promoting the active participation of employees, members and stakeholders in the planning phase. By developing and integrating the three abovementioned tools, the COOPERATIVE progressively implemented the SCS made up of two planning tools (the sustainability annual plan and the participatory social plan) and a sustainability report, which was used both for external accountability and the internal assessment of the results achieved. Until 2011, the development and use of the sustainability annual plan and the participatory social plan were used to foster and consolidate the integration of sustainability within the organisational strategy. The COOPERATIVE thus established a formal cyclical system of planning and control, consisting of a meta-planning phase based on stakeholder engagement and top management vision, an annual sustainability planning phase, and a control phase based on the analysis of the sustainability performance in the sustainability report. By analysing the environmental and social performance indicators, the goals and targets of the sustainability annual plan were verified, detailing any failures and the results were communicated to all stakeholders through the sustainability report.

Figure 1
Sustainability control systems



From a theoretical view point, this stage fostered the interactive use of SCSs, moving progressively from a diagnostic use of SCSs towards a better integration of sustainability within the decision making process of the COOPERATIVE. One of the main effects produced by the interactive use of SCSs was the consolidation of relations with stakeholders and the enhancement of the relational system with local communities and suppliers, in line with the traditional value system of the COOPERATIVE.

This stage can be associated with configuration F, namely the "Sustainability driven strategy" with a gradual consolidation of the enabling factors and by a progressive reduction in the technical limits related to data collection and a subsequent increase in the accuracy of the social and environmental performance indicators. MCSs were used in a diagnostic way, and the strategy process was driven by sustainability through the interactive use of the SCSs, which were used to signal organisational priorities and to stimulate the identification of new opportunities. The participatory social plan was very helpful in highlighting stakeholder requests, while the sustainability annual plan facilitated the communication between managers and subordinates thereby increasing integration at an organisational level. Some of the cognitive frictions that had emerged in previous stages also seemed to decrease, in the common perception of a competitive advantage potentially associated with the more widespread integration of sustainability into organisational strategy. The relationship between sustainability and the COOPERATIVE's value system seemed thus recognised and accept by various top managers and middle managers.

However, amongst the various managerial positions, cognitive integration was not achieved in the same way. The commercial and financial directors seemed to be following the strategic

orientation designed by the presidency only instrumentally, in order to improve the enterprise's image in comparison with its competitors, but without giving real strategic value to the projects and systems related to the value system. Moreover, some middle managers did not always fully share and understand the importance of the SCSs implemented. Some interpreted the SCSs as the concrete demonstration of the importance of achieving the sustainability goals and the related COOPERATIVE's values. However others interpreted the analysis carried out jointly between the sustainability annual plan and the sustainability report as the pure demonstration of the interest of top management in controlling their results and actions (see also Mundy, 2010). In their view, the focus on sustainability was perceived as a further complication of their activities and not as a strategy able to identify problems and reduce uncertainty. In addition, the CSR manager struggled to carry out her cross–functional role to promote integration at the various levels of the organisation.

Some of the above projects (Tables 4 and 5), such as the social capital assessment, were started but continually postponed or significantly reconsidered. In parallel, the global financial downturn that characterised this integration stage together with the negative economic results of 2010 and 2011, with the largest net loss in the COOPERATIVE's history in 2010 (approximately 20 million euros representing about 7% of the company's net assets) did not facilitate the full acceptance of sustainability as a strategic choice.

5.3 Towards a marginalisation of the SCSs (2012-2014)

The negative effects on sustainability integration of the continued negative economic results (despite the development of an economic recovery plan since 2011), and the economic global downturn were very pervasive in this stage, contributing to reducing the strategic role of the SCSs. The directors of the finance and commercial divisions began to focus on short-term economic and financial recovery, abandoning the idea of a competitive advantage linked to market distinction and sustainability initiatives. The investments in the sustainability-related projects were perceived as not being able to generate economic value. The tensions related to the unfavorable economic and commercial trends, increased the hostility towards the SCSs implemented in previous years, especially by the sales and financial middle managers. Some of the projects that had been implemented in the previous years (Tables 4 and 5), were also interrupted despite the social, environmental and economic benefits they generated, while others were significantly modified. For instance, the new design format of the commercial stores was applied only to three new shops

and then abandoned. The HSMS was partially implemented, but not certified with the OHSAS 18001. In addition the EMS was applied only with regard to waste management but without any certification standard, and the diversity management programme, despite its good test phase in four shops, was never widely adopted in other shops.

The negative economic and financial results impacted and destabilised the (weak) organisational and cognitive enabling factors of the previous stages, and the dormant organisational and cognitive barriers re-emerged, significantly hindering the consolidation of the integration of sustainability into the organisational strategy. Many middle managers began to express their concerns regarding the utility of the strategic approach to sustainability, and of the related SCSs. The increasing cognitive barriers concerning the management and measurement of sustainability led the directors of the six divisions and also the president, who backed the decision despite his positive feelings concerning the importance of sustainability, to take drastic measures to downsize the strategic value of the SCSs. The focus on sales and the economic recovery plan, the weak dialogue between top managers and middle managers in the various divisions led to a distorted perception of the utility of the SCSs and also to rethinking the dialogue process with stakeholders. The SCSs were thus progressively depowered, moving from a high level integration with the MCSs and their interactive use, to a diagnostic use based on the sustainability report and an ad-hoc measurement of the sustainability performance.

Between 2012 and 2013 the sustainability annual plan and the participatory social plan were abandoned, because they were perceived as too expensive. The sustainability report lost most of its strategic role, and began to be used mainly as an accountability tool, and in fact the involvement of top managers in contributing to the definition of the sustainability report decreased. Only the managers of three function (human resources, technical and members policies) in 2014 were directly involved in the collection of information concerning the drafting of the 2013 sustainability report.

In 2013 the CSR manager changed role and position, from a trans-functional service towards a focus on the management of members-owners under the control of the Members Policies function. The CSR manager lost her previous supervising role that had been the basis for the creation and integration of the SCSs model from 2006 to 2011. This new approach reduced the strategic and interactive use of SCSs, leaving only the sustainability report. Therefore only MCSs supported the definition and execution of the organisational strategy, which focused on economic recovery. The weakening of the strategic value of the SCSs negatively impacted on the idea of

sustainability as a strong factor for enhancing the COOPERATIVE's values and for differentiating the company in the market. This also curbed the positive contrast to demutualisation, which initially stimulated the focus on sustainability.

Theoretically this stage is in an intermediate position between configuration G (Peripheral sustainability integration) and configuration B (Compliance driven strategy). In this intermediate form (see also the case of Boots UK in Moon et al. (2011) for another example of an intermediate position) organisational and cognitive barriers decreased the interactive use of SCSs, reducing the overall level integration. At a cognitive level, although most top managers and the president considered sustainability as a useful strategic option, they decided to be conservative and focused exclusively on financial and economic aspects. As explained by Hahn et al. (2014), managers with a business case frame (as is the case of the COOPERATIVE's commercial and finance top directors) rarely consider an option that deviates from well-established (economic) routines in the case of uncertainty issues deriving from the assessment of sustainability. On the other hand, more open-minded managers, as in the case of the COOPERATIVE's president and other top managers, were more inclined to consider sustainability in the time of crises, but perceived a lower sense of control over sustainability issues. They thus avoided any increase in managing, assessing and integrating sustainability issues.

The technical integration, however, remained well established. MCSs were used in a more interactive way and the SCSs remained peripheral by the strategic decisions. Unlike the model of Gond et al. (2012), configuration G does not necessarily involve a high coupling between MCSs and SCSs. Instead, the level of integration can be weak when the SCSs are marginalised and only used occasionally. The weak level of integration occurs because the diagnostic use of SCSs does not necessarily lead to a high level of integration. In fact, as evidenced by case of the COOPERATIVE, only the interactive use of SCSs leads to the strong process of change needed for the integration of sustainability within an organisational strategy. On the other hand, configuration C does not necessarily involve a low level of system integration. Rather, there is an overall intermediate level of system integration. The organisational dimension is a good reflection of this intermediate position between G and C configurations. In fact, in the COOPERATIVE, some managers continued to discuss the opportunities and threats of sustainability together, even after the resizing of the sustainability annual plan and of the participatory social plan. This happened for two reasons: on the one hand, the presence and the diagnostic use in the COOPERATIVE of the sustainability

report. On the other, the awareness amongst some managers of the importance of managing, measuring and assessing sustainability issues as well as of their link with the value system.

6. Discussion

Our aim was to to investigate to what extent the development and the use of structured SCSs are able to integrate sustainability within organisational strategy. As demonstrated by the management control literature (Arjalies & Mundy, 2013; Giovannoni & Maranghini, 2013; Riccaboni & Leone, 2010; Rodrigue et al., 2013), organisations try to integrate the management of sustainability in a variety of ways through the development of different MCSs and SCSs. In the case of the COOPERATIVE, the levels of integration and marginalisation of sustainability were influenced by different types of enablers and barriers (Table 6). Initially the integration involved a gradual and progressive development and interactive use of SCSs. In configurations A and B (Figure 1), technical and cognitive enablers were able to push the COOPERATIVE to consider sustainability issues into organisational strategy, neutralising the negative effects produced by the organisational barriers. In configuration F (Figure 1) there was a consolidation of the technical and cognitive enablers along with a predominance of organisational enablers over organisational barriers.

In the three stages, sustainability issues were progressively integrated into organisational strategy through both the diagnostic and interactive development and use of an SCS. In the latest change (period 2012-2014), the move from configuration F to an intermediate position between configurations G and C, highlights the gradual decrease in the strategic role of sustainability. The partial marginalisation was induced by the change from interactive to diagnostic SCSs, and also by the abandonment of some tools that constituted the SCSs. These changes generated a transition from right (configuration F) to left (intermediate between configurations G and C).

Despite the strong level of technical integration, cognitive barriers impacted negatively on organisational enablers, reinforcing organisational barriers that became stronger than the enablers. The longitudinal case thus indicates that in order to achieve a stable diagnostic and interactive use of SCSs (and consequently of the integration of sustainability issues into organisational strategy), it is necessary to achieve a high level of integration in at least two of the three dimensions indicated by Gond et al. (2012), and in particular in the cognitive dimension. The importance of the cognitive dimension is confirmed in the literature. As demonstrated empirically by Jollands, Akroyd and Sawabe (2015), core values are important types of management controls

capable of promoting decisions and actions related to sustainability. Moon et al. (2011) also showed that the cultural aspects both at organisational and cognitive levels are the most fundamental in The Commercial Group for shaping sustainability integration.

The analysis also highlights that there is a recursive relationship between the three dimensions of integration and the types of SCSs. In the framework of Gond et al. (2012), this is only implicitly assumed, whereas recursive relationships are fundamental in shaping sustainability integration. Gond et al. (2012) argue that the more MCSs and SCSs are used interactively, the higher the technical, organisational and cognitive integration will be, as well as the hybridisation between MCSs and SCSs. The results add empirical evidence to the framework because it reveals that a more interactive use of SCSs is highly influenced by the presence of pre-existing organisational and cognitive enablers. While technical integration is mainly stimulated and promoted by the progressive movement from diagnostic to interactive use of SCSs, this is not entirely the case for organisational and, especially, cognitive integration.

In other words, pre-existing established forms of cognitive and organisational integration could promote and influence a more interactive use of SCSs, as well as the development of other managerial tools for the management and measurement of sustainability. In turn the more interactive use of SCSs reinforces both organisational and cognitive integration, showing the performance achieved and highlighting the opportunities and threats related to the integration of sustainability. The recursive relationship between specific organisational factors, environmental reporting and environmental accounting has also been highlighted by Bouten and Hoozée (2013).

Table 6

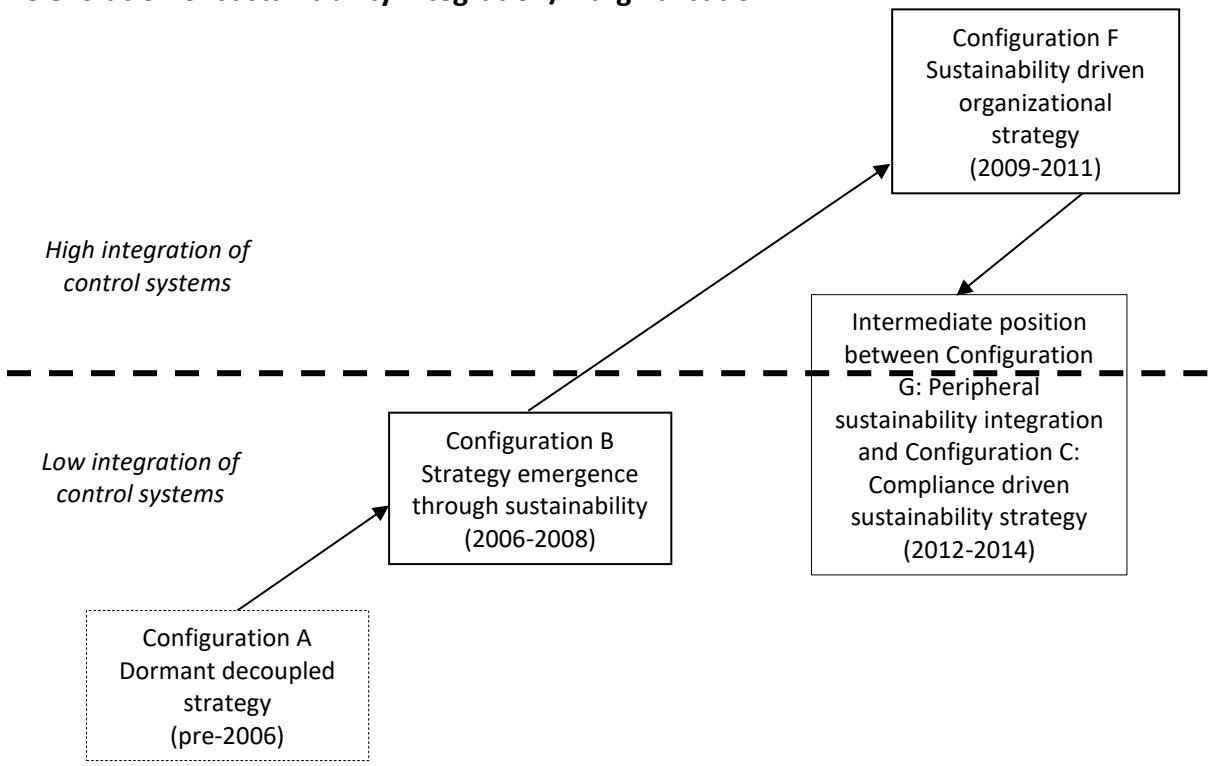
Technical, organisational and cognitive enablers and barriers

Technical Enablers	Technical Barriers
▪ Adoption of guidelines and international standards for social and sustainability reports ▪ Development of managerial best practices regarding resource efficiency and waste collection ▪ Qualitative information regarding social initiatives promoted by the COOPERATIVE in the balance sheet and in the mandatory social report	▪ Lack of adequate information system for data collection concerning sustainability issues ▪ Lack of formal monitoring systems aimed at monitoring the Cooperative's sustainability performance
Organisational Enablers	**Organisational Barriers**
▪ Drafting of the charter of values and code of conduct ▪ Drafting of the social report, sustainability report and sustainability annual plan ▪ Execution of the participatory social plan with the stakeholders ▪ Establishment of a CSR manager ▪ Commitment of some top managers concerning the importance of sustainability issues	▪ Weak collaboration across work roles ▪ Difficulties in communication between middle managers and operational levels with respect to sustainability projects promoted by top managers ▪ Poor skills of middle managers with respect to new sustainability-related issues.
Cognitive Enablers	**Cognitive Barriers**
▪ Vision of the President regarding the need for a managerial approach to sustainability ▪ Relevance of sustainability in the Cooperative's value system ▪ Openness to dialogue with stakeholders ▪ Diffusion of the social capital at a local level with close relationships between the company and local communities	▪ Resistance by finance manager and commercial top managers ▪ Short-term vision of store managers ▪ Perception of some middle managers and operational levels that some of the projects implemented were only aimed at evaluating their performance and controlling their actions

Finally, our case study empirically confirms that the "innate advantage" of being a cooperative is not a sufficient condition for the integration of sustainability into the organisational structure. The COOPERATIVE experience highlighted that the progressive integration of SCSs was facilitated by f specific enablers typical of co-operatives, in particular at a cognitive level. However, during the marginalisation process, these factors were not robust enough in the light of the new negative economic conditions. In fact, instead of defining a sort of "stand by moment" due to the negative economic performance, the sustainability annual plan and the participatory annual plan were quickly shelved to the satisfaction of many managers and middle managers. The core idea of the finance top managers - according to whom the only responsibility is to give money back to members - is very symptomatic of the idea of social responsibility prevalent in some areas of the enterprise. In the light of this, it was difficult both for sustainability and for SCSs to emerge as

strategic opportunities, but even more so to become stable and widely accepted at a managerial level. This highlights that, even when there is fertile ground, sustainability can remain fragile and subordinated compared to economic aspects (Gray, 2010; Thomson, Grubnic & Georgakopoulos, 2014).

Figure 1
The evolution of sustainability integration/marginalisation



Note
The dotted line in the box indicates a configuration approach preceding the start of our research.

Conclusions

The analysis of the longitudinal action research project highlighted three different stages that the integration of sustainability into organisational strategy took over a period of eight years in a co-operative in the field of food retail. The analysis focused on the role played by SCSs in promoting and hindering sustainability integration. As highlighted in Section 4, an action research project in order to produce both scientific and practical knowledge may be able to balance techne, episteme and phronesis intellectual virtues (Lukka & Soumela, 2014).

In terms of operative-concrete knowledge (techne), the experience of COOPERATIVE confirms that the development of formalised SCSs (such as the sustainability report, the sustainability

annual plan and the participatory social plan) and their integrated adoption tend to support the integration of sustainability into the decisional processes of the enterprise. On the other hand, the analysis also showed that the concrete adoption of the instruments and the strong commitment from some of the top managers and of the president cannot guarantee the effectiveness and the stability of the integration process over time, especially when a company is losing money. In this regard, the study highlights that new projects related to sustainability integration require the shared involvement of all levels of management that should be committed to effectively pushing the full integration and improvement of SCSs throughout the enterprise.

The scientific results of the research also emerged as relevant at a societal level (phronesis). Thus the increasing transparency concerning social and environmental performance and the concrete involvement of stakeholders in the development of the participatory social plan and in the implementation of related initiatives (such as those listed in Tables 4 and 5) were aimed at improving the sustainability performance of the COOPERATIVE and the economic and social conditions of internal (employees, members) and external (local communities, suppliers) stakeholders. The action research showed that, if these initiatives are not adequately shared and integrated at all levels an enterprise, they risk being seen as just a testing ground with low relevance and without structural importance. At a theoretical level (episteme), the analysis empirically confirms that Gond et al.'s model (2012) is a very suitable framework for the longitudinal analysis of sustainability integration.

Further research could analysis the recursive relationships between the three dimensions of the integration, and the development and use of SCSs. In addition, the three dimensions of integration do not have the same strength in promoting (or hindering) sustainability integration. As demonstrated, the cognitive dimension is stronger than the technical one. The organisational dimension influences, and is influenced by, both the cognitive and technical integration. The alignment and the stability of the three dimensions therefore represent a cornerstone for studying the role of SCSs. The framework may thus be expanded by identifying particular sub-dimensions within each main dimension.

Future research could investigate under what circumstances SCSs are able to stabilize the integration of sustainability within organisational strategy. In addition, it would be interesting to study the external dimension of SCSs, i.e. how stakeholders' needs are considered and implemented through SCSs (and MCSs) and, as a consequence how stakeholders impact (and change) SCSs (and MCSs). Studying how the informal elements of SCSs (and MCSs) impact on

sustainability integration could be a further avenue of analysis. Longitudinal analyses are, in our opinion, suitable for conducting these types of research. The principal limitation of the overall project was the deep level of involvement of the researchers over a long time-period, which in some circumstances did not enable them to be fully independent and to reflect openly on the results and on the related potential distortions.

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