Transformative change towards sustainability: the interaction between organisational discourses and organisational practices.

Abstract

This paper adopts a case study approach to explore the complex process of organisational change towards greater social and environmental sustainability. The case study of a major global financial services organisation involved interviews and examination of company documents, and their website over the period 2000-2014. The rare longitudinal empirical evidence from different sources provides important insights to how companies are responding to increasing demands for sustainable development. Using Laughlin's (1991) pathways of change model the study investigates the interaction between organisational discourses (i.e. its interpretive schemes) and organisational practices (i.e. design archetypes). The findings demonstrate the centrality of organisational discourses, especially those relating to accounting calculative practices, to radical change towards sustainable development. The paper also contributes to the literature on institutional logics, particularly multiple institutional logics, and how these are implicated in change processes.

1. Introduction

Organisations have an immense impact on people, society and the natural environment (Adams and Larrinaga-González, 2007; Zwetsloot and Marrewijk, 2004; Wartic and Cockran, 1985; Gray, 2010; Lehman, 1999), a fact increasingly acknowledged by business, their associations and related professions (WBCSD, 2002; KPMG, 2007). As a consequence, businesses have increasingly sought to (be seen to) address their environmental and social impacts (KPMG, 2013).

The extant literature considers factors influencing sustainability accounting and reporting (see, for example, Deegan, 2002; Adams and McPhail, 2004). The focus of these studies has largely been on factors external to the organisation rather than internal processes (but see Williams and Adams, 2013) and few studies have examined the process of organisational change to embed sustainability practices in organisations (but see Adams and McNicholas, 2007; Gray et al, 1995; Larrinaga-González et al, 2001). Indeed, Adams' (2002) study examining the internal factors influencing corporate social reporting noted that "relatively little prior research has examined the internal contextual factors and their impact on reporting *despite the increasing emphasis in the field of practice on reporting processes and governance structures*" *[emphasis added]* (p. 223). More recently, Bebbington and Fraser (2014) have also emphasised the importance of focussing on processes of organisational change. We contend that the process of accounting and reporting on sustainability issues in itself is potentially an organisational change process.

The paper makes an original empirical contribution to this dearth of literature by ~~examining the factors that influence deep-seated organisational change towards the integration of sustainability into corporate practices. The study specifically~~ foc~~using~~ uses on the interaction between organisational discourses (representing the organisation's interpretive schemes) and organisational practices (representing design archetypes) and the resultant effect on the extent of change towards sustainability. By utilising Laughlin's (1991) pathways of change model and Hopwood, Mellor and O'Brien's (2005) approaches to sustainability typology this study examines the extent of organisational change seen as change in the institutional logics, that may be achievable in the specific context of change towards sustainability. The study uses a qualitative approach involving interviews and documentary analysis during the period 2000-2014.

The notion of sustainability is a contested one with little consensus surrounding its meaning or how it should be operationalised for the greater good of the planet and its inhabitants (Hopwood et al, 2005; Brown and Fraser, 2006; Hahn, Figge, Pinkse and Preuss, 2010). Approaches to sustainability can be viewed along a spectrum of socio-political change (Hopwood, et al, 2005). At one end of the spectrum, change towards sustainability can be considered achievable without fundamental change in existing socio-political arrangements. This approach is labelled the "status quo" approach by Hopwood et al. (2005). At the other end of the spectrum is the view that extant socio-political

institutions and structures are the source of the sustainability crisis and calls for a "transformation" (Hopwood et al, 2005) of extant socio-political arrangements. Straddling these two extremes is the "reform" approach to sustainability which recognizes the urgency of the need for change away from the status quo and looks to existing institutions and socio-political structures to enact the necessary changes. Laughlin's (1991) pathways of change model is used to frame and better understand the organisational change process in the sustainability context. For radical change towards sustainability at the organisational level, the interpretive schemes or institutional logics of the organisations would need to fundamentally change (Gray et al. 1995; da Silva Monteiro and Aibar-Guzman, 2010), since this may be a precursor to changes in organisational practices. However, little is known about the processes through which such change could be enacted. This paper focuses on the role of interpretive schemes as well as calculative practices (Miller, 2001) and organisational decision-making (which are central to design archetypes) on the change process.

The remainder of the paper is organised as follows. Section two discusses the prior literature and development of the theoretical positioning of this study. Specifically we examine the literature on organisational change towards sustainability and the notion of interpretive schemes. Section three sets out the research method. Section four presents the empirical findings of the study and section five analyses the findings with reference to Laughlin's (1991) pathways of change model and the Hopwood et al (2005) sustainability typology. Section six draws some conclusions regarding the key factors that influence the integration of sustainability and their effect on organisational change.

2. Literature review and theory development

In this section we examine the relevant prior literature, outline our contribution to it and develop our theoretical framework.

2.1 Integration of sustainability within organisational practices- extant empirical evidence

Research examining the integration[1] of sustainability into organisational practices is varied and includes (but is not limited to) motivations of decision-makers in choosing more sustainable practices (Georgakopoulos and Thomson, 2005), attitudes towards sustainability reporting (Adams, 2002; O'Dwyer, 2003), the process of sense-making in the sustainability context (Cramer et al, 2004), the use of and importance of management information systems as a facilitator for change (Caldelli and

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[1] We use the term "integration" in our paper for the following reasons. We assume that the case organisation has an existing culture/logics which preferences certain values over others. Hence, we focus on how sustainability enters, and subsequently functions (or fails to function) within the organisation. In this context the discourse of sustainability does not enter a vacuum of space but rather seeks to penetrate the organisation's boundaries. At the outset of our study we do assume that integration is possible to some extent, however, our interest is in the process and factors that influence the extent of integration.

Parmigiani, 2004; Dillard et al, 2005) and the role of environmental accounting in organisational change (Larrinaga-Gonzalez et al, 2001).

Two papers are especially relevant to developing an understanding of integration of sustainability into organisational practices. These are Larrinaga-Gonzalez et al (2001) and Gray et al (1995) which attempt to explain the role of environmental accounting in organisational change towards sustainability in the Spanish context; and UK and New Zealand contexts respectively. They both draw on Laughlin's (1991) pathways of change model as the primary theoretical lens to analyse their empirical data[2].

Gray et al (1995) examined environmental accounting practices in the context of organisational change and the role that accountants play in environmental accounting. The essence of their findings is that there is a tension between the environmentalists' view of environmental accounting and the use of this practice by organisations. The use of environmental accounting by organisations is seen by Gray et al to be a means through which business can control, and negotiate the "conception of environment" (p.233).

Larrinaga-Gonzalez et al (2001) conducted case studies of nine Spanish organisations and concluded that environmental accounting failed to enact any deep organisational change towards greater sustainability. While they found the potential for deep-seated change in some of their case organisations they argued that greater levels of transparency to stakeholders and greater external pressures for organisations to be more sustainable were needed. Larrinaga-Gonzalez et al reported that none of their case companies displayed any signs of deep-seated change (as opposed to surface level, cosmetic changes). These findings are in line with those of Gray et al (1995), as they too concluded that while some changes were observable in organisational practices these did not amount to changes in the fundamental modus-operandi of the organisation. However, Larrinaga-Gonzalez et al, acknowledge that while environmental accounting failed to trigger any serious form of organisational change, it displayed the potential for increased transparency and deeper levels of change through some changes in organisational discourse.

Both Gray et al (1995) and Larrinaga-Gonzalez et al (2001) are important studies in the context of this paper as they shed light on organisational motivations for sustainability engagement and the internal workings of organisations that purport to engage with sustainability issues. Their studies show that while environmental accounting and accountants played little or no role in forging organisational change towards sustainability, there is continuing scope for research that seeks to better understand

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[2] Much like Larrinaga-Gonzalez et al (2001) and Gray et al (1995) our work also fits into the broad category of "engagement research". There are many examples of engagement research in the literature (for example, Adams and McNicholas, 2007; Larrinaga-Gonzalez et al, 2001; Lamberton, 2000; Georgakopoulos and Thomson, 2005).

the key factors affecting the change process itself, particularly the mechanisms through which deep-seated change could be enacted.

Our study contributes to the limited literature on the role of accounting and reporting in organisational change towards sustainability by providing longitudinal empirical evidence. While there is extensive research on organisational change per se, there is a dearth of literature on change towards sustainability (Norris and O'Dwyer, 2004; and Contrafatto and Burns, 2013 are exceptions). By extending understanding of the complex, dynamic nature of change towards integrating sustainability considerations into business decision-making processes at the organisational-level, change efforts can be better directed and targeted. The findings of our study also contribute to the literature that examines the *process* of institutionalisation of new discourses and practices (Dillard et al, 2004; Ball and Craig, 2010), as well as developing a better understanding of the interaction between organisational practices (represented by design archetypes) and organisational discourses (represented by interpretive schemes) in organisational change.

The next section examines the literature that deals with organisational change particularly in the context of social and environmental accounting and is followed by a section which details the Laughlin (1991) pathways of change model.

2.2 Understanding organisational change towards sustainability

Understanding whether organisational change has occurred, the extent to which it has occurred, and how it is to be evaluated comprises the core of the many challenges faced by researchers (Larrinaga-Gonzalez and Bebbington, 2001; Broadbent and Laughlin, 2005; Bebbington and Fraser, 2014; Busco, Quattrone, and Riccaboni, 2007; Adams and McNicholas, 2007; Adams and Larrinaga-Gonzalez, 2007). Broadbent and Laughlin (2005) suggest that organisational change studies can be categorised into three major streams; these are: the managerialist approach which closely follows the contingency theory approach to studying change; the processual approach which focuses on the process of changing rather than on how and why change happens; and, the discursive approach which focuses on the role of human discourses in organisational change. The general approach of the current study is closely aligned with the discursive approach to studying change. In this paper, we take into account the key role of discourses in organisational change by examining how discourses of sustainability emerge and are managed within our case organisation. Examining changing organisational discourses is relevant to our specific focus on change occurring at the level of the interpretive schemes (ideological core) of the organisation, and the dependencies between organisational discourses and organisational practices (Greenwood, Díaz, Li and Lorente, 2010).

Organisational change particularly in the social and environmental accounting field has also been theorised using institutional frameworks (Ball and Craig, 2010; Dillard et al, 2004; Bebbington and

Fraser, 2014; Jones, 1999). Institutional frameworks provide some interesting possibilities for examining change, and in particular, how some organisations remain immune to institutional pressures and/or non-conforming (Lepoutre and Valente, 2012). Institutional frameworks are useful in examining the *process* of institutionalisation rather than just examining whether practices are (are not) institutionalised (Dillard et al, 2004). In the context of organisational change this is relevant as the process of change (rather than the outcome) together with the associated triggers and hindrances to change provide more interesting insights into how change can be enacted. Institutional frameworks can also be applied to various levels or fields (Jones, 1999). Laughlin's (1991) framework allows us to focus in on the organisational level, within the broader organisational field of profit-seeking corporations.

The emphasis of institutional theorists has shifted in recent times to examination of how institutions and organisations manage to avoid conformance and mimicry (Lounsbury, 2008; Scott, 2008). The notion of multiple (often competing) "institutional logics" has been used in the literature to partly explain how some organisations deviate from, or refuse to conform to institutional pressures (Lounsbury, 2008; Lepoutre and Valente, 2012; Greenwood et al. 2010).

The notion of institutional logics is relevant and related to Laughlin's notion of interpretive schemes and allows for a more nuanced analysis of how change is operationalized by various organisational actors. The notion of institutional logics, more specifically multiple institutional logics may result in several competing, even contradictory interpretive schemes being present in any given organisational setting (Greenwood et al. 2010; Lander, Koene, and Linssen, 2013). In the context of evaluating organisational change, the notion of multiple institutional logics is useful as it allows for the possibility that the ideological core of an organisation may contain several sub-parts of which some may be primary and others subsidiary. We approach organisational change in this paper with the view that interpretive schemes are dynamic, complex and multi-faceted, thus allowing for a more nuanced examination of organisational change.

Interpretive schemes are seen as vital for deep-seated change towards sustainability. There is some evidence to suggest that for deep-seated sustainability related change to be successful the values and beliefs of the organisation have to be altered. Siebenhuner and Arnold (2007) conclude that "companies will initiate and carry out sustainability-oriented learning processes when sustainability-related requirements are anchored in the personnel and cultural attributes of a company" (p.350). Interpretive schemes however are not singular, static aspects of an organisation and, as described above, may be seen as multi-faceted, with dominant and subsidiary logics, competing or co-existing to some degree. While this paper examines changes at the level of interpretive schemes (i.e. discourses) we also focus on changes that occur in organisational design archetypes (i.e. practices) within our case organisation. Our contention, in-line with the extant literature however, is that deep-seated change is

typically characterised by changes at the level of interpretive schemes rather than design archetypes or sub-systems.

In general, the literature on organisation change and social and environmental sustainability (as well as organisational change more generally) suggests that change is messy, non-linear and often unpredictable (Broadbent and Laughlin, 2005; Bebbington and Fraser, 2014). Prior literature shows that assessing and evaluating change, and hence what constitutes fundamental change as opposed to surface level change is challenging. We utilise Laughlin's (1991) pathways of change model to analyse change.

2.3 Laughlin's pathways of change model

Laughlin (1991) proposes that organisations, by their very nature, are resistant to change unless there is a definite need for an organisational response (see also Greenwood and Hinings, 1988). This need for change may come from the organisation's external (socio-political) environment, which Laughlin (1991) calls an 'environmental disturbance' or a kick/jolt. These kicks/jolts may take the form of institutional-level pressures such as those from NGOs or regulatory bodies. Due to organisational inertia, the preferred reaction of organisations is not to change as a result of an environmental disturbance. Maintaining inertia, however, is not always possible and in many cases the strength of the environmental disturbance/s may force the organisation to respond in some shape or form (see for example, Tyrrall and Parker, 2005; Aims et al, 2004). From an institutional theory perspective these external pressures may draw a variety of responses from organisations within the broader institutional field. Such responses have previously been described as emanating from coercive, mimetic or normative institutional pressures (DiMaggio and Powell, 1983). The Laughlin model however is focused primarily on internal organisational movements that result in change. While the fundamentals of Laughlin's model have their roots in institutional frameworks, his model we argue is particularly well suited to understanding "within" organisation changes without ignoring the effects of the broader institutional field and the pressures that emanate from within it.

Laughlin (1991) argues that organisations are made up of three components or integral parts: sub-systems, design archetypes and interpretive schemes. He describes sub-systems as "[containing] certain tangible elements about which inter-subjective agreement is possible (for example people, machinery, buildings, etc)" (p. 211). The two other components are intangible aspects which provide direction, meaning and interconnectivity to the various tangible aspects. The notion of "design archetypes" is borrowed from Hinings and Greenwood (1988), and refers to the structural and management processes that exist within an organisation. These organisational structures and management processes are "given coherence and orientation by an underlying set of values and beliefs" (Hinings and Greenwood, 1988, p. 4). The underlying values and beliefs of the organisation

make up the "interpretive schemes" of an entity. There is assumed to be a balance of sorts between these three components of an organisation.

Successfully implemented change leads to a new or different balance between the sub-systems, design archetypes and interpretive schemes. There are two main types of organisational change: a) morphostatic change (also referred to as "first order" change), where the organisation's core values and beliefs are left unchanged, with changes occurring in the design archetypes and in some cases sub-systems; and b) morphogenetic (or "second order") change, where interpretive schemes are changed by the jolt/kick from the external environment and flow through to changes in the sub-systems and design archetypes.

Morphostatic change is further categorised into two change pathways of rebuttal and reorientation. Morphogenetic change on the other hand comprises the change pathways of colonisation and evolution. Laughlin (1991) provides a detailed explanation of these change pathways. In short the pathways of rebuttal and reorientation do not result in changes to the interpretive schemes of the organisation. By contrast, in colonisation changes originate in design archetypes and eventually interpretive schemes change, and in evolution the change emanates from the interpretive schemes and subsequently affects design archetypes and sub-systems.

Gray et al (1995), make a finer distinction between morphostatic and morphogenetic change than the original Laughlin model. They argue that *morphostatic* colonisation and evolution are possible, and, in such case changes are observable within the organisation, however, these changes do not affect the ideological core or interpretive schemes of the organisations. Morphostatic colonisation and evolution are states from which the organisation can then *potentially* progress into morphogenetic change. The pathways of morphostatic colonisation and evolution come about when the disturbance is not successfully rebutted and some form of re-orientation takes place. Then, a second push or disturbance forces the organisation to think more carefully about the implications of the disturbance and this forms the basis for potentially morphogenetic change. In the process of considering the implication of the second push, the organisation may adopt morphogenetic colonisation or evolution. Therefore, Gray et al (1995) acknowledge the possibility that morphogenetic change may occur in organisations.

Taking into account morphostatic types of colonisation and evolution gives rise to the possibility of multiple institutional logics co-existing. There may be a dominant logic (such as for example one based on accounting calculations) and other subsidiary logics within a given setting. Hence, it may be possible for change to occur within an organisation such that other logics are allowed to enter the organisational discourse, creating states of morphostatic colonisation or evolution. However, morphogenetic change might not occur unless the dominant logic is fundamentally altered, or even overthrown.

In this paper therefore, we use the Laughlin's (1991) pathways of change model, while being cognisant of the possible extensions and interpretations of the model as articulated by Gray et al (1995) as well as the broader institutional factors weighing on the potential for radical change. Furthermore, we consider the notion of institutional logics in our analysis to develop the relationship between organisational change and possible multiple interpretive schemes/logics.

The next section discusses the methods of data collection and analysis.

3. Research method

Our longitudinal case study approach spanning 2000-2014 involving interviews and examination of company documents allowed us to examine the organisation's attempts at embedding sustainability within organisational practices. This time period also included the global financial crisis of 2008/09 which significantly impacted upon the sustainability initiatives within the case organisation. This mixed method approach (Bryman, 1992) was seen as appropriate to gain a deep understanding of the change process. Face-to-face interviews formed the primary sources of data while the documentary evidence supplemented and corroborated the interview data. The interviews provided deep, rich insights into the participants' views on the change processes, whilst the documentary sources of evidence were useful in examining the development of sustainability reporting and associated initiatives at FIN Ltd over the seven-year period prior to the commencement of the interviews, and over a two-year period post their completion. More specifically, and as described later in this section, the documentary evidence was useful initially in examining changes in the organisation's narrative in relation to sustainability issues and the impact of these on the organisation and latterly in examining whether perceived commitment to sustainability was carried through.

Our case organisation FIN Ltd[3] is a major multinational financial institution based in Australia with a presence in Asia and the South Pacific region. It is a public listed company on the Australian Stock Exchange with more than 30,000 employees across the countries in which it operates. It provides personal as well as corporate banking services and is involved in major project financing. FIN Ltd was chosen as an appropriate research site since it was generally considered to be more progressive in its approach to sustainability issues and stakeholder engagement. FIN Ltd has also won sustainability awards (in Australia) and was considered a leader in sustainability. At the commencement of the fieldwork the organisation was structured along product lines that included a personal banking division and an institutional banking division. This study was primarily situated in the institutional banking division for two reasons. Firstly, the researchers' main contact within the organisation was the Head of Sustainability within the institutional division, and secondly, the decisions made in this

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[3] Real name of organisation cannot be revealed due to confidentiality agreements.

division have potentially far reaching effect as it finances major infrastructure projects, including industrial activities such as mining. In addition to lending to corporate/institutional clients the institutional division is also involved in underwriting projects.

As Feldman, Bell and Berger (2003) note, gaining access to organisations is often the most difficult part of case study research. The fact that we had high-level contacts in the organisation and that this organisation was widely regarded as engaging with sustainability issues was significant in our choice of case study site. We were able to examine change in an organisation widely thought of as undergoing a process of integrating sustainability into business practices.

3.1 Data Collection

As discussed above, given the nature of the research problem data was collected from two sources: interviews and documentary sources.

Interviews

Interviews were conducted in order to understand: the sustainability challenges faced by the organisation (environmental disturbances); how the organisation responded to these challenges and the effect (if any) this had on the organisations' interpretive schemes and design archetypes. The interviews were semi-structured. Broad themes were identified from Laughlin's pathways of change model and an interview guide (Yin, 2003) developed to aid the reliability of the study. Interviewees were encouraged to raise other relevant issues. The interview questions covered the environmental disturbances faced by FIN Ltd; their sustainability initiatives; motivations for sustainability engagement; how participants viewed the meaning of sustainability; how (if at all) decision-making processes had changed; cultural changes observed by participants; and structural changes. In total 26 interviews were conducted over a two-year period from 2007 to 2009. Table 1 provides details of the participants interviewed.

Insert Table 1 here

Table 1 provides details of the participants and demonstrates that the interviewees came from a range of organisation functions and departments. This allowed us to gain multiple and different perspectives on the changes process that were taking place within FIN Ltd. As the participants came from different levels of management, we were able to analyse the data with the knowledge that we were not viewing the change processes from the viewpoint of just one stratum of the organisation. Where possible each participant was interviewed twice with an approximately 8 to 10 month gap in order to capture change and to provide time for reflection between data collection phases. The initial phase of interviews (2007/08) was based on questions derived from Laughlin's model, while second phase interviews (2008/09) sought to specifically examine changes since the first phase of interviews and examine

some issues in more depth. We therefore refer to results and analysis as emerging from the first phase of the study or the second throughout the remainder of the paper.

Documentary sources of data

Documentary sources of evidence were used, firstly, to corroborate and contextualise the interview data, and secondly as a primary source of data. The documents analysed included annual financial reports and annual sustainability reports (2000 to 2007, and 2013 and 2014), company websites, press releases and other documents provided by the participants. Table 2 shows a full list of the documents examined in this study. The annual financial reports were used extensively to analyse the language of top management in relation to sustainability issues and impacts. The annual financial reports were analysed to identify sections of text relating to sustainability issues and impacts. These sections of text formed the basis of notes that were made for each of the reports analysed. These notes which were compiled for each year from 2000 to 2007 allowed patterns to emerge and these were added to the NVIVO program so that they could be coded alongside the interview data. Information obtained from other sources such as company websites, documents provided by participants and press releases were also added to the NVIVO program and relevant sections of text were coded alongside the interview data. The sustainability reports from 2013 and 2014 were used to determine the extent of commitment by reviewing the status of the sustainability initiatives that were observed during the earlier work and identify significant new ones.

Insert Table 2 here

The findings from the analysis of documents in relation to the organisational language describing sustainability issues and impacts provided historical context for the sustainability initiatives and changes that participants described in the interviews. The use of documents also allowed us to place less reliance on interviewees providing factual information relating to their sustainability reporting, and reduced the need to rely on the memory recall of participants in relation to past events.

3.2 Interview data coding and analysis

The interviews were transcribed verbatim and a set of codes/themes was developed from the theoretical framework for the purposes of analysing the data. These codes/themes were designed to ensure that all the key aspects of the organisations' interpretive schemes, design archetypes and sub-systems could be extracted from the interview data. The codes/themes were specifically focused on identifying the environmental disturbances, changes in the meaning of sustainability and organisational culture, changes in decision-making behaviour, sustainability related performance measurement and appraisal, and structural changes.

The Nvivo software package was used for coding the interview transcripts and for systematically recording and keeping the interpretations of the researcher separate from the raw data. The coding process involved reading the transcripts thoroughly to identify sections of text that related to a particular code/node, and these were subsequently linked to the relevant node within NVivo. For instance, a comment about a financial literacy program initiated by FIN Ltd was coded under 'current sustainability initiatives'. Following this process, an initial narrative to analyse case studies (Yin, 2003; Miles and Huberman, 1984) was developed from the coded data.

3.3 Validity and reliability

The four main threats to reliability and validity of case study work identified by McKinnon (1988) (observer bias, observer caused effects, data access limitations and limitations of the human mind) were addressed to ensure the reliability and validity of the findings. In relation to the observer bias problem, a conscious effort was made to keep researcher interpretations separate from the coding process. A journal memo and future interview memo were maintained in NVIVO as a channel through which the researcher could record thoughts and ideas during the coding process.

Given that this study is focused on organisational change it was necessary to question participants about past events, thus limitations of the human mind could have been a threat to validity and reliability. To mitigate this threat, documentary sources of evidence were used to corroborate and supplement interview data. For example, while the interviews revealed that a sustainability discourse had been in place at FIN Ltd for some time, an analysis of the annual reports provided greater clarity as to what the participants meant by sustainability discourse and the areas this discourse covered such as community engagement or environmental performance.

The key findings in relation to FIN Ltd's attempts at integrating sustainability into its organisational practices are present in the next section.

4. Case study findings

The discussion in this section begins with an exploration of the contextual factors which placed pressures on the case organisation to change. Laughlin refers to these external/contextual factors as environmental disturbances and these are viewed as an important component in understanding organisational change processes. From an institutional theory perspective some of the pressures described below might be referred to as coercive pressures (DiMaggio and Powell, 1983) which left the organisation with no choice, and hence forced a response. The coerciveness of the various pressures was not equal and the case participants saw some factors as more important than others.

Participants viewed the following events and/or entities as the key environmental disturbances/impetus for change at the time of the interviews.

- Public distrust of banks: this disturbance was the consequence of several major banks making significant profits and simultaneously closing branches and increasing banking fees during the 1990s. Several participants saw this environmental disturbance as the start of FIN Ltd's sustainability journey, although initial efforts were directed at community engagement and to a lesser extent on environmental issues.

- Pressure from NGOs and activist groups: Being a large bank, FIN Ltd finances several large companies and projects that have significant environmental and social impacts and is often the target of campaigns by NGOs in relation to lending decisions.

- Increased public awareness of sustainability issues: Through the 2000's public awareness of, and media attention to issues of climate change and global warming increased dramatically in Australia. This led to a greater public awareness of the sustainability impacts of large financial institutions through their lending practices.

- Increased employee awareness of sustainability issues: Annual surveys conducted within FIN Ltd revealed that staff were interested not just in making profits for the bank, but also in engaging with issues such as financial literacy.

- Possibility of government regulation on carbon emissions: This was an important environmental disturbance for two reasons. Firstly, it had implications for high emission projects that FIN Ltd had already financed, and secondly, it brought the issue of carbon emissions to the attention of organisational participants, especially top management.

- The Global Financial Crisis (GFC): One of the consequences of the GFC was an increase in the cost of borrowing for Australian banks, driven by a rise in cost of borrowing in other financial markets. This placed financial pressures on FIN Ltd with consequences for prioritisation of the sustainability integration initiatives with the organisation.

Some of these environmental disturbances have their origins in the period prior to the fieldwork, however they were considered by participants as providing the impetus for the changes observed during the period of our study – the kick or jolt in Laughlin's (1991) terms. These kicks or jolts (some of which are ongoing, such as the pressure from NGO) placed FIN Ltd in a position where organisational inertia was no longer an option. FIN Ltd was forced to respond and did so through a range of initiatives, the effects of which are discussed next.

The early years: reporting and emergence of a sustainability discourse

The documentary evidence, particularly the annual reports (2000-2006) and sustainability reports from 2005-2008 show a gradual increase in the sustainability discourse at FIN Ltd. The annual reports document were analysed for changes in vision and mission statements, recognition of sustainability issues in the Chairman and CEO's reports, and general increase in acknowledgement of sustainability issues. This analysis revealed that the prominence of, and space devoted to sustainability issues in annual reports and the recognition of such issues (particularly community engagement) increased over the period 2000-2006. Changes in relation to the organisational discourse on sustainability included an increase in frequency of terms such as "corporate sustainability" and "delivering for all stakeholders". There was also a greater emphasis on community engagement, particularly around financial literacy. The natural environment did not feature prominently in the early annual reports however issues relating to FIN Ltd's carbon footprint were covered in detail in sustainability reports from 2005 onwards.

This general increase in the prominence of sustainability issues and the effects of the organisation in these reports culminated in the production of FIN Ltd's first stand-alone sustainability report in 2005 and this document contained several statements recognising the need for the organisation to produce such reports and the need to be socially responsible. Documents in the 2006-08 period showed a shift in focus to the commercial relevance of sustainability engagement. For instance, the term "relevant corporate responsibility" was prevalent in the annual and sustainability reports during this latter period. This shows that at least in terms of a discourse of sustainability, the language used to describe the organisation's engagement with such issues, changes were apparent. When seen in conjunction with the interview evidence presented next, the language used to describe the meaning of sustainability engagement to FIN Ltd had become more business-centric and focused on financial benefits over the 2000-2008 period. This was particularly interesting since as FIN Ltd's sustainability reporting initiatives improved, so did their view that sustainability was to be dealt with in a business-centric, rather than socio-environmental centric manner.

Changes in reporting were significant and can be seen as an important design archetype element and could potentially influence the internal organisational discourses and eventually the interpretive schemes (or vice versa). However, this may not necessarily indicate changes in intra-organisational practices. To uncover whether changes in reporting practices had any influence on organisational practices interviews were conducted. The interviews cover the period from mid-2007 to early 2009.

First phase of interviews: 2007-2008

Laying the foundations for sustainability engagement

Prior to the fieldwork commencing (in 2005) FIN Ltd had created a sustainability team which has a broad range of responsibilities within the institutional lending arm of the bank. The role of this team included developing guidelines to aid decision-makers faced with sustainability sensitive lending decisions; to advise the senior most credit committee of the organisation on major lending decisions; and to develop and promote 'green products'. This team created several sector specific policies for the energy, water, mining and forestry industries. These industry specific policies were to be used as guidelines in considering lending transactions in the abovementioned industries.

This centralised team operated as an expert centre providing advice to managers making lending decisions. This was a major initiative in terms of FIN Ltd responding to the environmental disturbance (described earlier) since it indicated that FIN recognised the importance of having a dedicated team to deal with such issues. This team also engaged in consultation with various stakeholder groups and NGOs and provided an interface for external entities to engage with the bank. In the early stages of this team's creation, employees were not certain as to the role of this team as indicated by the following quote.

> *"...when I first ... started working here people would look at my business card and go, Head of Sustainability, ... so you make sure that the bank doesn't go broke?"(Head of Sustainability, FIN 001)*

The other significant structural change observed was the inclusion and discussion of sustainability issues at the senior-most credit committee of FIN Ltd. This committee provided final approval to highly sensitive, large, potentially controversial projects. This committee also sought advice from the Head of the Sustainability team in relation to sensitive lending projects. The inclusion of sustainability issues at this committee represents an important attempt to integrate sustainability issues into organisational practices. These structural changes represent important and significant movements in the design archetypes of FIN Ltd. In terms of organisational change these are significant events which indicate a move (or at least an attempt) towards recognition of sustainability issues as important and relevant to FIN Ltd.

These structural changes were taking place at time when there were several other organisational-wide changes that were also being instigated. Among these were initiatives relating to improving the bank's engagement with sustainability issues. In the early stages, there was little consensus as to the meaning of sustainability within the bank. Some participants viewed sustainability issues as core to the survival of the business, communities and the environment, while others saw sustainability issues being related purely to reputation and public relations. The following quotes are exemplary of the multiplicity of views on sustainability at FIN Ltd.

"Sustainability to me is ensuring that our use of the earth's resources are not being used at a faster rate than she can produce them" (Senior Markets Executive, FIN 009).

"I'm encouraged to have a sustainable business model, meaning we want to make money, but we want to make money consistently, we don't want volatility". (Senior Institutional Lending Manager 1, FIN 008).

In most cases however, interviewees referred to the need to view sustainability within the context of the organisation's direct impacts, and thus presented a business-centric view of sustainability. The first phase of interviews revealed that sustainability issues were seen as fringe issues in the early 2000's. In the mid 2000's a sustainability discourse had emerged, however there was a lack of clarity amongst participants as to how the organisation should engage with sustainability issues going forward.

This business-centric approach was consistent with the bank's culture which emphasised financial prudence and a strong sense of fiduciary responsibility to shareholders. There was also a strong link between measurement and action in the sense that what got measured got done at FIN Ltd. In the early stages of the emergence of the sustainability discourse however there was little clarity around how sustainability issues were related to the core operations of the bank. The centrality and importance of financially sound decision-making was also apparent. There was a general concern for community and employee issues, however, this was somewhat restricted to those issues which directly affected the core business activities of the bank. The following quotes exemplify the centrality of measurement and financially sound decision-making.

"...we're a bank and we're quite, call it a rule driven and metric driven ... that if you don't measure it and monitor it, then it won't get managed". (Senior HR Manager, FIN 010).

"I think the thing that really ... makes a difference in a bank is when you can show them how to make money out of it". (Head of Sustainability, FIN 001)

By the mid 2000's programs were put in place by FIN Ltd to familiarise senior managers with current sustainability issues particularly in relation to the natural environment. To this end FIN Ltd entered into a partnership with a wildlife protection NGO which involved senior managers from FIN Ltd holding discussions with leaders from the NGO in relation to current environmental concerns such as deforestation and climate change. This initiative in particular appeared to contribute to a greater and broader discourse of sustainability issues within FIN Ltd. Participants described how managers would

discuss the issues that had been raised in the sessions with the NGO in informal settings within the workplace. This was a significant initiative as it had the potential to ignite an alternative discourse to the dominant economic rationalist mode. In this paper, organisational discourses are seen as central to examining change as they have the potential to significantly influence the change process and ultimately organisational practices[4]. Discourse is therefore seen as the first step towards change. The conversations surrounding engagement with the NGO however, remained business-centric, focusing on how financial outcomes could be improved by engaging with sustainability issues.

In the 2007-08 period therefore there were several initiatives and structural changes which indicated some form of shift, or at least a movement in the design archetypes of FIN Ltd. Simultaneously a discourse of sustainability also emerged (as evident in the annual reports and interviews) with a general recognition that such issues were important to the bank. It is also apparent that in response to the environmental disturbances FIN Ltd instigated internal processes aimed at dealing with these pressures. Initially there appears to have been some uncertainty around what sustainability meant to the bank and how employees should respond. As time passed however, it was evident that a meaning associated with financial prudence and returns for shareholders dominated one associated with broader concerns for social and environmental sustainability. The discourse of sustainability therefore quickly evolved into one that fit with the profit-seeking interpretive schemes of the organisation. However this did not result in a rebuttal of the environmental disturbances, but rather the extent of sustainability engagement was moderated by the need to present a business case for sustainability initiatives. Hence, the profit-seeking interpretive schemes had an influence over the extent to which the design archetypes altered in response to the environmental disturbances.

Sustainability concerns embedded or decoupled?

For change that is deep-seated a mere change in discourses is not likely to be sufficient. Such change is likely to lead to decoupling in an institutional theory sense, where the organisational rhetoric is not in synchrony with organisational practices. Hence in this study we examined both the discourses and practices as they related to sustainability engagement at FIN Ltd. The interviews focused primarily on how FIN Ltd dealt with financing decisions that were sustainability sensitive. Transformational change in this context might therefore involve questioning the sustainability (in the broadest sense of the word) of projects that would directly or indirectly lead to increased social and environmental damage. To facilitate decision-making in relation to granting finance, FIN Ltd introduced a client screening tool in 2007. This tool (a computer program) used several guidelines for responsible

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[4] We thank one of the anonymous reviewers for pointing out that a change in organisational discourses is itself an organisational change. This paper focused on whether the changed discourse led to changes in organisational practices. This is especially relevant in the context of change towards sustainability since it is the end results of organisational practices/decision that have sustainability impacts, not the internal discourse surrounding sustainability issues.

lending, including the Equator Principles, to flag potentially sensitive sustainability issues that an employee/team initiating the transaction would have to address before final approval for finance would be granted. For instance, the tool would enable the employee initiating a new transaction to identify potential hurdles that a proposed project may face in terms of the regulatory approvals and guiding principles contained in the Equator Principles.

Participants also spoke of how sustainability issues had increasingly been taken into account in financing decisions, particularly in relation to third-world countries. Participants were especially concerned with the financial risks associated with ignoring issues such as local community opposition, or campaigns by NGOs against specific projects the bank intended to finance.

> *"So you talk to management [of the potential new client], where they're doing something in developing countries in Asia ...[for example] how are they dealing with the local people that they have dispersed ... so that's a part of our assessment on whether we feel comfortable backing them into that project". (Senior Institutional Director, FIN 003).*

The interviews revealed that while the screening tool meant sustainability issues were considered it rarely resulting in finance to clients being declined. It was apparent that the purpose of these mechanisms such as the screening tool was to facilitate sensitive transactions by ensuring that protocols such as the Equator Principles had been followed, and that all legal and compliance requirements had been met.

> *"I'm not aware of anything in my business sector, where we've actually refused a piece of business because of having to look at these issues. And I suspect that that will be the result in more cases than not, that rather than not doing business, we will end up compromising on the business in terms of imposing on the client, as a condition of doing the business, certain standards which we think are appropriate." (Senior Institutional Lending Manager 2, FIN 004).*

There was however, one major high profile project in Australia which FIN Ltd declined to finance. It faced voracious public opposition and an effective campaign was carried out by NGOs and environmental groups against FIN Ltd's client and to a lesser extent FIN Ltd itself. Participants from FIN Ltd were reluctant to go into the specific reasons why they chose not to finance it. We conclude that the decision not to support the project was driven primarily by reputation concerns, exacerbated by a strong public campaign against the project.

In addition to organisational culture, and decision-making practices, the interviews also examined whether sustainability related performance measures were associated with individual performance appraisal. In terms of an exploration of the level of integration or embeddedness, performance measurement and appraisal are crucial indicators of deep-seated level of integration, especially since employees are typically driven by their performance appraisal measures and monetary rewards (Bonner and Sprinkle, 2002) we focus on this important indicator of sustainability integration. Additionally, FIN Ltd was particularly metric driven and fostered a "what gets measured gets done" culture (as discussed in an earlier section). Performance measurement and appraisal systems are also important elements of design archetypes and hence relevant to the examination of integration of sustainability into organisational practices.

There was little evidence of sustainability related performance measures at FIN Ltd. The measures that did exist (and applied mainly to senior and top managers) were described by a participant who was a senior Human Resources executive as "behavioural" measures rather than quantifiable ones. These behavioural measures included staff engagement and strategic leadership aspects which can be seen as unrelated (or related in a weak sense to) social and environmental sustainability.

The Senior HR manager made some interesting observations about why there had been a reluctance to implement 'direct' sustainability related performance measures:

> "... *can we specifically connect it [performance appraisal measures] to being good for business, because ... do you reward somebody for taking a decision which turns business down because it doesn't conform to our sustainability principles?" (Senior HR Manager, FIN 010).*

This captures the essence of the perceived conflict between achieving social and environmental objectives on the one hand and financial objectives on the other. While social and environmental objectives were seen as desirable at FIN Ltd, these had to be realised within the limits of what was "good for business". Furthermore, the achievement of social and environmental goals could not hinder achievement of business financial objectives. This quote also highlights the influence interpretive schemes have on design archetypes.

In some cases employees did take sustainability issues into account even if these were not part of the suite of measures used in their appraisal. Examples include situations where failing consider community opposition to a project may result in failure of the project and subsequently reflect poorly on the individual or team that approved finance.

Again, in terms of design archetypes, some movement is apparent. Decision making practices did alter to the extent that sustainability issues were being considered, albeit in so far as they affected financial

outcomes. Little change was observed in the performance measurement and appraisal systems, further supporting the thesis that shifts in the design archetypes were not radical, and were moderated by the dominant profit-seeking interpretive scheme.

Second phase of interviews: 2008-09

In the second phase of this study the sustainability team was disbanded as part of an organisation-wide restructure, and the future for development, and more importantly implementation of sustainability related lending policies became uncertain. Participants, when questioned about the removal of the sustainability team argued that this decision was based primarily on a financial cost versus benefit analysis. The positions that replaced the sustainability team were put within business units and focused primarily on creating and promoting 'green products'.

> *"There's two positions allocated in an area called advanced client solutions and that's*
> *purely deal transaction focused, ... so about making money out of issues and problems*
> *that clients might have in sustainability". (Ex-Sustainability Team Member, FIN 015).*

The (original) sustainability team was removed potentially for a number of reasons. One participant argued that the sustainability team had to contribute directly to increasing business opportunities rather than act as an internal watchdog. A former member of the sustainability team (FIN 016) argued that another reason for removing the sustainability team as part of the organisation-wide restructure was to embed responsibility for sustainability decision-making within business units. This represents a shift in the organisation's approach to sustainability from one based on the expert centre approach to a decentralised, less formal approach to sustainability engagement. This interviewee was of the view that there was very little expertise in relation to sustainability issues within business units it was not likely that sustainability would be appropriately integrated within business practices. This view was endorsed by two former members of the (original) sustainability team.

While attempts to integrate sustainability considerations into decision-making practices were apparent, these did not result in deep-seated changes to business practices. In-line with the organisational culture described in the previous section sustainability issues were not seen as moral or ethical challenges, but rather as business challenges, to be resolved through business solutions. Therefore, while several mechanisms were put in place to ensure that sustainability issues were taken into account in lending decisions, the second phase of interviews revealed that the focus of these considerations were the potential financial and reputational risks arising from the transaction, rather than the risks to society or the environment. Again, we see organisational change in response to the initial kick/jolt which leads to changes such as the screening tool, but enactment of these changes is not radical, and so lead to a retraction of sorts back to the familiar, i.e. decision-making focused

primarily on financial criteria. In short, changes originating in the design archetypes do not seem to have the potential to shift the ideological core of the organisation, its interpretive schemes.

In terms of the organisational discourse the second phase of interviews showed the need for FIN Ltd to engage in "relevant" corporate responsibility has become prominent. The business case for sustainability engagement was clearly articulated by several participants, who argued that while it was important for the bank to be seen as a responsible citizen, it also had to ensure that its responsibilities to shareholders were ultimately met.

> *"My sense though is that we've shifted closer to the 'show me the strictly business reason why we should be doing this,' and the community or social responsibility, the sort of the broader, noble if you like, responsibility is not as well embraced by all of the people around the table". (Senior HR Manager, FIN 010, also member of Corporate Responsibility Council).*

Sustainability was part of the discourse within the organisation, and in that sense integrated, but was subject to the business case test which was firmly grounded in the economic rationalist view of sustainability issues and engagement.

There was even greater clarity in the second phase of the study that sustainability engagement had to be primarily for sound business reasons, and less about corporate moral or ethical responsibility. Consequently, sustainability issues had been re-crafted as "business issues" within FIN Ltd, not as issues that required any moral or ethical basis for action.

The profit-seeking interpretive scheme therefore did not seek to quash alternative discourses, such as those relating to sustainability, rather its overarching nature subjected these other discourses (such as those relating to sustainability) to its assumptions. In our case this conditional acceptance of the sustainability discourse within the context of FIN Ltd's core economic rationalist interpretive schemes manifests itself as the "business case for sustainability". The business case for sustainability is acted out through accounting calculative practices and these are central to the day-to-day operations of the organisation. Calculative practices can be seen as comprising a set of accounting tools or measures which are instrumental to the performativity of organisation activities (Miller, 2001; Archel, Husillos and Spence, 2011; Spence, 2009). The business case for sustainability in the context of this paper forms one of the calculative practices which impacts on the level change towards sustainability[5].

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[5] While a detailed discussion of calculative practices is beyond the scope of this paper, the following two papers provide examples of how calculative practices are mobilized through the "business case" argument. Spence (2009) provides a Gramscian critique of how the business case for sustainability is always prioritized over other discourses and is seen as supreme. Archel et al (2011) demonstrate how the business case argument allows the subjugators to continue their hegemonic hold, while the business case discourse also created a situation where the subjugated are implicated in their own

Thus, integration of sustainability seems possible to the extent that it complies with the profit-seeking interpretive scheme's requirement for economic rationalist behaviour. Similarly changes in design archetypes were also evident, and possible, but to the extent that they did not contradict the profit-seeking interpretive schemes. Our results therefore indicate that in the specific context of change towards sustainability, the design archetypes may not be influential, or able to affect a shift in the interpretive schemes. The opposite however appears to be possible; the interpretive schemes have a strong influence on a) other competing interpretive schemes/discourse (such as those relating to sustainability) and b) on the extent of change in design archetypes.

Improvements in sustainability reporting - 2013/14

In order to examine the changes in discourse at FIN Ltd beyond the period of fieldwork the sustainability reports for 2013 and 2014 were content analysed. There was a significant improvement in the level of disclosure particularly in relation to their decision-making practices. For instance, the reports show the number of sustainability sensitive projects assessed under mechanisms such as the Equator Principles and the number accepted/rejected. These sustainability reports continued to exhibit the "facilitate business by considering sustainability issues" approach rather than rejecting business that was potentially sustainability sensitive. In-line with this approach it was also evident that the focus of the improved discourse was on how sustainability engagement can improve the economic performance of the organisation. There remained a focus on the business case and an absence of moral or ethical grounds for sustainability engagement in the 2013 and 2014 sustainability reports. Consequently, sustainability issues had been re-crafted as business issues within FIN Ltd, not as issues that required any moral or ethical basis for action. As described earlier, this ethos appears to be in place and is reflected in the language used to justify sustainability engagement in the most recent sustainability reports (2013 and 2014).

Therefore, while several mechanisms were put in place to ensure that sustainability issues were taken into account in lending decisions, the focus of these considerations were the potential financial and reputational risks arising from the transaction, rather than the risks to society or the environment. This conclusion is supported by evidence from the 2013 and 2014 sustainability reports, which discloses that sustainability initiatives and decision-making are placed under the purview of the Board Risk and Reputation Committee. It is in contrast to the initial approach taken in the 2005-08 period where a dedicated team for sustainability policy implementation existed. These reports also show that the focus on taking into account social and environmental issues is to facilitate business. These findings further emphasise that changes in design archetypes do not seems to alter the overarching profit-

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subjugation. There papers therefore demonstrate how the notion of the business case is a powerful element of the broader notion of calculative practices referred to by Miller (2001).

seeking interpretive schemes. The design archetypes move a little to deal with the environmental disturbance, however the shift does not radically alter the organisation as a whole.

Interaction between changes in design archetypes and interpretive schemes

The findings from the FIN Ltd case study shed light on the dynamic relationship between interpretive schemes and design archetypes and how this relationship affects change processes towards greater social and environmental sustainability. The interpretive schemes represented by the organisational discourses of sustainability and of profit-seeking are central to our understanding of change processes. As indicated earlier, the interpretive schemes did somewhat alter and allow sustainability issues to enter the organisational discourse but this occurred within the confines of the broader profit-seeking discourse central to the existence and culture of FIN Ltd.

These changes at the level of discourse also flowed into structural changes, i.e. the organisation's design archetypes which were eventually undone by the profit-seeking interpretive schemes. As outlined in this section the discourse of sustainability was slowly introduced into the organisation from approximately 2000. This discourse was in early stages when questions were raised about why FIN Ltd should engage with sustainability. As the interviews and documentary evidence demonstrated, sustainability engagement was eventually predicated on the production of tangible business benefits. In essence an initially responsive sustainability discourse was overshadowed by the profit seeking interpretive scheme's requirement for the "business case".

Simultaneously, structural changes were taking place. These efforts however arose and fell in synchrony with the sustainability discourse and the business-centric focus on such efforts. In our case therefore, the changes in IS both moderated and controlled the extent of changes in the design archetypes and the organisation more broadly. Just as importantly the design archetypes did not seem to exert any influence on the interpretive schemes, resulting in an environment which was unconducive to morphogenetic change. In the specific context of change towards sustainability therefore the interpretive schemes affect the design archetypes and hence organisation change more generally. However the design archetypes do not seem to play a central role in enacting radical change. Accounting calculative practices are implicated in this interaction between interpretive schemes and design archetypes. It is the business case requirement of the profit-seeking interpretive schemes which gives legitimacy and allows for moderation of the extent and nature of change towards sustainability.

In terms of the Laughlin model, this is akin to the re-orientation pathway where the interpretive schemes that were dominant prior to the environmental disturbance retain dominance even after attempts to change the organisation. Such change is therefore not transformational (Hopwood et al, 2005) and may not result in changes in organisational practices. The findings confirm this conclusion

since the decision-making practices of FIN Ltd altered to consider sustainability issues, albeit such consideration was limited to negating any financial or reputation damage that may have accrued to the organisation.

5. Factors affecting the extent of change towards transformation

In this section we explore the factors that might influence deep-seated change towards sustainability in the case organisation. Following Laughlin (1991) change towards sustainability can be seen as morphostatic or morphogenetic. Change of the morphogenetic type requires the interpretive schemes of the organisation to be the source of the change initiative. Echoing Gray et al (1995) and da Silva Monteiro and Aibar-Guzman (2010), a change in the genetic code of a profit-seeking organisation would imply a shift in its underlying assumptions from the traditional profit-oriented business case or reform position *towards* the transformation end of the spectrum. However, organisational change is rarely linear, sequential, or predictable (Broadbent and Laughlin, 2005; Bebbington and Fraser, 2014). Instead, it is a messy process involving multiple often competing discourses struggling to gain prominence. Our findings in relation to organisational changes at FIN Ltd are broadly consistent with, and exhibited many of these "messy" traits of organisational change.

Our findings indicate that the key factor influencing organisational change towards sustainability were the profit-seeking interpretive schemes or accounting logics (i.e. the financial benefit discourse). While several changes were observed at FIN Ltd, particularly in its design archetypes (i.e. in practices) over the course of the fieldwork, these did not fundamentally alter the underlying profit-seeking interpretive schemes. In most cases while sustainability issues were included in the organisational discourse this was done with reference to, and within the confines of the business case test. Sustainability initiatives that were financially beneficial were pursued while those that did not present an immediate business case were not prioritised. We therefore see the sustainability discourse being institutionalised within FIN Ltd through the "business case for sustainability". The move to engaging in "relevant corporate responsibility" was an example of this general orientation. The dissolution of the institutional sustainability team showed that sustainability engagement was not seen as a function or activity within the organisation that presented a clear business case for a profit-seeking organisation. In short, "value" in the FIN Ltd case was viewed in the conventional, narrow sense of financial value, rather than the broader conception of value inherent in Hopwood et al.'s (2005) transformation approach to sustainability.

In FIN Ltd, the changes in management's language towards sustainability only served to strengthen the business case argument, whilst, subjugating any alternative notions of sustainability that may fall outside the extant financial-profit-centric approach. The findings therefore show the importance/centrality of accounting calculative practices which are operationalised within the organisation as the business case for sustainability. These calculative practices are central to the

design archetypes of FIN Ltd and are supported by the profit-seeking interpretive schemes. The changes observed in this case study, both structural and in discourses were bound by these calculative practices.

Our findings show that shifts in design archetypes in isolation, without a radical shift in interpretive schemes/logics only results in first-order change. This is also evidenced by the avoidance of moral or ethical grounds for FIN Ltd's sustainability initiatives. FIN Ltd viewed the environmental disturbances as business problems that needed a managerial/business solution and the motivation for change was a desire to manage the impact of the environmental disturbances' penetration into the organisation's boundary. The institutional lending policies, particularly the use of the screening process for new transactions, can be seen as an example of this *management* of environmental disturbances. Initially, the screening tool did not provide greater transparency to stakeholders in relation to FIN Ltd's decision-making processes in sustainability sensitive projects, nor did it result in many rejections. These mechanisms provided a path through which FIN Ltd could legitimate its decisions rather than be accountable for them. Analysis of recent sustainability reports (2013 and 2014) however uncovered greater disclosure in relation to the number of sustainability sensitive projects that were put through the screening process and the final decision taken. In general, most screening exercises resulted in lending being approved with conditions placed on the client to try and mitigate potential social and environmental problems. In this example, initial changes fostered further changes in design archetypes in the form of improved reporting, without any significant shifts in the interpretive schemes.

FIN Ltd's approach to change towards sustainability was focused primarily on changes in design archetypes; developing decision-making frameworks that could be applied consistently to various decision scenarios involving sustainability sensitive funding projects. These initiatives which can be seen as rational, managerial responses intended to drive changes in organisational practices, but not necessarily in individuals and thus nor in organisational culture. Hence, these changes had no lasting effects on the profit-seeking interpretive schemes/logics. This approach releases the individual decision-maker from any real responsibility for their decisions as long as they work within the parameters of the policy framework and further distances sustainability from any moral or ethical grounding. As such this is an example of the lack of influence of the design archetypes on the interpretive schemes.

Our findings contribute to the research on the workings of multiple institutional logics (Lander et al, 2013; Lounsbury, 2008). Lander et al (2013) argue that when there are conflicting institutional logics, four possibilities for change exist. These are i) elements of the new logic get incorporated into the dominant one; ii) a hybridization of elements of both new and dominant logics, iii) a shift from dominant to new logic and iv) co-existence of the new and dominant logics. Our findings indicate that

FIN Ltd absorbed some of the environmental disturbances to the extent that it produced sustainability reports, allowed a sustainability discourse to emerge and resulted in structural changes. We argue that the changes observed in FIN Ltd meant that some elements of the new logic (the sustainability logic) were now part of the organisational fabric. Our findings also show that the profit-seeking interpretive scheme or logics remained dominant, evidenced by the "other" logics being subjected to its business case "litmus test". Therefore, consistent with Laughlin's idea of reorientation, the new logic of sustainability was incorporated into the dominant economic rationalist logic. Change was therefore not absolute in that the new logic did not de-seat the prevalent logic, however the dominant logic did not seek to reject the new logic either, due to the need to respond to the environmental disturbances.

These findings extend our understanding of the dynamic process of change and the centrality of the influence of accounting calculative practices on interpretive schemes and hence on the possibilities in terms of extent of organisational change *towards* sustainability. These findings also show that radical change towards sustainability is not likely to originate from changes in design archetypes. In other words, our case study shows that changes in organisational practices, may not lead to changes in organisational discourses in the context of change towards sustainability. Where the dominance of the profit-seeking logics is necessarily brought into question, the dominant logic bends and moulds a little, but without leaving open the possibility of radical change, such that a new dominant logic or interpretive scheme may preside over the organisation. Our findings also extend the works of Gray et al (1995) and Larrinaga-Gonzalez et al (2001) by specifically identifying the central importance of interaction between organisational practices and discourses. Our findings are consistent with these prior authors in that we do not find an instance of morphogenetic change, however, our study provides a deeper understanding of the factors that moderate the possibility for radical change.

To view these findings in the context of broader change towards sustainability at institutional and societal levels, Gray et al (1995) and da Silva Monteiro and Aibar-Guzman's (2010) arguments are helpful. Viewing organisational change within broader institutional and societal contexts is important, as Ball and Craig (2010) point out "The tendency to focus on individual organisation(s) as the level of analysis is social and environmental accounting research also raises the question of whether sufficient attention has been accorded to the broader institutional environment" (p.284). As Gray et al (1995) suggest, the pull towards the transformation/radical change end of the spectrum may not be possible given the current socio-political and economic arrangements of most neo-liberal capitalist societies (also see Dillard et al, 2004). Under these circumstances organisations such as FIN Ltd that appear to strive for the reform paradigm are more likely to revert to the status quo/business case position, rather than move towards the transformation end of the spectrum (Siebenhuner and Arnold, 2007). Put another way, the reformist paradigm is the deepest level of change that may be achieved by profit-seeking organisations within the current socio-political system (da Silva Monteiro and Aibar-Guzman, 2010). Our case study findings support this general assertion. While FIN Ltd attempted to engage with

sustainability issues through the initiatives described previously, there appeared to be a limit to the extent of this engagement. The limit was dictated by the need to be economically rational in all business decisions. However, the FIN Ltd case also shows that it may be possible to enact some degree of change (albeit not transformational) within the limits of the dominant socio-political and economic arrangements.

We therefore conclude that change towards a more radical, transformational approach to sustainability which seeks to balance social, environmental and economic considerations might have to start with change that is a step in right direction. In other words, given the centrality of the business case test to most profit-seeking corporations, it may be reasonable to expect the first phase of change towards the transformational end of the spectrum to start with changes/alterations in design archetypes. We choose to be optimistic in the sense that morphostatic colonization and evolution may at some stage lead to morphogenetic change where social, environmental and economic issues are truly balanced in business decision-making processes. Hence, we argue that a step in the right direction is better than perpetuation of the status quo. In the next section we draw together the conclusions and implications of our study.

6. Conclusions and implications

This paper provides empirical evidence of the process of organisational change towards integrating sustainability into corporations and the key factors influencing it, particularly the interaction between organisational discourses of sustainability, i.e. its interpretive schemes and organisational practices manifest in design archetypes. The findings indicate that the profit-seeking logics/interpretive schemes which are based on the calculative practices of accounting is the key factor affecting change towards transformational forms of sustainability. The evidence from the case organisation indicates that an understanding of the orientation (i.e. preference for profit-seeking logics versus "other" logics such as sustainability) of an organisation's interpretive schemes may be a prerequisite to a deeper understanding of the organisation's propensity for sustainability integration.

The FIN Ltd case study shows that sustainability considerations cannot be fully and permanently integrated into organisational practices without changes in the ideological core of the organisation if transformational change in the Hopwood et al (2005) sense is desired. Changes in design archetypes and sub-systems may be achieved, however changing the interpretive schemes seems to be a much more difficult proposition. The centrality of accounting calculative practices (enacted through the design archetypes) to the profit-seeking logics/interpretive schemes apparent from our case study demonstrates that the extent of change is limited to sustainability engagement that meets the business case for sustainability. Our case study thus shows that whilst first-order change is possible, radical,

transformational change is not likely without a fundamental shift in the organisations' logics to one that (is able/allowed to) recognise multiple capitals including, for example, natural capital, social and relationship capital, and human capital.

Our study also provides empirical evidence illustrating the working of multiple institutional logics. While the notion of institutional logics is well established in the literature (Lounsbury, 2008; Scott, 2008), there remains a dearth of empirical evidence on the actual working of multiple institutional logics, particularly in the context of change towards sustainability. The findings also indicate that despite the dynamic and somewhat impregnable nature of profit-seeking interpretive schemes/logics, some level of change towards sustainability is possible. Initially such changes may only manifest in design archetypes or sub-systems. If however the environmental disturbances remain and are persistent and strong enough, this may lead to changes in the interpretive schemes at a later stage. Our findings show that interpretive schemes are not static phenomena which result in environmental disturbances that challenge the status quo being accepted or rejected. Indeed this process of managing and responding to environmental disturbances is complex and dynamic as our case illustrates. Using the notion of institutional logics we demonstrate the dynamics involved with multiple interpretive schemes which co-mingle and co-exist to varying degrees. It is this dynamic interaction between 'new' and 'existing' logics or interpretive schemes that also have a significant influence on the propensity for sustainability integration alluded to earlier. The change process is akin to what Greenwood and Hinings (1998) refer to as reorientation involving some schizoid incoherence where multiple interpretive schemes co-exist to some degree.

Our findings demonstrate that transformational, morphogenetic change may not be easily achieved if organisations continue to focus singularly on the financial bottom-line. That is, the dominance of the profit-seeking logics appears to create a 'glass ceiling effect' in relation to the extent of change towards transformational forms of sustainability. Stock market listed companies are subjected to these pressures. New imaginings are needed if the sustainability agenda is to be constructively progressed towards a transformational approach fundamentally shifting the ideological core or interpretive schemes. It is in this context that we note the potential for integrated thinking which is arguably central to integrated reporting to bring about discourses that may encourage multiple interpretive schemes to co-exist with the potential to lay the platform (or at least the first steps) for transformational, morphogenetic change towards greater social and environmental sustainability (see, for example, Adams et al 2016). This is an area for future research.

In the introduction of our paper we argued that the process of accounting and reporting on sustainability issues has the potential to change organisations. Our case study revealed that change towards integrating sustainability was influenced by the organisation's profit-seeking interpretive

schemes and the associated calculative practices, and whilst this approach limited the depth of change, it did lead nevertheless to some degree of integration.

Future research could further examine the relative role of organisational discourses versus practices in enabling (or hindering) organisational change towards sustainability in different contexts. Such work would help develop a stronger understanding of whether the strength of the profit-seeking logics is universally detrimental to change efforts towards sustainability. Research is also needed to better understand how actors internal and external to corporations can better direct change efforts given the centrality of the profit-seeking interpretive schemes. If change towards social, environmental and economic sustainability is the desired destination of change efforts then we need to be able to see what works and what does not in terms of bringing about intra-organisational change.

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Table 1: FIN Ltd- List of participants interviewed

Interviewee Code	Position	Date	Number of interviews	Duration in minutes*
FIN 001	Head of Sustainability	22-02-2007 & 8-10-2007	2	121
FIN 002	Sustainability Consultant to FIN Ltd	5-03-2007	1	35
FIN 003	Senior Institutional Director	6-06-2007	1	26
FIN 004	Senior Institutional Lending Manager 2	16-08-2007 & 10-10-2008	2	60
FIN 005	Institutional Lending Manager	6-08-2007	1	16
FIN 006	Senior Risk Executive	4-10-2007	1	32
FIN 007	Senior Finance Executive	24-08-2007	1	26
FIN 008	Senior Institutional Lending Manager 1	14-08-2007 & 11-08-2008	2	56
FIN 009	Senior Markets Executive	12-10-2007	1	30
FIN 010	Senior HR Manager	12-10-2007 & 29-08-2008	2	46
FIN 011	Senior Project Finance Executive	19-12-2007 & 19-08-2008	2	79
FIN 012	Sustainability Executive	28-02-2008 & 16-10-2008	2	68
FIN 013	Accountant	29-08-2008	1	25
FIN 014	Markets Executive	9-12-2008	1	37
FIN 015 & 16	Ex Sustainability Team members	8-04-2009	1	46
	Total		21	

Table 2: List of documentary sources

Document type	Time period/source
Annual Financial Reports	Every report from the year 2000 to 2008
Sustainability Reports	Every year from 2005 to 2008, and 2013 to 2014
Responses to survey for entry into the Dow Jones Sustainability Index for 2007	Document provided by participant
Company websites -containing policy statements and other announcements	Accessed several times between 2007 and 2009. Specifics of the websites cannot be provided due to confidentiality reasons