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Contents lists available at SciVerse ScienceDirect

Accounting, Organizations and Society

journal homepage: www.elsevier.com/locate/aos

Governmentality in accounting and accountability: A case study of embedding sustainability in a supply chain

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ABSTRACT

This paper examines how the introduction of sustainability accounting has been used by an organization as a means to seek to govern social, economic and environmental issues relating to suppliers. The concept of governmentality and four analytics of government are proposed as a means to examine systematic ways of exercising power and authority. This theoretical framework illuminates the specific rationales and practices of government that enable particular aspirations of reform – such as sustainability – to be constituted. The analysis is informed by the discussion of the implementation of sustainability-orientated regimes of practice in the context of a single supply chain within a major supermarket chain in the UK against the theoretical analytics of government. The paper provides novel empirical insights into how sustainability accounting shaped forms of power, rationales and practices in a supply chain. It explores the extent to which senior decision-takers frame and use sustainability accounting to foster disciplinary effects based ostensibly upon social and environmental goals. These are found in practice to be reformulated primarily according to an economic (rather than social or environmental) regime of practice.

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Introduction

Social and environmental sustainability has developed from a sub-political narrative on unsustainable patterns of consumption into a practice of governing by institutional actors in different contexts (Russell & Thomson, 2009). Such transformation involves the problematization of organizational conduct, as a determining factor, and also the identification of subjects, as necessary actors that embed sustainability into their decision-making processes. One of the main arguments which has been made in support of embedding the interlinking of economic, social and environmental considerations within decision-making, is that it would allow organizations to lay the foundations for effective corporate social, environmental, economic and ethical governance (Owen, Swift, & Hunt, 2001; Unerman & Bennett, 2004; Zadek, Pruzan, & Evans, 1997).

There is widespread acknowledgment and increasing regulation underpinning the notion that business and public sector organizations have environmental and social responsibilities (Gray, Dey, Owen, Evans, & Zadek, 1997; Gray, Owen, & Maunders, 1987; Unerman, Bebbington, & O'Dwyer, 2007). Corporations claim that engaging in sustainability is an important activity (ACCA, 2006; AccountAbility, 2008). Nevertheless little, if any, of this discourse is directed towards the analysis of rationalities and practices that lie behind the embedding of the interlinking economic, social and environmental considerations. Correspondingly, there seems to have been widespread acceptance within the academic literature about the conditions under which embedding sustainability into corporate decision-making is realized (with the notable exception of Hopwood, Unerman, & Fries, 2010).

Drawing upon the above points, the aim of the paper is to critically analyze the specific conditions under which corporate engagement in sustainability is enacted, maintained and transformed, through a set of regimes of practice that seek to embed the social and environmental

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impact of corporate actions into decision-making alongside economic impacts. The study provides theoretically informed empirical insights into the extent to which senior decision-takers frame and use sustainability accounting to foster disciplinary effects, and its potential to facilitate the governance of the self and others.

The theoretical framework used to address the aim of the paper is based upon the concept of governmentality proposed by Michel Foucault (Foucault, 1979, 2010; Foucault, Burchell, Gordon, & Miller, 1991; Foucault & Gordon, 1980; Foucault, Senellart, Ewald, & Fontana, 2007), and further expanded by, among others, Dean (1995, 2007, 2009) for analyzing the specific conditions under which particular forms of power emerge, exist and change; those that try to shape, mobilize and work through the choices, desires and aspirations of individuals and groups. In terms used by Gouldson and Bebbington (2007, p. 12) “governmentality seeks to uncover and examine the often invisible rationality which is behind an assemblage of actions and mechanisms that are in place to govern certain actions.” While several research studies within the accounting literature have addressed the foundation of power and the development of governable selves (Johansen, 2008; Neu, 2000b, 2006; Neu & Graham, 2004, 2006; Nyamori, 2009; O’Regan, 2010; Stein, 2008; Vollmer, 2003; Walker, 2010) and the mentalities of government (Miller & Rose, 1990, 2008; Rose, 1999; Rose & Miller, 1992), Dean’s analytics of government has been rather disregarded (with the exception of Russell & Thomson, 2009). This paper therefore contributes to the sustainability accounting literature by demonstrating the potential power of this overlooked but valuable theoretical framework. As sustainability is often portrayed in terms of programmatic aspirations of reform that involve the practice of training – which constitutes forms of government and self-government – employing the analytics of government to analyze aspects of sustainability orientated accounting practices might be expected to provide useful insights. In addressing this objective, it is maintained that governmentality is not restricted to the state or political institutions, but is placed in a more general context (Lemke, 2001; McKinlay, Carter, Pezet, & Clegg, 2010) that includes the corporate domain (Dean, 2009).

In order to give a focus to the insights, our research aim is addressed through the analysis of an exploratory case study. We analyze the rationales and practices that emerged during the implementation of a sustainability accounting framework within the lamb supply chain of a UK supermarket. This enables a reasonably clear overview of a relatively short UK based chain, with limited variation in external influences as would be more apparent in the context of a global supply chain. Hence the focus of research can be clearly trained on the analytics of government utilized to influence sustainability practices in the supply chain by the retailer.

Many aspects relating to the potential of supply-chain accounting to influence the buyer/supplier relationship (such as make or buy decisions, joint cost control, joint performance measurement and open book accounting) have been addressed by extant research (Baiman & Rajan, 2002; Dekker, 2003, 2004; Frances & Garnsey, 1996; Free,

2008; Seal et al., 2004; van der Meer-Kooistra & Vosselman, 2000). However, little academic research has examined the extent to which accounting for corporate social and environmental impacts is influential in governing the transition towards sustainability in the supply chain, and the role it may play in fostering disciplinary effects based upon social and environmental practices.¹ It has been argued that these practices have the potential “to establish ‘sustainable’ norms of acceptable behaviour and to divide actions into ‘sustainable’ and ‘unsustainable’ as a precursor to government intervention” (Russell & Thomson, 2009, p. 231).

The paper proceeds by describing the context and background to our empirical work on embedding sustainability decision-making in the lamb supply chain of a UK supermarket. In the subsequent section governmentality is introduced in more detail, particularly in terms of the practical application we use, drawing on Mitchell Dean’s analytics of government. An overview of our case-study based methodological approach is given. The empirical data is then presented using Dean’s four analytics of government as a guiding frame. The paper concludes by drawing from the analysis to note the implications of our findings, acknowledging the limitations of the work and reflecting on avenues for future research.

Context

Grocery retailing is exceedingly competitive, and economically, socially and environmentally important, representing 11% of European Union Gross Domestic Product. This makes the sector both a focus for policy and public scrutiny, and is an instance where sustainability can be regarded as highly competitive territory with associated prestigious industry awards. A growth sector in the UK despite the economic climate, the £150.8 billion grocery retailing market is dominated by a handful of multiple food retailers.² These operate through supermarkets, superstores and hypermarkets. We will refer to one such organization in our case study as ‘the supermarket’, and the form more generally as ‘supermarkets’.

¹ This argument was shaped by a review of six influential accounting journals (*Accounting, Organizations and Society, Accounting, Auditing and Accountability Journal, Critical Perspectives on Accounting, The British Accounting Review, The European Accounting Review and Accounting Forum*) over the period 1990–2010. The review revealed that governmentality was effectively mobilized in only 30 publications (Armstrong, 1994, 2006; Everett, Neu, & Rahaman, 2007; Graham, 2010; Himick, 2009; Jeacle & Walsh, 2002; Johansen, 2008; Knights & Collinson, 1987; Kornberger & Carter, 2010; Lohmann, 2009; Mahama & Ming, 2009; McKinlay & Pezet, 2010; McKinlay et al., 2010; Miller & O’Leary, 1987; Neu, 2000a, 2000b, 2006; Neu & Graham, 2004, 2006; Neu & Heincke, 2004; Nyamori, 2009; O’Regan, 2010; Radcliffe, 1998; Rahaman, Everett, & Neu, 2007; Richardson, 2009; Stein, 2008; Vaivio, 2006; Vollmer, 2003; Walker, 2010; Young, 1995) and in just one case was the implementation of sustainability accounting as a governing technology challenged (Russell & Thomson, 2009).

² Data on the UK grocery retail sector is taken from the Institute of Grocery Distributors. www.igd.com Accessed 13 January 2011. The term multiple food retailer refers to “supermarkets with 600 sq. metres or more of grocery sales area, where the space devoted to the retail sale of food and non-alcoholic drinks exceeds 300 sq. metres and which are controlled by a person who controls ten or more such stores” (Competition Commission, 2000, p. 8).

Managing the supply chain is a particularly important arena for supermarkets, since without a reliable source of products of consistent quality, they cannot satisfy customer expectations. Supply chains are important more generally because they are a means of enhancing organizational performance, since the chain rather than the individual organization is the level at which competitive advantage can be gained (Li, Ragu-Nathan, Ragu-Nathan, & Subba Rao, 2006).

As large organizations with global supply chains and often a global network of distribution outlets, the supermarkets are subject to a wide range of legal sustainability regulation. At the time of this study, the most pressing of these in the UK context related, for example, to the European Water Framework Directive and the UK's mandatory Carbon Reduction and Energy Efficiency Scheme. Furthermore, non-governmental organizations and the media are quick to highlight the responsibility of supermarkets in their social, environmental and economic contexts. Importantly, the assumed and actual responsibilities of supermarket chains are not restricted to their own head office, retail and distribution operations. Supermarkets also have a substantial degree of extended responsibility for the activities of their many and varied supply chains (EHRC, 2010). This is particularly true in terms of the growing 'own brand' products segment, where the food retailer is intricately involved with production and the supply process itself.

In the words of one member of our case study organization:

"the single biggest impact is the goods we source, not that our own operations aren't important, but in the scheme of things, that is our biggest impact from an environmental point of view. And therefore if you look at that, where would those biggest impacts be? So if you looked at the thousands of products that we sell, about 1400 of them account for 50% of our sales and 50% of our volume, which is phenomenal. And that's things like milk, chicken, eggs, bread, butter, bananas, and therefore you say actually that's where you need to...on those big supply chains, that's where you would focus your attention". (Senior manager 5)

Moreover, UK supermarkets have come under considerable pressure to behave more responsibly, due to reports of unacceptable treatment of suppliers as part of a national level review of uncompetitive practices. A Competition Commission report published in 2000 on UK supermarkets, for example, was instigated by concerns relating to supermarkets with respect to the monopoly provisions of the Fair Trading Act 1973 (Competition Commission, 2000). The report reflected a rising tide of concern in the UK at the time relating to perceived high relative prices of UK groceries, compared to other European countries and the US, an apparent disparity between farm-gate and retail prices, and the threat of out-of-town supermarkets to the local high street. Findings included the note that unfair practices were being imposed on suppliers by virtue of the relative power of supermarkets, including "requiring or requesting from some of their suppliers various non-cost-related payments or discounts, sometimes retrospec-

tively; imposing charges and making changes to contractual arrangements without adequate notice; and unreasonably transferring risks from the main party to the supplier" (Competition Commission, 2000, p. 6). The Competition Commission subsequently instigated an inquiry and consultation into the groceries market which included investigation of supply chain issues and the behavior of supermarkets towards their suppliers (Competition Commission, 2006). As a result since 2010, supermarkets have been subject to the Office of Fair Trading's UK Groceries Supply Code of Practice (GSCOP), which is largely developed around encouraging responsible sourcing (Competition Commission, 2009).

Supplier representatives such as the National Farmer's Union have been vocal in their support of improved treatment of suppliers. In response to the news that implementation of GSCOP would be monitored by an independent arbiter, the President of the National Farmer's Union said that this was a victory for common sense and that this "must be the year we begin to eradicate unfair dealing and protect investment and innovation in British agriculture for the benefit of both farmers and growers and consumers." (NFU, 2010). In addition to alleged mistreatment by retailers, the farming community itself has experienced substantial pressures in recent years. These have included economic challenges as a result of the rise of cheaper imports, reduced protectionism, the complexities of the relatively new EU Single Payment Scheme as a subsidy mechanism and a range of problems associated with animal health (e.g. foot and mouth disease, blue tongue, bovine TB).

Nevertheless, food security concerns mean that agriculture remains a key strategic resource. This does not mitigate the sustainability issues which it embodies, and which are in part reflected by a shift in the EU Common Agricultural Policy from production to land stewardship. In the context of this article, livestock farming is most relevant, which has poetically been said to cast a 'long shadow' in terms of its environmental impact being among the three most significant contributors to environmental problems (Steinfeld, Gerber, Wassenaar, Rosales, & de Haan, 2006). Whether in direct sale as packaged meat, or through input to own-brand products, the sustainability of livestock production which feeds into the supermarkets is a substantial area of concern in terms of sustainability. This is amplified by the fact that livestock production requires long lead-times and commitment of substantial resources by farmers in order to respond to demand and associated conditions of supply.

It is in this wider context of an increasingly regulated, monitored environment, with customers adding their own pressures and demands, which supermarkets and their suppliers have to operate. Unsurprisingly then, there is a call for tools and mechanisms to assist the promotion of sustainability within organizations and also within their supply chains. One such mechanism is a tool for embedding sustainability in decision-making which has been developed through a multi-sector, multi-stakeholder process and is part of the Prince of Wales' Accounting for Sustainability Project. The embedding sustainability in decision-making tool is the key mechanism which we observe being implemented in the case study analyzed in this paper.

The framework puts forward a prototype of a sustainability decision-making tool to help managers embed sustainability within their day-to-day operations. The underlying premise is that in order to be accountable for sustainability impacts, organizations need to understand the material impacts of their detailed activities. The objective of the tool is hence to ensure that sustainability factors are taken into account when decisions about products and services are made at all levels. More specifically, the embedding sustainability in decision-making tool entails three broad phases. The first phase aims to give a broad overview of the material sustainability issues in order to develop a better understanding of the social, environmental and economic impact of a product or service category over its life-cycle. The second phase consists of a more detailed analysis of the specific product or service's sustainability impact over its life cycle. This is done by a discursive process involving pertinent members of the organization as well as supplier representatives (from raw material production to manufacturing and distribution), consumers and perspectives from post-consumer use. Finally, the third phase comprises the bringing together of the data generated in the previous phases and its integration within the organization's everyday operations (e.g. selecting new suppliers, buying, costing products and services, distributing and investing) (*Accounting for Sustainability, 2011*). In the case study in question, because of the relevance of the sustainability impact of the supply chain rather than just internal operations, this meant seeking changes in response to data generated in the process throughout the relevant supply chain. It is this process which we observe and critically analyze through our theoretical lens of governmentality.

Governmentality

Before proceeding a note on the language used in this paper is important. We deal with issues of government, governance and governmentality. We use these in the sociological senses relating to influence, accountability and control rather than the political sense of the national/regional Government. While the sociological literature is quite clear that the term "government" applies outside of the political context, here we seek where possible to emphasize governance and governmentality in order to avoid confusion. Hence the site of governance can be the mundane workspace, home or public setting without a suggestion that national politicians are the governors in question. Indeed, employers, parents and local community organizations can also be governors in these contexts. If we are referring to national or local Government, we will make this explicit. We should also be clear that we by necessity seek to focus on only one dimension of governmentality. We acknowledge that the embedding sustainability in decision-making tool and its associated processes are not the only sources of power and influence in the supply chain. The socio-economic-political and environmental contexts of supply chain sustainability are many, but since we seek here to use governmentality as a lens for understanding accountability, we have chosen to keep our focus narrow and as a result understand the accounting perspec-

tive in detail rather than broadly seeking to map out the wider influences. The limitations of this work are discussed in more detail in the conclusion.

In recent years social, environmental, economic and ethical governance and accountability mechanisms have become increasingly common within corporate life. This has been motivated by a number of factors including legitimacy issues, institutional pressures, and stakeholders concerns (Bansal, 2005; Cho & Patten, 2007; Cho, Roberts, & Patten, 2010; Dillard, Rigsby, & Goodman, 2004; Hoffman, 1999; O'Dwyer, 2003, 2005; O'Sullivan and O'Dwyer, 2009; Owen & Swift, 2001; Owen et al., 2001; Patten, 1992; Suchman, 1995; Unerman, 2007; Unerman & Bennett, 2004; Unerman & O'Dwyer, 2006; Wright & Rwabizambuga, 2006). Additionally, the development of social and environmental accounting over the last 40 years (Bebbington & Gray, 2001; Gray, 2002, 2010) has contributed to the widespread adoption of corporate sustainability reporting (ACCA, 2006, 2007, 2008; Gray, Kouhy, & Lavers, 1995; Milne & Gray, 2007), and sustainability orientated performance measurement systems (Bebbington, 2009; Epstein, 2008; Epstein & Manzoni, 2006; Frame & Cavanagh, 2009; Russell & Thomson, 2009). These developments require, on the one hand forms of knowledge of social and environmental sustainability, on the other hand an increasing set of rules, or norms, to take account of the impact of corporate actions upon the profoundly intertwined social, environmental and economic dimensions of operations.

Our conceptual perspective for understanding the role of accounting in advancing sustainability is the literature on the concept of governmentality, as introduced by Foucault, on the operations of power in modern society. Foucault identifies governmentality as "the ensemble formed by institutions, procedures, analysis and reflections, calculations and tactics that allows the exercise of this very specific albeit complex form of power" (Foucault et al., 2007, p. 108). Therefore, governmentality encompasses actions of governance as well as the rationales and beliefs implicit in those actions. Dean (2009, p. 18) also describes such a form of power as being concerned with the conduct of conduct and therefore "any more or less calculated and rational activity, undertaken by a multiplicity of authorities and agencies, employing a variety of techniques and forms of knowledge, that seeks to shape conduct by working through the desires, aspirations, interests and beliefs of various actors, for definite but shifting ends and with a diverse set of relatively unpredictable consequences, effects and outcomes." Hence we are concerned as we have suggested in our introduction with the activities, technologies, authorities and regimes of control which seek to create a change in practice within a given setting, that of the supermarket supply chain in our case. To be clear, the practices we are concerned with relate to activities intended to promote sustainability within that supply chain, as defined by the lead actor, that is, the supermarket as embodied in the actions of its senior managers.

The remainder of this section discusses the four analytics of government as we have identified them from previous theoretical research in this area as a potentially valuable lens in accounting and accountability research.

The analytics of government

Dean's analytics of government represents a powerful critical tool. It offers opportunities to engage in the interrogation of the taken-for-granted. One font of critical potential comes from the difference between claims and objectives of programs and rationales of governance. In particular, we contend that Dean's framework allows valuable insights into sustainability accounting and its relationship with the governing structures of the case study supply chain.

Research using the analytics of government arises from the conscious rejection of the a-priori distribution of power and location of rule within institutions, whether they be political or placed in a more general everyday context (Dean, 2009; Lemke, 2001; McKinlay et al., 2010). Power, therefore, is not seen as residing within a specific structural allocation, but rather as being constituted by loose and changing collections of governmental rationalities and practices. In the context of the present research, Dean's analytics of government framework explores the specific conditions under which a program of corporate engagement in sustainability comes into being and is maintained and transformed within its supply chain, through a set of regimes of practices that aim at embedding the social and environmental impact of business activities into decision-making.

Regimes of practice tend to be numerous and interweaving in organizational settings. They involve and often connect collegial (such as boards, committees or representatives) and individual (such as employees, shareholders, managers, customers or suppliers) institutional agents, so that we give them the attribute of a system (such as control system, rewarding system, reporting system). These regimes of practice are mutually influenced by one another so that forms of support, correlations, antagonism and, at the extreme, colonization, may occur (Dean, 2009). Regimes of practice are inspired and shaped by various forms of knowledge and are capable of defining the object of such regimes by systematizing apposite ways of dealing with them, setting the aim of the practice and defining the institutional settings.

Part of the challenge in this paper is to take the theoretical frame of governmentality and to use the concept to facilitate understanding of a practical case. In order to use the analytics of government it is first necessary to problematize the regime of practice. Since we are interested in the transformation of practices and processes, it is necessary to understand the nature of the shift and hence focus for the application of the analytics. Thus we need to reflect critically on how it is that the conduct of ourselves and others is molded and created (Dean, 2009, p. 38). This requires us to look beyond the taken-for-granted meanings and accounts of reporting lines and influence, and to interrogate the available evidence afresh. The focus of concern is the conduct of 'governors' (parents, politicians, professions, and corporations) and the 'governed' (children, citizens, customers, workers, consumers, and suppliers). It is this orientation and problematization which prompts us to analyze the minutiae of how a supermarket engages with suppliers to improve practices in line with a sustainability agenda.

The analytics of government set these regimes of practice at the heart of the analysis and seeks to ascertain their intrinsic logic. Dean's framework is able to analyze these practices along four interlinked yet relatively autonomous dimensions. We summarize these dimensions as (1) fields of visibility analytic; (2) *techne* analytic; (3) *episteme* analytic; and (4) identity formation analytic. Dean outlines these vectors of analysis by building particularly on the work of Deleuze (1991, p. 159) on 'dispositif' i.e. of concrete social apparatuses. While we have drawn on the aspects of power in Foucault's work, it should be noted that this is not as central as could be assumed. In fact, his work is not so much about power as it is about the subject (Foucault, 1982, p. 778). This necessarily engages with power issues, but as with our work, we are most interested in the creation of the subjects of the governmentality processes. Accordingly, we describe the analytics in more detail below and adopt the dimensions in analyzing the empirical data in this case and divide the remainder of this section along the four lines of inquiry.

Fields of visibility analytic

In the fields of visibility analytic, we ask what are the fields of visibility that distinguishes a regime of government, which are their particular characteristics and by what means do they seek to illuminate some objects and obscure others (Dean, 2009, p. 41). Thus management flow charts, maps, organograms, graphs and tables define the objects and subjects of governance. Jeremy Bentham's panopticon, with its visual surveillance of prisoners or other kinds of subjects such as school pupils, patients or workers in a circular building through a single central tower, is the iconic example of this (Foucault, 1979). Such diagrams show us how individuals are connected, relate to each other and are constituted in space. The panopticon is however rather an idealized structure. We instead are focusing on a setting with multiple opportunities for fracturing the sources of light. It is because of this complexity that we focus on a relatively uncomplicated supply chain context. In doing so we seek to manage our research and render it tangible. As Deleuze (1991, p. 160) argues "Visibility cannot be traced back to a general source of light which could be said to fall upon pre-existing objects; it is made of lines of light which form variable shapes inseparable from the apparatus in question." Dean also notes that we can identify different regimes of practice with certain forms of visibility (Dean, 2009, p. 41). He argues, apposite to this paper, for example that risk management strategies present social and urban spaces as fields of risk of crime or damage, where lack of visibility constitutes high risk. Hence in applying this analytics of government we are seeking to identify the characteristic forms or fields of visibility, and thereby understanding ways of seeing and perceiving subjects in the regime in question. In doing so we must be particularly sensitive to aspects which are hidden from our view by the focus on the process of embedding sustainability in the supply chain, and conversely seek to understand how and why our attention is being directed to other areas by the actors concerned and the field of visibility associated with the embedding sustainability in decision-making tool.

Techné analytic

The *techné* of government are the technical means adopted to achieve the ends of governance and realize the illuminated values. As Miller and Rose (1990) point out, intervention is an important part of governance, and it is in the fulcrum of action around interventions that we can observe how subjects are acted upon. Accordingly we should ask “by what means, mechanisms, procedures, instruments, tactics, techniques, technologies and vocabularies is authority constituted and rule accomplished?” (Dean, 2009, p. 42). A distinction is drawn here between governmentality as a manifestation of values and ideology – sustainability in this case – and governmentality as technique. Without technical means, intended outcomes will not be met. That is to say, it is highly unlikely to change regimes of practice relating to sustainability by talk alone, no matter how well informed or convincing a discourse is employed. Thus *techné* are specific ways of acting, intervening and directing, made up of particular types of practical rationality (‘expertise’ and ‘know-how’), and relying upon definite mechanisms, techniques, and technologies. Such technologies may be apparently humble and mundane mechanisms such as techniques of notation, systems of training, professional specialisms and vocabularies (Miller & Rose, 1990). *Techné* of government also may contribute to impose limits to what ends are achievable, cause dissonance when employed, create new problems, be re-employed for unexpected ends, misappropriated and indeed simply poorly employed or under-resourced. The technologies associated with the embedding sustainability in decision-making tool, and the other mechanisms engaged with to alter behavior inevitably draw our attention particularly for this aspect of the analytic of governmentality.

Episteme analytic

The third dimension of the analytics of government is called the *episteme*. This refers to the discourses and rhetorics of value, expertise, language and forms of thought employed in the practices of governing. This vector of analysis has been described as the “purposive attempts to organize and reorganize institutional spaces, their routines, rituals and procedures, and the conduct of actors in specific ways” (Dean, 2009, p. 43). Work in the field of professional nursing has linked trust to governmentality as a mechanism to reduce complexity and as a component in the management by professionals of populations and themselves (Gilbert, 2005). This perspective acknowledges the investment of professional activity with a moral superiority to justify intervention in the activities of others. Trust can also take the role of facilitating the practices of governing in collaborative environments (Coletti, Sedatole, & Towry, 2005). *Episteme* is hence understood as distinctive ways of thinking and questioning, relying on definite vocabularies and procedures for the production of truth (e.g. those derived from the social, human and behavioral sciences). Helpful here is the observation that one of the features of government is that “authorities and agencies must ask questions of themselves, must employ plans, forms of knowledge and know-how, and must adopt visions and objectives of what they seek to achieve” (Dean, 2009, p. 43). In the context of the research presented here,

this has particular resonance for the very basis on which we privilege knowledge gathered in accounting and accountability processes. The tension of producing quantifiable measurements from qualitatively aggregated (all be it informed) impressions of sustainability is a core issue important in this case and with ramifications across sustainability accounting as a regime of practice, and organizational and professional activity.

Identity formation analytic

Identity is an immensely important and influential aspect of organizational and social research. The workplace is a “pre-eminent site for contestations about the nature of human identity, and for attempts to shape and reshape the identity of individuals” (Miller & Rose, 2008, p. 174). In order to understand the genealogy of identity we must address the practices acting upon human beings and their conduct, and the systems of thought which provide the foundation and context for them. In terms of this analytics of government then, we are concerned with understanding characteristic ways of forming subjects, selves, persons, actors or agents. To be precise, Dean suggests that it is identification of people and groups as taking on a particular role and characteristics associated with it that is important rather than a pre-ascribed identity *per se*. Here is implied a performance of government as a means of acting on conduct (Dean, 2009, p. 44). The nature of the relationship formed with others and the personal trust embedded within them (Mayer, Davis, & Schoorman, 1995) are important aspects of the identity enacted. Stakeholder theory and supply chain management would have us expect a particular sample of actors and roles as important in the supermarket supply chain. Rather than import these actor-identities and their assumed roles into our analysis, in our study we seek to understand the identity of – for example – farmers who supply meat processors who in turn supply supermarkets, through the governmentality process which co-creates their identities.

While an analytics of government constitutes a perspective on questions of authority and power, it is not purely subjective, rather it requires acceptance of no absolute truth. Deleuze (1991, p. 162) notes that universals should be repudiated, since the universal explains nothing, rather it is the universal statement or assumption, which needs to be explained. The evaluation of the analytics of government requires us to compare the intelligibility and understanding yielded from alternative accounts of a particular regime (Dean, 2009, p. 33). It is this which we try to do in detail by examining the accounts of the managers in our sample seeking to govern supply chain sustainability.

Furthermore, the four analytics of government described here are not discrete, rather they presuppose one another. While each is relatively autonomous, it should be recognized that regimes of practice cannot be reduced to a single dimension. Investigating the analytics of government using these four axes as analytical lenses allows us better to understand the transformation of regimes. Hence it is to be expected that in examining the fields of visibility, *techné*, *episteme* and identity formation of governance of supply chain sustainability, there will be cross-over between analytical axes, and reiteration.

Nevertheless the examination is expected to reveal the shift to supply chain sustainability as a transformation of regimes of practice in a manner made more comprehensible by this multidirectional analysis than would be evident by other mechanisms less sentient to observing power, requirements for accountability and subjectification of others.

Against this background we propose to operationalize Dean's analytics of government framework to gain better understanding of the transformation of a regime of practice. In doing so we show how the implementation of social and environmental accounting shapes forms of power, rationales and practices in governing supply chain sustainability.

Data and methodology

The evidence in this study was collected using semi-structured in-depth personal interviews with eight senior managers between February and April 2009 as the foremost body of data. The case study organization is a UK based supermarket, which will be anonymous for reasons of confidentiality. The main aim of the interviews was to acquire in-depth understanding of the accounts given of the rationales and practice that emerged during the implementation of a sustainability accounting framework with the purpose of embedding sustainability in decision-making.

The perspectives obtained were used to develop an understanding of the extent to which accounting for corporate social and environmental impacts is influential in governing the transition towards sustainability in the supply chain, and the role it may play in fostering disciplinary effects based upon social and environmental practices. The interviews were administered through a small set of broad open-ended questions and were conducted by the researchers on the interviewees' company premises. Open-ended questions were used to encourage the interviewees to take an active role in an open and unrestrained dialogue with the interviewers (Denzin & Lincoln, 2005; Ghauri, 2004; Horton, Macve, & Struyven, 2004; Patton, 2004). The interviews ranged from 45 minutes to one and a half hours in duration.

There were two primary reasons for selecting senior managers for the interviews. First, all respondents had, to various degrees, an input into the operationalization of the embedding sustainability into decision-making tool, in most cases having the power to take high profile decisions, thus being able to influence the subsequent stages of the organization's operations with regard to the specific supply chain chosen for the analysis. Second, individuals at a senior level could be expected to have a broad perspective on the company's activity and therefore may be viewed as able to address questions on the rationales behind the implementation of the framework.

Complementing the senior manager interviews from the supermarket, were interviews with a sheep farmer, a key lamb processor supplying the retailer, and a representative from the National Farmer's Union. These perspectives enabled us to flesh out the discourse of the managers.

All interviews were digitally recorded and subsequently transcribed. The data were analyzed by an iterative process of manual elaborative (or 'top down') coding in order to identify patterns therein relating to governmentality (Auerbach & Silverstein, 2003, p. 104). The framework of the analytics of government was used as a loose guiding lens through which to observe the data. Nevertheless every effort was taken to ensure that the reading of the data allowed for other aspects to emerge beyond those prescribed in the four elements of the analytics, or for the possibility that no data related meaningfully to a given analytic. The procedure followed was one of identifying relevant text, repeated ideas and themes which provided the fabric of the theoretical narrative presented below. Both authors went through the process of analyzing the data independently, with the assessment by the lead author being reviewed, revised and supplemented by the observations of the second author through a collaborative dialogue. The analysis of the transcriptions was accompanied by the study of the notes taken during and immediately after the interviews, and aided by further listening to the audio recordings. This helped to re-elaborate the various intonations given to the interview, thus functioning as an aid to make sense of meanings.

Finally, another body of data was drawn from observations made while examining Sustainability Reports produced as part of the organization's annual corporate reporting cycle in the last 5 years; other publicly available documents mentioned in these regular reports (such as the Grocery Supply Code of Practice and Code of Conduct for Socially Responsible Sourcing), and internal documentation made available by the supermarket.

The governmentality theoretical perspective was adopted as a lens through which to interpret the research data, especially the four analytics of fields of visibility, *techne*, *episteme* and identity formation, thus enabling the production of the subsequent narrative. Where practices could be understood from more than one analytic, they have not been repeated in order to enable a coherent narrative. We have addressed practices in the analytic which we believe to be most pertinent. While we sought to stay open to the possibility of an additional analytic emerging which lay outside the four identified by Dean, none was noted in our analysis. Having identified practices which are indicators of transformation of the regime of supply chain sustainability practice, in the discussion we seek to show how the issues we have investigated work to facilitate governmentality, drawing out relative issues of influence and accountability.

Hence our contribution in applying the accountability lens on suppliers and their customer organization as they go through a process of enhancing supply chain sustainability is to illuminate the application of power and control using the analytical framework of governmentality.

The lamb supply chain and sustainability

With social, environmental and financial aspects of sustainability coming into play, the lamb supply chain faces a difficult challenge in balancing the sometimes competing

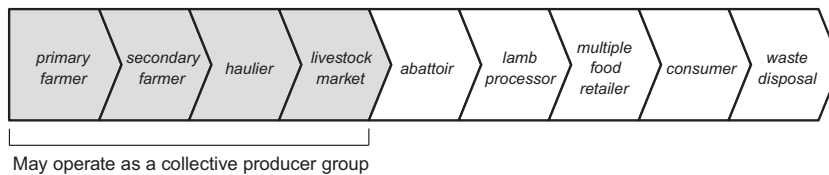


Fig. 1. Lamb supply chain.

Table 1

Analytics of the governing of sustainability within the supermarket's lamb supply chain.

<p>1. <i>Fields of visibility</i> Sustainability as an economic issue Diagrammatic representations of power and authority Investment in embedding sustainability process Self-portrayal and external recognition as sustainability leaders</p>	<p>2. <i>Techné</i> Meetings, training and surveying Operating engagement Auditing and monitoring Rule compliance Financial incentives</p>
<p>3. <i>Episteme</i> Quantification of qualitative measures Quality, competition and risk Cost-benefit analysis Compensatory relationship between aspects of sustainability</p>	<p>4. <i>Identify formation</i> Agents framed as stakeholders Stakeholder labeling and ranking: <ul style="list-style-type: none"> • Customer as principal • Supermarket as agent of customer desires • NGOs as customer-influencers • Processor as conduit of message to farmers • Farmers as a valuable commodity </p>

aspects of sustainability evident in triple bottom line accounting.³ In addition to being socially, economically and politically important (ensuring food security), particular environmental areas of concern arise in relation to land degradation, climate change and air pollution, water shortage, pollution and loss of biodiversity. Despite being commonly less problematic than cow and pig farming, the sustainability issues around sheep farming are many and varied. The issues operate at a number of levels, are not mutually exclusive, and lack clear evidence on what the best preventative policies are.

On the other hand, proponents of sheep farming are quick to point out the way in which British sheep farms, often small family-run ventures, alleviate some social aspects of sustainability by providing much needed income and employment in rural areas. Farmers are often presented as stewards of the countryside, taking pride in their natural and traditional methods to rear lambs, which preserve the British landscape for future generations.

Perhaps most fundamentally, taking the economic aspect of sustainability into account, the sheep-farming sector is not particularly prosperous, with farmers sometimes

selling products at below production cost and farm numbers unsurprisingly in decline. The economic aspect of sustainability – that is, economic survival – is of key importance in this case study as will become clear.

It should not be forgotten that the lamb supply chain consists of far more than just farmer and supermarket, although this would be problematic enough. While these are the highest-profile participants in the chain, other intermediaries also have a role to play and any attempt at embedding sustainability within the chain needs to take this into account.

At each stage of the supply chain, of course, a wide range of environmental, financial and social aspects of sustainability in relation to factors such as energy use, water use, transport, animal welfare, employment conditions, economic survival, packaging and waste disposal are relevant in different measure. Fig. 1 illustrates the standard chain for the case study company.

Assessment of the analytics of government within the lamb supply chain

The problematization of the supermarket and its suppliers' practices were triggered by the adoption of the framework for embedding sustainability in decision-making, which was one element of a wider overt commitment to a program of enhancing sustainability. The implementation of this new regime of practice led to tighter sustainability policies that spread over lamb suppliers and challenged their extant praxis. The analytics of government framework proved to be particularly effective in this context since it places the supermarket's regimes of practice at the centre of the investigation and seeks to discover

³ The triple bottom line concept was developed to meet the needs of businesses engaged or interested in sustainability and emerged in the late 1990s to convey an image of concurrent concern and sensitivity to three aspects of sustainability: economic, environmental, and social. It involves accounting, reporting and managing economic, environmental and social performance, simultaneously pursued, and assessing how these can be utilized to achieve economic, environmental and social objectives. The triple bottom line concept has been used to describe a number of applications by organizations but also suffered severe criticism due to its intrinsic limitations (Adams, Frost, & Webber, 2004; Brown, Dillard, & Marshall, 2009; Colbert & Kurucz, 2007; Elkington, 1997; Gray & Milne, 2002, 2004; Norman & MacDonald, 2004; Painter-Morland, 2006; Richardson, 2004).

the hidden rationality that is behind an array of behaviors and mechanisms that are in place to govern sustainability (Dean, 2009; Gouldson & Bebbington, 2007). Table 1 summarizes the key aspects of the analytics of governing sustainability which we find in the supermarket's lamb supply chain as analyzed in this section.

Fields of visibility analytic

The fields of visibility analytic reveals how the dominant power of the supermarket in the process of embedding sustainability in the supply chain enables the prioritizing of aspects of sustainability most important to them. Hence despite inclusion in the process of identifying sustainability issues for which supply chain members could be held accountable, in fact it is the leading role of the supermarket and the drive to mitigate risks for them that determines which aspects are to be made visible.

The cost of the process of implementing the embedding sustainability in decision-making tool itself – in terms of staff time, and the payment of the facilitating consultants

– gives the embedding of sustainability some visible internal credibility. This is complemented by legitimacy given to sustainability governance within the organization by the high level commitment backed up by Board member responsibility for aspects of the corporate responsibility agenda. The sustainability governance agenda is underpinned by this high profile involvement, with vocal and evident support from senior management via public media (e.g. staff video messages on the environment and media appearances promoting sustainability) and private mechanisms (e.g. accountability through the appraisal system).

Dean (2009, p. 41) notes the use of diagrams of power and authority in illuminating the operation of particular regimes. In the case in hand the spreadsheet resulting from phase 2 of the embedding sustainability in decision-making tool (see Fig. 2) is the visible artefact of governmentality, that is the documented description giving *de-facto* authority to the supermarket to influence the sustainability activities of suppliers.

For lamb, for example, the identified most vulnerable areas were seen to be those in Fig. 3. Note that the most

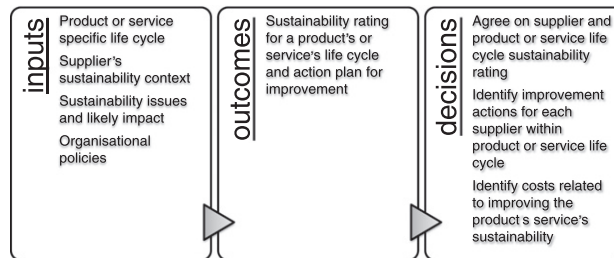
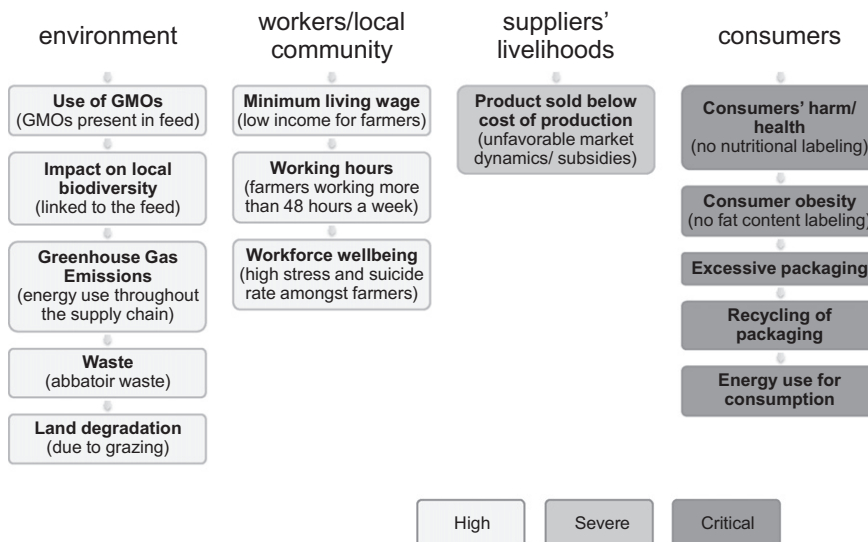


Fig. 2. Case study organization's artefact of governmentality.



Note: The high, severe, critical risk rating are net sustainability risk ratings reached through escalation and mitigation of the gross risk rating, taking knowledge uncertainty into account

Fig. 3. High, severe or critical UK lamb sustainability risks.

critical issues visibly identified in Fig. 3 are seen from the supermarket's point of view and all relate to consumer issues in terms of the potential economic effect on the organization rather than because this is where the greatest social or environmental impact is.

In a report on the phase 2 meeting, it is noted that high, severe, and critical UK lamb sustainability risks should be prioritized according to the following criteria:

1. issues for prioritized action: issues for which (the supermarket) has direct responsibility, or control (e.g. labeling on products),
2. issues for medium term action: issues where (the supermarket) has direct influence (e.g. supplier standards),
3. issues for longer term consideration: issues for which there are wider influences and pressures, and for which partnership responses would be required (e.g. farmer subsidies) (Source: internal document).

Point 2 above is thus the visual representation of the authority of the supermarket to seek to govern its supply chain in terms of sustainability. Thus the framework for embedding sustainability in decision-making adopted surfaced in particular the rationales of sustainability and in turn the resources the supermarket could map and monitor. However, as is shown in Fig. 3, despite environmental and social fields being identified within the supermarket as amongst the most important when it came to control, calculation and communication of sustainability of and within the given supply chain, they were also logically conceptualized as drivers for economic success. One senior manager claimed that:

"Sustainable, for us, means continuing to be able to supply the products that we wish to supply or that our customers want, now and in the future and then recognising that they'll be subject to increasingly constrained external circumstances." (Senior manager 3)

The social and environmental impacts were seen as increasing the supermarket's sensitivity to external pressure, thereby encouraging a responsive approach. These features of the retail environment were viewed as exposing companies to potential threats that, allegedly, needed to be managed to avoid losing market share:

"...because whether you consider sustainability to be financial, physical, actual supply of whatever is in question, if we don't have something to put on our shelves to sell, we are not a sustainable business because we are shopkeepers." (Senior manager 1)

The economic rationale was recognized as very important in implementing the supermarket's sustainability reform among all the managers interviewed, and was used as a filter for making sustainability a visible part of business practice. Sustainability was therefore primarily perceived as having competitive meaning and that it could be dealt with through market-orientated regimes of practice. As a result, performance indicators and managerial tools that enabled the visualization of priorities according

to this view, and issues that are generally considered as critical to any sustainability strategy were only given visibility on a pragmatic basis:

"we were asked to look at water [use..], the last two years it just rained in the UK and we would be laughed out of a room if I mentioned water to farmers. ... It's much more [about] using just our own integrity and judgement about what we can talk about, which bits we can move forward at which times and which we can't." (Senior manager 2)

Indeed at the most fundamental level even the word 'sustainability' was purposely shadowed from the discourse and kept 'invisible' thus limiting the accountability of the supermarket's program of change:

"I try hard not to use the word 'sustainability' in my daily conversations, because it can be quite a loaded word for people, it usually implies some kind of additional cost to the business." (Senior manager 3)

In some contradiction to this approach, the visibility of the program to embed sustainability was nevertheless buttressed – and perhaps was even adopted – as a result of the strategic decision by the supermarket to be 'leaders' in the sustainability area rather than 'fast followers' or 'credible players'. The self-perception of the organizational participants is thus one of taking the moral sustainability high ground over and above competitors, though they felt this was not always recognized. This was evident in the interviews, with one respondent being vocal about the failings of competing supermarkets and non-governmental organizations in the sustainability area. For example, one respondent voiced his frustration that:

"some [competitors] have been able to successfully wrap themselves in the clothes of sustainability without really doing very much. ...What I say consistently is that it is also the responsibility of those people who are [...] in the non-governmental side to ensure that those corporations that are on the cutting edge, are rewarded for being on the cutting edge." (Senior manager 4)

The examples of visibility presented here show how the supermarket defines the fields of visibility of important aspects of sustainability in the supply chain for which the suppliers are required to be accountable. Using the diagrams and processes given credibility by their association with the embedding sustainability in decision-making tool, the supermarket allows little space for recourse by the suppliers. By leading the meetings, determining the participants, and having the majority influence over what is seen as high vulnerability areas, they govern the process using the decision-making tool as a framework. Areas of high vulnerability for the company are brought into the light, and areas of low vulnerability – which might well be important to farmers, but are less so to the supermarket – are left in the shade. The invited supplier representatives are bit-players in the process, though notably have considerable power relative to non-invited suppliers. These suppliers might be considered to be the first among equals, and trusted friends notwithstanding the enduring power differential between supermarket and supplier.

The fields of visibility referred to above set in train a particular formulation of sustainability in the lamb supply chain rather narrower than – and somewhat dissonant with – the broad sustainability agenda of environmental, social and economic sustainability. As we have noted, the visibility analytic shows this to be primarily economic in nature, focusing on competitive market issues and translating sustainability into contemporary business language. The remaining three analytics of government illustrate how this re-formulation is further embedded in the regimes of practice established to seek to influence sustainability in the supply chain.

Techne analytic: procedures and norms for the accomplishment of rationales of governmentality

In this section we explore how the conceptions of sustainability and the consequently constituted visibilities of government are linked to technologies and practices set up by the supermarket. The technologies of government applied by the supermarket could be related to various ends, these included: education, normalization, and security. The identified rationales, the technical means to accomplish them and the superintending authorities or norms that relate to the lamb supply chain are illustrated in Table 2 and discussed further below.

A number of governing technologies were directed at educating suppliers. These comprised engaging with farmers through regional meetings and supporting training programmes. This education of suppliers leads us to interpret the practical rationality of sustainability accounting and accountability as a bureaucratic and regulatory framework employed by the supermarket, propagating the reformulated meaning of sustainability identified in the previous section and ultimately leading the suppliers to echo the supermarket's perspectives on sustainability.

During the interviews, extensive reference was made to the supermarket's engagement with regional producers groups. These groups developed from existing live market groups or other collaborative activities and made it feasible for the supermarket to have a face-to-face relationship with some of the many thousand lamb suppliers. Facilitated on behalf of the supermarket by a major intermediary lamb processor that had close contact with farmers, the engagement process was technically operationalized through periodical meetings where, among other things, groups were considered as sounding boards and test beds for the supermarkets' sustainability initiatives, and used to set up pilot schemes. This is very much work in progress, as the lamb processor notes:

“Really, at this stage, it's for me to get these groups of farmers together, to just look at what savings can be made and what the knock-on effects can be and what other things we can do.” (Supplier 1)

In this context, various forms of sustainability accounting were used to foster different types of accountability within the supplier base, such as environmental security, and legal/regulatory compliance. Taking environmental security, for instance, in collaboration with an independent not-for-profit organization, the supermarket helped to develop a carbon foot-printing tool for the lamb sector. Once established the supermarket intended to require farmers to measure their carbon use and energy cost against it, thus transforming it into an environmental/economic decision-making tool for suppliers. Additionally legal and regulatory accountability was also spread to suppliers through the maintained necessity to comply with sustainability directives, plans or programs – both at national and international level. To reinforce its disciplinary power, explicit mention of penalties for non-compliance were also made (e.g. delisting, taxes and fees).

A further governing technology pursuing educational ends is supporting the training of farmer's in sustainability issues. The first step however was to enable more widespread communication than is feasible through the regional groups. Communicating with lamb suppliers was achieved by the supermarket setting up a scheme to provide farmers with computers and software, and then work with regional development agencies to train them to use it.

As is clear in the following quotation, this takes a very practical form on the ground and is undertaken in partnerships with both the intermediary supplier and Regional Development Agencies:

“because of the huge diversity and farmers working in isolation and tending to be older, it was very obvious that they weren't really aware of their course of production, they had no way of communicating with the outside world, it was incredibly time consuming for us to communicate. Because we have to go to the farmers, to their regions, talk to them, so we actually then have set up some pilot schemes where we provide the farmers with computers and software and then we engage with the RDAs to actually train them to use it.” (Senior manager 2)

One manager was frank about the initial motivations for communication. He openly referred to the supermarket's will to set best practice and:

“start to make [suppliers] look at different things in different part of the business.” (Senior manager 3)

Table 2

Techne, norms and rationales of government in the supermarket's lamb supply chain.

Techne of government	Norms	Rationale of government
Meeting, training	Bureaucratic and regulatory frameworks	Education
Operating engagement	Social and environmental standards	Normalization
Auditing, monitoring	Established internal/external regimes	Regulation
Compliance, endorsement		Security
Financial incentives	Eligibility specifications	Market-orientated

In doing so the supermarket not only problematized supplier extant operations, but also became the *de-facto* authority superintending the attainment of best practice in its supply chain that, in turn, ascended to the visible norm against which supplier conduct was measured. However, despite the claim that developing this means of communication was intended to extend farmers' understanding of the economic, social and environmental impact of their operation, in practice a financial focus was maintained by encouraging farmers to monitor and account for expenditure and exploit cost reduction.

It is also worth noting that the supermarket hosts ethical and technical supplier training workshops and carries out a supplier survey. They position themselves in these activities as experts and reliable sources of information for farmers, proving they are following sustainable behaviors by their association with trusted sustainability non-governmental or not-for-profit organizations such as the Carbon Trust or the Forest Stewardship Council.

As indicated in Table 2, a further governing technology employed by the supermarket was to normalize suppliers and was embodied in the series of what we have called 'operational engagements' with farmers undertaken by the organization. Formally conceived to communicate with lamb suppliers about social and environmental issues material to the supermarket's business, they gradually changed into a ranking process. Suppliers were categorized into a hierarchical staged table according to mutuality of goals. The table comprised three groups: 'business partners', those who could 'help the supermarket to do its job' and those who the supermarket 'need to inform about what it is doing'. In this context such *techné* not only contributed to render suppliers visible, but also acted as a dividing practice, playing a crucial role in establishing "an order amongst entities and create the dynamics of improving or declining" (Kornberger & Carter, 2010, p. 333). The norms of such dynamics are instituted by the standards accepted by the supermarket whereas sustainability accounting based calculative practices allowed the measurement of deviance from the norms, becoming the tools for assessing the place of a supplier in the ranking. This *techné* of governmentality relies on the formation of an artificially established competition among farmers directed towards meeting the supermarket norms fueled by the explicit association between considerable turnover transformations and high grades in the relationship with the supermarket. A senior manager largely responsible for the lamb supply chain was direct in addressing economic pressures suffered by the sheep sector, claiming that in order to maintain the end goal of security of supply:

"we've got to have profit there, we want to see people make a living, and that will encourage the next generation to come through into the industry, make it something that people want to be involved in" (Senior manager 5)

A number of governing technologies were inspired by regulatory rationales based upon legitimized norms of sustainable behavior and substantiated by well-established external regimes, of which suppliers were in some cases aware. As part of its collective efforts to manage supply chain sustainability the UK supermarket sector has been

instrumental in setting up a sector-based mechanism for measuring supplier ethical data through the "Supplier Ethical Data Exchange" (SEDEX). This is an online resource where ethical audit data is recorded on individual suppliers who supply to supermarkets. The supermarket is involved in this scheme and also expects suppliers to comply with its own in-house responsible sourcing code of conduct. Associated with this, there are surveillance technologies such as an auditing and monitoring system, carried out in part by product technologists for branded goods. At the time of the research it is unclear what (if any) disciplinary system is in place for non-compliance. The most formal technology is embedded in the legal framework of the *Gangmasters (Licensing) Act 2004*, which governs the hire and working conditions of temporary workers important in the agriculture arena (though less so in livestock farming than other areas). The supermarkets themselves are governed by British Retail Consortium global standards and sustainability guidelines (BRC, 2001, 2006), particularly on food safety and the controversial *Grocery Supply Code of Practice* and an accompanying ombudsperson designed to protect contracted suppliers from unfair practices (Competition Commission, 2006, 2009). This later technology, interestingly, is supported by the National Farmers Union but argued to be unnecessary by the British Retail Consortium (Smithers, 2010).

The program of reforming sustainability practices is also interlaced with security rationales aimed at developing technologies to instruct farmers how to act in order to avoid negative economic, social and environmental repercussions. These technologies (mainly endorsement and rule-compliance processes) related to a multiplicity of issues such as, for example, the shortage of lamb supply, social and environmental impact of supplier's actions, and compliance with animal health and welfare standards.

The final type of *techné* of governmentality noted in Table 2 is that of financial incentives driven by a market-orientated approach. As well as the basic financial reward of continuing as a listed supplier for the supermarket, farmers have the option of pursuing grants through environmental schemes. As a meat processor noted:

"Even the [farmers who] perhaps aren't driven by the ethics of lamb production and maintaining the area as well as they can, most of them are ... in a stewardship scheme so they're driven financially to do that." (Supplier 1)

For example, the UK Department for Environment, Food and Rural Affairs, through its Environmental Stewardship Scheme, and the equivalent Tir Gofal in Wales, directly affect the approach of farmers who respond to the market opportunity to bolster income.

As we have shown, the *techné* of governmentality offer a range of architecture by which farmers and lamb suppliers are influenced to account for their sustainability practices. While these are not all creations of the supermarket, the implicit and explicit approval by the supermarket for engaging with these approaches acts as a legitimization of the actions of suppliers who respond to the technologies to advance their sustainability credentials.

The following section looks into how certain forms of knowledge, calculative practices, and expertise are linked

to the technologies of government set up by the supermarket to achieve the established rationales.

Episteme analytic: forms of knowledge, calculative practices, and expertise underlying the supermarket's ethos

The authority given to forms of knowledge in the accountability processes relating to sustainability in the supply chain is one of the most problematic areas for the case study company. Despite an external representation of measurable and measured accounts of sustainability issues, the managers interviewed acknowledged their frustration that such measures were based often on subjective assessments. As a senior manager observed:

"I think a lot of what has been done initially, and I think food miles is a classic example of that, has been based on intuition and opinion. And when you start to look at the facts and you look at total lifecycle analysis, you look at what part transport plays, which is pretty little in the main." (Senior manager 1)

The same respondent put this clearly herself when referring to the difficulty of embedding the sustainability decision-making tool:

"I think the biggest issue [...] is judgement calls versus objective calls based around hard facts and data and that's probably the nub of the challenge really." (Senior manager 1)

On the one hand, the supermarket establishes goals and targets, published in the annual corporate responsibility report, against which they record progress in at least qualitative terms, noting progress such as 'achieved' or 'achieved and ongoing' against goals relating to fair trade, animal welfare, maximizing British supply and so on. The published version of knowledge is given the appearance of being measurable and concrete. In their formal documentation on corporate responsibility they note, for example, the importance of materiality in their actions:

"We set our targets by focusing on materiality. We are guided by those areas which are of interest to our stakeholders. By taking this approach we can maximize our impact and connect sustainability with commercial perspectives." (Source, paraphrased from a company document on corporate responsibility).

On the other hand, the managers interviewed showed considerable frustration at the complexity of sustainability issues and the difficulty of either measuring them in any meaningful way or finding an expert whose advice was reliable. One senior manager noted, "where does the expertise sit?" on sustainability, adding:

"there's very little on it because it's an emerging science. And for the next ten years, that's going to be a rich scene while people work out what the best truth is". (Senior manager 1)

The drive to work out this 'best truth' is to make decisions relating to sustainability more efficient and sustainability issues calculable. She developed this further:

"When you get to the environment, a) a lot of these things you can't see, they're not visible, they are hidden, they are in the supply chain somewhere else ...and they are not easy to measure. And the science is emerging and I suppose it's like all sciences, when they're emerging, experts don't agree on them, so you'll get an expert view here that is 180 degrees from an expert view over there". (Senior manager 1)

This conundrum between needing to present 'progress' on sustainability issues while knowing that the measures are inadequate is amplified when trying to project information up the supply chain. We observed that much of the discourse from the supermarket side is around developing trust, which is regarded as the requisite of fruitful partnerships, within which "personal relationships are key connectors in the enactment process" (Frances & Garnsey, 1996, p. 606). The lamb processor in our case study clarified this:

"my job is to really give confidence to the farmers, to keep in the lamb business. And I've got to let my fellow directors know that I'm confident that whatever supply is out there, we will get our fair share of that supply and to do that, farmers have got to want to sell us their lambs, [the supermarket] have got to want to buy meat from us." (Supplier 1).

Accounting mechanisms have a dual role in eliciting trust (Coletti et al., 2005) and at the same time constituting the information infrastructure that contributes to supporting the rhetoric of collaboration, partnership and business integration (Free, 2008). Hence, one of the main emphases of the supply chain accounting literature has been the exploration of 'trust' and its relation with 'control' between independent parties for the processes of cooperation or within its construction (Bracht & Feltoich, 2009; Frances & Garnsey, 1996; Free, 2007). Trust is therefore increasingly being viewed as a precondition for improved performance and competitive success in composite business environments such as the lamb supply chain (Free, 2008).

In this context communication matters even if it is made up of exaggerated announcements about trusting intentions. As King (2002) and Cooper, DeJong, Forsythe, and Ross (1989) suggest, communication mechanisms have the potential to create familiarity between the supermarket and suppliers thus facilitating the formation of reciprocal trust. This in turn, gives the supermarket the opportunity to pursue an array of self-interested intentions in the rhetoric of 'collaboration', 'partnership' and 'business integration' (Free, 2008).

Hence we see the importance of using the episteme analytic of government to open trusted communication lines and keep farmers locked into the supermarket supply chain both by supporting their survival and preventing their defection to other competing customers.

To accommodate this paucity of scientifically credible knowledge, forms of knowledge more familiar to the supermarket managers and more closely within their control are instead drawn upon. One driving perspective is the location of the notion of sustainability within concepts of quality, competition and risk:

“[M]y view is . . . that sustainability is just one dimension of quality. . . . [Sustainability] is just another thing to compete on. . . . I'm sure that location will remain the main reason for choosing a supermarket and price and promotion is the second reason for choosing supermarkets for as long as any of us can see. But as access becomes easier and easier, and as you know, price neutralizes itself, if you like, and everyone's competitive on price. . . . then people will seek out other dimensions to compete on.” (Senior manager 4)

He then reinforced his thought asserting that:

“[sustainability] is something that customers will pay for. . . . people are prepared to pay for beyond the calorific value of the food. And [. . .] that's, for me, where it fits. It's a dimension of quality in that sense: pure ingredient. [. . .] Ethical sourcing, environmentally sound sourcing [. . .] all of these things are just dimensions of quality.”

By arguing this he seems to place sustainability as a form of calculation and presupposes the establishment of accepted criteria used to collect and analyze data employed to assess it. This rationality of sustainability is bound up with a multitude of technical means (usually specified in terms of performance measures) for the achievement of specific ends, whether they be minimizing carbon footprint, supporting local communities or delivering healthy, safe, tasty, fresh food for customers. A tangible example of quantitative technology that contributes to render what is understood to be incalculable susceptible to calculation and/or monetary appraisal is the development of a sustainability performance scorecard that establishes targets and measurable improvements based on a baseline performance. The scorecard, constructed through calculative accounting practices, also renders visible a set of interlinked responses to the new competitive arena of sustainability thus reducing quality to a quantifiable form (Kornberger & Carter, 2010). One senior manager explains that:

“we've actually developed an environmental scorecard, so we look at recycling, calibration, they're all part of the calculator but I suppose it's the practical tool that allows farmers to understand it and make changes.” (Senior manager 2)

Another key role of the scorecard seems to be the placement of the principle of “self-assessment” within the governing process of the farmers. As the interviewee later maintained:

“we're going up every single farm track, sitting down with the farmer, collating the figures, talking him through it and then when he gets his figures back, what they mean. So we've developed [a green light system] for each element [. . .] and [the farmer] can see [how they are doing relatively] so it's a bit of healthy competition.” (paraphrased from Senior manager 2)

The green light system is therefore used as a means to visually present an account of what the supermarket perceives as “sustainable” and therefore as a technology of governance influencing farmers' perceptions. However, the green light system was introduced not only as a control technology but also as a performance representation that

aims at illustrating the assessment of farmers' compliance with the supermarket's pre-determined sustainability norms. Thus deliberately attempting to classify and influence the performance and behavior of farmers (Manochin, Brignall, Lowe, & Howell, 2011).

Another approach was the location of the notions of “management” and “improvement” within sustainability:

“what's the point in doing all these measurements if you don't do anything with it? And we encourage the farmers to come to local meetings where we talk through 'well where you've got the reds, these are the kind of things you do, so we need you to test your soil and then we'll go out and do a deal to get a cheaper nutrient testing of soil or soil analysis or silage analysis.” (Senior manager 2)

Therefore, the green light system also takes the role of a prioritizing technology, able on the one hand to identify areas that need attention while on the other hand to create a supermarket ranking-list of issues of concern.

In this light the business ethos of the supermarket seems to be relying on a sustainability rationale framed as calculative practice based on ranking tables, accounting reports and cost-benefit analyses that establish priority of events in order to assess the relative merits of a range of options. As one manager indicated, how the supermarket had responded to some EU environmental pressures within the lamb supply chain seemed straightforward in claiming:

“[. . .] what we did was prioritize those big things so that we could work out where our biggest impact was going to be” (Senior manager 5)

She developed this further by identifying a quantitative form of sustainability based on processes aimed at identifying targets with calculative accounting practices:

“we've made big strides on the way that we source things, the amount of packaging we use, the efficiency of the supply chains, recycling. The fact that we won't send by the end of next year [. . .] any food waste to landfill, all of those kinds of things, yes, tick the box”. (Senior manager 1)

We may begin to acknowledge how sustainability metrics can be connected to the ‘technologies of performance’ (Dean, 2009, p. 197) that is the setting of ‘standards, benchmarks, performance indicators and quality controls to monitor, measure, and render calculable the performance of the various agents involved’, to use Dean's (2009) language.

The concept of risk, which is evoked in some instances, also plays a role in this representation. The risk of not being sustainable often was not related to the detriment of the environment or society by either the supermarket or its lamb suppliers (such as, for example, anaerobic spoilage or job layoffs) but to loss of market opportunities or capital costs (in the form of security of supply, fees or taxes) against which the supermarket aims to protect itself.

Consequently, as the effects of the negative social and environmental outcomes are often incalculable, this form of rationality that uses non-economic capital and assigns it an economic value based on accounting and marketing expertise, resembles another exercise to make calculable what in effect seems not to be.

The combined effect of quantitative technology and calculative rationality shown above is helpful to explain how certain aspects of sustainability were governed within the supply chain. When describing the consistent investment made to collect all the necessary data and work out whether a certain way of producing livestock was more or less environmentally-friendly than the ordinary way, one manager was confident in justifying the cost with an overriding benefit, qualified in this case by productiveness:

“[...] it can be more cost effective because even if some of the elements cost you more to do the right thing environmentally, overall, you manage the supply chain more effectively.” (Senior manager 1)

By the same token, one manager provided an example of the way environmental issues were tackled by the organization within one of those chains. She was very relaxed to point out that:

“[...] for example, we have moved out of battery hens into completely eggs from hens that haven't been kept in cages, if you talk to the [trade association], they will say the most environmentally-friendly way to produce eggs is by battery farming. It's more efficient, there's less impact on the environment, emissions are managed better [...]. Now, we would argue that because we always produce our free-range eggs by planting trees, so they're woodland eggs [...] you can't produce the eggs unless the chickens have got tree cover, which means all of our woodland egg farms plant trees, but also we donate a penny a pack to plant trees” (Senior manager 1)

The perspective presented above seems to support interpretations of a compensatory trade-off relationship between the various dimensions of sustainability within the livestock supply chain, implying that positive outcomes in one of them could offset negative outcomes in others. Some researchers argue that these instances where sub-objectives may lead to maximizing or, perhaps more likely, minimizing objective functions, will not be the ultimate goal of the natural system but “just a recognition that certain socially-created impacts have absolute benefit or detriment to the natural system” (Brown et al., 2009, p. 220).

This analytic demonstrates the importance of investigating all axes of the analytics of government. Looking only at the governing technologies would give the impression that the supermarket could present a perfect image of its superior knowledge on sustainability issues to suppliers (not withstanding external elements outside of their control). The lens of the *episteme* analytic shows, however, how the forms of knowledge generated are presented as if they were scientifically precise when they are often based on informed estimates at best and supposition at worst. As has been shown throughout the analysis, forms of knowledge of sustainability issues are reformulated to be calculable in the traditional *episteme* of the business.

The formation of identities: capacities, qualities and statutes attributed to agents

This section is concerned with how the supermarket promotes, fosters and attributes certain identities,

capacities, qualities and/or statutes to particular agents through which governmentality operates. In doing so, as shown in Table 1, they use the approach taken to account for different roles and identities as a means of prioritizing stakeholders. Calculative practices thus enable the acknowledgment of financial impact on the firm and associated rankings of importance.

Identity formation is not so much assigned as created, not least by the axes of governmentality discussed above. Hence rather than notions of identity being allocated by a label, the governmentality process co-creates identities. Indeed, the supermarket in this case seeks to identify the actors as their respective stakeholders. This in turn gives each party an implicit or sometimes explicitly ranked role to play in the supermarket's governance of supply chain sustainability, which the protagonists may not identify with themselves.

From the supermarket's point of view, the importance of the commercial perspective as embodied in the primacy of the customer group, cannot be underestimated. Non-governmental organizations such as the Royal Society for the Prevention of Cruelty to Animals, Compassion in World Farming, and the Farm Animal Welfare Council, are seen as key stakeholders only because they “influence our customers hugely” (senior manager 1). Our interviewed managers spoke repeatedly about the need for their business to respond to customer demand first and foremost. Ultimately, without customer support, the drive to advance sustainability in supply chains evaporates:

“at the end [of the day], there's no point pursuing what we believe is the more sustainable agenda if consumers are actually not buying into that and rewarding (our competitors) with their custom [...] I start first and foremost from customers.” (Senior manager 4)

At the time of the research, however, there was a perceived support from customers, and the senior management positioned this as the main reason for pursuing a sustainability agenda. This identifies customers as the number one stakeholder and the principals of any sustainability program. Moreover, it self-identifies the supermarket as merely the agent of the customer's wishes. Acting in contrast to the foregoing analysis positioning the case study company as the governor of the supply chain, on several occasions managers sought to downgrade the role of the supermarket itself, saying ‘we are just a bunch of grocers’ and ‘we are shopkeepers’. This rather contradicts the positioning of the supermarket as leaders in sustainability noted in relation to the visibility analytic and the vocal notification given to the researchers of the good works the supermarket was doing and the string of sustainability awards they were receiving. Again, employing the range of analytics helps to highlight some of the contradicting discourses which are employed.

In the context of this paper the identity formulated for the supplier group is of particular interest. Practices of improvement were used to divide suppliers into populations on the basis of those with the capacity to improve and those without. The recognition of these “dividing practices” (Dean, 2009, p. 158) is important because they contribute to construct, define and make visible a dichotomy

between views of regularity and abnormality, thus giving rise to forms of normalizing power exercised by the supermarket. For example, suppliers were divided into key/minor, close/far, overseas/UK, visited/unvisited, supported/unsupported, trained/untrained, capable/unskilled, branded/own brand, small/big. Other examples include suppliers divided into lower/higher risk, small/big branded, national/local, new/old, good relationship/not-so-good relationship, fairtrade/non-fairtrade and freedom food/non-freedom food. By demarcating the difference between the sustainable and the unsustainable, an ideal-type identity for suppliers was conceptualized and contrasted against an arguably less desirable type. As a result existing practices were problematized and the exertion of supermarket power to either restore or attain an apparently more sustainable (or less unsustainable) course of action gained legitimacy.

Within this group of suppliers, the meat processors are seen as dominant. Importantly they are identified as active intermediaries and communication channels for the supermarket because the base of farmers is so large and they rely on the processors to convey any messages they wish to get through to farmers. They are identified as business partners rather than the first tier suppliers, which they are in literal terms, and hence they take on a role of conduit, and the voice of the supermarket as well as their eyes and ears on the ground. A senior manager said:

"We go out and meet local groups very much with the processor as they have a big part to play in communicating as well because we'll just never get to meet them all" (i.e. the farmers) (Senior manager 2)

Hence control of sheep farmers is directed very much through the meat processors as agents acting on the supermarket's behalf. Finally the farmers themselves are critical actors for the supermarket in the lamb supply chain, although this has changed. There has been a shift in their identity from interchangeable product providers to much more valued – and needed – partners:

"I would say the tables have turned in that we really need every farmer who's out there. I can't afford for any farmer to go out of business, so it's just a different mentality". (Senior manager 2)

This is especially pertinent in the livestock sector because it is a contracting industry, so there is competition between supermarkets to ensure that they secure supply and farmers are a competitive tool and valuable commodity. There is some difficulty in getting farmers to accept this shift and adopt a new identity of valued partner as is noted from the farmer groups:

"So I would say it's work in progress, getting to the supply base, then a sustained period of time where you have to just talk, build trust, they either say nothing or spend a whole meeting airing their grievances. And they say nothing because they are scared of saying the wrong thing because we're their customer and you have to do three or four meetings of that before you get to 'right, what are the key challenges?' listing them all out and then start to thrash out ideas as to how you can address them." (Senior manager 2)

This claim seems to support the insight put forward by Mayer et al.'s (1995) model of trust whereby personal relationships are perceived as key connectors in the partnership enactment process (Frances & Garnsey, 1996; Free, 2008; Lewicki & Bunker, 1996; Powell, 1996; Tomkins, 2001).

As a result of the new identity, farmers are portrayed as both members of the lamb supply chain and recognized by the impact that each one of them can have on the local community and ecological environment. Hence the association of individual subjects in the administrative category of "lamb suppliers" give rise to a new form of governable subject where individual duties of accountability become socialized. The implications of the fostered duality of subjects can be twofold. On the one hand the supermarket can give rise to issues of compensation, by which sustainability is enhanced provided that the virtuous behavior of some agents compensate for the poor behavior of others; on the other hand, to enhance sustainability the supermarket does not necessarily have to engage with each and every one of its farmers, but with those whose impact is regarded as the most significant from the supermarket perspective.

The process and activities of identity formation are revealing in this research. The simplistic approach generally taken of stakeholder analysis belies a complexity in the roles that the supermarket requires of others in the supply chain. Lamb processors are not just suppliers, but are the supermarket's agents in respect of farmers. The supermarket itself is – in some contrast to the other analytics of government – positioned as the agents of the customer-as-principal. Farmers are positioned as a precious, non-renewable resource and agents of sustainability in their own right. The power of the supermarket is thus played down, or at least the complexity of their position is conveyed, and the extent to which their power relies on the successful formation of the identity of others revealed.

From the perspective of the analytics of government, the examined embedding of sustainability within decision-making, and the problematization of farmers' activities, shows the mechanisms to "restructure" their conduct by the supermarket. They state quite clearly; "we've had to really significantly move farmers' thinking" (Senior manager 2). An analytics of government shows the importance of sustainability orientated calculative practices in the constitution, governance and shaping of particular reform agendas.

Combining the four analytics of government; visibility, *techné*, *epistémé* and identity formation has, we argue, enabled a range of insights into the sustainability accountability process. In the final section we summarize the findings and reflect on the response we can give to the stated aims of this paper. We consider the limitations of this study and potential fruitful avenues for future research.

Conclusion

The purpose of this paper was to critically analyze the specific conditions under which corporate engagement in sustainability is enacted, maintained and transformed, through a set of regimes of practice that seek to embed

the social and environmental impact of corporate actions into decision-making. We have achieved this using the analytics of government as a guiding framework for understanding a supermarket seeking ostensibly to enhance sustainability in its supply chain. We interviewed members of the supply chain both internal and external to the supermarket, coupled with analysis of supplementary written and web-based information. Our focus on senior managers within the supermarket, and the implementation of a decision-making tool which aimed to embed sustainability in the supply chain, allowed for a rich and relevant set of data on embedding sustainability in business practice.

Our key contribution emerges from an examination of the conditions under which businesses practice engaging in sustainability. The governmentality lens has enabled us to appraise how sustainability as a regime of practice is enacted, maintained and transformed not just within one organization, but across the organizational boundaries of the supply chain. We used Mitchell Dean's typology of analytics of governmentality relating to the fields of visibility, *techné*, *epistémè* and identity formation to guide our analysis. We find that senior decision-takers seek to embed the social and environmental impact of corporate actions into decision-making alongside economic impacts, reframing the discourses accordingly. Thus this study provides theoretically informed empirical insights into the extent to which senior decision-takers frame and use sustainability accounting to foster disciplinary effects, and its potential to facilitate the governance of the self and others.

We argue from a methodological point of view that a governmentality lens has enabled new and distinctive explanations of practices in the supermarket supply chain. More specifically, drawing from our data, we find that the supermarket creates fields of visibility around the sustainability concept which promote its own agenda of mitigating threats to its competitiveness and reputation as a sustainability leader. This involves the re-formulation of sustainability in economic terms and its redefinition in financial business language. Identifying the *techné* of governmentality used as a means of control and influence over the regimes of practice used by suppliers, enables us to understand the technologies used to embed the preferred formulation of sustainability. The *epistémè* analytic highlights the challenges and contradictions of presentations of data about sustainability as 'scientific', although it is sometimes based on anecdotal, impressionistic qualitative measures. Finally the identity formation analytic highlights the way in which the supermarket uses the preceding analytics to form identities for the different stakeholder groups and prioritize and rank them. The self-identification of the supermarket as agents of customer desires highlights a contradiction to the 'sustainability leader' mantle identified by the visibility analytic. It is this level of detail and the illumination of different perspectives, which the analytics of government has enabled us to uncover, which we consider make the governmentality approach particularly valuable. By showing how a regime of sustainability has been enacted in this case, we provide a foundation for future research which can meaningfully address more complex empirical contexts, with the advantage of seeing how governmentality can be

applied in practice. This is particularly relevant to the application of accounting regimes around sustainability, and indeed both within and across organizations. The analytics of government led by the supermarket combine with other ongoing activities to further legitimize the governance activities and operationalization of accounting for sustainability in the supply chain. Future research could usefully follow other tools and accounting standards in a similar way.

As an additional contribution from a theoretical standpoint, our work points towards a potential augmentation of governmentality theory with the concept of trust. Previous research which explores the links between trust and governmentality are very limited (exceptions being Gilbert, 2005; Owen & Powell, 2006). Our research points to a finer grained understanding of the trust element in governmentality than has hitherto been noted, by identifying it in the epistémè and identity formation analytics in particular. Broadly speaking, we note the role of trust as a facilitator of governmentality. Further research which expands on this link would be of value in the application of governmentality in future studies.

While our work opens up new avenues for research, there are also limitations which should be recognized and which we have sought to attend to accordingly. We argue that the novelty of our analytical approach justifies a single case focus. Our narrow focus on a relatively simple supply chain which involves only a handful of tiers of supply all in the same country, has enabled us to concentrate on the analytics of government in a context relatively unencumbered by the range of different legislative regimes, cultures and practices compared to that which would be evident in a global supply chain. Having demonstrated the value of the approach, future research could take the further step of tackling more complex, global supply chains and assessing further the analytics of government internationally. Work building on ours should seek to develop the approach which we have been able to establish here as a useful one, and apply it to a variety of accounting practices. We believe that this would offer further useful insights into how accounting is utilized, and can better be formulated, communicated and applied, as a means to influence regimes of practice.

The constraints of our research project meant that we were reliant on the accounts given by respondents of the practices enacted by themselves and others. Respondents had the opportunity to seek to promote elements which they felt reflected a positive light on their work and to prevent us visualizing aspects they preferred us not to identify. We sought to verify the accounts given with publically available data and by cross-referencing information gained from the range of respondents, probing further particularly when conflicting information was received. Considerable insight might be gained by engaging in longitudinal participant-observation which gives the opportunity to collect data of sufficient validity to substantiate claims more convincingly.

We have focused on a linear vector of governmentality, that is, within the context of sustainability in the supply chain between farmer and supermarket. As a result, it is possible that factors quite outside of this section of the

supply chain were acting decisively on our respondents and the organizations they represented in terms of sustainability (e.g. suppliers to farmers, abattoirs, transporters). The phenomenon of the supermarket's extended responsibility for supplier behavior is evident. We nevertheless acknowledge that a useful expansion of the current research might be to embrace the consumer more explicitly as part of the supply chain. Our simplification and truncation of the supply chain does not fully explore the influences on the supermarket who we have staged as the governor. Indeed, they too are subject to governmentality processes which we have implied but not explored in detail. Not least of these is the voracity of the competitive environment, the complex way in which such organizations are involved in guiding and advising on the formation of soft and hard law relating to sustainability, the influence of shareholders, and the evolving nature of accounting standards and practices relating to sustainability. These might each be fruitful areas for development and contribute to research projects in their own right.

Throughout the research we have observed the translation of sustainability into economic dimensions as a recurring theme, and acknowledged the practice of economic control presented in the guise of sustainability. This finding has important implications beyond this study. We see in each element of the analytics of government that the sustainability discourse is embedded in the familiar economic language of accountability. It is not our intention here to make a pejorative judgment of this phenomenon. Nor do we seek to denigrate improved awareness and implementation of social and environmental accounting practices. Our contribution is to illuminate the governmentality and accountability issues which are a part of embedding sustainability in supply chain decision-making, and to show the detail and intricacy of technologies and mentalities which enable this.

We must conclude that sustainability by no means subjugates the hegemony of commercial priorities. The economic drivers are more deeply embedded in our case study company than environmental and social drivers, and these consistently win out. Embedding sustainability in decision-making is bound, in the current paradigm of business, to mean translating sustainability imperatives into economic ones. Our work demonstrates that we are still a long way from a new business model which prioritizes sustainability. The incremental steps which are being taken to work toward more sustainable practices may have the unintentional affect of reducing the potential of a more holistic approach into the straight jacket of market mechanisms. This has both scholarly and practical implications for the development of sustainability. An optimistic assessment would be that the economic language needs to be adopted in order to allow conversations about sustainability to be considered legitimate business discourses, and to get a foothold into contemporary business practice. What we observe here, however, is that even when a large, well-resourced powerful company with a leadership openly committed to sustainability makes a serious attempt at embedding sustainability in supply chain decision-making, there remain overwhelming institutionalized regimes of practice preventing a shift away from the economic and

financial imperatives. Full recognition and explication of this is crucial for policy makers, business leaders and researchers alike if substantive change is to be affected.

Acknowledgments

The authors gratefully acknowledge the insightful comments of two anonymous reviewers, the editors of this special issue, Jeffrey Unerman and Chris Chapman, and colleagues who shared their thoughts on this paper: Brendan O'Dwyer (University of Amsterdam) and Roel Boomsma (University of Amsterdam). Earlier versions of the paper were presented at the 2010 Centre for Social and Environmental Accounting Research International Congress at the University of St. Andrews and the 2011 'Developing corporate responsibility theory: Exploring the value of governmentality' workshop, European Association of Business in Society/Royal Holloway, University of London. Our thanks are also due to the Accounting for Sustainability Project and our case study company and individual respondents. All errors remain the responsibility of the authors.

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