

**Management Controls and Pressure Groups:
The Mediation of Overflows**

Stephen Jollands
University of Exeter Business School
University of Exeter
Exeter
UK

Christopher Akroyd
College of Business
Oregon State University
Corvallis
Oregon
USA

Norio Sawabe
Graduate School of Management
Kyoto University
Kyoto
Japan

Corresponding author: Stephen Jollands
s.e.jollands@exeter.ac.uk

Management Controls and Pressure Groups: The Mediation of Overflows

Abstract:

Purpose

Organisations produce effects that go beyond the economic framing within which they operate, referred to as overflows in this paper. When an organisation comes under pressure to address these overflows they must decide how to respond. Previous research has placed social and environmental reporting as an important tool organisations mobilise in their attempts to mediate these pressures and the groups that give rise to them. However, these reports are typically only released once a year while the pressures that organisations face can arise at any time, are ongoing and constant. This paper explores situated organisational practices and examines if and how management controls are mobilised in relation to the actions of pressure groups.

Design/methodology/approach

This paper takes a case study approach to understand how an organisation attempts to mediate the pressures from a number of overflows: carbon emissions, changing lifestyles, aspartame and obesity. To undertake this research a performative understanding of management control is utilised. This focuses the research on if and how management controls are mobilised to assist with attempts to mediate pressures.

Findings

Analysis of the data shows that many different management controls, beyond just reports, were mobilised during the attempts to mediate the pressure arising from the actions of groups affected by the overflows. The management controls were utilised to: identify pressures, demonstrate how the pressure had been addressed, alleviate the pressure, or to dispute the legitimacy of the pressure.

Originality/value

This paper shows the potential for new connections to be made between the management control and social and environmental accounting literatures. It demonstrates that future research may gain much from examining the management controls mobilised within the situated practices that constitute an organisations response to the pressures it faces.

Keywords: Social and environmental accounting; Management controls; Pressure groups; Overflows; Situated organisational practices; Case Study

Research paper

Acknowledgements: The authors are grateful for the constructive comments received from John Burns, John Roberts, Angelo Ditillo, Takaharu Kawai, participants at the 2014 Global Management Accounting Research Symposium in Sydney, Australia, the 2015 Japan Association of Management Accountants Annual Meeting, the 2016 American Accounting Association Management Accounting Section Research and Case Conference and seminar participants at Kyoto University, the University of Portsmouth and the University of Exeter, Business School.

Management Controls and Pressure Groups: The Mediation of Overflows

Introduction

The impact of any given organisational activity has more than economic effects (Hines, 1991). These effects are traditionally labelled as ‘externalities’ (Callon, 1998). The limitation of viewing these as ‘externalities’ is that it focuses on quantitative evaluations and monetary compensation at the exclusion of other effects, such as the wider impacts on society and the environment (Callon, 2007). Callon (1998) notes that the concept of ‘overflows’ is a better way of understanding and encapsulating these wider impacts.

Without some form of outside pressure, usually with economic implications, the overflows from organisational activities would, in most cases, continue unabated as the organisation would have no incentive to change (Callon, 1998). Thus overflows are highlighted and made visible by those affected by it (Callon, 1998), often driven or assisted by pressure groups (Roberts, 2003; Tilt, 1994)[1]. Through identifying and making the overflow visible, pressure groups can place an organisation under scrutiny. For example, this may be through the sustained pressure leading to increased regulation or the need to discontinue specific aspects of its operations. Pressure groups, who do not always have a direct economic relationships with the organisation, have the potential to affect its economic wellbeing through causing changes to the context in which it operates (Demetrious, 2013; Jollands & Quinn, 2017; Tryggestad et al., 2013). Therefore the management and control of the pressures that arise from the added scrutiny created by these groups is increasingly, particularly with the ubiquitous use of social media[2], an important area for managers.

It has been argued that social and environmental reporting is an important tool utilised to manage and control the pressures that arise out of overflows (see for example Adams, 2002; Buhr, 1998). These reports are typically released once a year. However, it is reasonable to expect that the pressures arising from overflows are ongoing, constant, and can emerge at any time. Pressure groups may have to undertake much work, with great persistence, to establish the existence of an overflow (Callon, 2007). It can, therefore, be expected that organisations will utilise other means, enrolling different management controls, in attempts to mediate these pressures.

It has been established that organisations adjust their operations to address pressures arising from overflows (Kober et al., 2007; Otley and Berry, 1980). Managers may also attempt to mobilise management controls to act on the pressures arising from overflows to allow for the continuation of the organisations’ operations as they are (Otley, 1980, 2016). Currently there is only a small amount of evidence relating to the use of management controls in this respect (see for example Arjalies and Mundy, 2013).

The aim of this research is to examine situated organisational practices (Garfinkel, 2002) to understand if and how organisations mobilise management controls, beyond just social and environmental reporting, in their attempts to mediate the pressures that arise from the added scrutiny created by the groups or individuals who claim to be affected by specific overflows. To address this aim a case based approach is utilised to examine the situated organisational practices (Garfinkel, 2002) at ‘Kiwi’ (a pseudonym). To enrich the understanding of this context a performative understanding (Latour, 1986, 2005) of management control (see below) is utilised and the concept of overflows (Callon, 1998) is mobilised as a lens to structure and analyse the data. Specific overflows affecting Kiwi are examined: carbon emissions, changing lifestyles (Lifestyles of Health and Sustainability – LOHAS), aspartame and obesity. Kiwi is suitable for this research as their activities have been linked by pressure groups to each of these issues. Therefore, this research seeks to understand how management controls are mobilised at Kiwi to mediate the resulting pressures.

The analysis of the data highlights different practices at Kiwi focused on mediating the pressures in order to limit the impacts on their economic wellbeing. Within these practices many different management controls, beyond just reports, were mobilised in the attempts to mediate the pressure from the actions of pressure groups. The management controls were utilised not only to identify pressures arising from overflows but also within a number of different strategies designed to gain specific outcomes[3]. The first of these strategies involved Kiwi demonstrating how they had responded appropriately to the pressure. The second involved Kiwi implementing tactics in order to try to dissipate the pressure. Within these strategies, management controls were mobilised to construct Kiwi as 'knowledgeable' and 'active' in terms of addressing the overflow. In that way Kiwi aimed to construct certainty for itself around the overflow in order to mitigate the impact of the associated pressures. The final strategy involved Kiwi implementing tactics to try to dispute the overflow. Management controls were mobilised to challenge the existence of the overflow through such means as providing alternative mechanisms for measuring its presence or absence. Accordingly management controls were mobilised to dispute the legitimacy of the pressure and the groups that gave rise to it, thereby dissipating the potential for it to impact on Kiwi's economic wellbeing.

The remainder of the paper is structured as follows: The next section outlines the literature that underpins this research. This is followed by a section that examines the concept of overflows, including outlining how it is useful for this research. The next section provides details of the approach taken in collecting and analysing data from the case organisation. This is followed by an overview of episodes from the data that exemplify the different strategies taken at Kiwi in relation to overflows and the management controls mobilised within these attempts. Following this is a discussion of the findings and concluding remarks.

Literature review

The accounting literature that has examined organisational responses to the pressure exerted by groups has been dominated by a focus on social and environmental reporting (Bebbington and Larrinaga, 2014; Milne, 2007; Owen, 2008; Unerman and Chapman, 2014). This literature has drawn upon many theoretical perspectives to explain why organisations release these voluntary reports including accountability (see for example Gray et al., 1997; Gray et al., 1996), legitimacy (see for example Deegan, 2002, 2007), stakeholder (see for example Gray et al., 1995; Roberts, 1992), reputation risk management (see for example Bebbington et al., 2008), critical discourse analysis (see for example Tregidga et al., 2014) and new institutional sociology (see for example Rahaman et al., 2004). This literature places reporting as the main means utilised to manage interactions with the pressure groups that form in relation to overflows and thereby mediating the pressures that arise.

The literature also raises questions about how important and effective organisations perceive reporting practices to be (Kaspersen and Johansen, 2016; O'Dwyer, 2002). This is complicated by an acknowledgement (see for example Tregidga et al., 2014) that not much is known about how important these reports are to pressure groups, which is unsurprising given that the majority of this literature has utilised desk based research methods (Owen, 2008). Taken together these issues raise questions as to whether these reports are the main and only means by which organisations seek to mediate the impacts pressure groups have on their operations. As these reports are only released on an annual basis they would seem to have limited potential for addressing the pressures related to overflows that can emerge at any time, are ongoing in nature and often require a lot of management attention.

Adams (2002) notes the large variety of media used by organisations to distribute and communicate health, safety and environmental information. Further, this media was the domain of either the environmental department or the corporate communications department, not the accountants (see also Ball, 2007; Gray et al., 1995). Thus a narrow focus on reporting and those involved in it may miss some of the practices involved with social and environmental accounting.

This paper contributes to the extant literature through engaging with the situated practices of an organisation as they seek to address the pressures that result from overflows. This enables an examination of a variety of management controls to see whether and how they are enrolled to act in attempts to mediate the potential impacts that arise from the activities of pressures groups. While the social and environmental accounting literature has begun to expand its focus beyond reporting towards other potential management control practices (see for example Contrafatto and Burns, 2013; Jollands et al, 2015; Norris and O'Dwyer, 2004), these are mainly in relation to internal organisational activities. There has only been a limited examination of the management controls that are mobilised in relation to these external pressures. Arjaliès and Mundy (2013, p. 295, emphasis added) provide initial evidence of this when they state that “the findings indicate that the companies in our study manage CSR strategy through a variety of MCS [management controls] including extensive internal and *external* communication processes, EMS [environmental management systems], CSR reporting systems, and processes for reporting best practices”. Despite this initial evidence, little is known about management control practices in relation to these external communication processes and it therefore is a rich and fertile area for research.

Otley (1980, p. 422) notes the potential for this type of research, as “[p]art of an organisation’s control strategy may well be to influence its environment; [but] little consideration has been given to the patterns of dependence of an organisation on important external resources”. Further Henisz et al. (2014, p. 1728) argue that actions taken to mediate these pressures can change the pressure groups actions “in a manner that enhances the probability that a business plan will proceed on schedule and on budget and, ultimately, generate sustainable shareholder value”. However, through the effective use of media and other forms of communications, pressure groups can provide a substantial challenge to an organisation (Hoffman and Fodor, 2010). For example, pressure may arise as a result of an overflow, such as pollution, that results in calls for this to be internalised and quantified within the organisation (Hines, 1988). This suggests that the pressures placed on organisations as a result of overflows may impact their economic wellbeing (Roberts, 2003). In response organisation members may enrol various management controls, such as carbon footprints, to interact with groups related to specific overflows (Christensen and Skaerbaek, 2007; Roberts, 2003). However, the use of management controls may not always be effective at mediating these pressures.

In order to undertake research into the situated organisational practices that focus on mediating these pressures, an understanding of what a management control can be must be established. In this research a performative understanding (Latour, 1986, 2005) of management control is utilised. This performative view is demonstrated by Jollands et al. (2015) who draw upon Latour (1991) to argue for a broader understanding of what management controls are. Their explanation provides a lens for discerning within this research which artefacts are enrolled to act as management controls. It provides a way of conceptualising what a management control can be based on how an artefact is enrolled to act rather than its’ technical attributes. However, in mobilising this performative understanding, it needs to be recognised that even if they are enrolled to act in a certain way, this is only one potential outcome.

The performative understanding provided by Jollands et al. (2015) of management controls has implications for this research. To start, the artefacts that are enrolled are not always accounting controls, such as social and environmental reports. Nonetheless the artefacts can be seen as types of accounts in that they aim to provide information about the roles and responsibilities of those involved. Further, Jollands et al. (2015) use of the example provided by Latour (1991) illustrates the potential for management controls acting upon things other than employees in order to manage the organisations’ activities. Given organisations operate in a context of rapid change and uncertainty (Otley and Soin, 2014) suggests that the external context, specifically pressures arising from overflows, is something that is considered in need of management and control. Thus this paper examines how management controls are mobilised to mediate the impact of pressure from groups in relation to overflows. However,

the study of overflows is closely related to the framing that allows economic transacting to occur. Hence, the next section provides an overview of the central concept of overflows.

Overflows and Framing

Performative understandings have been utilised within the social and environmental accounting literature (see for example Barter and Bebbington, 2013; Jollands et al., 2015) and within the broader accounting literature (see for example Boedker, 2010; Hansen, 2011). Drawing on a performative perspective enables the examination of situated organisational practices (Garfinkel, 2002) in relation to pressure groups through the use of the concept of overflows (Callon, 1998)[4]. This concept has been utilised previously in the accounting literature to examine corporate strategy (Skaerbaek and Tryggestad, 2010), accountability reports in the public sector (Christensen and Skaerbaek, 2007), and auditing in the public sector (Skærbæk, 2009). It promotes no *a priori* privileging (Callon, 1986; Law, 1992; Reckwitz, 2002) of artefacts that may act as a management control. It allows for the potential of management controls taking an active role in situated organisational practices (Akroyd and Maguire, 2011; Jollands et al., 2015). Management controls do not gain their strength through being inherently 'good' or 'effective' but rather through their abilities to enrol and mobilise others (Mouritsen et al, 2009). Hence, this paper examines the use of management controls within attempts to enrol and mobilise others in order to mediate the pressure arising from overflows.

An understanding of framing is required to comprehend how overflows give rise to pressure groups. In order for organisations to perform economic transactions effectively presupposes a framing of the action (Callon, 1998). Framing is the displacement, defining and assembling of the elements required for the time and space to be constructed for economic transactions to occur. All these elements and things combine and become interdependent to provide "a set of stable assumptions, conventions, mechanisms, and settings" (Skaerbaek and Tryggestad, 2010, p. 110). It refers to the establishment of a frame "within which interactions – the significance and content of which are self-evident to the protagonists – take place more or less independently of their surrounding context" (Callon, 1998, p. 249). The elements that are required to be displaced, defined and assembled include distinct and dissociated individual agents and perfectly identifiable objects, goods and merchandise (Callon, 1999).

Framing occurs as a result of active participation of a multitude of actors including organisations, politicians, activist groups, academics, economists, newspapers, and legislation (Latour, 1986, 2005; Law, 1992). For this reason, any given framing is an ever changing, heterogeneous assemblage of actors (Callon, 2010) that are the result of continuous experimentation by those involved (Callon, 2009). Thus the best any organisation can hope for is to influence the framing within which they operate. Due to the vast number of actors involved and the experimental, ongoing nature of framing any given organisation may become influential within the framing but will never be able to absolutely control how it is constructed. Framing "presupposes actors who are bringing to bear cognitive resources as well as forms of behaviour and strategies which have been shaped and structured by previous experience: the actors are capable of agreeing (an agreement which does not have to be explicit) on the frame within which their interactions will take place and on the courses of action open to them" (Callon, 1998, p. 249). This suggests that those who participate in constructing and transacting within the framing are not as if born anew into it and that framing if present is rare, expensive and costly to set up (Callon, 1998). Those that are particularly skilful and bring to bear their full range of resources enable relative stability to be constructed for themselves through bringing into play durable associations (Callon and Latour, 1981) that construct their framing.

Once the framing is constructed, it "constitutes powerful mechanisms of exclusion, for to frame means to select, to sever links and finally to make some trajectories (at least temporarily) irreversible" (Callon, 2007, p. 140). However, Callon (1998) emphasises that everything mobilised in the construction of the framing guarantees, simply by virtue of its presence, that the outside world is also

present. Thus, while framing holds the world at bay, it cannot completely cut the links between the two (Callon, 1998). No matter how skilful those that come together are it is impossible to ever provide a complete framing (Callon, 1999). Organisations will come under pressure from leakages to that not included within the framing, which are the overflows. In a sense, through attempting to construct order, disorder may also be simultaneously produced (Christensen and Skaerbaek, 2007). These overflows can take many differing forms, such as man-made climate change, changing lifestyles, concerns around products that cause obesity or other damage caused to the consumers' health by the product. Further, while there are many actors involved in the construction of framing, the pressure arising from overflows may become focused on specific organisations or a wide range of these actors, as seen in the example of man-made climate change.

In this context, pressure groups provide the proof of the existence of an overflow (Callon, 1998, 2007). This in itself will take considerable effort including measuring its source and impacts, defining the elements involved, and assigning and having accepted the roles of who is responsible and who or what is affected (Callon, 2007). This requires evaluation and measurement, including the use of recognised instruments, before it will have significance (Callon, 1998). With causal links potentially hard to determine or not very self-evident, particularly if time and space lies between the elements to be associated (Callon, 2007), this process may be long, costly and complicated (Callon, 1998). This highlights that having the overflow recognised and accepted is far from guaranteed.

Once the existence of an overflow is established, pressure may be placed on those causing it, which has the potential to affect the organisation's economic wellbeing. The organisation must decide what response it will take to mediate the impact of this pressure. Does it passively accept the emergence and impacts of pressure groups or do they take a more proactive approach. This may be to disrupt the attempts of the pressure groups to establish the existence of the overflow. This could be through, for example, arguing that it is beyond the framing and therefore signalled as being in need of resolution by other means (Callon, 2010). Or it may be to attempt reframing in a way that the matters of concern are taken into consideration within the framing (Callon, 2007). The specific interest of this paper is the examination of how management controls are mobilised to act within this process.

In order to assist with the structuring of the analysis Callon's (1998) dichotomy of 'hot' and 'cold' overflows is utilised. This is a rough but useful representation of the potential spectrum of overflows and provides the analogy to water running from a tap. That is it can be described as being either 'hot' or 'cold', while being aware of the multitude of different temperatures held within each and that movement occurs between the two. The criteria used to differentiate between 'hot' and 'cold' overflows centres on the extent of divergence between the mechanism organisations and pressure groups use to quantify and identify the overflows. If divergence between the organisation and pressure group is large then it is a 'hot' situation as "everything becomes controversial: the identification of intermediaries and overflows, the distribution of source and target agents, the way effects are measured" (Callon, 1998, p. 260). In contrast, if divergence between the organisation and pressure group is small then it is a 'cold' situation as "[a]ctors are identified, interests are stabilized, preferences can be expressed, responsibilities are acknowledged and accepted" (Callon, 1998, p. 261). This dichotomy is utilised to structure the analysis, as presented below. Specifically the level of divergence between the case organisation and pressure groups was utilised to establish whether an overflow was 'hot' or 'cold'.

The analysis has purposely been structured to focus on how management controls are mobilised in relation to overflows. As outlined above, framing is a complex process of assembling many divergent actors to enable economic transactions to occur. To be able to describe the framing, given its complexities and numerous actors involved, would not be possible within the confines of this paper, if in practice possible at all. Further, the data illustrates, management controls are mobilised in efforts to mediate the potential impacts of the overflows, thus making them the obvious unit of analysis. Hence the remainder of the paper focuses on the description of the specific overflows rather than attempting

to provide a precise description of the framing within which these occurred. The next section provides an overview of the case organisation, which helps to provide a basic understanding of the framing involved, and a brief description of the data collection and analysis process.

Research Method

Kiwi is a manufacturer that competes in the fast moving consumer goods industry. It has approximately one thousand employees across sixteen locations and operates as if it were a wholly New Zealand owned company. However, it is the New Zealand operations of an Australian listed company, 'Koala' (a pseudonym). Beyond New Zealand, Koala operates in four other countries; having approximately fifteen thousand employees, over seven hundred thousand active customers, and over two hundred and sixty five million final consumers of its products. Koala is thirty percent owned by a North American based multinational, 'Eagle' (a pseudonym). Eagle appoints two of the eight directors of Koala and provides the secret ingredient to their most famous product; which Koala and Kiwi manufacturer under licence. Two of Kiwi's product lines are market leaders but it also competes in all areas of its market. While most of its products are manufactured under licence from Eagle it also manufactures products that are unique to New Zealand, including one that is considered iconic.

Kiwi was selected as the case organisation because of its long history of skilfully maintaining a market leader's position despite the numerous pressures that consistently challenges its economic wellbeing. The case study of Kiwi started with attending three corporate presentations. The first was by the GM Corporate Affairs at the World Environment Day Business Symposium, held in Auckland, New Zealand, on June 4, 2008[5]. Her presentation focused on the use of the artificial sweetener aspartame (see below), which is used in a number of their products. The second presentation was given by the Project Manager Finance on October 13, 2008 at an undergraduate class of one of the authors. The final presentation was by the CFO on November 28, 2008 at a conference organised by two of the authors. These presentations provided an overview of Kiwi including their chosen strategy, revenue management practices, and some of the overflows related to their operations.

The field was formerly entered in March 2009 and exited at the end of November 2009. However, the data collected related to the 2004 to 2009 time period. This was selected due to the majority of key people being employed throughout this time by Kiwi. Data collection involved observations, interviews, and the analysis of numerous artefacts. Twenty one interviews lasting a total of twenty two hours were conducted. These interviews involved a broad range of people including members of the New Zealand Leadership Team (NZLT), such as the Managing Director, the CFO and the Director of People and Performance, as well as a range of different people across the organisation, such as the Corporate Affairs Manager, Project Manager Operations, Integrated Management Systems Manager, and the Christchurch Production Manager. All interviews were recorded and then transcribed.

A series of eighteen observations were also undertaken. In depth notes were taken of all observations. These observations covered a range of activities including those at head office, production at two different sites, accompanying sales reps, accompanying delivery drivers, sitting in on meetings and a lunch time seminar to staff from a representative of WWF. Numerous documents and artefacts were collected or observed, some of which are externally available, while others were only available within Kiwi. These included information from websites, intranet, management reports, accounting controls (such as budgets) and more issue specific management controls (such as the organisations carbon footprint report and supporting calculative spreadsheets). Detailed notes were taken if a copy of a document or artefact was unable to be retained.

nVivo, was used to organise the data to help understand the specific overflows that are detailed in the next section. As the data was collected it was collated, analysed and used to inform the next steps taken in the field. The continuing analysis of the data allowed the identification of gaps in understanding in regards to the specific overflows. Based on the ongoing analysis further topics to be explored and

questions to be asked were developed. This involved identifying the most appropriate people to interview and what observations should be undertaken next. As such the data collection and analysis processes were iterative and informed each other (Scapens, 1990). This enabled a deep understanding to develop of the situated organisational practices related to the specific overflows and events that took place during the period of investigation. Finally, on November 22, 2010 an hour and a half interview was conducted with the Sustainability Initiative Lead for the South Pacific of Eagle in Sydney, Australia. Given his in depth knowledge of events at Kiwi during the period of investigation, this provided the ideal opportunity to gain further confidence for the validity of the analysis and findings (Ahrens and Chapman, 2006; Vaivio, 2008).

The iterative analysis during data collection allowed the understanding to develop of the strategies Kiwi undertook in relation to 'hot' and 'cold' overflows. In regards to 'cold' overflows the response observed was to use management controls to assist with the navigation of reframing. In regards to 'hot' overflows there are at least three strategies that were possible. The first was to utilise management controls in efforts to cool down the 'hot' overflow in order to make reframing a possibility. The second was to utilise management controls in efforts to dispute the existence of the 'hot' overflow and deny the identity claimed by those trying to establish themselves as a group effected by it. Lastly was to completely ignore the 'hot' overflow. These strategies are utilised to provide structure to the presentation of the findings in the next section.

The Management Controls and Overflows of Kiwi

This section examines four examples of overflows and the strategies adopted by Kiwi to address the pressures arising from them. Before examining the overflows, it is useful to show how Kiwi became aware of them. The data collected suggests that Kiwi utilised many means to identify overflows including gathering intelligence from outside organisations (see the LOHAS example below) or utilising management controls to do so. While it is beyond the scope of the research aim to go into depth in regards to these means, an illustrative example is provided by a metric called 'Estimated Advertising Value' (EAV). EAV was one of the Key Performance Indicators used to measure the performance of the Corporate Affairs Manager. EAV was calculated by an outside consultancy on behalf of Kiwi who counted the number of times they were mentioned in a wide range of media outlets. The count was divided by issue and as to whether the reference to Kiwi was positive, negative or neutral. The Corporate Affairs Manager noted that she only wrote two to three formal press releases a year. She stated that the majority of the mentions made in the media were coming from third parties commenting on Kiwi's activities.

This illustrates that Kiwi mobilised a management control to identify pressure groups and they were aware that pressures arising from these issues had the potential to impact their economic wellbeing. EAV acted on the Corporate Affairs Manager in a way that relates to the ability of management controls to expand and reduce activity (Mouritsen et al., 2009). Where negative comments were made around an issue it assisted with constructing the identity of overflows and the related pressure groups. Through identifying pressures that were challenging Kiwi's ability to transact, it acted upon the Corporate Affairs Manager. The result of this may be the Corporate Affairs Manager taking direct action or informing the relevant manager within Kiwi about the need to take action. If the construction of an overflow sufficiently interested (Callon, 1986) managers it would result in the expansion of activities through the implementation of a response. The following four sub-sections give examples of the management controls mobilised at Kiwi to act in activities designed to mediate the pressures from overflows. These examples demonstrate that a variety of management controls, beyond social and environmental reporting, are enrolled in the situated organisational practices at Kiwi.

Cold Overflow for Reframing: Carbon Emissions

Man-made climate change and the related issue of carbon emissions have been contested topics for a number of years (IPCC, 2014). This prompted the New Zealand government to introduce the Climate Change Response Act 2002, which ratified New Zealand's obligations to the Kyoto Protocol. This Act signalled that an uncapped and internationally linked Emissions Trading Scheme (ETS) would be introduced in the future. At that time, many NGOs, such as Greenpeace, and other pressure groups were active in promoting the view that industry should be taking action in regards to reducing their emissions and not waiting until the ETS was introduced. As one of the largest manufacturers within New Zealand, Kiwi came under this pressure.

In response Kiwi's 2006-7 stand-alone sustainability report noted that they would quantify all of their emissions within the coming year (p11). At this time Koala and Eagle had already started calculating their carbon footprints. Further the decision had been made by the NZLT to assign the Project Manager Finance to constructing Kiwi's carbon footprint. In early 2008 the Project Manager Finance started what was expected to be a three month project to calculate Kiwi's carbon footprint and produce a corresponding report for circulation. This project had as its aim calculating the base year results for 2007 and creating a process for constructing future calculations.

This type of artefact has many similarities to traditional accounting controls: it is a type of calculation (Callon and Muniesa, 2005; Jollands & Quinn, 2017). It requires the gathering of data (the summarising of millions of particles of gas into carbon equivalents (MacKenzie, 2009)), the assembling of it within a predetermined space that allows manipulations to be performed (the spreadsheets of the Project Manager Finance) and for a new identity to be constructed that can circulate beyond the calculative space (the carbon footprint report).

Collating the required data proved to be problematic and resulted in it taking eight months to construct the 2007 report. During this time the 2008 economic recession took hold and resulted in revenue generating initiatives taking priority. Any actions suggested by the carbon footprint were placed on hold indefinitely. As noted by the Project Manager Finance, it was still seen as a worthwhile project to have undertaken:

“The carbon footprint has given us some answers to a lot of other questions which are coming out of a range of different stakeholders such as environmental groups, governmental groups, regulatory groups, and all sorts of different other groups who are looking for information. We now actually have something that we can refer back to”

This is reinforced by the Corporate Affairs Manager:

“The carbon footprint is an internal measure. But the main people that it has influence on is your external audience. So it's often in peoples thinking that it is the reverse. It's really hard to get people to understand that. So even though all the work to ensure your carbon footprint is measured and right is internal, there is no value to that conversation internally.”

Further the CFO referred to the Carbon Footprint as a “hygiene factor”. That is, it is necessary, but not sufficient, to be seen to have one in order to be judged by others (Latour, 1987) as a company that is healthy in its approach to society and the environment. In essence, the New Zealand government had introduced legislation that objectified man-made climate change and the divergence between the mechanism various actors used to quantify and identify this overflow no longer existed due to the carbon footprint becoming the taken for granted calculative device. Kiwi constructed their carbon footprint to demonstrate alignment with the objectified man-made climate change and thereby act upon those that would judge.

At the time of Kiwi calculating their carbon footprint it was not compulsory, albeit that it was taken for granted calculative device that was expected to be utilised by all in the future. Thus, reframing to include man-made climate change within the time and space constructed for transactions to occur had at this stage not happened. Through mobilising this management control it allowed them to provide ‘answers’ to any pressure group, such as environmental and governmental groups, while waiting for the reframing to occur. Further, through using this management control to provide ‘answers’ to pressure groups and thereby constructing proof (albeit form rather than substance) of their commitment to addressing this overflow, Kiwi was in a better situation to be part of the negotiations that the reframing would involve. Representatives of the New Zealand government would often contact Kiwi, as a result of their size and relative importance within the economy, to discuss proposed legislation or initiatives. The NZLT knew that being one of the first big corporates to produce a carbon footprint in New Zealand would make it more likely that representatives of the government would contact them as they finalised the forthcoming ETS scheme. This would allow the opportunity to act upon and influence the process of reframing.

In summary, Kiwi constructed and enrolled a carbon footprint to act as a management control. This management control was mobilised to give the required ‘answers’ to pressure groups who were advocating that they should be taking action in regards to climate change. The management control allowed them to appear ‘serious’ about this overflow and thereby acted to allow Kiwi to continue to maintain or alter their activities, in this case to focus their efforts on addressing the effects of the economic recession. As such the carbon footprint and associated report were focused on constructing the organisation as ‘knowledgeable’ and assisting in efforts to mediate the pressures arising from external groups.

Hot Overflow to be Cooled: LOHAS

Lifestyles of Health and Sustainability (LOHAS) is a social movement (Diani, 1992) that, through advocating for a specific type of lifestyle, has implications for large manufacturers like Kiwi. LOHAS are conscientious consumers whose purchases are driven by a set of beliefs focused on healthy living and sustainability ideals. They have been active in utilising social media to advocate for their perspective on how to live[6]. The movement within New Zealand states that the typical New Zealanders’ approach to life resonates well with the lifestyle they advocate[7]. As such thirty two percent of New Zealand’s population can be categorised as LOHAS, with fifty seven percent of these being female, the greatest concentration (29%) being in the 45 to 54 age group, and typically with an income profile that is increasing over time[8].

LOHAS was first introduced to Kiwi by a consulting organisation (Consult), who at the time had been brought in to assist with the preparation of Kiwi’s first sustainability report. As Kiwi’s success is based upon their, Koala’s and Eagle’s marketing efforts, Consult constructed LOHAS as a new market demographic that Kiwi was not aligned with. Within this construction, ‘facts’ (Latour, 2005) were presented that demonstrated that Kiwi’s products did not fit the criteria that LOHAS adhere to. This acted on the NZLT through highlighting a pressure group related to an overflow that had the possibility of changing established consumer behaviour. This new market demographic was an overflow, with the potential to place pressure on Kiwi through influencing the purchasing habits of others. If established consumer behaviour changed it would impact upon the resources flowing in and out of Kiwi, affecting their economic wellbeing.

The NZLT decided that the best course of action to take to counteract the LOHAS social movement was to try to change their perception of Kiwi’s products. This was to be done in a way that associated Kiwi’s products with the LOHAS notions of health and sustainability. In so doing the NZLT aimed to make LOHAS into consumers of Kiwi’s products. However, this could not be done through traditional marketing routes, such as print and media advertisements, as it could not tap into the specific

focus these conscientious consumers have on health and sustainability. Hence, the NZLT decided that they needed to undertake new initiatives that centred on aligning Kiwi with the LOHAS network and thereby attempting to cool this overflow to allow reframing to occur.

These initiatives started by using the services of Consult to provide guidance for a cross-functional group, the 'Imagineering Team'. Initially this group gathered for 'Blue Sky' meetings aimed at understanding issues related to LOHAS. Initiatives that resulted from the Imagineering Team meetings included changing the sales rep car fleet to more fuel efficient models, switching to an energy supplier that utilised only renewable sources, and initiating public place recycling schemes. All of these actions were reflected in articles published in places like Kiwi's intranet, standalone sustainability report, internal magazine (the importance of which is explained below), and as news items in external media outlets.

An example is provided by Kiwi's enrolment of the Environmental Performance Metric (EPM) focused on waste minimisation. This EPM calculated the percentage of waste created at each production plant that was recycled into other uses rather than ending up in (for example) land fill. The EPM was utilised by Kiwi in steering operations within its production plants towards zero waste. The Production Manager of each plant would calculate this metric and submit it to the NZLT on a monthly basis. The NZLT reviewed the results in order to monitor and manage the process of reducing the amount of waste produced.

This metric has significantly improved over the time period covered by this research including two plants, Christchurch and Putaruru, consistently maintaining levels over ninety nine percent. This was achieved by the use of setting an EPM target that influenced the relevant manager to search for improvement opportunities. For instance, the Christchurch Production Planning Manager found a new supplier of dry waste removal. This organisation now collects the dry waste, which had previously been destined for landfill, and takes it to their facilities where it gets sorted for recycling. As the Christchurch Production Planning Manager notes:

"I can tell you there are tons of stuff that is going through that [recycling] plant, which, had it gone through the normal curb side recycling station, would have ended up in landfill. They do a whole large gamut of stuff that the council don't do."

Kiwi promoted this change through various means including attainment of a packaging award for these two plants from the Packaging Council of New Zealand – an organisation Kiwi helped to establish and which has a NZLT member on its board. The attainment of this award was then published in articles in many of the major New Zealand daily newspapers, as well as being written about in Kiwi's internal magazine.

Another initiative undertaken was to align Kiwi with a number of other organisations that they perceived would appeal to this pressure group. For example, Kiwi aligned itself with 'Keep New Zealand Beautiful', a group focused on reducing pollution. Kiwi began to give staff time off to participate in a Keep New Zealand Beautiful organised litter abatement event. Kiwi gave each volunteering employee a back pack, with the branding of one of Kiwi's products on it. The contents of this bag included snack food, a rubbish bag, a recycling bag, plastic gloves, some of Kiwi's products, and a t-shirt with both Kiwi and Keep New Zealand Beautiful branding on it. The Corporate Affairs Manager stated that the event resulted in around two hundred and fifty volunteers from across Kiwi who collected around one thousand bags of rubbish from public areas throughout New Zealand.

Hence, there were large numbers of Kiwi staff in highly populated areas of New Zealand, dressed in Kiwi branded clothing, carrying a bag with Kiwi product branding on it, and seen to be removing litter. The NZLT decided not to perform the litter abatement around the industrial area where Kiwi's buildings were situated but rather in highly populated areas, with large traffic flows, such as the

waterfront of the eastern suburbs of Auckland. The branding chosen to appear on the bag was one that specifically fits within the range of Kiwi products that were being promoted as healthy to appeal to LOHAS and thereby designed to act upon anyone that passed by. Having Kiwi staff in highly populated areas of New Zealand, dressed in Kiwi branded clothing, carrying a bag with Kiwi product branding on it, and seen to be removing litter is about constructing a specific 'account' of the organisation that would appeal to LOHAS.

Beyond this event, Kiwi positioned a couple of its product ranges to maximise the potential for LOHAS to make an association between the products and their lifestyle choices. For example, one product was used to sponsor New Zealand's most iconic sports teams. During the television coverage of the sporting event members of this team can be observed using this Kiwi product. The same product was utilised for sponsoring a number of New Zealand athletes who were about to compete at the 2008 Beijing Olympics.

These initiatives were promoted through many channels including local media and Kiwi's internal magazine. An example is found on page seven of the July / August 2008 issue of the internal magazine, available via Kiwi's intranet and through the distribution of hard copies, where two interrelated articles focused on a product range being promoted as healthy. The first of these articles provides an overview of one of the athletes representing New Zealand in the forthcoming 2008 Beijing Olympics. The second article overviews how one of Kiwi's products, aimed at fitness minded consumers such as athletes, is being used to sponsor the athlete from the previous article. The article explains the benefits this product may have for sportspeople such as high performing Olympic athletes, thereby linking Kiwi and its products with fitness and the Olympics. In turn they were distancing themselves and their products from other overflows, such as links between Kiwi's products and obesity (see below), that may counteract their efforts to appeal to LOHAS.

In summary through situated organisational practices Kiwi constructed and enrolled a number of management controls aimed at constructing their products as those suitable for LOHAS. Some of these management controls were in relation to making calculations and adjustments within the organisation, such as the EPMs. Others were more externally focused, such as the packaging award. What they all had in common was that they were mobilised as a means to try to reduce the pressures from an overflow, thereby safeguarding Kiwi's economic wellbeing. Kiwi also altered some of their activities, be it reducing waste from production or swapping electricity providers. However, the activities that they changed allowed them to maintain their core activities which were focused on manufacturing and selling their products. Further, Kiwi's aim was to increase their profitability through increasing their sales. Hence these activities were designed not only to cool the overflow but also to produce a reframing whereby LOHAS went from being a pressure group into being enrolled as customers. While some of these management controls were more like accounting controls, such as the EPM, others were less so, including branded clothing and bags. However, reflecting on the performative understanding of management control provided by Jollands et al. (2015) shows that each was enrolled to construct an account of Kiwi as a 'knowledgeable' organisation whose actions aligned with those seen as desirable by LOHAS.

Hot Overflows to Dispute: Aspartame and Obesity

Kiwi's efforts in relation to the aspartame and obesity overflows predated the period covered by the research, continued through the period covered, and are still ongoing. Aspartame is an artificial sweetener utilised in many products as a substitute for sugar. Concerns have been raised by a number of pressure groups who argue that it causes or contributes to a wide range of health issues[9]. Obesity is a growing issue within New Zealand[10] with many pressure groups claiming that the high levels of sugar consumption is a leading cause.

Aspartame is utilised within a number of Kiwi's products and the Director of Sustainability Value Chain Initiative for Eagle commented that "[the wider Eagle network] buys something like 4% of the world's sugar, which is a hell of a lot of sugar". Kiwi has been implicated in the issues surrounding both of these overflows with the resulting pressure threatening their economic wellbeing through changing the framing that they transact within. For example, with aspartame the effect could be legislation being passed that rules this ingredient isn't safe for use, meaning Kiwi would need to withdraw a number of its products. An example in relation to obesity could be the introduction of a sugar tax that would significantly increase the price of Kiwi's products, potentially driving down demand for them.

The analysis of the data suggests that these are overflows that Kiwi actively and aggressively takes measures to dispute the existence of. Further, while these two overflows are in many respects different issues Kiwi deliberately draws links between the two in order to dispute them both individually and collectively. This can be seen in relation to the World Environment Day Business Symposium where the GM Corporate Affairs devoted her entire speech to these issues. This was in contrast to the other invited speakers who concentrated on outlining how their organisations were addressing aspects of the environmental impacts caused by their operations. In her speech the GM Corporate Affairs outlined the grounds upon which Kiwi disputed these overflows. Specifically in relation to obesity, Kiwi's efforts have been centred on promoting the products within their extensive range that are seen as healthy (see also LOHAS above) and at the same time urging their consumers to act responsibly when using their products. In relation to aspartame Kiwi's efforts have centred on providing scientific 'facts' (Latour, 2005) that argue for the safety of aspartame. In relation to both, Kiwi's response has been to dispute not only their existence but also the means by which pressure groups are measuring them.

The initiatives used by Kiwi have been publicised through many different channels. These include, in relation to obesity, the voluntary placement of RDI (recommended daily intake) details on product labels to demonstrate that they are assisting their consumers in making informed decisions. Also within their internal magazine they commissioned articles by a registered dietician for each of the six issues in 2008. In an excerpt from the July / August issue the registered dietician noted:

"Aspartame (Nutra-sweet or Equal) is a safe, non-nutritive sweetener used in many diet foods (including diet drinks) in place of sugar. It provides a sweet taste without any calories (energy) and therefore provides a good option for those who are trying to reduce their energy intake to maintain or lose weight. There has been a lot of media coverage on aspartame in the past 12 months. Some true, some far from the truth. It seems to be a topic on which everyone has their own agenda, regardless of the scientific facts. The agendas gaining the most media attention are political and commercial – not scientific." (p6)

From this we can see that Kiwi has enrolled the dietician to actively dispute the overflow related to aspartame. Also we see the first example of how Kiwi links the overflow of aspartame to that of obesity through promoting the former as a solution to the latter. The article then deals with "commonly held myths about aspartame (put forward on multiple popular websites by anti-aspartame campaigners without substantiation)" (p6). It continues with:

"The most unfortunate thing is that the smear campaign against aspartame is one that is potentially harming New Zealanders. In the midst of an obesity epidemic, products sweetened with non-nutritive sweeteners such as aspartame are a sensible part of the solution, yet people are being falsely told they are not safe. Robust research published in credible, peer reviewed

scientific journals confirm the safety of aspartame and studies show that consuming products sweetened with aspartame is an effective part of a weight management plan.” (p6)

Thus, in this article the safety of aspartame is aligned with efforts to overcome obesity through the use of products, such as those produced by Kiwi, that use this artificial sweetener. Finally the article concludes with the “facts on aspartame” (p6) which is centred on proving its safety and includes a reference to a website run by the New Zealand government where the reader is able to obtain “accurate information” (p6).

This article is followed up in the next issue, September / October, where the dietician presents “Aspartame – Facts & Fiction” (p6). The article overviews how, in conjunction with the New Zealand Nutrition Foundation, Kiwi funded the trip to New Zealand of “one of the world’s leading experts in aspartame” who “was the lead author on a recent major review of all of safety research related to aspartame” (p6). The article outlines how this review, published in the journal *Critical Reviews in Toxicology*, summarises the findings of over five hundred studies. It focuses on some of the specific findings of the review and then the dietician notes the following regarding this expert’s trip to New Zealand:

“Having sat in [the expert’s] seminars to health and nutrition professionals I remain frustrated at the lack of balance and misinformation that continues to surround this beneficial ingredient, and urge you question anyone who believes that it is anything other than safe. In my experience you will most likely find that their opinions are based on shaky foundations. I hope that this helps clarify the scientific facts about aspartame so that we can all make fully informed choices about their consumption of aspartame sweetened foods in future” (p6).

Again aspartame is constructed as safe, thus disputing the overflow, and linking this with the positioning of Kiwi as an organisation whose actions, through the use of this ingredient, is aligned with addressing obesity. The aim of these articles is explained by the Internal Communications Officer, whose job it is to produce the internal magazine, who notes:

“My objective at first is to actually give people [who work at Kiwi] information that they could use in those BBQ conversations when someone says ‘oh you’re causing obesity and all the rest of it’. So we’ve got a whole bunch of stories that we published throughout the last couple of years that actually talk about all the good things that we are doing.”

Thus the internal magazine is designed to keep people within Kiwi informed and allow them to participate in the wider discussions around aspartame and obesity, even if these conversations are with their work colleagues and wider circle of acquaintances. This is reinforced by the Director of People and Performance:

“What you do want are your employees to be brand advocates. So for that to happen you need to make sure that the employees understand what we’re doing and understanding what our strategy is. That way they understand what our objective is and what our time frames are underneath it.”

However, Kiwi is also aware that the internal magazine has a wider audience beyond those that are employees. As the Internal Communications Officer noted:

“So, well it goes internally but just by the very nature of it being on a paper document we realise that it probably goes to places we’d rather it didn’t like competitors and such and so it is a public document and able to be quoted.”

Kiwi can print articles within its internal magazine knowing that it is monitored by a wider audience including pressure groups related to specific overflows. As with the carbon footprint, while this magazine may look like it is solely internally focused, one of its main aims is to act beyond the confines of Kiwi. It achieves this through acting upon employees to make them advocates to those that are not part of Kiwi as well as through circulating beyond the confines of Kiwi in an attempt to act upon and influence other readers.

In summary, through situated organisational practices Kiwi constructed and enrolled artefacts, such as RDIs and the internal magazine, as part of their efforts to dispute these overflows. These artefacts were utilised to provide an ‘account’ that presents ‘facts’ (Latour, 2005) aimed at not only disputing the existence of these overflows but also to undermine and trivialise the means by which pressure groups measure their existence. Again, with reference to the performative understanding of Jollands et al. (2015), these artefacts, with the ‘accounts’ they contain, can be labelled as management controls. These management controls are enrolled into Kiwi’s efforts aimed at allowing them to continue making products in the way that they always have and thereby protecting its economic wellbeing. These efforts include enrolling actors, such as the dietician, a New Zealand Government website, the aspartame expert, and more than five hundred research articles, to provide the means to strengthen their arguments against attacks (Latour, 1987) from the very pressure groups they aim to dispute. These actors are all reflected within the ‘accounts’ that Kiwi then construct with the management controls aimed at disseminating these in order to produce specific effects. Within this process they utilise a tactic of setting the two overflows against one another in order to show that in disputing Kiwi’s position on one of the overflows a pressure group is contributing to the existence and impacts of the other. Thus, their strategy can be summarised as one of challenging the legitimacy of pressure groups that try to claim to be affected by these overflows. However, returning to the continuation of this overflow over time, this strategy focuses on maintaining the state of controversy (Callon, 1998) in order that Kiwi may continue to utilise these ingredients while the disputes are entangled within the politics of difference (Callon, 2007).

Hot Overflows to be Ignored.

The final potential response to a ‘hot’ overflow is just to ignore it. In some circumstances an organisation may have very good reasons to do this. Rather than allowing the pressure group to gain momentum through acknowledging their existence the organisation may instead minimise the exposure they are given through ignoring them. In this way the “logic of repetition thus prevails over that of the production of differences” (Callon, 2007, p. 158).

In terms of this response at Kiwi it was not observed during the data collection process, which included a substantial search of the internet to gain an understanding of what overflows existed. This is not an issue given the focus of the research. Ignoring the overflow implies not undertaking any new initiatives, which would also mean that it is highly unlikely that any management controls would have been mobilised. However, this tactic has been discussed in some depth by O’Dwyer (2002) and still remains an interesting area for future research. The next section provides further discussion of our findings.

Discussion

The paper started by questioning whether social and environmental reports are the main means that an organisation uses to mediate the pressures that arise from overflows. Given the ongoing, constant and

emergent nature of overflows it questioned whether other management controls were mobilised in the efforts to mediate these pressures. A collective examination of the episodes above illustrates that while Kiwi's sustainability report was mobilised within their efforts to mediate these pressures it was only one amongst many different management controls. With reference to the performative understanding of management control provided by Jollands et al. (2015), the data above shows that a broad range of artefacts were mobilised in the attempts to mediate the pressures that arise from overflows. These artefacts were mobilised in a way that can be labelled as an 'account' in that they aimed to provide information for decision making to those external to the organisation. As shown in the section above, an internal magazine, a branded t-shirt or RDI labels can equally be seen to be enrolled to convey specific information to decision makers as a budget, a social and environmental report or any other accounting control. It would therefore be remiss to write these artefacts off as merely part of public relations activities and reminds us that accounting is but one flow of information within and beyond an organisation (Llewellyn, 1994). Hence, moving beyond a narrow focus on social and environmental reports may also require a broadening of our understanding of what organisations utilise as management controls. The performative understanding provided by Jollands et al. (2015) is of assistance in this regards as it focuses the researcher on whether an artefact is being utilised as a type of 'account' rather than bringing in *a priori* assumptions or categorisations.

While the evidence above shows that management controls may be utilised in relation to the mediation of pressures that arise from overflows, there is scant literature that addresses this area. Hence, the above case study of Kiwi is used to demonstrate and provide some evidence about how organisations utilise other management controls rather than just their social and environmental reports. However, in demonstrating this only initial evidence is presented as is required to show the breadth of artefacts that are utilised. As such there is a need for future research to build upon this initial breadth of evidence to provide the much required depth of understanding, including how these artefacts interact with, support and go beyond the use of social and environmental reports. This will include the need to address how these management controls, including social and environmental reports, act upon the pressure groups and in turn the framing within which the organisation operates. In so doing it will contribute to addressing the lack of knowledge around how they are received by those outside of the organisation (Tregidga et al., 2014).

It is worth noting that undertaking this type of research will come with many challenges, particularly given that the use of these management controls occur within a complex and messy context where linear relationships may not exist. For example, while having Kiwi staff in highly populated areas of New Zealand, dressed in Kiwi branded clothing, carrying a bag with Kiwi product branding on it, and seen to be removing litter is about constructing a specific 'account' of the organisation, tracing how this acts upon those passing by will be difficult for the researcher. Another example is that bringing to New Zealand a leading expert in aspartame and using the internal magazine to highlight this has no guarantee of 'success' in constructing their perspective as 'facts'. That is, even though the Internal Communications Officer undertook this strategy based on the internal magazine reaching "places we'd rather it didn't", for the researcher tracing where it ends up and the effects that it creates is beset with problems.

Despite these issues it is undoubtedly a rich area for the social and environmental accounting researcher to pursue. A starting point for this is to note that "control systems [are] increasingly required to operate across organizational boundaries" (Otley, 2016, p. 45). Some research has begun to examine this, with specifically the inter-organisational literature having shown that "in contrast with some formulations of management control [...] inter-organizational relations place not only the firm's own but also the partners' activities as objects for management and control" (Mouritsen et al., 2001, p. 221). This suggests that a progression from the inter-organisational research is to examine other things that become the objects of management and control, such as the pressures arising from overflows. There

seems much that could be gained by drawing further connections between the management control and social and environmental accounting literatures in order to develop new understandings and knowledge of the situated practices within different organisational contexts. This is particularly relevant given the seriousness of the issues examined by (or which provide the context to) much of the social and environmental accounting literature.

Examining the specific episodes highlights other insights. In relation to the carbon overflow, it was of interest that the Project Manager Finance stated that the carbon footprint was being utilised to give answers to questions that were being asked by pressure groups. The carbon footprint allowed Kiwi to internalise and quantify this overflow within the organisation (Hines, 1988) and demonstrate, in a very technical way, to these pressure groups the 'commitment' that they had made to this issue. Kiwi was utilising the carbon footprint to construct itself as a 'knowledgeable' and 'active' organisation in regards to climate change and thereby gain legitimacy for itself. However, the Corporate Affairs Manager commented that the carbon footprint only had external value rather than internal value, which does not capture the whole story. The value from this management control is through it acting to mediate pressure of a specific overflow. This allowed the internal activities of Kiwi to continue as they were and is what led to the CFO labelling it as a 'hygiene factor'. This highlights that the decision over Kiwi being a contributor to or antagonist towards addressing issues over man-made climate change resides with others (Latour, 2005). This concern for how an organisation enrolls the support of others has been the focus of the social and environmental accounting literature, which has studied it from a variety of perspectives including those mentioned in the literature review. It would seem that the variety of perspectives drawn upon in this literature may be useful in highlighting broader understandings of the way in which management controls are utilised in practice.

The LOHAS overflow episode also highlights some additional insights. The first is that it allows for some empirical flesh to be added to Callon's (1998, 2007) notion of overflows and framing[11]. It is helpful to return to the point made above that any specific organisation may become influential within the framing but due to the vast numbers of actors involved it will never be able to absolutely control how it is constructed. LOHAS has emerged as a reaction to the vast number of products on the market that they deem to be unhealthy or at odds with a sustainable planet. This results in new purchasing patterns that are within different framings with different actors involved. As LOHAS influence more people's purchasing patterns they become an overflow for the original framing and the actors this still contains. What is of interest here is that it was sufficient for Consult to provide 'facts' about this and for the NZLT to accept these as reflective of truth for this to become a taken for granted overflow. What is important is not whether these 'facts' reflected certainty or whether this overflow actually existed but whether the NZLT accepted this to be true. Thus overflows may arise for any given framing through the changing preferences, perceptions and motivations of those involved rather than as a direct result of any actions taken by a specific actor within the framing. As changing preferences, perceptions and motivations are not easily discerned (Latour, 1986) the NZLT may have been comfortable to act based on the 'facts' provided rather than searching further for the existence of this overflow.

Related to this is how management controls were mobilised to act upon this group that was 'out there'. Of interest were the attempts to align Kiwi with other networks, such as Keep New Zealand Beautiful. These types of actions are a common focus of research within the social and environmental accounting literature (see for example Deegan and Blomquist, 2006; Neu et al., 1998). However, the social and environmental reports that Kiwi produced[12] did not seem to feature prominently within these situated practices. Adding to this is the finding that the networks that Kiwi attempted to align itself with were previously pressure groups for them or had the potential to become a pressure group, as was the case with Keep New Zealand Beautiful. Hence this tactic involved working with pressure

groups that they deemed could be managed and controlled in attempts to overcome other pressure groups that could not.

The final two overflows, aspartame and obesity, also provided some new insights. One is in relation to how the concepts of cold and hot overflows (Callon, 1998) were utilised to provide a basis to present episodes in relation to specific overflows. The use of these concepts enabled us to present, in a manageable and understandable way, the messiness and complexities of the events that unfolded at Kiwi over time. However, these two overflows were presented together to illustrate connections that were constructed between these overflows as a tactic to dispute both. We should also note that any actions that were presented in a specific episode should not be viewed as necessarily solely relating to that overflow. For example the associations made with the Olympic athletes in trying to appeal to LOHAS could also be seen to be part of the attempts to distance Kiwi and its' products from the obesity overflow.

One final insight provided by the aspartame and obesity overflows is in relation to how Kiwi mobilised management controls to produce effects that would disrupt and dispute the very existence of these overflows (Callon, 1998, p. 263). In essence this strategy was about distancing the arguments of the pressure groups from the economic framing by problematizing them as political. Hence, this engagement may not aim to pacify (Christensen and Skaerbaek, 2007) but rather to delineate the overflow as 'political' rather than 'economic' and thereby provide justification for maintaining the framing as it is (Callon, 2010; Jollands & Quinn, 2017). It appears that Kiwi, Koala, and Eagle are all still currently being 'successful' with this strategy as these are still ongoing overflows for them[13]. This again resonates with much of the social and environmental accounting literature.

These insights suggest that future research should seek to embrace the complexities and messiness of practice and allow for the possibility of becoming surprised (Mouritsen et al., 2010). This requires taking a no *a priori* stance (Latour, 2005; Law, 1992) as to what artefacts may be enrolled to act as a management control rather than focusing on a specific control, such as the social and environmental report. This would allow future research the opportunity to uncover new candidates (Mouritsen et al., 2010) for management controls that are mobilised in an organisations' efforts to mediate the pressures that relate to an overflow. Further, this may allow for more connections to be drawn between the management control and social and environmental accounting literatures, providing for a more nuanced understanding of situated organisational practices.

This broader examination of management controls in relation to overflows can be contrasted with the disturbances, kicks or jolts in Laughlin's (1991) model of organisation change[14]. Rather than being sudden disturbances, kicks or jolts, the overflows examined above were more pervasive, ongoing, and the result of a large amount of effort by pressure groups. The responses to them could be seen as situated, everyday practices rather than crisis management. This demonstrates that from a performative perspective, change is constant, ongoing and distributed (Quattrone and Hopper, 2001) and that organisations must work hard to create relative stability for themselves. Increasing our understandings of situated organisational practices may open up the potential for social and environmental accounting researchers to contribute knowledge that assists with the changes demanded by sustainable development (Bebbington, 2007). This could be through, for example, providing new avenues for workplace activism (Ball, 2007) or providing understandings that make the practices of shadow accounts (Collison et al., 2010) more effective. Such opportunities would overcome the limitation that is common in the social and environmental accounting literature, which is also the case for this research. That is, the engagement with those that are placing the pressure on organisations to change would allow the development of knowledge over which management controls are seen as important, including the social and environmental reports (Tregidga et al., 2014). The following section concludes the paper with some final remarks.

Conclusion

This research set out to examine how organisation members' mobilise management controls, other than reporting, in their attempts to mediate pressures that arise from groups that relate to specific overflows. To guide this research a performative understanding of management controls was mobilised. *No a priori* assumptions were made as to what a management control was in practice. Rather how an artefact was enrolled and acted within the attempts to mediate the pressures arising from overflows allowed them to be viewed as a management control. A case study approach was undertaken in order to address the research purpose. The concept of overflows (Callon, 1998) were utilised, with the distinction being made between 'hot' or 'cold', to structure the analysis of the collected data.

The case study of Kiwi demonstrated that many different types of management controls were mobilised in their attempts to mediate the pressures that related to overflows. Further, it could be seen that the approach taken differed between 'cold' and 'hot' overflows. If the overflow was 'cold' then the management controls were mobilised to mediate the pressure through providing the ability to placate the questions arising from various groups. This enabled organisational activities to be maintained during the time before the overflow was addressed through reframing.

If the overflow was 'hot' then one of three strategies could be adopted. The first was to mobilise management controls within the attempts to cool the overflow. This aimed to allow the organisation to maintain its economic wellbeing through protecting itself from the potential impacts that may have arisen had the overflow not been addressed. The second was to mobilise management controls within efforts to disrupt and dispute the overflow. The organisation aimed to keep the overflow outside of the framing and to limit the impact it could have, thereby maintaining economic wellbeing. The final way was to ignore the overflow in an attempt to inhibit the pressure group's ability to gather further support. This final strategy was not observed within the case study.

The analysis of these episodes demonstrates that Kiwi was prepared to commit substantial time, effort, and resources to influence how the (re)framing was (re)constructed. Within this management controls were mobilised to mediate the potential impact from pressures that arose from groups related to specific overflows. Whether it is climate change activists, LOHAS or scientists who research the issues of aspartame and obesity, Kiwi's enrolment of management controls to produce effects demonstrates that there are many things seen by organisations to be objects of management and control. Hence Kiwi mobilised many different management controls in relation to specific overflows. This paper contributes to the extant literature through broadening the scope of the social and environmental accounting research by providing new understandings of the kinds of management controls, beyond reporting, organisation members mobilise in practice to deal with pressures that relate to overflows. To do this the research reported here responds to calls to expand the accounting literature by providing a more holistic examination of organisational practices (Hopwood, 1996; Otley, 2016).

Finally, it should be noted that overflows will continue to be caused by organisational activities. Given the very nature of framing producing exclusion, every organisation's activities will be associated with some form of overflow. Therefore, it would seem that much could be gained through the continued research of management controls using a performative perspective in this area to extend the extant knowledge of social and environmental accounting.

Notes:

1. Pressure groups (often with support from social media) are network(s) of actors who come together to achieve a common goal in relation to the activities of an organisation (Tilt, 1994)
2. For example, Jollands and Quinn (2017) note how instrumental social media was in organising protests and other actions taken against the introduction of domestic water billing and the establishment of a new water utility within the Republic of Ireland in 2014. Conversely, it has

been noted that organisations are not always adept at using social media to engage with these issues (Manetti and Bellucci, 2016; Quinn et al., 2016).

3. In line with the theoretical perspective taken in this research, it is not assumed that the use of management controls will result in a predetermined outcome. Rather, we examine how management controls are utilised in attempts to influence outcomes, what is referred to as mediate. In essence, we are examining practices that mobilise management controls, the outcome of which is far from being certain.
4. Drawing from Garfinkel's (2002) notion of focusing on situated organisational practices allows the research aim to be addressed through developing a breadth of understanding of the types of artefacts, beyond social and environmental reports, enrolled to act as management controls. It focuses the research on the setting rather than following an actor as it moves through time and space (Latour, 1987). While focusing on the former addresses the research aim, future research is required that implements the latter, as acknowledged in the discussion section, to provide much needed depth of understanding of these practices.
5. This event was organised to coincide with New Zealand hosting the World Environment Day on behalf of the United Nations Environment Programme (UNEP). Other speakers at this event included other corporate representatives, the Prime Minister of New Zealand, the Chair of the Intergovernmental Panel on Climate Change, academics and civil servants. Further the, then newly appointed, head of UNEP, while not formerly part of the official schedule of speakers, took the opportunity to outline his goals and vision for the future of UNEP.
6. Examples of these social media sites include Zaadz (now Gaia), see <http://www.zaadz.com/>, and RiverWired, see <http://www.riverwired.com/>.
7. According to <http://media.newzealand.com/en/story-ideas/lohas-in-new-zealand/> accessed on 29 November 2015
8. This data was extracted from <http://www.lohas.com/globalization-lohas> accessed on 29 November 2015
9. See for example <http://aspartame.mercola.com/> (accessed 30 November 2015)
10. The Ministry of Health (2013) noted that one in nine children aged between two and fourteen and three out of ten adults in New Zealand are obese.
11. We are grateful to one of our anonymous reviewers for bringing this to our attention.
12. During the time frame investigated Kiwi produced two sustainability reports, for the 2006-7 and 2008 years.
13. For example in November 2015 it was alleged that Eagle was implicated in co-opting a major anti-obesity group within North America through providing them with substantial funding.
14. This model has been selected as it is commonly mobilised within the social and environmental accounting literature (see for example Bebbington, 2007).

References:

- Adams, C.A. 2002, Internal organisational factors influencing corporate social and ethical reporting: Beyond current theorising. *Accounting, Auditing & Accountability Journal* 15, 223-250.
- Ahrens, T., Chapman, C.S., 2006. Doing qualitative field research in management accounting: Positioning data to contribute to theory. *Accounting, Organizations and Society* 31, 819-841.
- Akroyd, C., Maguire, W., 2011. The Roles of Management Control in a Product Development Setting. *Qualitative Research in Accounting & Management* 8, 212-237.
- Arjaliès, D.-L., Mundy, J., 2013. The use of management control systems to manage CSR strategy: A levers of control perspective. *Management Accounting Research* 24, 284-300.
- Ball, A., 2007. Environmental accounting as workplace activism. *Critical Perspectives on Accounting* 18, 759-778.
- Barter, N., Bebbington, J., 2013. Actor-Network Theory: A Briefing Note and Possibilities for Social and Environmental Accounting Research. *Social and Environmental Accountability Journal* 33, 33-50.
- Bebbington, J., 2007. Changing organizational attitudes and culture through sustainability accounting, in: Unerman, J., Bebbington, J., O'Dwyer, B. (Eds.), *Sustainability accounting and accountability*. Routledge, London, pp. 226-242.
- Bebbington, J., Larrinaga-Gonzalez, C., Moneva-Abadia, J.M., 2008. Corporate social reporting and reputation risk management. *Accounting, Auditing & Accountability Journal* 21, 337-361.
- Bebbington, J., Larrinaga, C., 2014. Accounting and sustainable development: An exploration. *Accounting, Organizations and Society* 39, 395-413.
- Boedker, C., 2010. Ostensive versus performative approaches for theorising accounting-strategy research. *Accounting, Auditing & Accountability Journal* 23, 595-625.
- Buhr, N. 1998, Environmental performance, legislation and annual report disclosure: the case of acid rain and Falconbridge. *Accounting, Auditing & Accountability Journal* 11, 163-190.
- Callon, M., 1986. Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay, in: Law, J. (Ed.), *Power, action and belief: a new sociology of knowledge?* Routledge, London, pp. 196-233.
- Callon, M., 1998. An essay on framing and overflowing: economic externalities revisited by sociology, in: Callon, M. (Ed.), *The Laws of the markets* Blackwell Publishers, Oxford, pp. 244-269.
- Callon, M., 1999. Actor-network theory-the market test, in: Law, J., Hassard, J. (Eds.), *Actor network theory and after* Blackwell Publishers Oxford.
- Callon, M., 2007. An Essay on the Growing Contribution of Economic Markets to the Proliferation of the Social. *Theory, Culture & Society* 24, 139-163.
- Callon, M., 2009. Civilizing markets: Carbon trading between in vitro and in vivo experiments. *Accounting, Organizations and Society* 34, 535-548.
- Callon, M., 2010. Performativity, misfires and politics. *Journal of Cultural Economy* 3, 163 - 169.
- Callon, M., Latour, B., 1981. Unscrewing the big leviathan: How actors macrostructure reality and how sociologists help them do so., in: Knorr-Cetina, K., Cicourel, A.V. (Eds.), *Advances in social theory and methodology : toward an integration of micro- and macro-sociologies* Routledge & Kegan Paul, Boston, pp. 277-303.
- Callon, M., Muniesa, F., 2005. Economic Markets as Calculative Collective Devices. *Organization Studies* 26, 1229-1250.
- Christensen, M., Skærbæk, P., 2007. Framing and overflowing of public sector accountability innovations: A comparative study of reporting practices. *Accounting, Auditing & Accountability Journal* 20, 101 - 132.
- Collison, D., Dey, C., Hannah, G., Stevenson, L., 2010. Anglo-American capitalism: the role and potential role of social accounting. *Accounting, Auditing & Accountability Journal* 23, 956-981.

- Contrafatto, M., Burns, J., 2013. Social and environmental accounting, organisational change and management accounting: A processual view. *Management Accounting Research* 24, 349-365.
- Deegan, C., 2002. The legitimising effect of social and environmental disclosures -- a theoretical foundation. *Accounting, Auditing & Accountability Journal* 15, 282-311.
- Deegan, C., 2007. Organizational legitimacy as a motive for sustainability reporting, in: Unerman, J., Bebbington, J., O'Dwyer, B. (Eds.), *Sustainability accounting and accountability*. Routledge, London, pp. 127-149.
- Deegan, C., Blomquist, C., 2006. Stakeholder influence on corporate reporting: An exploration of the interaction between WWF-Australia and the Australian minerals industry. *Accounting, Organizations and Society* 31, 343-372.
- Demetrious, K., 2013. *Public Relations, Activism, and Social Change: Speaking Up*. Routledge, New York, London.
- Diani, M., 1992. The concept of social movement. *The Sociological Review* 40, 1-25.
- Garfinkel, H., 2002. *Ethnomethodology's Program: Working out Durheim's Aphorism*. Rowman & Littlefield Publishers Inc., Lanham.
- Gray, R., Dey, C., Owen, D., Evans, R., Zadek, S., 1997. Struggling with the praxis of social accounting: Stakeholders, accountability, audits and procedures. *Accounting, Auditing & Accountability Journal* 10, 325-364.
- Gray, R., Kouhy, R., Lavers, S., 1995a. Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing & Accountability Journal* 8, 47-77.
- Gray, R., Owen, D., Adams, C., 1996. *Accounting & accountability : changes and challenges in corporate social and environmental reporting* Prentice Hall, London : New York
- Gray, R., Walters, D., Bebbington, J., Thompson, I., 1995b. The Greening of Enterprise: An Exploration of the (NON) Role of Environmental Accounting and Environmental Accountants in Organizational Change. *Critical Perspectives on Accounting* 6, 211-239.
- Hansen, A., 2011. Relating performative and ostensive management accounting research: Reflections on case study methodology. *Qualitative Research in Accounting & Management* 8, 108-138.
- Henisz, W.J., Dorobantu, S., Nartey, L.J., 2014. Spinning gold: The financial returns to stakeholder engagement. *Strategic Management Journal* 35, 1727-1748.
- Hines, R.D., 1988. Financial accounting: In communicating reality, we construct reality. *Accounting, Organizations and Society* 13, 251-261.
- Hines, R.D., 1991. On Valuing Nature. *Accounting, Auditing & Accountability Journal* 4.
- Hoffman, D.L., Fodor, M., 2010. Can You Measure the ROI of Your Social Media Marketing? *MIT Sloan Management Review* 52, 41-49.
- Hopwood, A.G., 1996. Looking across rather than up and down: On the need to explore the lateral processing of information. *Accounting, Organizations and Society* 21, 589-590.
- IPCC, 2014. *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Jollands, S., Akroyd, C., Sawabe, N., 2015. Core values as a management control in the construction of "sustainable development". *Qualitative Research in Accounting & Management* 12, 127-152.
- Jollands, S. and Quinn, M. 2017, Politicising the sustaining of water supply in Ireland – the role of accounting concepts, *Accounting, Auditing & Accountability Journal* 30, 164-190.
- Kaspersen, M., Johansen, T.R., 2016. Changing Social and Environmental Reporting Systems. *Journal of Business Ethics* 135, 731-749.

- Kober, R., Ng, J., Paul, B.J., 2007. The interrelationship between management control mechanisms and strategy. *Management Accounting Research* 18, 425-452.
- Latour, B., 1986. The power of associations, in: Law, J. (Ed.), *Power, action and belief: a new sociology of knowledge?* Routledge, London, pp. 264-280.
- Latour, B., 1987. *Science in action: how to follow scientists and engineers through society*. Harvard University Press, Cambridge, Mass.
- Latour, B., 1991. Technology is society made durable, in: Law, J. (Ed.), *A Sociology of monsters : essays on power, technology, and domination*. Routledge, London, pp. 103-131.
- Latour, B., 2005. *Reassembling the social: an introduction to actor-network-theory*. Clarendon, Oxford.
- Laughlin, R., 1991. Environmental Disturbances and Organizational Transitions and Transformations: Some Alternative Models. *Organization Studies* 12, 209-232.
- Law, J., 1992. Notes on the theory of the actor-network: Ordering, strategy, and heterogeneity. *Systemic Practice and Action Research* 5, 379-393.
- Llewellyn, S., 1994. Managing the boundary: How accounting is implicated in maintaining the organization. *Accounting, Auditing & Accountability Journal* 7, 4.
- MacKenzie, D., 2009. Making things the same: Gases, emission rights and the politics of carbon markets. *Accounting, Organizations and Society* 34, 440-455.
- Manetti, G., Bellucci, M., 2016. The use of social media for engaging stakeholders in sustainability reporting. *Accounting, Auditing & Accountability Journal* 29, 985-1011.
- Milne, M.J., 2007. Downsizing Reg (Me and You)! Addressing the 'real' sustainability agenda at work and home, in: Mathews, M.R., Gray, R., Guthrie, J. (Eds.), *Social accounting, mega accounting and beyond : a festschrift in honour of M.R. Mathews* Centre for Social and Environmental Accounting Research, St. Andrews pp. 50-66.
- Ministry of Health, 2013. *New Zealand Health Survey: Annual update of key findings 2012/13*. Ministry of Health, Wellington, pp. i-61.
- Mouritsen, J., Hansen, A., Hansen, C., 2009. Short and long translations: Management accounting calculations and innovation management. *Accounting, Organizations and Society* 34, 738-754.
- Mouritsen, J., Hansen, A., Hansen, C.Ø., 2001. Inter-organizational controls and organizational competencies: episodes around target cost management/functional analysis and open book accounting. *Management Accounting Research* 12, 221-244.
- Mouritsen, J., Mahama, H., Chua, W.F., 2010. Actor-network theory and the study of inter-organisational network relations, in: Hakansson, H., Kraus, K., Lind, J. (Eds.), *Accounting in networks*. Routledge, New York : London, pp. 292-313.
- Neu, D., Warsame, H., Pedwell, K., 1998. Managing public impressions: Environmental disclosures in annual reports. *Accounting, Organizations and Society* 23, 265-282.
- Norris, G., O'Dwyer, B., 2004. Motivating socially responsive decision making: the operation of management controls in a socially responsive organisation. *The British Accounting Review* 36, 173-196.
- O'Dwyer, B., 2002. Managerial perceptions of corporate social disclosure: An Irish story. *Accounting, Auditing & Accountability Journal* 15, 406-436.
- Otley, D., 1980. The Contingency Theory of Management Accounting: Achievement and Prognosis. *Accounting, Organizations and Society* 5, 413.
- Otley, D., 2016. The contingency theory of management accounting and control: 1980–2014. *Management Accounting Research* 31, 45-62.
- Otley, D., Soin, K., 2014. *Management control and uncertainty* Palgrave Macmillan, Basingstoke, p. 312.
- Otley, D.T., Berry, A.J., 1980. Control, Organisation and Accounting. *Accounting, Organizations and Society* 5, 231.

- Owen, D., 2008. Chronicles of wasted time?: A personal reflection on the current state of, and future prospects for, social and environmental accounting research. *Accounting, Auditing & Accountability Journal* 21, 240-267.
- Quattrone, P., Hopper, T., 2001. What does organizational change mean? Speculations on a taken for granted category. *Management Accounting Research* 12, 403-435.
- Quinn, M., Lynn, T., Jollands, S., Nair, B., 2016. Domestic Water Charges in Ireland - Issues and Challenges Conveyed through Social Media. *Water Resources Management* 30, 3577-3591.
- Rahaman, A.S., Lawrence, S., Roper, J., 2004. Social and environmental reporting at the VRA: institutionalised legitimacy or legitimization crisis? *Critical Perspectives on Accounting* 15, 35-56.
- Reckwitz, A., 2002. Toward a Theory of Social Practices. *European Journal of Social Theory* 5, 243-263.
- Roberts, J., 2003. The manufacture of corporate social responsibility: Constructing corporate sensibility. *Organization* 10, 249.
- Roberts, R.W., 1992. Determinants of Corporate Social Responsibility Disclosure: An Application of Stakeholder Theory. *Accounting, Organizations and Society* 17, 595.
- Scapens, R.W., 1990. Researching management accounting practice: The role of case study methods. *The British Accounting Review* 22, 259-281.
- Skærbæk, P., 2009. Public sector auditor identities in making efficiency auditable: The National Audit Office of Denmark as independent auditor and modernizer. *Accounting, Organizations and Society* 34, 971-987.
- Skærbæk, P., Tryggestad, K., 2010. The role of accounting devices in performing corporate strategy. *Accounting, Organizations and Society* 35, 108-124.
- Tilt, C.A., 1994. The Influence of External Pressure Groups on Corporate Social Disclosure: Some Empirical Evidence. *Accounting, Auditing & Accountability Journal* 7, 47-72.
- Tregidga, H., Milne, M., Kearins, K., 2014. (Re)presenting 'sustainable organizations'. *Accounting, Organizations and Society* 39, 477-494.
- Tryggestad, K., Justesen, L., Mouritsen, J., 2013. Project temporalities: how frogs can become stakeholders. *International Journal of Managing Projects in Business* 6, 69-87.
- Unerman, J., Chapman, C., 2014. Academic contributions to enhancing accounting for sustainable development. *Accounting, Organizations and Society* 39, 385-394.
- Vaivio, J., 2008. Qualitative management accounting research: rationale, pitfalls and potential. *Qualitative Research in Accounting and Management* 5, 64.