Exploring management accountants’ role conflicts and ambiguities and how they cope with them

Seán Byrne
School of Business, Waterford Institute of Technology, Waterford, Ireland, and

Bernard Pierce
Business School, Dublin City University, Dublin, Ireland

Abstract
Purpose – The aim of this study is to explore the nature of the expectations of operations managers (OMs) and the enacted roles of management accountants (MAs) and to understand how MAs construct roles around these expectations.

Design/methodology/approach – A qualitative design draws upon company documentation and 36 semi-structured interviews with MAs and OMs. The study uses role theory as a theoretical lens with its core concepts of role expectations, role conflict and role ambiguity. The design draws from role theory’s original development and testing to pair particular roles of MAs with particular roles of OMs in operational settings.

Findings – The findings indicate that there are a number of different forms of OMs’ expectations giving rise to role conflicts and role ambiguity for the roles of MAs. OMs’ expectations were identified as conflicting expectations, ambiguous expectations, overloaded expectations and underloaded expectations. MAs construct roles in different ways around these OMs’ expectations, including prioritising the line function, competence deployment, non-accommodation and communication. Factors moderating OMs’ expectations are also identified, including characteristics of the OM and the role of the finance manager.

Research limitations/implications – The study is based on an in-depth investigation of a small number of roles of MAs paired with OMs, and no assurances can therefore be given regarding generalisability of the findings.

Practical implications – The results provide an understanding of the varied nature of expectations that OMs have of MAs and mechanisms through which MAs can address these expectations. It suggests ways in which both MAs and OMs in operational settings can reduce conflicts and ambiguities.

Originality/value – This paper provides an in-depth analysis of the expectations of OMs in relation to the roles of MAs and contributes to the literature on the roles of MAs using role theory. It shows how different forms of OMs’ expectations have related mechanisms used by MAs to navigate these expectations through role constructions.

Keywords Management accountants, Expectations, Accounting roles, Conflict, Ambiguity, Role theory

Paper type Research paper

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1. Introduction

Our understanding of the roles of management accountants (MAs) has developed over recent decades, building on calls for more research (Anthony, 1989; Young, 1996). In particular, the notion of the “business partner” (Goretzki et al., 2013; Jarvenpää, 2007; Wolf et al., 2015) has been investigated by reflecting roles encompassing greater organisational reach and embeddedness beyond traditional functional demarcations (Burns and Baldivinsdottir, 2005, 2007; Henttu-Aho, 2016; Jarvenpää, 2007; Sorensen, 2009; Zoni and Merchant, 2007). MAs may find themselves uncertain of their roles, as research is ambivalent regarding operating managers (OMs) involving MAs in their decision processes (Byrne and Pierce, 2007; Johnston et al., 2002; Windeck et al., 2015). While MAs may assist managerial decision-making (Goretzki et al., 2013), their position in doing so can be contested by non-accountants (Ezzamel and Burns, 2005; Vaivio, 1999) and managers may have different role interpretations (Morales and Lambert, 2013). MAs can be located at the difficult nexus of demands from operational and financial management (Chenhall and Langfield-Smith, 1998; Johnston et al., 2002; Lambert and Sponem, 2012; Morales and Lambert, 2013; Pierce and O’Dea, 2003), and if in subsidiary contexts, additional demands from head office management (Goretzki et al., 2017; Lambert and Sponem, 2005; Maas and Matejka, 2009; Puyou, 2018). It is imperative therefore to understand how MAs navigate around multiple expectations and consider their form and their consequences.

From a theoretical perspective, expectations, as a concept, has been neglected, notwithstanding its attribution to stakeholders, leaders and employees in general (Tengblad, 2004). Expectations regarding organisational roles, and associated role conflict and role ambiguity, are key concepts of role theory, as proposed by Kahn et al. (1964) and Katz and Kahn (1978). They are adopted here as an essential theoretical lens to understand what form of expectations MAs face and how they navigate around these expectations that can give rise to role conflicts and ambiguities in their roles. References to role theory in the paper, unless attributed elsewhere, will be to the foundational work of Kahn et al. (1964) and Katz and Kahn (1978). From an empirical perspective, we have little understanding of OM’s expectations of MAs and how MAs navigate around these expectations, with the latter receiving more attention in recent work (Goretzki et al., 2017; Puyou, 2018). The focus on expectations is warranted by the call for more “in-depth” research regarding the nature of managerial expectations and business partner roles (Wolf et al., 2015). In addition, the expectations of hierarchically more senior finance managers (FMs) and their influence on MAs (and OM-MA interactions) has been neglected (Goretzki et al., 2013). In preparing MAs for broader accounting roles, accounting education seems to have paid little attention to developing skills for such roles (Siegel et al., 2010; Tatikonda, 2004), and in particular, there seems little if any evidence that curricula consider skills relating to managing role expectations and any related implications. There is a growing recognition that contemporary “service” roles in organisations are increasingly onerous (du Gay, 1996; du Gay and Salaman, 1992), and within accounting in particular (Cluskey and Vaux, 1997; Collins, 1993; Ozkan and Ozdeveciolo, 2013; Sweeney and Summers, 2002). In professional output and practice, there are normative prescriptions for “partnership” roles for MAs (Caron, 2006; Siegel et al., 2003a, 2003b, 2010; Thomson, 2015) and observations of expectation shortcomings in “service quality” (Walker et al., 2012). A better understanding of expectations regarding the roles of MAs has implications for MAs, as reducing conflicts and ambiguities related to OMs’ expectations can lead to a reduction in job-related tension and inclinations to leave an organisation and increased job satisfaction (Gavin and Dileepan, 2002; Kelly and Barrett, 2011; Senatra, 1980; Sorensen and Sorensen, 1974). Faced with these challenges for the roles of MAs, and drawing on role theory, the study set out to address the following research question:
RQ1. What is the nature of the expectations of OMs for MAs and how do MAs construct roles around these expectations?

The remainder of the paper is structured as follows. Section 2 reviews literature on role expectations and draws on the theoretical perspective of role theory, which encompasses the concepts of role expectations, conflicts and ambiguities. Next, the research design is presented in Section 3, followed by the findings in Section 4. Finally, the paper closes with discussion and concluding remarks in Sections 5 and 6, respectively.

2. Expectations of the roles of management accountants, role conflicts and ambiguities

MAs occupy organisational roles that are commonly observed as performing a “service” function that entails information analysis and decision support (Atkinson et al., 2001; Horngren et al., 2000). Previous studies have pointed towards diverging user-preparer perspectives and information provision (McKinnon and Bruns, 1992; Mendoza and Bescos, 2001; Pierce and O’Dea, 2003). Many studies have noted widening organisational roles for MAs (Ahrens, 1997; Byrne and Maher, 2003; Burns and Baldvinsdottir, 2005, 2007; Goretzki et al., 2017; Wolf et al., 2015). In tandem, the professional practitioner literature has advocated the roles of MAs as “partners” with OMs (Baier, 2014; Brands and Holtzblatt, 2015; Caron, 2006; Jablonsky et al., 1993; Pierce, 2001; Quinn and Rochford, 2013; Thomson, 2015; Walker et al., 2012). With these more recent role formulations, it is surprising that so little attention has been paid to the nature and implications of these expectations that may give rise to role conflicts and ambiguities. MAs may be challenged in articulating or influencing their wider organisational roles and having to deal with conflicting expectations of roles (Ezzamel and Burns, 2005; Goretzki et al., 2013; Vaivio, 1999) or some ambiguity regarding expected roles (Morales and Lambert, 2013). Thus, there is a need to better understand managerial expectations of the roles of MAs in wider organisational contexts and to understand how MAs deal with these expectations.

Role expectations, role conflicts and role ambiguities are role theory concepts that seek to explain role behaviour (Kahn et al., 1964; Katz and Kahn, 1978). Expectations have been defined as the:

[...] preferences with respect to specific acts, things the person should do or avoid doing [...] personal characteristics or style, ideas about what the person should be, should think, or should believe (Katz and Kahn, 1978, p. 190).

These expectations “exist in the minds of members of the role-set” and tend to be communicated or “sent” to focal role occupants (Katz and Kahn, 1978, p. 190), who then act in a “received role” which comprises “perceptions and cognitions of what was sent” (Kahn et al., 1964, p. 16). It is thus the MAs’ interpretations of the OMs’ sent expectations that inform the MAs’ received roles. The role-set refers to all those individuals who collectively have expectations of a particular organisational role occupant (Merton, 1957). If expectations are incongruent (Rizzo et al., 1970), it can lead to role conflicts and ambiguities for role occupants (Kahn et al., 1964; Katz and Kahn, 1978). Role conflict has been defined as “the dimensions of congruency-incongruency or compatibility-incompatibility in the requirements of the role” (Rizzo et al., 1970, p. 155). Role set members may “impose pressures” on roles “towards different kinds of behaviour” (Kahn et al., 1964, p. 19), or more narrowly, it has been defined as the “simultaneous occurrence of two (or more) sets of pressures such that compliance with one would make difficult or impossible compliance with the other” (Wolfe and Snoek, 1962, p. 103). The former broader conceptualisation of role conflict is used here, and it includes the latter clashing of two demands at the same time. The
incompatibilities in role requirements (Rizzo et al., 1970) may relate to a number of dimensions of role conflict, e.g. differences between role behaviour expectations and an individuals’ belief or value system, an individual’s abilities and resource capacities and as a result of multiple and different expectations that may not be reconcilable (Kahn et al., 1964; Rizzo et al., 1970). Role conflict includes, for example, OMs’ desire for MAs to perform their roles in different ways to roles being enacted, to expend time differently in roles and to possess different attributes (Hopper, 1980). Kahn et al. (1964) delineated role conflicts for role senders and the focal role holders as attributable to different expectations from different role senders (inter-sender role conflict); different expectations from the same role sender (intra-sender role conflict); different expectations between those espoused by role senders and perceived by the focal role (person-role conflict); and differences between expectations of distinctive groups of role senders such as work-domestic expectations (inter-role conflict). Role conflict can be attributable to role overload (Kahn et al., 1964), whereby expectations exceed the available time to meet them, which is a quantitative role overload, or if expectations exceed the capabilities of those seeking to address expectations, it gives rise to a qualitative role overload (Peterson et al., 1995; Sanders and Fulks, 1995).

The combination of role sender’s expectations influencing role behaviour and that behaviour in turn influencing role sender’s expectations is a role episode (Kahn et al., 1964; Katz and Kahn, 1978). MAs, as focal roles, can respond to conflicting expectations by “counterattack” or “compliance or by persuading role senders to modify incompatible demands” or by “attempts to avoid the sources of stress” (Kahn et al., 1964, p. 29). Given the episodic nature of role theory, role senders’ expectations may be influenced by both the characteristics of the focal role and interpersonal relations between the role sender and the focal role. Such characteristics for MAs may include communication, business knowledge, analytical skills and information technology skills (Burns and Yazdifar, 2001; Brands and Holtzblatt, 2015; Siegel, 1996; Siegel and Sorensen, 1999), and interpersonal relations may include the “style” (Katz and Kahn, 1978) of the MA. How MAs respond to the expectations of OMs has been found to be linked to the personality of MAs (Byrne and Pierce, 2007; Hartmann and Maas, 2010).

There is the widely accepted role conflict recognised for accountants between supporting business-unit management processes whilst maintaining loyalty to financial compliance structures. Arguments have been advanced for role separation (Keating and Jablonsky, 1991; Sathe, 1982; Simon et al., 1954; Sutthiwan and Clinton, 2008) and combining the watchdog and partnering roles in one position (Sathe, 1982, 1983; Siegel, 2000) as it facilitates more effective control (Wolf et al., 2015), but it also gives rise to conflicts (Lambert and Sponem, 2005). Accountants may be challenged by conflicts between head office financial and market dictates and local operational business support imperatives, which may lead to manipulated reporting (Maas and Matějka, 2009) and, depending on the financial climate, lead accountants to enact roles with operational management that serve to either legitimise their roles or to be the critical local-head office links (Lambert and Sponem, 2005). These studies have concentrated narrowly on external governance and head office influences on local accounting practices but do not account for the influence of local operational management expectations for the roles of MAs. A recent case study by Puyou (2018) has shown how MAs manage the tensions between head office controllership and divisional partnership roles through developing trust-based relationships and selectively disclosing and/or withholding information as appropriate in context. Similarly, Goretzki et al. (2017), in a field study of controllers, found that they skilfully maintain their image and credibility by using information management techniques to address accountability to different stakeholders within the organisation. We extend this recent work by focussing on
specific OMs’ role expectations and MA’s behaviours as opposed to taking information-centric strategies (Goretzki et al., 2017) or communications-centric strategies (Puyou, 2018) to address conflicting stakeholder demands as our starting point. We also link expectations and role behaviours to specific MA–OM working relationships. We thus suggest a need to first understand the expectations that OMs have of specific MAs and to then explore more broadly how MAs navigate around any potential conflicts or ambiguities that arise.

There appears to be some relationships between organisational structure and the role conflicts of MAs as MAs have been found to better meet the expectations of OMs when organisational structures are more decentralised (Chenhall and Langfield-Smith, 1998; Granlund and Lukka, 1998; Hopper, 1980; Järvenpää, 2007; Pierce and O’Dea, 2003). Conversely, centralised accounting roles—where for example, MAs report to FMs who report to head office—have been associated with “beancounting” roles (Granlund and Lukka, 1998). Hopper (1980) found that role conflicts in respect of relationships between MAs and OMs and role conflicts in respect of the characteristics of the MAs were largely not significant, whatever the structural arrangement. Hopper (1980) excluded role senders in financial line management roles, but FMs can play a significant role in the establishment of MAs’ roles (Goretzki et al., 2013), and Byrne and Pierce (2007) found that some senior FMs expressed the roles of MAs, who reported to them, not only as information providers and analysts but also as “partner and influencer”, an “aid” and “guide” to management, thus reflecting expectations of roles oriented to both hierarchical reporting and OM decision support. These of course are perspectives of FMs and not those of MAs themselves, who typically report to FMs. While many studies have often targeted FMs or controllers in accounting studies, the authors are not aware of published studies that include the influence of FMs in investigating the relationships between OMs and MAs from an expectations perspective.

Role ambiguity has been defined as focal role uncertainty about role sender’s expectations of the focal role occupant (Kahn et al., 1964), i.e. one is unsure as to what is expected of one’s roles. We understand little of how role ambiguity relates to the roles of MAs. Some aspects of role ambiguity have been linked through ethnographic work to the role identities of MAs (Morales and Lambert, 2013) and the extent of influence MAs ought to exert over OMs regarding management accounting information (Lambert and Pezet, 2011). Earlier studies have tended to focus more broadly on auditor roles (Senatra, 1980), environmental uncertainty (Chapman, 1997) and information provision (Englund et al., 2013). In summary, role theory has surprisingly seen little use in previous management accounting research (Collins, 1982), and similarly, role expectations, conflicts and ambiguities have received little attention in the accounting literature. It is acknowledged that the theoretical perspective of roles taken in this paper is of a functionalist orientation (Biddle, 1986) and as such fails to capture the more interpretive and evolutionary dimensions to roles (Järventie-Thesleff and Tienari, 2016). The next section presents the research design.

3. Research design
The overall design, whilst deductively beginning with concepts relating to expectations, conflicts and ambiguities (Kahn et al., 1964; Katz and Kahn, 1978), proceeds with an open-ended and inductive enquiry; thus, the approach may be classified as more abductive, combining elements of both (Blaikie, 2007; Lukka, 2014; Lukka and Modell, 2010). The utilisation of a qualitative interview-based approach was merited as the research question includes both a “what” question (Blaikie, 2010; Marshall and Rossman, 1999) and a “how” question (Hennink et al., 2011; Yin, 1994). The qualitative approach is particularly suited to “sensitive topics,” where it is necessary to meet and create an atmosphere to facilitate openness (Hennink et al., 2011), e.g. the present study explores the nature of MA and OM...
inter-relationships and the somewhat sensitive topic of expectations and role behaviours. Using the sampling design that underpinned the development of role theory (Kahn et al., 1964; Katz and Kahn, 1978) whereby role senders and focal roles are matched, the focal role (i.e. the MA) identifies those in the organisation who most influence their roles (members of the role set), which gives a relative ranking of these influencers, or role senders. These pairings were essential to obtaining a deeper understanding of the nature of role expectations, conflicts and ambiguities and how MAs construct roles around them. The pairing of MAs (focal roles) with OMs (role senders) in this study was determined by the MA being asked to identify who in the organisation most influenced their roles. Interview data were supplemented by both job descriptions and goals and objectives, given that job descriptions may not capture the full extent of roles enacted (Biddle, 1979).

The interview design sought to gain insights and understanding (King, 1994; Kvæle, 1983; Lee, 1999; Patton, 1990; Rubin and Rubin, 2005), and the qualitative interview guide design followed methodological practice (Berg, 1995; Taylor and Bogdan, 1998). It was specifically based on instruments used in the development and testing of role theory (Kahn et al., 1964; Katz and Kahn, 1978) and its adaptation by Hopper (1980). Thus, for example, questions relating to role conflict explored whether there were different expectations regarding how MAs performed their roles, and questions relating to role ambiguity explored the perceived certainties and uncertainties around role expectations. Following Kahn et al. (1964), the MA interview guides (see guide themes in Appendix 2) examined major role-specific activities that involved MAs interacting with OMs, role expectations and actual role behaviour relating to these activities, expected and actual MA characteristics, and secondary data linked to their roles. The activities identified by MAs (and confirmed by OMs) varied between MAs, but, for example, commonly included reporting of metrics, month-end reporting processes, budgeting and forecasting, project work and operations performance review meetings. The OMs’ interview guide examined their expectations of the MAs and the roles performed around the specific activities identified. It also covered aspects of roles sought to be performed differently, the influence of the OM on the MA and vice versa and expectations of particular traits for the roles and those possessed by MAs in those roles. Whilst building on previous role study data collection instruments, the guide was adapted to move away from pre-categorisations (Kahn et al., 1964; Hopper, 1980) to more open and probing questions to gain a more in-depth understanding of the experiences of MAs in their roles.

Building on the work of Byrne and Pierce (2007) in a similar empirical context, proposals for this study were presented to senior FMs in eight manufacturing subsidiaries of international firms where MAs reported directly to their FM as line manager, and the finance function reported up to the corporate head office function located elsewhere. These settings were appropriate as they permitted the investigation of OMs’ expectations of the roles of MAs in an environment where there was a stand-alone operations unit with a local finance function in place and a head office function. These contexts were also deemed relevant as they have previously been noted as potential sources of conflict (Byrne and Pierce, 2007; Maas and Matějka, 2009). This proposal process led to permission to proceed in four of the subsidiaries. To prevent selection bias of particular MAs, all MAs reporting to the FM were required to participate in the study. To extend the sample base, access was negotiated with one other similar manufacturing subsidiary of an international firm with a base in the same region. The five firms in the final study were located in the same geographical region and were in the engineering, pharmaceutical and medical, food and beverages and construction materials sectors. Workforces were within the range of 400-1,400.

For confidentiality reasons, it is necessary to protect firm and individual identification and documentation through the use of pseudonyms. While the number of MAs working in
the different operational settings varied, the level of analysis is at the individual role level of the MA and the associated OM. There were 36 interviews broken into 12 sets of three interviews sequenced as MA first interview, paired OM interview and second MA interview, consistent with the design underpinning role theory application (Hopper, 1980; Kahn et al., 1964). This design sequencing enabled the capturing of the initial understanding of the roles of MAs (as perceived by the MAs), then capturing of the understanding of the same roles (as perceived by the OMs) and finally closing out the process with the MAs again regarding secondary sources relevant to the roles and follow-up questioning from the first two interviews. Table I summarises the interview details, MA and OM matching and associated firm subsidiary information.

While MAs could potentially pick an OM that would perhaps present a more favourable view of the MA, the OMs identified were those that could be confirmed from an analysis of

<table>
<thead>
<tr>
<th>MA/OM/MA</th>
<th>Job title</th>
<th>Firm subsidiary information</th>
<th>Interview length (min)</th>
<th>Recorded</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA/OM/MA</td>
<td>Financial Services Manager Production Manager</td>
<td>Construction materials: 100 Employees: 100</td>
<td>90</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Operations Accountant – Business Unit A, Site A Supply Chain and Maintenance Manager – Site A</td>
<td>Engineering: 60</td>
<td>60</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Operations Accountant – Business Unit B, Site A Operations Manager – Site A</td>
<td>Engineering: 60</td>
<td>60</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Financial Accountant – Business Unit C, Site A Business Unit Manager – Site A</td>
<td>Engineering: 60</td>
<td>60</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Financial Accountant – Site B Plant Manager – Site B</td>
<td>Construction materials: 105 Employees: 700</td>
<td>90</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Management Accountant – Capital Project Manager</td>
<td>Pharmaceutical and medical: 60 Employees: 400</td>
<td>75</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Management Accountant – Inventory Planning/Business Partner</td>
<td>Pharmaceutical: 50 Employees: 400</td>
<td>50</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Management Accountant – Planning Production Director</td>
<td>Pharmaceutical: 60 Employees: 100</td>
<td>60</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Management Accountant – Cost Analyst Packaging/Production Manager</td>
<td>Pharmaceutical: 60 Employees: 400</td>
<td>50</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Financial Accountant Operations Director</td>
<td>Pharmaceutical: 80 Employees: 700</td>
<td>80</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Management Accountant Supply Chain Commercial Manager Supply Chain</td>
<td>Food and beverages: 60</td>
<td>60</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Management Accountant – Sales Divisions Commercial Manager – Region</td>
<td>Food and beverages: 85</td>
<td>85</td>
<td>Yes</td>
</tr>
<tr>
<td>MA/OM/MA</td>
<td>Management Accountant – Region</td>
<td>Food and beverages: 75</td>
<td>75</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Table I. Summary details of interviews and firms
the formal structure and alignment of MAs to particular functions or processes. Unlike Hopper (1980), but consistent with role theory previous applications, MAs could identify anyone in the organisation who most influenced their roles, e.g. FMs could be identified if that was the case. This more inclusive approach permitted the relative ranking of FMs and OMs as influencers. The process generated a list for each MA of ranked members of the organisation who most influenced their roles (Appendix 1). While the MAs all reported into the FM, 2 of the 12 MAs ranked an OM above the FM in terms of ranking of major influencers on their roles. On the basis of this list, the highest ranking or most influential OM on the roles of the MA was targeted for the next interview. For 11 of the 12 roles of MAs, the most influential OM was interviewed; one exception was for a MA where the most highly ranked OM was the Sales Director who declined to be interviewed, notwithstanding several attempts at securing an interview. However, the next ranked OM on the list, the Production Manager, was selected and interviewed. For another MA, the third influencer for the MA was the Managing Director, but the MA observed that this influence was primarily through the FM and so the next OM influencer, the Operations Director, was selected. A limitation in this overall process is that only the primary, and not all, role influencers are included. This inevitably was a question of trading off the number of MAs linked to OMs versus less MAs but more role influencers for these MAs. The MAs and OMs who participated in the study had personal work relationships developed, and hence, the potential for bias. However, analysis of the data revealed that neither the OMs nor MAs were particularly reticent in speaking about role expectations.

Interview data were corroborated with job descriptions and annual objectives, which were provided for most MAs. While these were sought for all MAs, they were not always provided, which was understandable given their sensitive nature. Typically, duties were itemised in detail and specific role objectives ranged in number from 6 to 12. The analysis process was a multifaceted one that embraced both manual methods (e.g. interview summaries, field notes, transcript margin notes and re-readings of transcripts and notes) and table representations of MAs’ and OMs’ roles as data displays (Miles and Huberman, 1994). NVivo software was used for coding, modelling and memoing (Strauss and Corbin, 2008). Over 580 pages of interview transcripts were analysed, circa 196,000 words. The software facilitated data management and construction of codes into an architecture, reflecting role influences (expectations), role-specific activities and their associated activities and role consequences such as conflicts and ambiguities (see an excerpt of the coding architecture used in Appendix 3). Transcripts were returned to interviewees for validation purposes (Lincoln and Guba, 1985). The next section presents the findings.

4. Findings and analysis
This section presents the findings from the qualitative analysis of the interviews and organisational documents. While firm contextual factors were gathered, firm-level differences did not emerge as important in explaining role expectations, conflicts and ambiguities. The unit of observation was the individual roles of MAs and their interactions with OMs, and so, it was an individual rather than a firm level of analysis. Initially, descriptions of role senders (i.e. OMs) and focal roles (i.e. MAs) are presented. This is followed by a thematic analysis of the nature of the expectations of OMs regarding the roles of MAs and how MAs construct roles around these expectations.

4.1 General descriptions of the roles of management accountants
MAs perceived the FM, head office and OMs as major influences on their roles (Appendix 1) and thus role senders in holding expectations of MAs. Details from job descriptions and
goals and objectives are consistent with these perceptions, with the latter being perceived as more relevant. These documents commonly referred to doing the “monthly accounts” to “provide accurate timely financial reporting”, broader organisational objectives and “other projects”. The job titles of many MAs (Table I) indicated business unit alignment, organisational process alignment or both notwithstanding that MAs reported directly to the FMs in the local finance functions which were linked to the head office function. MAs associated most stress with “deadlines” [Ger] and, despondently, Penny remarked that: “[deadlines are] quite stressful”. In investigating sent roles (from OMs to MAs) and received roles (MAs’ interpretations of these sent roles), the analysis led to the emergence of a number of OMs’ expectations being classified as conflicting expectations, ambiguous expectations, overloaded expectations and underloaded expectations. These classifications and how MAs constructed roles around these expectations are discussed below.

4.2 Conflicting expectations
Conflicting expectations arose between hierarchical reporting expectations and OMs’ expectations (Kahn et al., 1964; Katz and Kahn, 1978). Clare, an OM, noted that “her [Mary’s] loyalties lie to financial reporting, in a nutshell […] orientated to the external world […] reporting”. The nature of head office’s influence on MAs was deemed very strong by MAs and OMs through both the interviews and documentation. Mary, a MA, stated that:

[...] it is like as if we are being torn in two because [head office] think [that because] they are head office, they are the most important so if they look for something we have to drop whatever we are doing to get it back to them and on the other side we have Production, people like the Plant Manager, the Cost Reduction Manager, giving out because they are not getting enough support from Finance so it is a constant tug-of-war between the two and often what [head office] will want is not what internal will want.

Tony, an OM, corroborated this point:

[...] just the time available to him [Tom] to do things for me […] there is an awful lot of external work done, I don’t see it as being a benefit to myself.

Henry, a MA, noted that head office “are looking for too many reports” and “so many versions” that “if they left the local, the plant controllers and plant financial accountants get involved more in their plants they would probably see more cost savings”.

4.2.1 Constructing roles around conflicting expectations. The most frequent response from the MA, consistent with the direct line of reporting into the financial hierarchy, was to give “priority” [Clare] to the financial controller and/or head office requirements:

[...] the head office reports and their further analysis have to happen […] you let slip […] projects would slip altogether [Tom].

Consistent with this, some MAs constructed their roles as “messengers”, notwithstanding OMs’ expectations for more support from MAs. Mark noted that he tried to manage OMs’ conflicting expectations by anticipating:

[...] conflict between managers to say well we want this done now and the other one is saying we want it done now, that is only balancing time and if you know early enough you will be able to deal with it before it comes to a head.

There was resilience evident in the handling of these conflicting expectations. Ger noted that:
I can adapt to what is required of me [...] not getting flustered, things like that, holding it all inside, getting something done before you go home.

Many MAs were often noted by OMs for their excellent inter-personal skills and ability to influence, which helped to construct roles and moderate expectations. OMs, Clare and Penny, referred to the MAs linked to them as having a “good relationship [...] will critique” and “his style [...] acceptability of some of these controls” respectively. Sue, a MA, observed:

[...] you have to be able to have a good working relationship with people, not just the typically accountant sitting there looking at the figures the whole time you have to be able to work around things.

Notwithstanding Ray, a MA, observing that “I understand fully what they expect of me so there is a very clear thing there”; sometimes, this interpersonal skill was not always evident as Edel, the OM, noted:

[...] he [Ray] probably maybe annoys some people, maybe that is a personality thing [...] leadership, can raise the issue and often times the execution of or coming up with the result he might be able to present that better.

The FM was also noted as a critical influence on the roles of MAs, being the line manager, who could shape the extent of these conflicting expectations as Clare, an OM, noted the scope of the FM to extend the roles of MAs more into operations and support OMs in their roles:

I think the business unit managers of the three operations would have to try and convince the financial controller to the extent that you would be better off getting Mary or any other of the accountants [i.e., Tom and Pat] more involved on the operations side of the house.

Thus, conflicting expectations from OMs were perceived to frequently arise in the context of addressing the requirements of the financial hierarchy while simultaneously responding to the information needs of OMs. MAs constructed roles around these expectations by giving priority to their finance line function whilst being resilient, using their inter-personal skills and being adaptive. The FM was seen as a critical moderator of these conflicting expectations.

4.3 Ambiguous expectations

Based on their perceptions of OMs’ expectations, MAs perceived a number of uncertainties around their roles, giving rise to role ambiguity (Kahn et al., 1964; Katz and Kahn, 1978). Tom perceived ambiguity in determining his role, e.g. “well that is finance’s problem” and “sometimes the projects, how much should we take on here?” [...] “it is unclear about what your involvement is”. Owen, a MA, perceived some ambiguity about expectations of his own roles when stating both of the following:

[...] I wonder at times do they think I am just there to do numbers at the end of the month and that is about it.

[...] you do wonder whether they need me to be more hands on out there [...] could be up in the factory.

These mixed perceptions of Owen’s roles suggest that OMs’ expectations are more dynamic and expect the MA to alternate between information provision roles and business support
roles. Many MAs also perceived ambiguities around the interface with head office. Penny observed that:

[...] my role as well is ambiguity [sic], you know what are we doing, all this sort of forecasting, budgeting, it is only a crystal ball, is there any real value in the sort of work we do.

Penny perceived considerable ambiguity around reporting to head office:

I don’t know how they get a lot of value out of a lot of reports I create for them. When I look at it I can’t even understand [...] I can’t take anything meaningful from it. It doesn’t tell me anything about the business here.

Ger, a MA, noted that “half the time I know it doesn’t make much sense but, it is agreed, this is what head office are telling us” regarding reporting procedures and “it doesn’t make much sense and I suppose trying to convey [that] to operations managers”. MAs sometimes found their interaction with OMs ambiguous:

They are not taking on the knock-on implications and that is frustrating. When you are in a meeting and you’re making your point and everyone is accepting your point and then they go off and do the opposite to what was said and then if you go to the next meeting and say well what happened or go through it all again, backtracking. That is a regular occurrence [Mark].

They tell you porkies in fact like they will, they will tell you stuff and then they will deny it later on down the track when you challenge them on it. They will say I didn’t say that [Penny].

The FM also contributed to the ambiguity that MAs experienced. Mary noted that “we have been looking at analysing stuff; he [the FM] might want it done differently” or “that is ok, no I sorted that last week [...] things like that are very frustrating”. Tom, a MA, noted that:

[...] you are trying to provide the information and assist the operations manager whereas then you are also with the finance director trying to justify stuff and things and so there can be conflict there alright, have not experienced too much, what the finance director says goes at the end of the day.

Tom also noted that some of the ambiguity around projects “could come from [the FM]”. Pat perceived working with his manager, the finance director, as most stressful due to lack of clarity around requirements, e.g. ambiguity with the FM in terms of “present information this way, kind of wanted it another way, again, and then back to original way, why? Can be the role of the controller, not sure what they want themselves”. Pat noted that “things decided at a management meeting, come down second hand from our boss, interpretation can be different”.

The findings thus revealed a range of role ambiguities for the roles of MAs, which included uncertainty for MAs surrounding the expectations of OMs regarding the involvement of MAs with OMs, managing communication processes with OMs, difficulty comprehending corporate reporting processes and unclear expectations communicated by the FM.

4.3.1 Constructing roles around ambiguous expectations. Role ambiguity was related to the expectations emanating from OMs, and from OMs through the FM, and specific expectations of the FM. Mary, a MA, suggested having work “prioritised”:

You could spend your time on something and then he’ll [the FM] come out looking for something else [Mary].

As ambiguity is based upon uncertainty about one’s roles, it would seem that better communication between OMs, MAs, FMs and head office would assist reducing some of the
role ambiguity. Some OMs observed that MAs working with them had some assertiveness that may also assist in resolving ambiguity, e.g. Clare noted that Mary “wants to develop her role” and Fran observed that Penny “is able to influence people”. One MA noted that because of the ambiguity around his interactions with OMs:

You literally you maybe you would have to have an e-mail backup [. . .] you need to have the back up there you just can’t trust some people [Penny].

MAs perceived ambiguity in their roles relating to OMs’ expectations of them, the value of the reporting activities they engaged in and understanding the FM’s requirements. Constructing roles around ambiguous expectations suggested the need for prioritisation, enhanced communication and record keeping.

4.4 Overloaded expectations
OMs’ expectations that were perceived by MAs as excessive were a source of stress, giving rise to role overload, in both quantitative role overload (Kahn et al., 1964) and qualitative role overload (Peterson et al., 1995; Sanders and Fulks, 1995) forms. The findings for these two categories of overloaded expectations of OMs are presented below.

4.4.1 Quantitative role overload. While conflicting expectations, noted above, highlight the challenges for MAs in simultaneously meeting the demands of hierarchical reporting structures and the demands of OMs, some overloaded expectations relate to those OMs’ expectations that were quantitatively over and above what was possible within time and resource constraints. Notwithstanding OMs making reference to their awareness of other work done by MAs from a head office or finance perspective, OMs nevertheless indicated that MAs should be much more involved in supporting them and could be located nearer to them to work more directly for them. Penny, a MA, remarked that: “they expect a lot - I know that. Sometimes they can be sort of unrealistic - unrealistic in their expectations”. John, a MA, observed a conflict meeting Neil’s (an OM) expectations, as Neil “kind of thinks well I should just deal with him”. John elaborated:

[. . .] just seems to think that I should just manage the projects [. . .] that I provide a service to engineering and that was it.

Corroborating this, Neil stated a desire for John to “be an actual part of my function rather than in finance and then I would be able to use him for some of those other value added and various areas”. Other OMs expressed similar views as Tony wanted Tom to take “a more active role in leading cost reduction”, and Clare, an OM, posed the question:

Should you have an operations accountant that works for the Business Unit Manager and the Supply Chain Manager and the Maintenance Manager and the Engineering Manager? Yes. I don’t know.

OMs also had a perception of the general roles of MAs that underpinned these expectations as Neil proposed reading “any definition of management accounting”:

It is about making strategic decisions, it is about decision making [. . .] essential that they are part of a team, it is essential that they are brought into forums and that we leverage off their resources and their capabilities to make our life easier, to provide the systems that we need.

The perceived overloaded expectations of OMs was also evident in that four OMs wished that MAs had more influence over them in their operational roles, and three OMs wished that they themselves were able to have more influence over MAs.
In cases where overloaded expectations were perceived to exist, MAs attributed these to:

[...] non-financial people, not understanding the amount of work that you might have to do [...] ah sure you know you can bang through that in the afternoon and you’ll have it done for me later on” [Penny].

Neil, a MA, referring to his OM, John, stated:

He couldn’t see well all the other stuff [...] depreciation [...] financial regulations side [...] there is a lot of stuff in the background they don’t know about.

Overloaded expectations could also occur when OMs had a good understanding of the roles of MAs, and because MAs were providing such good support to OMs, OMs had raised expectations. Mary, a MA, noted that Clare, an OM:

[...] would come to me for a lot more information than say the Business Unit Manager will because Clare knows how to do it or knows that I will have it.

Penny, a MA, noted that Fran, an OM, “is very financially aware of doing things” and “the people who are quite astute financially would have higher expectations definitely”. This was corroborated by the OM, Fran, when he remarked about Penny that he: “can’t get enough of it” [i.e. her assistance].

In summary, overloaded expectations of a quantitative nature arose when OMs’ expectations of MAs were excessive. Such expectations were attributable to OMs’ lack of realism in their requests of MAs to deal more exclusively with OMs, a lack of appreciation of the work involved for MAs to address OMs’ expectations and a poor recognition by OMs of MAs’ other finance function responsibilities. While many OMs showed awareness of MAs having other responsibilities, MAs generally perceived that OMs did not reflect such awareness in the assuaging of their expectations of MAs. Furthermore, particularly competent MAs experienced overloaded expectations given their valued contributions to OMs, and financially savvy OMs also had raised expectations given their understanding of the roles of MAs.

4.4.2 Qualitative role overload. Qualitative role overload (Peterson et al., 1995; Sanders and Fulks, 1995) was evident in MAs perceiving some shortcomings in their competencies to meet the expectations of OMs. This was particularly evident in the findings around the MAs lacking in business understanding and assertiveness. Henry, a MA, was aware of the need to develop his business understanding:

[...] you get a sense that you don’t spend enough time on the floor and that you don’t know what you’re talking about or you make assumptions that are not correct [...] they obviously know the operation very well so if you need to have influence over them, question them, you need to understand the environment they are working in [...] it is something that I probably need to improve on.

Mary noted that “we need to be a bit stronger in getting on to the managers about their costs”, and Owen also noted “it is hard to be extremely pushy with someone when you are working alongside”. OMs concurred with this, expecting MAs to show more competence in the way they engaged with OMs:

[...] extremely capable individual and [she] probably just needs a little bit more confidence in [her] ability to actually, to go after opportunities to influence [Fran].

[...] could give us a kick more, each of the managers and that is a thing that I talked to him about, good cop, bad cop. I end up doing all the kicking [...] I was saying to him could you not be a bit more proactive in that [...] I would like to see the accountant based in the business [...] to have
that understanding and I would like to see us, him, looking forward and pushing strong to make things change [Ken].

[... ] a little bit quiet, he could be a little bit more I suppose not forceful in his opinions but kind of stand up and say look lads I think this is how it should be [Ted].

The knowledge that MAs had of the operations and their abilities to assert themselves more were perceived by MAs as expected by OMs and corroborated by OMs.

4.4.3 Constructing roles around overloaded expectations. Because these expectations were perceived as overloaded expectations, and quantitative role overload in particular, MAs could not accommodate them, which placed the onus back on OMs to be more realistic in their expectations of the roles of MAs. The capacities of MAs to do this relied upon their ability to assert themselves more in a way that would help modify OMs’ expectations. Fran, an OM, for example, noted that Penny, a MA, “may over flex to the detriment of routine”, meaning that Penny may put more emphasis on business support than on the routine financial reporting demands, and noted the scope for Penny to:

Just flag to me, push back to me and say look Fran what you are asking me to do here is just too much.

The role of non-accommodation was strongest, as would be expected, around the timing of expectations at acute pressure points (e.g. period end cycles) as various OMs noted:

[... ] if it is month end you know I can’t get to that [Clare].

[... ] when finance have their month end, they don’t look at anything [Ted].

It is a time constraint as much as anything, you know talk to [Ray] the first two weeks of the month it is all about getting the accounts done and understanding, there’s no time for anything else [Edel].

Regarding qualitative role overload, MAs constructed roles around these by spending more time in operational settings. For example, regarding developing a better understanding of the business, Barry, an OM, observed that Henry “took the initiative of going out and seeing the process which I have never seen”. The act of being “seen” on the floor was also a way of constructing a role, as one OM noted:

[... ] I think they do need to be seen to be out in the bushes as it were. Certainly, on occasions, on a regular basis, should not be in an oval office type situation. That is important [Tony].

And MAs concurred:

I think if they don’t see interaction on the operations side of the business you know what I mean giving them a good real amount of time like, information that they can relate to [... ] to have an interest [Henry].

The FM was also noted as a strong influence here as some OMs observed the capacity for the FM to release the MA for more operational engagement and therefore a means to develop their understanding of the business. Mary, a MA, commented that:

It would also be nice to get a bit more of where the three of us accountants [Mary, Tom, and Pat] to have a bit more responsibility than we have but we don’t, the responsibility tends to stay with the financial controller. It would be nice if he delegated more to give us a chance to develop.
Ann, an OM, remarked that the “major projects would go through the finance director” and “I wouldn’t necessarily be aware that the finance director would have Sue do it”, and Tom, a MA, noted that the FM is “often […] the first point of contact on something” following “management meetings”:

[…] something will come out of that so then we get involved in that and then we might be brought along the following week or two [Tom].

In summary, dealing with qualitative role overload could be addressed through MAs getting more involved in operations and for the FM to provide more opportunities for MAs to do so. With regard to quantitative role overload, MAs needed to “push back” where appropriate to moderate OMs’ expectations, and FMs were also in a position of authority here to influence, as some MAs seemed less assertive.

4.5 Underloaded expectations
In contrast to overloaded expectations, MAs sometimes perceived underloaded expectations, whereby MAs perceived that OMs’ expectations underestimated their capabilities to support them in their operational roles. One MA, Henry, noted that:

[…] some managers sometimes don’t realise what finance can do for them.

This perception of MAs about OMs was corroborated by OMs. Hugh, an OM, remarked:

I am not really sure of what benefit it is [referring to Paul, a MA].

The findings suggest a range of reasons why OMs may have lower expectations of the roles of MAs. Sometimes, the OMs were confident in making decisions independent of the MA:

[…] confident in my own judgement [Fran].

Penny, the MA, corroborated that it: “depends on how much they need me and the complexity of the project or the new product, if you will, because at times they can do a lot of it themselves”. OMs were also observed by MAs to vary in their capacity to be open to the influence of the MA on their roles as Pat, a MA, noted:

Other departments have own agenda and finance agenda may not be the same. [Jim, an OM] is new to the role, willing to change, listen, can influence [Jim] a lot more than other managers, willing to see the bigger picture, can see that finance are there to help while others would see finance as an encumbrance and a nuisance to what they do.

Sometimes, the individual style of the OM indicated underloaded expectations as Pat remarked that “it depends on their personality, some people are harder to get on with than others”, and similarly John, another MA, commented that “some people are very co-operative and some are just they won’t kind of accept meeting requests”. Some OMs recognised a mutual lacuna of role understanding:

I don’t know what they do enough to ask them and they don’t probably know how well the information they do could be applied to better information for operations [Ann].

In summary, underloaded expectations arose when OMs could expect more from the roles of MAs, and such low expectations were often attributable to OMs having a poor understanding of how MAs could assist OMs in their roles. Low OMs’ expectations were also related to the OMs’ ability to make decisions without the MA’s involvement, the complexity of the decision context, the OMs’ time in the organisation, the OMs’ personality and general attitude towards working with MAs.
4.5.1 Constructing roles around underloaded expectations. For both overloaded and underloaded expectations from OMs, MAs attributed these to the OMs’ understanding of the roles of MAs. MAs could counter underloaded expectations by trying to make OMs more aware of their roles:

[...] if you could write it, well the position entails, the full spectrum, there is a lot of stuff in the background that you are not aware of and that is part of my position so [John].

[...] get your point across is obviously a big one like sometimes you can and sometimes you can’t do it, it is important to tell them where you are coming from [...] sometimes they are so caught up in their own job you know I have a hundred and one other things to do here like, you’ll get your word across you might not have any influence on the way they do things [Henry].

MAs could also address underloaded expectations by spending more time in operations and out of the office and communicating with OMs about their roles.

4.6 Summary
As noted earlier, the findings provide evidence of four distinctly separate categories of OMs’ expectations of the roles of MAs. There is evidence that MAs construct their roles and address conflicts and ambiguities through a series of different measures, reflecting to varying degrees the source and nature of the particular expectations. For example, where conflicting expectations were perceived to exist, prioritising, anticipating, being resilient and using inter-personal skills were seen as effective measures. Where ambiguous expectations existed, communication and keeping records were observed as relevant strategies to adopt. Non-accommodation and spending more time in operations were perceived as useful measures to counter overloaded expectations. Underloaded expectations were also noted where OMs had a poor understanding of the roles of MAs, driven in part by the OMs’ abilities, problem complexity, receptiveness to and attitudes towards the influence of MAs on their roles. The role of the FM emerged as instrumental in the navigation of the emerging conflicts and ambiguities. These findings are discussed in the following section.

5. Discussion
The episodic nature of role theory’s predictions is supported by the findings: the role expectations of role senders (i.e. OMs) lead to role behaviours of MAs, and role conflicts and role ambiguities arise when there are differences between the roles sent by OMs, i.e. their expectations, and the roles received and enacted by MAs (Kahn et al., 1964; Katz and Kahn, 1978). The findings extend work on role conflict beyond the independence-involvement form (Lambert and Sponem, 2005; Maas and Matejka, 2009; Sathe, 1982) to show a range of conflicts and ambiguities and how MAs construct roles around them.

Conflicting expectations were largely attributed to expectations clashing between operations and the financial hierarchy, a form of inter-sender role conflict (Kahn et al., 1964), with MAs constructing roles as “messengers” that prioritised their direct reporting lines in the financial hierarchy, notwithstanding role alignment with operational units and processes. For MAs, conflicting expectations were a confluence of OMs, FMs and head office expectations that required MAs to construct a role balancing these expectations requiring resilience and inter-personal skills. Ambiguous expectations emerged as MAs were uncertain as to what was required of them in their roles (Kahn et al., 1964). Many MAs sensed that OMs would like them to provide more support to them, but other MAs were less certain about getting more involved. MAs also perceived ambiguity in their roles in that it was not always clear what OMs’ intentions were (Morales and Lambert, 2013), and MAs by
seeking prioritisation, asserting themselves and record keeping could construct a role to deal with some of this ambiguity. MAs also perceived ambiguity in meeting the reporting requirements of head office and the expectations of the FM. MAs seemed to accept that some level of ambiguity in the FM was inevitable given the dynamic nature of priorities. Resolving ambiguous expectations would suggest the need for better communication.

OMs are found to have overloaded expectations for the roles of MAs to the extent that some OMs expect MAs to be much more based in operations and giving primacy to operational support and not to financial reporting responsibilities (Hopper, 1980; Granlund and Lukka, 1998). These expectations were handled by MAs through non-accommodation, particularly during reporting cycle periods. These overloaded expectations were accentuated by the alignment of MAs to particular operational units and processes and so structural considerations contribute to these expectations (Hopper, 1980). Overloaded expectations relate to role overload (Kahn et al., 1964), particularly quantitative role overload (Peterson et al., 1995), and addressing these expectations suggests resource management implications and the need for OMs to moderate their expectations of the roles of MAs. It was observed that MAs could “counterattack” (Kahn et al., 1964, p. 29) more regarding overloaded expectations, but MAs did not seem to assert themselves strongly in this way. The findings also revealed a qualitative form of role overload (Peterson et al., 1995; Sanders and Fulk, 1995) and person-role conflict (Kahn et al., 1964) with regard to the competences of MAs in not understanding the business more and exerting more assertiveness. These have been highlighted in skills surveys (Burns and Yazdifar, 2001; Siegel and Sorersen, 1999). Some MAs seem to be addressing business understanding through spending more time on the factory floor and even symbolically to be “seen” out of the finance office space. Competencies in assertiveness may have implications for education, training and development of MAs for operations-oriented roles (Siegel et al., 2003a, 2003b, 2010; Thomson, 2015) and may also have links with the personality type of the MA (Byrne and Pierce, 2007; Hartmann and Maas, 2010).

In contrast to role theory’s concept of role overload, underloaded expectations were found to relate to OMs not being aware of how MAs could assist them more in their roles. These underloaded expectations were found to be related to the OM’s ability for independent decision-making, the decision complexity, how long the OM was in the organisation and the OM’s personality and attitude towards MAs in general. MAs constructed roles around underloaded expectations by making OMs more aware of their roles through spending more time in operations and communicating with OMs about their roles. This may require MAs to “sell” their roles more to OMs (Byrne and Pierce, 2007).

For OMs having underloaded expectations, the roles of MAs can be perceived as more remote (Masquefa, 2008), and coupled with MAs’ incomplete understanding of the expectations of OMs, this only exacerbates the “the user-preparer” divide (McKinnon and Bruns, 1992; Mendoza and Bescos, 2001; Pierce and O’Dea, 2003). Communication both ways between OMs and MAs, and via FMs, would seem justified to address underloaded expectations (Johnston et al., 2002; Siegel, 2000; Siegel et al., 2003a; Wolf et al., 2015).

The understanding that OMs had of the roles of MAs was found to be associated with both overloaded and underloaded expectations. Where OMs possessed a good understanding of the roles of MAs, this was linked with raised OMs’ expectations for MAs to be more involved in operations (Zoni and Merchant, 2007), which was exacerbated by particularly competent MAs, supporting the notion of “strong” MAs (Sathe, 1982). Whilst many OMs conveyed awareness of the financial reporting responsibilities of MAs, MAs often perceived that OMs did not convert such awareness into moderating their expectations of MAs. Where OMs possessed a poor understanding of the roles of MAs, this was linked with lower OMs’
expectations of MAs as OMs did not appreciate how the roles of MAs could be of benefit to them or OMs operated more independently of MAs as “strong” OMs (Pierce and O’Dea, 2003). Thus, higher OMs’ understanding of the roles of MAs was associated with higher OMs’ expectations of MAs, and lower OMs’ understanding of the roles of MAs was associated with lower OMs’ expectations of MAs. The findings suggest a need for OMs to moderate overloaded expectations through giving more allowance for MAs’ other roles and the work involved in meeting OMs’ demands, whilst MAs need to educate OMs more regarding how they can assist OMs and to assert themselves more in managing OMs’ expectations.

The role of the FM emerged as being critical to MAs’ roles, and this study brings to light new insights regarding this influence on the roles of MAs (Goretzki et al., 2013). FMs were perceived by OMs to have some scope to release MAs for more business support roles, subject to resource limitations and the reasonableness of OMs’ expectations. FMs also were found to act as the major influence on the roles of MAs as direct line manager in the financial hierarchy and also as a conduit for expectations from OMs, giving rise to a form of intra-sender role conflict (Kahn et al., 1964). This intermediary role of FMs in transmitting OMs’ expectations to MAs, separate to the direct transmission between OMs and MAs, is not well researched and not explicitly recognised in role theory in the analysis of sent and received roles (Kahn et al., 1964). There is some evidence that FMs with MAs directly reporting to them as part of the financial hierarchy still possess expectations for MAs to be more involved in supporting OMs in their roles (Byrne and Pierce, 2007). Both OMs and MAs in this study recognised the potential of the FM to empower MAs (Lambert and Sponem, 2012) and to facilitate communication around role conflicts and ambiguities. Furthermore, the FM was a key influence in the management of OMs’ overloaded and underloaded expectations of MAs. For example, the FM could communicate with OMs regarding quantitative overloaded expectations and the FM could promote the merits of OMs involving MAs more in operations to address underloaded expectations.

MAs perceived OMs’ expectations of more support from MAs in their operational functions or to have a better understanding of how MAs could assist them or influence them more in their roles as OMs. These expectations were prompted to some extent by alignment of the roles of MAs to operational processes and business units whilst maintaining the direct financial reporting line into the local and head office structure. Perhaps these OMs’ expectations are also fuelled by OMs’ general perception of MAs as business partners (Järvenpää, 2007; Goretzki et al., 2013) and the wider growing service expectation phenomenon (du Gay, 1996; Ozkan and Ozdevecio lu, 2013; Sweeney and Summers, 2002). For MAs in this study, expectations of MAs in service roles (Hopper, 1980) or business-oriented roles (Ahrens, 1997; Chenhall and Langfield-Smith, 1998; Johnston et al., 2002; Pierce and O’Dea, 2003) were challenging, given the range of expectations identified above. Whilst specific information and communication strategies to address role conflicts did not appear (Goretzki et al., 2017; Puyou, 2018), this work builds on these recent studies by showing that MAs, through employment of a range of role constructions, manage to navigate conflicting and ambiguous expectations and thus further support the notion of the hybridity MAs’ roles (Burns and Baldvinsdottir, 2005; Goretzki et al., 2017; Puyou, 2018).

Many MAs relayed the stress in attempting to handle OMs’ expectations, which highlight the need to address them. Addressing these expectations, beyond the role constructions used by MAs, would suggest that FMs are in a critical position to leverage more resources, to release MAs for more activities within operational settings and to communicate to both MAs and OMs regarding role specifications. Furthermore, OMs’ expectations indicate a need for education and training around managing expectations, conflicts and ambiguities in wider accounting roles in organisations (Siegel et al., 2010;
Moreover, there is a need for education to balance development for wider roles in organisations against the recognition that not all roles for MAs are decentralised and embedded in operations. The profession also in its espousal of contemporary roles for MAs ought to balance the pervasive pursuit of partnership roles in relation to other roles for MAs (Siegel et al., 2003a, 2003b; Jablonsky et al., 1993; Walker et al., 2012; Quinn and Rochford, 2013; Baier, 2014; Thomson, 2015). Experiencing role conflicts in the roles of MAs has implications for MAs sustaining their roles, given role conflict links to lower job satisfaction and weakened intentions to remain in an organisation (Gavin and Dileepan, 2002; Kelly and Barrett, 2011).

6. Conclusion
This study set out to explore the nature of the expectations of OMs for MAs and to examine how MAs construct roles around these expectations. From an in-depth analysis of the roles of MAs specifically linked with OMs, the following contributions to the literature have been made. First, the study provides insights into the nature of specific expectations of OMs for MAs, classifying them as conflicting expectations, ambiguous expectations, overloaded expectations and underloaded expectations. Second, it provides evidence of MAs using a range of measures to construct roles in the context of these different expectations, including prioritising the line function, competence deployment, non-accommodation and communication. Third, the study identifies the characteristics of the OM and the role of the FM as moderating OMs’ expectations. Finally, the use of the role theory lens provides a means of illuminating a better and deeper understanding of role expectations, role conflicts, role ambiguities, role overload and role underload relating to the roles of MAs and informed the linking up of specific OMs to related MAs to obtain these insights.

The study also identifies potential avenues for further addressing OMs’ expectations identified through educational, training and communication processes. The evidence suggests that there are roles for the OMs, MAs and FMs in addressing these expectations, whether it be, for example, in moderating overloaded expectations (for OMs), developing more business understanding and assertiveness (for MAs) or empowering and clarifying roles (for FMs). Notwithstanding the need for OMs to temper overloaded expectations, if OMs have a better understanding of the roles of MAs, the evidence suggests that MAs will be in a stronger position to assist OMs in their operational roles and MAs’ roles would experience less conflict and ambiguity. More widely, the study suggests that how we prepare MAs for their roles in organisations, whether in education or in professional development and the articulation of contemporary roles for MAs, should account for both business partner and non-business partner forms. Moreover, it is important to provide the necessary skills for MAs to manage and construct roles around the conflicts and ambiguities that may ensue in meeting operational and financial reporting responsibilities.

Further research might consider extending role theory use in a longitudinal analysis of how MAs construct roles over time. This could extend further understanding of the relationship between the influence of role sender’s understanding of focal roles on the expectations they then place on those in focal roles and to consider the role of the FM in this dynamic. Research could also examine these relationships more broadly across a wider sample base. The additional layer of head office expectations on top of the local financial management structures also warrants further research, given the conflicts and ambiguities identified in the study. The study is limited in its design, involving a small sample of managers and accountants. The findings are not necessarily applicable to other settings. The MAs faced a range of expectations and also revealed ways of constructing roles to navigate them in the context of a wide range of boundaries and constraints.
References


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## Appendix 1

### Role conflicts and ambiguities

<table>
<thead>
<tr>
<th>MA job title</th>
<th>First influencer</th>
<th>Second influencer</th>
<th>Third influencer</th>
<th>Fourth influencer</th>
</tr>
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<tbody>
<tr>
<td>Financial Services Manager(^a)</td>
<td>General Manager (Financial Controller)</td>
<td>Sales Director(^b)</td>
<td>Technical Services Manager</td>
<td>Production Manager(^a)</td>
</tr>
<tr>
<td>Operations Accountant – Business Unit A, Site A(^a)</td>
<td>Financial Controller</td>
<td>Supply Chain and Maintenance Manager – Site A(^a)</td>
<td>Business Unit Manager</td>
<td>Operations Director</td>
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<td>Operations Accountant – Business Unit B, Site A(^a)</td>
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<td>Operations Manager – Site A(^a)</td>
<td>IT Manager</td>
<td>Head Office</td>
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<tr>
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<td>Financial Controller</td>
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<td>Financial Controller</td>
<td>Head Office</td>
<td>Plant Manager – Site B(^b)</td>
<td>Accounting Controller</td>
</tr>
<tr>
<td>Management Accountant – Capital(^b)</td>
<td>Project Manager(^a)</td>
<td>Management Accounting Group Head</td>
<td>Financial Controller</td>
<td></td>
</tr>
<tr>
<td>Management Accountant – Inventory(^a)</td>
<td>Management Accounting Group Head</td>
<td>Financial Controller</td>
<td>Planning/Business Partner(^b)</td>
<td>Inventory Manager</td>
</tr>
<tr>
<td>Management Accountant – Planning(^a)</td>
<td>Financial Controller</td>
<td>Management Accounting Group Head</td>
<td>Production Director(^a)</td>
<td>Technical Support Manager</td>
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<tr>
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<td>Management Accounting Group Head</td>
<td>Financial Controller</td>
<td>Packaging/Production Manager(^a)</td>
<td>Production Manager</td>
</tr>
<tr>
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<td>Head Office</td>
<td>Managing Director(^a)</td>
<td>Operations Director(^a)</td>
</tr>
<tr>
<td>Management Accountant Supply Chain(^c)</td>
<td>Commercial Manager Supply Chain(^a)</td>
<td>Financial Controller</td>
<td>Production Manager</td>
<td>Development Manager</td>
</tr>
<tr>
<td>Management Accountant – Sales Divisions(^b)</td>
<td>Financial Controller (Two)</td>
<td>Direct Reports</td>
<td>Commercial Manager – Region(^a)</td>
<td>Sales Managers</td>
</tr>
<tr>
<td>Notes: (^a)Those in italic represent those who were interviewed; (^b)declined interview notwithstanding attempts to secure it; (^c)influence primarily through first influencer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table AI. Role influencers

## Appendix 2. Interview guide themes

### Interview schedule 1 – with MA

- Background information – profile of role
- Focal role description – major activities in role
- Major factors influencing role – identify factors, most influential ones
- Role definition sources – job descriptions, objectives, identification of role senders
- Involvement nature and expectations – involvement with OMs, identification of specific activities, OMs' expectations
Role stress – how stressful, situations
Role ambiguity – clarity of roles, uncertainties around roles
Role conflict – different views of roles, do things differently
MA role characteristics – those required for job, those possessed, suitability
Other issues

Interview schedule 2 – with OM paired with MA
- Background information – profile of role
- Role perceptions – of the specific roles of linked MA
- Interaction – frequency
- Involvement nature and expectations – involvement with OMs, confirmation of specific activities, OMs’ expectations of MAs’ roles
- Influence of manager over MA – impact of making recommendations, extent of influence
- Influence of MA over manager – impact of making recommendations, extent of influence
- Role conflict – characteristics required for job, those possessed, suitability
- Management control systems and reports – interactions with OMs around reports
- Other issues

Interview schedule 3 – with MA
- Reports – interactions with OMs around reports
- Procedural documents and the MA role – interactions with OMs around reports
- Follow-up questions from first and second interview
- Involvement influences, characteristics, and consequences – around interactions with OMs
- Other issues
Appendix 3

Figure A1.
Excerpt of coding architecture during analysis
About the authors

Dr Seán Byrne is a Lecturer in Accounting and Research Methods at Waterford Institute of Technology. He is Programme Joint Coordinator for the Doctorate in Business Administration. Seán has a PhD from DCU, a master's degree in the Management of Change (first class), and BA (Hons) in Business and Financial Studies. He has published papers in the European Accounting Review, Irish Accounting Review, Accounting Education and many conference proceedings. Research interests include management accounting and control systems and qualitative research. He is an associate member of CIMA and has performed managerial accounting roles with Diageo plc in the UK. Sean also serves on internal and external committees. Seán Byrne is the corresponding author and can be contacted at: SBYRNE@wit.ie

Bernard Pierce is Emeritus Professor of Accounting at Dublin City University Business School. He is a member of the Institute of Chartered Accountants in Ireland and the Association of Chartered Certified Accountants. He previously held positions as General Practice Manager at KPMG, Chartered Accountants, Dublin, as Head of Department of Accounting and Finance at the University of Zambia, Central Africa, and as Irish Life Senior Lecturer in Accounting at Dublin City University. He graduated from University College Dublin with a First Class Honours BComm degree and completed PhD studies at Lancaster University, England. He is a former chairman, secretary and council member of the Irish Accounting and Finance Association and is a member of the editorial board of the Irish Accounting Review.

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Biodiversity reporting and organised hypocrisy
The case of the South African food and retail industry

Warren Maroun, Kieran Usher and Hafsa Mansoor
School of Accountancy, University of the Witwatersrand, Johannesburg, South Africa

Abstract
Purpose – This study aims to examine biodiversity reporting by South African food producers and retailers. It not only draws attention to the disconnect between reporting on an important environmental issue and the sense of commitment to environmental responsibility, but also shows that over time, organisations are becoming more proactive about biodiversity reporting.

Design/methodology/approach – The research uses a content analysis of sustainability and integrated reports and organised hypocrisy as a theoretical framework for analysing biodiversity-related disclosures.

Findings – Consistent with an organised hypocrisy framework, the research finds that the several companies rely on corporate reporting to emphasise actions and internal management strategies that are already producing favourable results. In contrast, mission statements, firm policy commitments and forward-looking analysis are avoided. There is, however, evidence to suggest that the gaps between corporate reporting and action may be giving companies the time to reform their practices, align biodiversity disclosures with genuine corporate action and move towards truly integrated business models.

Research limitations/implications – Poor biodiversity reporting raises questions about the extent to which companies are managing serious environmental issues that can have a direct impact on their business models. Improvements in biodiversity reporting also suggest that corporate reporting is maturing and that some organisations are beginning to understand the need for managing their biodiversity impact.

Originality/value – The paper offers empirical evidence on how the disconnect between organisational rhetoric and action is used to manage stakeholder expectations and negate the need for environmental reforms. In this manner, organised hypocrisy is framed as a specific legitimisation strategy. The research also shows that organised hypocrisy is not absolute; despite the opportunity to engage in organised hypocrisy, some companies are taking a more proactive approach to biodiversity reporting. As a result, it may be appropriate to see organised hypocrisy as part of a transition to higher quality integrated or sustainability reporting.

Keywords South Africa, Integrated reporting, Sustainability, Biodiversity, Food and agriculture

Paper type Research paper

1. Introduction
Despite the mounting scientific evidence on the need for immediate intervention to address human impact on the planet (Crous and Roets, 2014; Melin et al., 2014), biodiversity
reporting is under-developed (Jones and Solomon, 2013; Tregidga, 2013). The critical social and environmental accounting research often attributes this neglect to a Western and Judeo–Christian anthropocentric perspective in terms of which humanity occupies a position of power and privilege in the natural world, while the intrinsic value of other species and the interdependency of all life-forms is marginalised (Jones and Solomon, 2013; Samkin et al., 2014). This goes hand in hand with the continued relevance of classical economic theory and finance paradigms, which emphasise short-term financial performance, even if this is to the detriment of sound long-term environmental policy (Gray, 2010; Jones, 2010; Samkin et al., 2014; Atkins et al., 2015).

The last 20 years has, however, seen a shift from a purely anthropocentric perspective on biodiversity to intermediate ecological paradigms and the emergence of an environmental sustainability discourse, which challenges the centrality of financial performance in business decision-making (Samkin et al., 2014; Russell et al., 2017). This can be seen in recent corporate governance developments, most notably the drive for more integrated approaches to business management and corporate reporting, which recognise the relevance of non-financial capital for the ability of organisations to generate sustainable returns (IIRC, 2013; De Villiers et al., 2014; Atkins and Maroun, 2015).

Focusing specifically on South Africa, in 2002, the country’s codes of corporate governance introduced the idea of triple-bottom-line reporting in recognition of the importance of growing social and environmental challenges [Institute of Directors in Southern Africa (IOD), 2002; Rossouw et al., 2002]. This was followed by the release of King-III in 2009 and the country’s discussion paper on integrated reporting in an effort to promote better integration of financial, environmental, social and human capital in decision-making processes and a stakeholder-centric approach to communicating value creation (Solomon, 2010; King, 2012). Nevertheless, South Africa continues to report worrying statistics showing that plant and animal life is under threat and that significant losses of biodiversity mass are being experienced because of human activity (Department of Environmental Affairs and Tourism, 1998; Wynberg, 2002; Biggs et al., 2006; Melin et al., 2014). This suggests that despite developments in corporate governance and non-financial reporting frameworks, organisations are failing to appreciate the importance of environmental issues for business continuity and that there is a division between corporate reporting and action (Patten, 2002; Tregidga et al., 2014; Cho et al., 2015).

To explore this tension in more detail, this research makes use of organised hypocrisy as a theoretical framework. It shows how some South African food retailers and producers rely on a process of counter-coupling. There is trade-off between corporate reporting used to communicate policy and decisions on the one hand, and disclosures on specific actions, plans and frameworks being used to address risks to the country’s biodiversity on the other. In doing so, the study reveals how incongruent rational, progressive and reputation facades are used to manage stakeholders’ competing expectations, providing a possible explanation for the narrow nature and limited extent of biodiversity information being included in early South African integrated reports. The role of organised hypocrisy in permanently constraining the potential of the corporate sustainability movement should not, however, be assumed. By evaluating how reporting changes over time, the study considers if it is possible for counter-coupling to give way to more active reporting that deals with biodiversity at the policy and operational level. If this is the case, organised hypocrisy may be better understood as a transitional phase to high quality integrated or sustainability reporting which is grounded in positive organisational change.

This paper makes an important theoretical and empirical contribution. A large body of work criticises sustainability reporting on the basis of a clear disconnect between
sustainability action and discourse (see, for example, Gray et al., 1995; Milne et al., 2009; Cho et al., 2012). Ironically, the possibility that the tension between organisational rhetoric and action may be key for managing stakeholders’ expectations and negating the need for substantive reform has been largely overlooked (Cho et al., 2015). In most instances, legitimacy theory is used to analyse changes in the quantity of disclosures (Patten, 2002; Cho, 2009), where information is reported to stakeholders (De Villiers and van Staden, 2011) and variations in language/tone as part of an impression management strategy (Cho et al., 2010; Higgins and Walker, 2012). There are few examples of how organised hypocrisy is used in an environmental or sustainability reporting context in general (Lipson, 2007; Cho et al., 2015). In addition, most of the previous research on biodiversity reporting deals with what companies include in their corporate reports (Rimmel and Jonäll, 2013; van Liempd and Busch, 2013; Schneider et al., 2014; Mansoor and Maroun, 2016) and the challenge of defining and disclosing biodiversity indicators (Cuckston, 2013; Freeman and Groom, 2013; Jones and Solomon, 2013). The extent to which this emerging reporting practice has been co-opted as part of a broader agenda that seeks to limit the extent of environmental reforms needs to be evaluated more thoroughly. At the same time, it is necessary to keep an open mind. The previous research is usually cynical. Sustainability and, more recently, integrated reporting are typically framed as a type of impression management (see, for example, Milne et al., 2009; Higgins et al., 2014; Tregidga et al., 2014). The possibility that over time, sustainability or integrated reports can improve and that the act of reporting can encourage organisations to alter the manner in which they do business is infrequently considered (for details, see Gallhofer et al., 2015; Guthrie et al., 2017). As a result, changes in biodiversity reporting over a fixed period provide a glimpse of how companies’ integrated or sustainability reporting is evolving. This answers Cho et al.’s (2015) call for additional research on whether organised hypocrisy has the potential to give way to more comprehensive forms of reporting.

The remainder of this paper is structured as follows: Section 2 outlines the organised hypocrisy model, explains how different facades are being used in a non-financial reporting context (Section 2.1) and summarises the state of biodiversity (Section 2.2) and biodiversity reporting (Section 2.3) in South Africa. Section 3 presents the method. Section 4 provides results and analysis, and Section 5 concludes.

2. Theoretical perspectives and development of the data collection instrument

2.1 Organised hypocrisy

From an institutional perspective, organisational structure, policy and practice reflect the social construction of legitimacy and resulting isomorphic pressure to comply with already institutionalised systems and structures to secure credibility (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Ashforth and Gibbs, 1990). Institutional environments are, however, pluralistic and the “generalised rules”, which are so important for gaining and maintaining legitimacy, can conflict with operational and efficiency considerations (Meyer and Rowan, 1977; Suchman, 1995). As a result, organisations operating in “highly institutionalised” settings frequently rely on a strategy of decoupling to “buffer” the “assumption that formal structures are really working from the inconsistencies and anomalies involved in technical activities” (Meyer and Rowan, 1977, p. 360).

Cho et al. (2015) describe a similar process, using organised hypocrisy as a theoretical framework. The organisation is no longer seen as following a single strategy to obtain a particular outcome but as a collection of multiple competing objectives, policies and practices that are selected according to specific challenges to legitimacy. In this pluralistic environment, management’s objective is:
According to the organised hypocrisy model, a company’s rhetoric and policy statements (on the one hand) and corresponding action (on the other) are inversely related, rather than “decoupled”, as is usually the case with institutional theory. As explained by Lipson (2007), the result is that “talk” and “decisions” compensate for inconsistent action or vice versa to allow an organisation manage the expectations of some constituents by using corporate reporting and policy development. At the same time, the business can allocate scarce resources to those activities that might conflict with certain organisational rhetoric but are an essential requirement for more influential stakeholders (Lipson, 2007).

Sustaining these inherent inconsistencies to maintain or bolster claims to legitimacy is often achieved by constructing rational, progressive and reputational facades[1] (Cho et al., 2015, p. 81). In the first instance, the organisation relies on rationality and logic to secure credibility. A progressive façade expands on this, not only appealing to a sense of rationality but also offering evidence of improvements in important processes. Finally, a reputation façade is constructed by reporting on those values, ideals and principles that are most respected or demanded by important stakeholders to build an image of a responsible corporation (Cho et al., 2015, p. 81).

Each façade can be used either to justify or to deflect attention from conflicting actions or behaviour. Rational facades usually involve appeals to the commercial sustainability of the organisation. This is based on the fact that market imperatives and short-term focus on profitability limit the extent to which modern corporations can devote resources to sustainability initiatives that may be detrimental for short-term financial returns (Jones, 2010; King, 2012; Atkins and Maroun, 2015; Cho et al., 2015).

In contrast, a progressive façade is not only dependent on the appearance of economic rationality but also on discourse, imagery and reporting, which implies progress (Cho et al., 2015). The aim is to rely on state-of-art technology, the most modern business models and codes of best practice to confer legitimacy and mitigate threats to the organisation’s credibility (Dowling and Pfeffer, 1975; Suchman, 1995). The intention is to avoid committing to specific actions that may fail to produce the desired results and could be costly. Instead, explaining policies, procedures and future plans can be used to imply that the organisation is making a good faith effort at addressing the concerns of some stakeholders without attracting criticism from those who may oppose specific reforms (Cho et al., 2015).

Finally, a reputation façade functions in a similar way as do the mimetic adoption of leading policies, practices and structures described by institutionalists. The organisation seeks to demonstrate how it is aligned with the accounting and corporate reporting discourse, which is most revered by the relevant stakeholders to gain a sense of legitimacy (DiMaggio and Powell, 1983; Suchman, 1995). In this manner, a “reputation façade deals with the image of the corporation” and can be used to “inflate a corporation’s realistic, achievable goals or mask performance that is unacceptable to certain groups of stakeholders” (Cho et al., 2015, p. 82).

Over time, it is possible for incongruence between an organisation’s policies, reporting and practice to be detected by stakeholders, erode the company’s credibility and lead to a crisis of confidence (Suchman, 1995; Brennan and Merkl-Davies, 2014). The complexity of contemporary firms, coupled with a lack of complete access to information, however, makes it difficult for stakeholders to reconcile inconsistencies between the different facades (Cho et al., 2015). This is especially true when organisations proactively manage stakeholders’ expectations and use reporting strategies to obfuscate negative information and champion
the companies’ accomplishments (Solomon et al., 2013). Variations in the interests of stakeholders should also not be overlooked.

The competing (and at times conflicting) demands of constituents allow organisations to construct different facades, each appealing to specific concerns, with little risk of diverse stakeholder groups collaborating to detect inconstancies and compel the firm to align its statements and practices (Suchman, 1995; Cho et al., 2015). Even if this is not the case, it is unlikely that management will acknowledge the hypocrisy. This would be tantamount to admitting “to irrationality, an inability to make progress and weak controls over reputation risk” (Cho et al., 2015, p. 83). Consequently, effective management of legitimacy requires an acknowledgement of immediate successes and espousing plans for improving future performance (Suchman, 1995). In this context, where organisational facades are challenged, the aim of any proposed reforms is usually focused on re-establishing the relationship between conflicting facades, rather than on committing to change business practice (Lipson, 2007; Cho et al., 2015).

This is not, however, to say that organised hypocrisy always results in impression management with little actual reform to corporate conduct. As explained by Cho et al. (2015), conflicting façades can allow an organisation to engage with different stakeholder expectations, preserve legitimacy and provide time to internalise these requirements to develop a genuine solution. Similarly, reputation or progressive facades can provide an ideal that the organisation strives for. In other words, provided that organisational hypocrisy is not used duplicitously, it can serve as an aspirational narrative and provide a basis for future action which is congruent with business objectives (Christensen et al., 2013).

2.2 Facades, organisational hypocrisy and environmental reporting

As explained by Cho et al. (2015) and Lipson (2007), for progressive, reputation and rational facades to be maintained, the relevant discourse needs to be developed in parallel without inconsistencies becoming apparent to stakeholders. This means that talks, decisions and actions across the facades must be counter-coupled.

For example, as explained by Tregidga et al. (2014), the growing emphasis on the importance of non-financial performance means that organisations are taking a keen interest in environmental, social and governance (ESG) disclosures. Nevertheless, given the continued relevance of finance paradigms, reporting is used to reframe “sustainability” in terms of the discourse of financial and economic viability. In this manner, an appeal to economic rationality means that, rather than result in a paradigm shift in business strategy and operation, the hegemonic challenge posed by the sustainability reporting movement is managed by juxtaposing sustainability requirements with the cost of implementation, operational challenges and the ultimate effect on the return of capital (Gray, 2013; Atkins et al., 2015a). Reputation and progressive facades are used in a similar way to limit the need for actual reform.

From both an institutional perspective and in terms of the organised hypocrisy model, organisational identity is contingently constructed according to the prevailing context (Suchman, 1995; Cho et al., 2015). This can be seen in the progression from reporting on environmental responsibility and compliance to integrated and sustainability reports being used to construct an image of sustainable development leadership and a sense of long-term commitment to environmental challenges (Tregidga et al., 2014). Together with use of rational economic facades, well-used expressions in corporate reports such as “triple-bottom-line”, the “sustainability reporting journey” and “integrated thinking” (King, 2012; IIRC, 2013) serve as images designed to “blend” ecological and market-orientated discourse to reassure stakeholders that significant steps are being taken to balance ESG concerns with
financial performance (Milne et al., 2009; Higgins and Walker, 2012; Brennan and Merkldavies, 2014). Contemporaneously, conceptualisations of what organisations ought to be doing to ensure truly sustainable business practice are limited (Laine, 2009; Gray, 2012). By stressing the idea of a “balance” between financial and non-financial metrics, and the importance of finding a market-based “equilibrium” for ESG management[2], the integrated or sustainability report can be mobilised effectively to shape an alternate view on what can be expected of an organisation. This can allow it to garner sympathy from constituents, abrogate responsibility for ESG failures and ensure the maintenance of the status quo (Laine, 2009; Higgins and Walker, 2012; Tregidga et al., 2014). Important environmental issues cannot, however, be completely ignored.

While the maintenance of financial capital is a primary consideration, climate change, habitat loss and extinction of species are featuring more often in social and political discourse (Gray, 2013; Intergovernmental Panel on Climate Change, 2013; Atkins et al., 2015a). The result is a growing awareness of the importance of managing financial and non-financial capitals in the interest of long-term sustainability (IIRC, 2013). Consequently, the last few years have seen the emergence of a progressive discourse in sustainability reporting (Cho et al., 2015). According to Tregidga et al. (2014), this often takes the form of a “win–win-rhetoric” in terms of which environmental issues and associated actions are conceptualised as a means of improving profitability or, at a minimum, a way of reducing the perceived social cost without compromising financial performance. This goes hand-in-hand with demonstrating that the firm is adopting the latest recommended non-financial reporting practices and is a leader in environmental management (Higgins et al., 2014; Tregidga et al., 2014). Equally important is appearing to be responsive to environmental disasters which have been (or might be) attributed to the firm and explaining how the latest technology is being used to remedy the situation and ensure an innovative cost-effective solution for preventing the re-occurrence of the problem (Patten, 2002; Cho et al., 2015).

The counter-coupling predicted by organised hypocrisy means that in each instance, ESG reporting is used to manage expectations and address challenges to legitimacy while decreasing the likelihood of corresponding action (Lipson, 2007). As explained by Cho et al. (2015), counter-coupling provides a mechanism for organisations to respond to some stakeholders’ expectations using rhetoric about desired outcomes and planned actions, while limited resources are used to meet the demands of only the most influential constituents. In this manner, organised hypocrisy can also be used as “a way of handling conflicts by reflecting them in inconsistencies among talk [and] decisions [on the one hand] and actions [on the other]” (Brunsson, 2007 in Cho et al., 2015, p. 81).

To test this assertion, this research examines the biodiversity reporting of South African food producers in 2013 when integrated reporting was being debated and applied for the first time. The researchers focus on South Africa because of its mature corporate governance and sustainability reporting practices which offer a well-established case for evaluating how an emerging type of sustainability reporting may be used as part of an organised hypocrisy strategy.

The researchers are also mindful of the fact that, over time, companies may be able to appreciate the relevance of emerging social or environmental challenges and address these in more detail in their integrated or sustainability reports (Atkins et al., 2015a; Gallhofer et al., 2015). This is not necessarily inconsistent with the operation of organised hypocrisy which, as explained above, may be used by companies to transition from superficial to more detailed reporting. As a result, in addition to assessing biodiversity disclosures in 2013, the study examines changes in reporting from 2013 to 2016 to determine if companies consistently apply a reporting strategy characterised by organised hypocrisy or if, as
speculated by Cho et al. (2015), organisational rhetoric is complemented with action-specific reporting and a detailed account of biodiversity-related risks.

2.3 Biodiversity in South Africa

Considering that South Africa boasts some of the most biodiverse regions in the world, there is a strong deep ecological case for effective biodiversity management (Department of Environmental Affairs and Tourism, 1998; Wynberg, 2002; South African National Biodiversity Institute, 2014)[3]. From an anthropocentric perspective, the importance of the country’s diverse natural habitats is clearly evident when considering that ecosystem services contribute an estimated Rand 73 billion[4] per annum or 7 per cent to South Africa’s GDP (Department of Environmental Affairs and Tourism, 2009). In this context, as a major commodity producing country, which is dependent on productive landscapes for growing sufficient food for local consumption and international trade, there is a clear need for sound environmental management in the agricultural sector (Crous and Roets, 2014).

In some instances, environmental initiatives are legislated and overseen by the Department of Environmental Affairs and Tourism (Wynberg, 2002; Crous and Roets, 2014). In other cases, sound environmental practices and biodiversity management are the result of active environmental research, educational initiatives and formal environmental management agreements. For example, South Africa is a signatory to the “Convention of Biological Diversity”, which is dedicated to the development, preservation and sustainable use of biodiversity (Wynberg, 2002; GRI, 2007). In addition, the country is part of the multinational Global Pollination Project (GPP) established and operated by United Nations Environment Programme (UNEP) and the Food and Agricultural Organisation of the United Nations (FAO)[5] (Mayes, 2012). Significant achievements in biodiversity conservation and management have also been made by the South African National Biodiversity Institute (SANBI). Created as a public entity by the Department of Environmental Affairs and Tourism, SANBI is involved in leading scientific research on biodiversity-related issues, and monitoring the state of South Africa’s biodiversity (Wynberg, 2002; SANBI, 2014). The institute and its partners have championed a number of environmentally friendly farming initiatives and published extensively on sustainable agricultural practices and biodiversity conservation (for example, Harrison and Young, 2010; SANBI, 2015).

In other instances, biodiversity awareness is driven by informal monitoring by environmental action groups (Atkins et al., 2018), media coverage of environmental challenges (Loate et al., 2015), consumer activism and growing social pressure to comply with codes of best practice (Crous and Roets, 2014). For example, a number of international industry trade standards have developed in response to consumers demanding environmentally responsible commodity production, such as the Global Good Agricultural Practice and the guidelines of the Forestry Stewardship Council (Crous and Roets, 2014). The proliferation of local and international guidelines and policy documents prompted the World Wildlife Fund for Nature in South Africa (WWF-SA) and a Conservation International-led partnership (Green Choice Alliance) to develop The Living Farms Reference. This synthesises different practice documents, outlines key sustainability principles and explains methods for sustainable farming (Scotcher, 2009). Nevertheless, the country’s biodiversity remains at risk (Department of Environmental Affairs and Tourism, 1998; Wynberg, 2002; Biggs et al., 2006; Melin et al., 2014), and what appears to be only an environmental issue is beginning to have serious implications for the local food industry.

For example, a study of pollinators finds that the number and variety of different insect species can significantly improve yields and that new diseases and habitat loss have the potential to constrain production of important crops (Wynberg, 2002; Melin et al., 2014). This
is especially relevant when it comes to deciduous fruit. It is estimated that the honey bee
provides pollination services valued between USD28 million and USD122.8 million without
which food security and the financial viability of farming operations could be called into
question (Allsopp et al., 2008; Melin et al., 2014). Access to suitable grazing and farming land
and the risk of erratic water supply owing to over-use and pollution add to the immediate
challenges being faced by the sector (Scotcher, 2009; Conservation South Africa, 2011).
Equally problematic are the reductions in the availability and quality of certain natural
resources, such as fish stocks, caused by climate change and over-harvesting (Conservation
South Africa, 2011).

In addition to the technical and operational challenges posed by these environmental
issues, the local food industry is coming under increasing scrutiny by environmentally
conscious consumers, NGOs and regulators to demonstrate how they are minimising their
environmental impact (Scotcher, 2010; Conservation South Africa, 2011; King, 2016). The
result is significant social pressure to report on effective management of natural capital
(Milne and Patten, 2002; Milne et al., 2009; Brennan and Merkl-Davies, 2014). In addition, as
consumer pressure for environmentally responsible production gains momentum, access to
natural and financial capital will be further constrained by poor biodiversity track records
and inadequate improvement of farming techniques (F&C Asset Management, 2004).
Similarly, as new regulations are introduced to manage biodiversity loss, production costs
and operating practices are expected to come under pressure posing additional challenges
for the sustainability of the local food industry (F&C Asset Management, 2004; Scotcher,
2009; McKenzie et al., 2013).

In this context, it is reasonable to expect companies in the South African agricultural and
food sectors to be devoting considerable attention to the management of biodiversity-related
risks and the disclosure of these issues in their integrated reports (consider Milne
and Patten, 2002; IRCSA, 2011; Atkins and Maroun, 2015; Maroun, 2016). The challenges
posed by biodiversity loss are, however, material and unlikely to be resolved without
significant changes to operating practices and business models. On the one hand, local
companies are subject to capital market pressures which compel the delivery of ever-higher
financial returns (Atkins et al., 2015a; Atkins and Maroun, 2015). On the other hand, there is
mounting pressure from the scientific community and environmentally conscious
consumers to commit to sustainable methods of production even if this is to the detriment of
immediate profitability (Crous and Roets, 2014; Atkins et al., 2016). In this context, in
attempting to balance these competing environmental and financial pressures, these
organisations use organised hypocrisy. Rational, progressive and reputation facades not
only manage environmental expectations but also constrain the prospect of meaningful
change in the interest of long-term sustainability.

3. Method
This research focuses on the companies in the South African food industry. This includes
companies listed on the local stock exchange in the food production, farming and fishing
and retail sub-sectors as at June 2013. The 2013 reporting period is chosen as the base year
because it coincides with the introduction of integrated reporting frameworks for listed
organisations and, as a result, an increased focus on the extent to which companies are
reporting on and managing different types of non-financial capital (Atkins and Maroun,
2014, 2015). Changes in biodiversity reporting from 2013 to 2016 are considered being the
last year when the companies under review had all prepared integrated reports at the time of
data collection.
Nineteen companies were analysed. Only integrated and sustainability reports were analysed. As it was not possible to track when information had been posted on company Web pages, these disclosures were not included in the disclosure analysis. In addition, articles in the popular press were excluded as these were not necessarily prepared by the respective organisations.

3.1 Construction of the data collection instrument

As a generally accepted framework for biodiversity reporting is not available, the researchers relied on the disclosures themes used by Grabsch et al. (2012) and van Liempd and Busch (2013) to code sustainability and integrated reports. These included scene-setting; species-related disclosures; social engagements; stakeholder engagements; performance evaluative data; risk reporting; internal management; and external reporting.

“Scene-setting” includes definitions of “biodiversity”, mission statements and disclosures which provide a context for or background to specific biodiversity issues (Grabsch et al., 2012; van Liempd and Busch, 2013). Disclosures on different species, their population sizes or importance for the organisation are included in the “species-related” category (van Liempd and Busch, 2013). “Social engagements” include reporting on partnerships with non-profit organisations, interactions with local communities and research initiatives as well as any related outcomes. Similarly, “stakeholder engagements” relate to specific interactions between a company and an identified stakeholder on biodiversity issues (Jones, 2010; Grabsch et al., 2012). Companies are also expected to report on their biodiversity performance targets and biodiversity-related risks. These disclosures are included under the “performance evaluation” and “risk reporting” disclosure codes (Grabsch et al., 2012; van Liempd and Busch, 2013). Finally, “internal management” and “external reporting” refer to the internal action plans in relation to biodiversity and internal processes to ensure that plans are executed and reported in an appropriate manner, ideally in accordance with accepted reporting frameworks, like the GRI (Grabsch et al., 2012; van Liempd and Busch, 2013).

Table I summarises the theme codes used for data analysis.

<table>
<thead>
<tr>
<th>Codes</th>
<th>Elements</th>
<th>Orientation</th>
</tr>
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<tbody>
<tr>
<td>Scene – setting</td>
<td>Definitions of biodiversity</td>
<td>Organisational rhetoric</td>
</tr>
<tr>
<td></td>
<td>Mission statement</td>
<td></td>
</tr>
<tr>
<td>Species – related</td>
<td>Site-specific</td>
<td>Organisational rhetoric</td>
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<td>Specific species</td>
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<td>IUCN Red List</td>
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<td>Social engagements</td>
<td>Partnerships</td>
<td>Organisational action</td>
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<td>Stakeholder engagements</td>
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<td>Performance evaluations</td>
<td>Target performance</td>
<td>Organisational action</td>
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<td>Risk</td>
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<td>Internal management</td>
<td>Biodiversity action plans</td>
<td>Organisational action</td>
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<td></td>
<td>Biodiversity officer</td>
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<tr>
<td>External reporting</td>
<td>GRI and other frameworks</td>
<td>Organisational rhetoric</td>
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</table>

Table I. Summary of disclosure themes
It was not possible to engage directly with each company included in the analysis and, as a result, the research adapts the approach followed by Cho et al. (2015) to distinguish between biodiversity rhetoric and action. The former (“talk” and “decision”) are defined as general disclosure statements, commitments and planned objectives without reference to specific action plans or internal processes (Cho et al., 2015, p. 86). These include the theme codes dealing with scene-setting, species-related information and external reports. In contrast, disclosures dealing with what organisations had already achieved (including internal operations, risk-management and biodiversity action plans) are interpreted as “action-specific information” (Cho et al., 2015). These included codes for social engagement, performance evaluations, risk-management and internal management (see also Tregidga and Milne, 2006; Samkin et al., 2014).

In this manner, the distinction between talk and action took into account the emphasis being placed on driving change in business policy and practice. For example, generic mission statements on or definitions of biodiversity which are not explained in the context of an organisation’s operations are only scene-setting disclosures. They do little to explain the magnitude of biodiversity loss and the implications that these could have for food producers (Jones and Solomon, 2013; Adler et al., 2018). In contrast, biodiversity disclosures can be part of detailed narratives used to provide context, explain why loss of species is a material business risk and justify a company’s position on environmental risk management (Atkins et al., 2015a; Russell et al., 2017).

To promote positive change, descriptive biodiversity disclosures should be integrated with the company’s strategy for mitigating environmental impact, an explanation of how environmental targets are established and measured, details on the steps taken to reverse biodiversity loss and the results of post-implementation review (Atkins and Maroun, 2018). This can be complemented by an explanation of how companies are partnering with NGOs, research groups and regulators to define and identify environmental risks more accurately and develop comprehensive solutions for tackling biodiversity loss (Atkins et al., 2018).

In other words, action-focused reporting cannot be symbolic. Companies should be acknowledging the risks posed by biodiversity loss and recognising that responsibility for protecting species cannot be left only to governments or environmental groups (Cho et al., 2015). Threats to biodiversity should be analysed in the context of an organisation’s strategy and operating model and form a core part of reporting to stakeholders on returns being generated and the risks associated with those returns (consider GRI, 2007; De Villiers et al., 2017; Van Zijl et al., 2017). In turn, this requires accounting and management control system which are capable of collecting the data necessary for assessing environmental impact, tracking the progress of environmental initiatives and informing changes to future plans for mitigating biodiversity loss (Maroun and Atkins, 2018).

3.2 Data collection and analysis
A content analysis is used to collect and analyse data. This entailed “codifying qualitative and quantitative information into pre-defined categories in order to derive patterns in the presentation and reporting of information”, in this case, the nature of biodiversity reporting by selected companies and how this links with an organised hypocrisy framework (Guthrie et al., 2004, p. 287). The researchers used an interpretive data analysis protocol consistent with the method used in comparable studies (for examples, see Grabsch et al., 2012; Rimmel and Jonäll, 2013; van Liempd and Busch, 2013). More specifically, data collection and analysis was based on the approach outlined by Krippendorff (1989), Beattie et al. (2004) and Samkin et al. (2014).
The 2013 and 2016 integrated and sustainably reports were read several times to gain a sense of the structure of the report, different disclosures and the specific biodiversity themes being addressed. Once the initial readings were completed, the researchers re-examined the reports and identified extracts that related to the biodiversity issues, as per Table I (adapted from Tregidga and Milne, 2006). The integrated and sustainability reports for all companies under review were examined and no sections of the reports were excluded from the analysis.

The elements of the biodiversity reporting framework (as per Table I) affected the choice of the unit of analysis (or text unit) (Krippendorff, 1989). Using specific words or sentences was too granular and examples of biodiversity-related disclosures lacked detail. As a result, words, sentences and paragraphs were grouped to allow the researchers to identify subsections of the integrated and sustainability reports that dealt with biodiversity-related issues and the context in which these issues were being discussed[9] (Beattie et al., 2004; Samkin et al., 2014). Defining the unit of analysis according phrases, principles or themes also ensured that emphasis could be placed on analysing text of different length according to where a particular principle, concept or idea is being discussed rather than being limited by arbitrary disaggregation of the text (Campbell and Abdul Rahman, 2010).

Each text unit that dealt with biodiversity was recorded in a spreadsheet and was categorised into one or more of the codes/themes, as per Table I. This avoided having to assign a text unit to only a single code according to a subjective view of the primary emphasis in a particular disclosure (cf. Samkin et al., 2014). During the coding process, examples, flags and exclusions were noted so that each disclosure code was interpreted consistently. The coding of the integrated and sustainability reports continued until all sections in the documents had been processed. The final data map showed each biodiversity disclosure per company and the disclosure codes/themes to which it relates.

Once all of the biodiversity-related text had been identified and analysed, the researchers followed a three stage process to categorise companies’ reporting strategies. Firstly, once all of the integrated and sustainability reports were coded, each company’s set of reports was considered holistically. Companies were grouped according to the researchers’ impression of the emphasis placed on either organisational rhetoric or action. Differences were discussed in detail.

The analysis took into account whether in the researchers’ opinion, there was an indication of companies being actively committed to managing risks posed by biodiversity loss. As explained in Section 3.1, the researchers were looking for an indication that companies had internalised the risks posed by biodiversity loss and were aware of the importance of biodiversity for their business models rather than just providing descriptive disclosures (Russell et al., 2017; Atkins and Maroun, 2018). This included considering whether interconnections between operations, biodiversity impact and specific steps being taken to mitigate biodiversity loss were being explained. The researchers were also focused whether disclosures, as a whole, were generic or linked clearly to policies and action plans for protecting biodiversity (consider GRI, 2007; De Villiers et al., 2017).

The first stage of data analysis was useful for ensuring that the researchers focused on the corporate reports as a whole rather than only specific disclosures. The process was, however, subjective and can overlook important details. As a result, using a similar approach to Cho et al. (2015), interpretive text analysis was used in the second stage of the analysis to examine individual disclosures in more detail.

Disclosures listed in the data map were re-read and contrast. The objective was to gain a sense of the meaning of each disclosure and how biodiversity was framed. For example, some disclosures used an economic case to temper expectations for significant changes to operations or defer the need for change. Others were used to suggest that the respective
company was a responsible corporate citizen but without providing an objective account of what had been done to protect biodiversity. In contrast, some disclosures formed part of a narrative designed to explain the importance of biodiversity supported by clear action statements which showed how biodiversity was being conserved (Cho et al., 2015; Atkins et al., 2018).

By taking into account which companies provided the different types of disclosure, it was possible to categorise organisations with similar reporting styles. Three categories emerged. Some organisations were reporting actively on biodiversity. They provided both descriptive/narrative account of biodiversity (for example, mission statements and species affected by operations) as well as details on their partnerships with NGOs, changes to operations and policies for mitigating biodiversity loss. This comprehensive approach to reporting was interpreted as an indication that these companies were aware of the importance of biodiversity and suggested a genuine effort to respond to the loss of biodiversity (Atkins et al., 2018).

In contrast to the active reporters were companies that appeared to be using an avoidance strategy. They provided few biodiversity disclosures in their integrated or sustainability reports and it was, therefore, not possible to conclude definitively on the extent to which they internalised the relevance of biodiversity.

Finally, organisations engaging in organised hypocrisy provided little context (adapted from Cho et al., 2015). As a result, although disclosures dealt with different environmental actions, these were not always specific to biodiversity. A rational financial perspective was also evident with the result that companies preferred to report on past achievements rather than commit to potentially costly programmes to reverse declining trends in biodiversity.

To ensure accuracy and reliability, coded reports were re-assessed several days later to confirm that all parts of the reports had been considered and that the coding was correctly and consistently applied by the individual researchers. The categorisation of companies’ reporting strategies was also re-evaluated. Nevertheless, the authors were aware of the inherently subjective nature of the second stage of the analysis. As pointed out by Milne et al. (2009, p. 1,224),

In such interpretive analysis we recognise our (unavoidable) involvement in the construction of meaning as readers and analysers of the texts, their re-interpretation, and our articulation of those interpretations in this paper.

Consequently, the researchers decided to use a quantitative technique to corroborate the categorisation of companies based on the first two stages of the analysis.

A binary scoring system was used to record the frequency of each disclosure code/theme as per Table I for each company (without taking into account the grouping from the first or second stage of the analysis). A score of “0” was used to indicate the absence of a disclosure code and “1” was assigned when the code was dealt with in an integrated or sustainability report.

Owing to the fact that a scientific text analysis approach was not used, no effort was made to test for statistically significant differences in the frequency of disclosures or codes although the researchers did control for repetition. The total frequencies per code were used to determine the emphasis placed on organisational rhetoric or action according only to the orientation of the codes, as indicated in Table I. The un-tabulated frequency report showing total action and rhetoric-orientated disclosure per company provided results consistent with first stage of the analysis.

Given the small sample size, in addition to examining changes in the total disclosure scores per biodiversity theme/code, the researchers ranked the individual companies
according to the amount of action or rhetoric-focused disclosure being provided. This was done by organising the companies into quartiles and, in turn, classifying the frequency of action- and rhetoric-focused disclosures per company as low or high relative to the total number of disclosures. Where the frequency of a specific code for a particular company was less than 25 per cent of the total disclosure score, the relative emphases placed on the respective disclosures was classified as very low. If the disclosure score was less than 50 per cent but greater than 25 per cent of the total score, the disclosure is classified as having a low emphasis. Similarly, disclosure scores greater than 50 per cent or 75 per cent of the total score were classified as medium and high emphasis respectively. These classifications were used to construct an easy-to-interpret 4 × 4 matrix to identify trade-offs between theme codes associated with corporate action and rhetoric and, in doing so, identify companies engaged in organised hypocrisy. Companies providing little to no biodiversity disclosure (defined as an avoidance strategy) or reporting actively on biodiversity (evidenced by a high frequency of action- or rhetoric-focused reporting) were also identified. The completed matrix was compared with the classifications from the second stage of the analysis. The companies were categorised consistently. The final coding table is presented in Section 4.

4. Results and discussion
As explained in Section 3, by grouping companies according to the relative emphasis placed on different disclosure themes, three reporting strategies are identified. In Table II, companies engaged in organised hypocrisy are included in Quadrant 1 and Quadrant 3. The former highlights those companies that focus their biodiversity-reporting on theme codes associated with organisational rhetoric (“talk” and “decisions”) and de-emphasise reporting on internal management and specific action plans. Conversely, Quadrant 3 identifies companies where reporting is more action-orientated and the emphasis on biodiversity rhetoric is limited. Quadrants 2 and 4 deal with companies which do not appear to by relying on organised hypocrisy. These firms either provide limited reporting on all biodiversity

<table>
<thead>
<tr>
<th>Biodiversity rhetoric</th>
<th>Very low</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
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<tr>
<td><strong>Internal management and action</strong></td>
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<tr>
<td>Very low</td>
<td>Quadrant 2 (58%)</td>
<td>Quadrant 1 (0%)</td>
<td></td>
<td></td>
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<tr>
<td>Low</td>
<td>Avoidance</td>
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<td>Producer 2</td>
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<td>Producer 8</td>
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<td>Producer 14</td>
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<td>Retailer 1</td>
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<td></td>
<td>Retailer 2</td>
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<td></td>
<td>Retailer 5</td>
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<tr>
<td>Medium</td>
<td>Quadrant 3 (21%)</td>
<td>Quadrant 4 (21%)</td>
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<tr>
<td>High</td>
<td>Organised hypocrisy</td>
<td>Active reporting</td>
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<td></td>
<td>Producer 1</td>
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<td></td>
<td>Producer 7</td>
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</table>

Table II. Reporting matrix for 2013
disclosures (Quadrant 2) or were those companies which provide most information on each biodiversity reporting theme (Quadrant 4).

4.1 Quadrants 3: organised hypocrisy

None of the companies in the local food industry relied on a strategy of emphasising rhetoric-related disclosures and avoiding specifics on actions, plans and policies designed to address biodiversity loss (Quadrant 1). Having chosen to deal with biodiversity issues in their integrated and sustainability reports, the companies signal that biodiversity is a potentially important business consideration (Patten, 2002; De Villiers and van Staden, 2011; Mansoor and Maroun, 2016). As such, definitions, generic mission statements or reporting limited to select species are unlikely to be useful for managing organisational legitimacy. Instead, companies focus on action-related disclosures, creating the impression that biodiversity risks are under control.

An overarching rational façade is used to maintain that the business models are economically viable. The façade is grounded in a strong finance discourse which appeals to the importance of delivering superior financial returns and strong economic growth. For example:

The company is in good shape with a strong balance sheet, healthy cash generation and robust [biological] assets across Africa. [The company’s] objective is to be a major player in every country in which it operates and to be the majority shareholder and manage the business for which it is responsible […] However, we operate in a world that is constantly changing and uncertain, and [the company] is not alone in needing to overcome significant economic, market, labour and socio-economic challenges within the African continent and the world at large (Producer 4, Integrated Report, 2013).

There is no reference to biodiversity loss or the environmental challenges faced by the organisation in its opening commentary on the firm’s performance and strategy. Key risks and strategy emphasise financial capital and remediation of biodiversity loss are not identified as material considerations which may have implications for the ability of the respective companies to generate sustainable returns.

Nevertheless, as evidence of environmental challenges mounts (Section 2.3), the organisations must use a progressive façade to demonstrate improvements in environmentally sound production. As explained by Cho et al. (2015, p. 87), this ensures that corporate reports resonate with the “norms of economic rationality” while simultaneously mirroring ‘norms of progress’. Consider, for example, the following comment dealing with the conversion and rehabilitation of land used for agricultural purposes as part of the company’s biodiversity management:

[…] the business continues to rehabilitate currently unproductive land […] these conversion activities are based fundamentally around sustainable development principles and will see over 5000 hectares of land being rehabilitated into natural habitat, with formal management models being created to ensure the long-term sustainable maintenance of these assets for the benefit of the broader region. In terms of the socio-economic legs of the sustainable development philosophy, conversion of this land will also see the creation of new employment, housing, social, recreational and commercial opportunities as well as the associated new capital investment (Producer 5, Integrated Report, 2013).

A progressive façade is based on demonstrating how business objectives (an increase in supply of raw material) can be balanced with social obligations (new employment, housing and local investment) and the prudential management of environmental resources (land rehabilitation) (Tregidga et al., 2014). This is used to suggest that environmental obligations can be managed and offer a potential for reform that should appeal to most environmentally conscious stakeholders (Cho et al., 2015).
The organisations in Quadrant 3 also devoted considerable attention to their image as sustainable retailers and food producers. The aim is to demonstrate how the entities can be trusted with environmental stewardship and are taking a leading role in sustainable business management (Tregidga et al., 2014; Cho et al., 2015). To this end, all of the sustainability and integrated reports of these companies referred to different aspects of the environment as part of their core values. Although these statements did not refer specifically to “biodiversity”, there were numerous references to compliance with codes of good governance and relevant industry standards to demonstrate how the organisations are at the cutting edge of non-financial capital reporting and management. This is usually framed in a stakeholder-centric rhetoric which stresses an appreciation of the importance of focusing on more than just shareholder returns:

The company has placed a major emphasis on the need to increase the pace of conversion while establishing, maintaining and entrenching appropriate value benchmarks and value contribution for all stakeholders (Producer 5, Integrated Report, 2013, emphasis added).

[The Group] has in place a formal environmental policy, which outlines its commitment to identify environmental and climate change risks, taking actions to address weaknesses and forging strong relationships with relevant stakeholders. The Group is committed to setting targets and monitoring, measuring and reporting on environmental issues in line with international best practice standards such as ISO 14001 (Producer 1, Integrated Report, 2013, emphasis added).

Despite statements on the importance of stakeholder-centric reporting and environmental awareness, the companies avoid quantifying the likelihood and magnitude of biodiversity-related risks or providing a measure of the financial cost of environmental remediation. This is not necessarily about manipulating stakeholders. According to the organised hypocrisy model, companies in Quadrant 3 must remain aware of dominant financial considerations (Jones, 2010; Cho et al., 2015). A detailed plan explaining the magnitude of biodiversity risks, the steps being taken to address these and the effect on variability of future cash flows could have the unintended consequence of alerting stakeholders to previously unconsidered sustainability issues with adverse implications for share prices and management continuity (De Villiers and van Staden, 2006).

What must also be remembered is that many of the biodiversity-related risks being faced by organisations are complex and unlikely to be resolved in the short-term (Crous and Roets, 2014). As a result, counter-coupling normally involves limiting discloses on the mission statements, impacts on specific species and references to reporting frameworks and industry standards. As discussed above, this avoids unintentionally drawing attention to the risks associated with environmental capital which might otherwise have gone unnoticed (O’Dwyer, 2002; De Villiers and van Staden, 2006).

This does not mean that the organisations in Quadrant 3 can avoid dealing with biodiversity loss. As explained by Patten (1992, 2002; 2005), an increased awareness of environmental issues must be addressed in corporate communications with stakeholders. What the companies in Quadrant 3 are, however, disclosing are the actions which have already been taken and reflect the organisations in a favourable light. Consider, for example, the following extract from a sustainability report discussing the importance of biodiversity-friendly farming product emphasis:

We sold 16 per cent more wine (with a retail value of R82.0 million) certified by the Biodiversity and Wine Initiative, a multi-stakeholder project to produce wines that have a minimal impact on the fragile Cape Floral Kingdom (Retailer 3, Integrated Report, 2012).
Rational facades are still important. In this case, the company frames its discussion on sustainable farming in terms of its commitment to support biodiversity initiatives. The sustainability report adds to this by referring to the importance of ensuring that the cost of its supply chain reforms is controlled in the interest of affordability for consumers and profitability for shareholders. In this way, progressive and reputation façades are constructed by appealing to the need for balance between financial imperatives and the importance of environmentally responsible farming using already proven developments to avoid scrutiny. Consider the following:

[The Company] encourages farming practices that contribute to a healthy environment and society; that’s why we’re supplying more and more organic food, which is grown without harmful chemical fertilisers and pesticides, and does not expose the environment or workers to potentially hazardous compounds […] A partnership with the [local organic farming co-operative] will see the co-operative supply 217t of organic vegetables…Our organic range conforms to international standards…Principal challenges are: finding reliable local sources; managing a market whose growth is outpacing production; and managing the exchange-rate risk when local suppliers cannot be found. We are encouraging suitable farmers to implement organic systems to enable us to address these issues. Our performance in organic products has been encouraging; during 2012 the market grew at 29.6 per cent, while […] unit growth was 66.8 per cent. Strong performance was shown across the grocery and produce categories (Retailer 3, Sustainability Report, 2013).

The company reinforces its reputation façade by reporting confirmed achievements and historic performance measures. This also bolsters claims to progressive environmental management, which emphasises commitment to improving the reliability of the supply chain by addressing environmental issues. Projections of the impact of emerging biodiversity risks identified in the scientific research are, however, left unaddressed. For example, none of the companies in Quadrant 3 referred to the implications of climate change, habitat loss, over-fishing or collapse of pollination services for their business models and their plans for addressing these risks (see also Maroun, 2016; Romi and Longing, 2016). This may be owing to the fact that action plans are still being developed but in terms of the organised hypocrisy model, this is fully consistent with relying on a trade-off between prospective policy statements and reporting on current actions to maintain conflicting organisational facades.

4.2 Quadrant 2: avoidance
As explained by Deegan (2002), Milne and Patten (2002) and Kuruppu and Milne (2010), the relationship between environmental reporting, societal expectations and specific firm imperatives is complex. Consequently, not all of the companies under review make use of organised hypocrisy to deal with the challenges posed by biodiversity loss.

The majority of companies (58 per cent) provided little information on biodiversity themes that we interpret as an avoidance strategy for managing a potential threat to legitimacy. This involves limiting the extent of reporting in total in an effort to stay out of a public debate on biodiversity and publicise potentially negative information on firm performance (Deegan et al., 2002; Cho, 2009). As found by De Villiers and van Staden (2006), this strategy may be particularly useful when stakeholders’ environmental expectations are not explicitly defined or codified and a widely publicised environmental disaster has not resulted in a direct threat to legitimacy (see also O’Dwyer, 2002). A lack of biodiversity reporting by some South African food producers is also consistent with a recent study by Leung et al. (2015, p. 287), which, while based on data from a different jurisdiction, shows that “trends and dynamic aspects of past and future corporate performance […] tend to be concealed” by using a strategy of non-reporting.
Related closely to this, limited biodiversity disclosures can be interpreted as an unintentional concealment, by the companies in Quadrant 2, of “negative truths from themselves and, consequently, from shareholders” (Solomon et al., 2013, p. 204). This is not necessarily duplicitous. Management may genuinely feel that their business models deal adequately with financial and natural capital and that risks posed by biodiversity are either limited or not within their control. In this manner, non-reporting is part of a reporting strategy aimed at avoiding presenting information, which is inconsistent with existing impressions of the organisations or which could contradict the taken-for-granted position that business models are already sustainable (Solomon et al., 2013; Atkins et al., 2015b).

4.3 Quadrant 4: active reporting

Organisations in Quadrant 4 provided the most detailed biodiversity accounts. This included information on biodiversity mission statements, species affected by operations and compliance with reporting frameworks. As examples of rhetoric-focused reporting, it is possible to interpret these disclosures as a type of impression management. What is important to note, however, is that generic information on biodiversity was complemented by specific examples of how biodiversity is being managed at the operational level. This suggests more than just superficial reporting to manage stakeholders’ expectations (Atkins et al., 2015a). Retailer 4 provided by the best illustration of this approach to reporting.

The company dedicated a large part of its 2013 sustainability report to explain specific biodiversity-related objectives, including performance measures and targets for the next two financial years. These included, *inter alia*, water usage, waste reduction, animal welfare and quantity of goods obtained from environmentally responsible sources. The disclosures are supported by a detailed explanation of how the company monitors and evaluates its biodiversity impact. For example, during the last year, 133 of our primary fresh produce and horticulture suppliers were independently audited against our [farming] standard, as well as a number of our secondary suppliers. The audit covers the following aspects of farming and packaging/processing in great detail:

- soil management (soil chemical composition, soil nutrient status, fertilisation practices, soil carbon content, soil cover);
- irrigation water management (calculation of irrigation requirement, measurement of soil moisture, water use efficiency, water chemical composition and water health);
- biodiversity management (conservation of endangered species, alien invasive plant management, fire management, game and problem animal management and erosion management); and
- pest and plant management (legal agro–chemical usage, integrated pest and disease management and integrated weed management)[…] (Retailer 4, Sustainability Report, 2013).

There is also evidence of specific action plans being implemented and subject to internal and external review as evidence of a commitment to reducing biodiversity impact:

Although [agricultural activity] has a relatively low impact on the environment, in order to minimise any potential harm[…], [the company], has engaged with the [World Wildlife Fund] to develop a set of standards. The [farming operation] has adopted these recently developed [standards] and has been audited by the Stewardship Council. Accreditation was granted in November and this eco-label is used to guarantee that [the company’s] products are and continue to be raised in an environmentally responsible manner (Producer 3, Integrated Report).
The evaluation and management of biodiversity impact by companies in Quadrant 4 is also supported by partnerships with leading environmental NGOs that assist with the identification of biodiversity-related issues, development of action plans and the certification of sustainable agricultural practices. For example:

In 2010 [the Company] entered into a three-year partnership with the WWF’s Sustainable Fisheries Programme, which aims to restore over-exploited fish stocks to sustainable levels, and to maintain or improve the state of other stocks by applying an ecosystem approach to fisheries and reducing the impacts of destructive fishing practices. [The Company] achieved three critical milestones in 2012: producing a procurement list for all fish purchased, and assessing their sustainability status; developing new supplier procurement guidelines; and addressing labelling concerns. All new products sourced by [the Company] must comply with the new supplier guidelines and seafood commitments (Retailer 3, Sustainability Report, 2013).

In addition to reporting on specific targets/objectives, there are examples of detailed reporting at the scene-setting level being used to give a sense of how well companies are managing biodiversity impact and the resources being used to achieve environmental objectives:

Alien plants use over 7 per cent of South Africa’s water resources. In partnership with the [Word Wildlife Fund’s] Water Balance project, [the company] continues to invest in the clearing and removal of water-thirsty invasive alien vegetation in [different areas]. [The company] has invested in the WWF-SA Water Balance Programme for more than six years. The scheme, launched in association with the government’s Working for Water programme, has multiple objectives, including reducing the impact of invasive alien plants on water supplies and restoring biodiversity and functioning ecosystems, as well as creating jobs and economic empowerment. Through this initiative over 200 condensed hectares, spread over an area of over 440 hectares have been cleared to date. This prevents approximately 330000 kilolitres of water being lost to thirsty invasive alien plants annually and has generated approximately 5,000 person days of work (Retailer 4, Sustainability Report, 2013).

There is room for improvement. For example, the companies in Quadrant 4 neither defined biodiversity explicitly nor consistently identify biodiversity as a material business issue. Similarly, they did not quantify the magnitude and impact of associated risks (Raemaekers et al., 2016; Maroun and Atkins, 2018). Nevertheless, the relatively high emphasis placed on rhetoric-focused disclosures and internal management of biodiversity points to the emergence of a more mature approach to biodiversity reporting. This finding is not inconsistent with an organised hypocrisy framework. Conflicting facades allow organisations to manage threats to legitimacy and, over time, to internalise stakeholder expectations and develop more sophisticated approaches to significant environmental challenges. In other words, provided that the reporting entity does not see biodiversity disclosures as a simple compliance exercise, it is possible for some companies to move beyond managing different facades and appreciate the need for organisational rhetoric to be supported by an explanation of how biodiversity-related issues are actually managed (Christensen et al., 2013; Cho et al., 2015). This is examined in more detail by taking into account how reporting strategies change over time.

4.4 Changes in reporting
From 2013 to 2016, the total number of biodiversity disclosures identified as rhetoric-orientated increases by 31 per cent. Action-focused disclosures increase by 47 per cent. As shown in Table III, the result is a reduction in the number of companies using an avoidance strategy to deal with biodiversity-related risks (Quadrant 2) in favour of a more active approach to biodiversity reporting (Quadrant 4).
In 2013, Producers 2 and 13 adopted an avoidance strategy. By 2016, these two companies provided more detail on the impact of their operations on biodiversity and steps being taken to mitigate their environmental impact. For example, Producer 13 identifies the need to minimise its environmental footprint as a strategic objective and provides the following information on how it has reviewed its land management policies to achieve this:

The Group owns no land in protected areas [...] and 3,234ha of land on 42 properties in areas of high biodiversity value outside protected areas [...] The Group does not manage or lease any land in protected areas and areas of high biodiversity value outside protected areas [...] Storm water runoff and the impact of these activities is managed and mitigated in terms of submitted environmental management plans ("EMPs") [...] Although IUCN Red List species exist on land owned by the Group, the Group is not aware of any IUCN Red List species and national conservation list species with habitats in areas affected by the Group’s operations (Producer 13, Integrated Report, 2016).

As found in 2013, the biodiversity reporting is not without fault. For example, the above disclosure stops short of explaining exactly how the environmental management plan was designed and implemented and how well the company performed against specific targets. Statistics on the species affected by operations are not provided. How the level of extinction risk is assessed to arrive at the conclusion that these species have not been adversely affected by the company’s operations is also not discussed. Nevertheless, this company has moved from providing almost no disclosure on biodiversity issues in 2013 to recognising the fact that it is responsible for minimising its biodiversity impact and providing stakeholders with, at least, some detail on how this is being achieved.

A similar change is seen with Producers 8, 11 and 14, which, in 2013, also adopted an avoidance strategy. Over time, these companies have increased the extent of reporting focusing specifically on disclosures which are action-orientated. While these companies are classified as using an organised hypocrisy reporting strategy in 2016, the increase in the

<table>
<thead>
<tr>
<th>Biodiversity rhetoric</th>
<th>Very low</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
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<tbody>
<tr>
<td>Internal management and action</td>
<td>Quadrant 2 (32%)</td>
<td>Avoidance</td>
<td>Quadrant 1 (0%)</td>
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<tr>
<td>Very low</td>
<td>Producer 9</td>
<td>Producer 10</td>
<td>Producer 12</td>
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<tr>
<td>Low</td>
<td>Retailer 1</td>
<td>Retailer 2</td>
<td>Retailer 5</td>
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<tr>
<td>Medium</td>
<td>Quadrant 3 (15%)</td>
<td>Organised hypocrisy</td>
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<td>High</td>
<td>Producer 8</td>
<td>Producer 11</td>
<td>Producer 14</td>
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<tr>
<td>Quadrant 4 (53%)</td>
<td>Active reporting</td>
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<td>Producer 1</td>
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<td>Producer 7</td>
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<td>Retailer 3</td>
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Table III.
Reporting matrix for 2016
extent of action-focused reporting can be interpreted positively. These firms appear to be taking the first steps to implementing biodiversity management plans. For example, they disclose information on partnerships being formed to identify and manage conservation areas on land affected by operations. The need to minimise the impact of agricultural activity is discussed as well as management plans which have been implemented and, importantly, subject to audit.

As with Producer 2 and 13, the level of detail on specific actions taken to mitigate biodiversity risks can be criticised. Specific species are not dealt with, costs and targets are not disclosed and challenges encountered when implementing management plans are not addressed. Nevertheless, the researchers interpret the move to more action-orientated reporting as an indication that these companies are beginning to appreciate the need to deal with biodiversity-related issues in their integrated and sustainability reports. The same can be said for Producers 1, 4, 5 and 7, which used to rely on an organised hypocrisy reporting strategy. They have complemented their 2013 disclosures with more detail on their approach to biodiversity, species affected by operations and chosen external reporting frameworks. This additional detail provides context for interpreting specific actions to identify and manage biodiversity risks resulting in more comprehensive reporting (Atkins et al., 2016; Jonäll and Rimmel, 2016). As a result, these companies are positioned in Quadrant 4 in 2016.

5. Analysis, conclusion and areas for future research

This paper examines biodiversity reporting by South African food producers and retailers shortly after the introduction of an integrated reporting framework for companies listed on the local stock exchange. It also considers how companies’ reporting changes over a four year period from 2013 to 2016 (inclusive).

The findings make an important contribution by confirming the relevance of organised hypocrisy for explaining at least some biodiversity reporting observations. For 21 per cent of companies in 2013, reporting on biodiversity mission statements, impacts on specific species and performance in terms of external reporting frameworks are de-emphasised. These organisations prefer to report on those action plans, internal processes and risk-mitigation strategies which are currently being implemented and are portraying the entities’ in a favourable light. This reporting strategy relies on the construction of a rational economic façade in terms of which the financial viability of chosen business models is emphasised. Concurrently, progressive rhetoric is used to convince stakeholders that management is aware of challenges being posed by some biodiversity issues and that plans are already in place to champion environmentally responsible production and promote relevant reforms. This is complemented by the use of a reputation façade designed to present those companies as environmentally responsible and compliant with the latest codes of best practice and industry standards to confer legitimacy. These facades are developed independently. The contradiction between “sustainable business” and the continuing reduction of biodiversity mass is managed by emphasising successful environmental action plans and limiting forward-looking assessments of the likelihood and impact of specific biodiversity risks which may have material financial implications and threaten companies’ ability to continue as going concerns. However, not all companies are, engaged in organised hypocrisy as a legitimisation strategy.

In 2013, 58 per cent of the companies in the food industry used an avoidance strategy. In this manner, the operation of organised hypocrisy in an environmental reporting context cannot be assumed (cf. Cho et al., 2015). Instead, organised hypocrisy can be seen as an extension of legitimacy theory. On the basis of the perceived relevance of the underlying
matter for an organisation’s credibility, organised hypocrisy can be used as a specific strategy for maintaining or repairing legitimacy. For example, in the early years of integrated reporting, it is possible that companies only constructed rational, progressive and reputation facades when the underlying environmental issues were perceived as material. While biodiversity loss has been identified as a serious scientific concern, it may be the case that not all companies had internalised it as something which was directly relevant for their business model. In the absence of a specific environmental crisis which necessitates a direct response, companies limited the extent of biodiversity reporting to signal that environmental challenges were under control or to avoid additional scrutiny from stakeholders which may have had a delegitimising effect (O’Dwyer, 2002; De Villiers and van Staden, 2006; Mansoor and Maroun, 2016). Similarly, when stakeholders are not placing emphasis on a particular environmental issue, generic reporting or avoidance strategy may have been preferred as a simpler and more cost effective method for maintaining legitimacy (ibid.). However, as integrated reporting matures, the use of avoidance and organised hypocrisy become less common.

Research on the impact of integrated reporting at the organisational level is still underway (De Villiers et al., 2014). Nevertheless, an emerging body of work points to the possibility of integrated reporting resulting in greater awareness of social and environmental issues by companies and more active management of associated risks (Atkins and Maroun, 2015; Guthrie et al., 2017). At the same time, managers have had an opportunity to reflect on exactly how to prepare their integrated reports and develop the necessary accounting infrastructure to support the type of high quality reporting which includes details on policies (rhetoric) and operations and systems (actions) specific to non-financial dimensions of their business (De Villiers et al., 2017; McNally et al., 2017). In this context, by 2016, South African reporters may have had a better understanding of the relevance of biodiversity for their long-term sustainability, required action plans and the data, which should be collected and reported to stakeholders (consider Christensen et al., 2013; Alrazi et al., 2015; De Villiers et al., 2017).

The relevance of societal pressure should also not be overlooked. Mounting evidence of a looming environmental disaster (see, for example, Ceballos et al., 2017), coupled with stakeholders’ growing awareness of the need to mitigate the risks posed by environmental issues, may be resulting in a heightened sense of accountability and responsibility (Atkins et al., 2015a; Russell et al., 2017). In this context, an avoidance strategy or counter-coupling rhetoric and action may do little to secure long-term credibility and the number of companies which rely on a more active reporting strategy increases from 4 (21 per cent) in 2013 to 10 (53 per cent) in 2016 (Cho et al., 2015). An increase in the extent of rhetoric and action-focused reporting may also be attributed to institutionalisation of environmental reporting. Although local codes on corporate governance do not refer specifically to biodiversity disclosures, they establish a generally accepted basis for including at least some detail on environmental risk and management plans in an integrated report. At the same time, the IIRC’s framework refers to reporting on natural capital something with which, practically, listed companies would be required to comply[10] (De Villiers et al., 2014; Atkins and Maroun, 2015). These institutional forces are amplified by the fact that some industry players chose to provide relatively detailed accounts of biodiversity-related issues in their 2013 corporate reports providing a possible explanation for a shift from avoidance to active reporting strategy from 2013 to 2016.

These results have a number of implications. Firstly, they show that the operation of organised hypocrisy may be subject to underlying social/institutional forces answering the call by Cho et al. (2015) for additional research on how the application of organised
hypocrisy (as a reporting strategy) may change over time. Secondly, the findings suggest that the operation of organised hypocrisy is not always negative. In some cases, organised hypocrisy may constrain the change potential of integrated or sustainability reporting. In other instances, as suggested by Lipson (2007) and Cho et al. (2015), it may give companies the space to reflect on stakeholders’ demand and maintain credibility to understand expectations better and develop a long-term solution. This can be seen in the number of companies which move from an organised hypocrisy reporting strategy (in their early integrated reporting years) to a more comprehensive approach to reporting on biodiversity four years later. It is also possible that an avoidance strategy is used to similar ends, something which is not explicitly dealt with by Cho et al. (2015). Two of the companies adopting an avoidance strategy in 2013 (Quadrant 1) were active biodiversity reporters by 2016 (Quadrant 4) while an additional two organisations began to rely on an organised hypocrisy framework over the same period (Quadrant 3). As a result, rather than see avoidance or organised hypocrisy as set approaches to reporting, they offer a view of how companies may transition to more detailed integrated or sustainability reporting.

Finally, and related closely to the previous point, organised hypocrisy or avoidance may not always be driven by impression management and the need to neutralise the threat posed by the sustainability reporting movement (cf Higgins and Walker, 2012; Tregidga et al., 2014). In 2013, 4 companies were positioned in Quadrant 4 because they provided relatively detailed accounts of their biodiversity policies and management practices. This grew to 10 companies by the end of 2016. Consequently, while anecdotal, there is evidence that some companies are reporting on biodiversity policies and providing detailed explanations of how biodiversity is being managed at the operational level. This, in turn, suggests that truly integrated approaches to business management may be taking shape in the South African food industry.

Additional researcher will be needed to support these conclusions. In particular, the reason for some companies being able to avoid stakeholder scrutiny and provide almost no information on biodiversity issues while others were more active reporters is unclear[11]. It is possible that different approaches for dealing with biodiversity reporting provide evidence in support of non-financial communication being used as part of a differentiation strategy. Some companies may be appealing to those investors still preoccupied with short-term financial return (cf. Atkins and Maroun, 2015) with the result that there is no need to use biodiversity reporting extensively in progressive and reputation facades. In contrast, companies engaging with environmentally aware stakeholders are under more pressure to balance competing financial and environmental expectations and use organised hypocrisy to manage claims to legitimacy. To test these hypotheses, an expanded data set is required which takes into account additional indicators (such as corporate governance characteristics and investor profiles).

As part of this, the sophistication of a company’s reporting infrastructure and the quality of its integrated or sustainability report needs to be taken into account. To limit the degree of subjectivity in the data collection process, this study did not attempt to measure the quality of biodiversity disclosures. It may be the case that differences in the quality of non-financial reporting forms part of the process of constructing and managing different facades. At the same time, although the researchers struggled to gain access to stakeholders, a concerted effort to interview preparers and institutional investors would provide invaluable insights into how and why companies disclose non-financial information in their corporate reports and the manner in which this information is being utilised by powerful constituents. A multidisciplinary effort is also required. This paper has shown that a majority of companies are aware of biodiversity risks and that some use organised hypocrisy to manage competing
stakeholder expectations. What is needed is a framework for defining “biodiversity”, identifying risks and quantifying their likelihood and magnitude to accelerate the progression from disconnected facades to congruence between organisational reporting and meaningful environmental action by all organisations.

Notes

1. Organised hypocrisy does not necessarily depend on constructing these specific facades. A detailed review of the different means by which hypocrisy is managed and organised is, however, beyond the scope of this paper.

2. Laine (2009b) describes this as a weak form of sustainability management in terms of which social and environmental problems are regarded as best solved by market systems. This is in contrast to strong form sustainability management which argues that market forces and economic growth are an inherent challenge for sustainability, necessitating a radical focus on policy and corporate action (see School of Accountancy, University of the Witwatersrand, Johannesburg, South Africa 2012).


4. Approximately USD7 billion

5. The seven countries participating in the project, which concluded in 2013, were Brazil, Ghana, India, Kenya, Nepal, Pakistan and South Africa.

6. The sub-sectors include a total of 24 companies. Three companies were excluded as they are not involved in the food business. The reports of an additional two companies were not available. This left a total sample of 19 companies. In this manner, the relatively small sample size is the result of the size of the local market.

7. All of the companies in the sample prepared integrated reports but not all of them prepared sustainability reports. As a result, the disclosures were aggregated by disclosure code and no distinction is made between information found in an integrated and sustainability report.

8. The researchers approached each of the organisations included in the study, but the majority declined to be interviewed. To avoid the possibility of response bias affecting the results (for example, only companies with positive results coming forward to be interviewed), the researchers decided not to proceed with interviews.

9. These typically included several sentences or perhaps.

10. Although preparation of an integrated report is not mandated by law, at the time the data were collected, the local stock exchange required listed companies to prepare an integrated report or explain why they had not done so. This has been interpreted as a de facto mandatory requirement to prepare an integrated report.

11. The companies in Quadrants 2-4 have comparable business models, are subject to the same codes of corporate governance and include organisations of different sizes.

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**Corresponding author**
Warren Maroun can be contacted at: warren.maroun@wits.ac.za

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Abstract

Purpose – The purpose of this paper is to identify and describe how calculations are used in the early phase of strategic capital investment projects (SCIPs) in the mining context and thereby create an understanding of what calculations do in these situations.

Design/methodology/approach – The authors conducted a case study based on interviews with project managers, controllers and top-level managers, as well as documents and observations.

Findings – The empirical evidence provides key insights into the different uses of calculations in the early phase of SCIPs in the mining industry. The authors found evidence that calculations in the early phase of SCIPs are used to generate ideas, support learning and discussions, evaluate decisions and act as a mediating device.

Research limitations/implications – The paper is based on a single organization, and therefore, the findings of the paper are limited to theoretical generalization.

Practical implications – The study has practical implications directed toward top management, controllers and project managers working with SCIPs. This study suggests that calculations in the early phase are used to unite and create a shared view in the early phase rather than to present rational answers to different investment decision. Calculations can also be used to direct attention toward important areas, sort out and prioritize among ideas, communicate a shared view and function as a template. Thus, calculations are essential in the early phase as they help to transform activities into actions.

Originality/value – This paper contributes to the accounting literature in which it has been emphasized that we still know little of strategic capital budgeting processes, with insights into the multiple uses of calculations in the early phase of SCIPs. We also argue that calculations act as mediating devices in the early phase of SCIPs as they provide a common frame of reference and a basis for action.

Keywords Case study, Strategic capital investment projects, Using calculations, Mediating devices

1. Introduction

In today’s dynamic and changing environments, organizations continuously need to make strategic investments to survive and prosper. A strategic investment is an investment project with a strategic focus, and it generally involves substantial capital investments, high levels of risk and uncertainties and can have a significant long-term impact on that organization’s outcome (Alkaraan and Northcott, 2006). These characteristics make
strategic capital investment projects (SCIPs) particularly demanding to manage and coordinate, (Butler et al., 1991; Slagmulder et al., 1995; Slagmulder, 1997; Carr et al., 2010), especially in the early phases of a project (Khurana and Rosenthal, 1997). Indeed, risks and uncertainties are often highest at the beginning of an investment project; consequently, it is difficult to make accurate calculations in the early phase of an SCIP. Despite that issue, previous research still suggests that management accounting calculations are frequently used in these early phases, as a large portion of the cost for an entire project is often determined here (Khurana and Rosenthal, 1997).

In the accounting literature on capital budgeting, calculations are typically seen as valuable and important tools and techniques that managers should use to allocate resources and make the most effective investment decisions (Coad, 1996; Segelod, 2002; Tuomela, 2005). This stream of research views calculations as a means to calculate the economic consequences of various investment alternatives, often with the intention of selecting the most efficient investment alternative, i.e. similar to an answering machine (Burchell et al., 1980). This stream of research is a rather rational and instrumental view of calculations and their use, wherein calculations are seen as passive tools and techniques used by managers to provide logical and rational answers (Butler et al., 1991; Slagmulder, 1997; Alkaraan and Northcott, 2007; Lima et al., 2017). However, this view has been criticized by other research in the field (Miller, 2001; Miller and O’Leary, 2007). The main criticism is that the rational perspective alone is unlikely to provide a full understanding of how calculations are used and what roles they play in the investment processes. Instead, it is argued that calculations are social constructions that are used in multiple ways to govern the actions of managers and other individuals in that process (Miller, 1991; Miller and O’Leary, 2007). Thus, calculations have other roles to play than merely providing rational answers to investment decisions (Earl and Hopwood, 1980; Doganova and Eyquem-Renault, 2009; Mouritsen and Kreiner, 2016). Recent research on capital budgeting indeed questions the assumption that calculations are passive tools and techniques. Instead, that research argues that models of investments, such as discounted cash-flow (DCF)[1], can “do things” (Warren and Seal, 2018). This phrase means that these calculations, for example, investment appraisal models, are actors and they directly intervene to construct the reality they purport to describe rather than simply representations of that reality (Warren and Seal, 2018; Warren and Jack, 2018). We depart from this perspective and instead view such calculations as constructions rather than representations of the reality they aim to depict.

Calls for more in-depth studies that address how actors actually use these calculations in strategic investment processes have been made (Carr et al., 2010). Miller and O’Leary (2007) suggest that instead of focusing on capital investment decisions as a single event made by top management, researchers should direct their attention toward the complex managerial and institutional processes that are actually embedded in the investment process. This paper addresses this research gap by illustrating how actors use calculations in the early phase of SCIPs in the mining context. We argue that calculations are essential in this phase, not because they provide rational answers, but because they provide a common frame of reference and a basis for action.

The mining industry is an industry where strategic investment projects are frequent and even necessary for continued operations (PWC, 2012), which thus provides an opportunity for that industry to study how calculations are used in strategic investment projects. Specifically, the purpose of this paper is to identify and describe how such calculations are used in the early phase of SCIPs in the mining context and thereby create an understanding of what calculations do in these situations. We contribute to the prior research by presenting a case study of the multiple uses of calculations in the early phase of SCIPs in a mining
company. According to these case studies, calculations in the early phase of SCIPs in the mining context are used to create ideas, share information, rationalize decisions and provide a common frame of reference and thus a basis for action. We argue that this data set lets us shed new light on how and why investment decisions in the early phase are made the way they are made, something we still know relatively little about (Miller and O’Leary, 2007; Carr et al., 2010). Finally, we illustrate how these calculations are used as a mediating device or, in other words, how calculations mediate between the actors in the early phase of the investment process by framing the investment decisions and providing a performative role (Warren and Seal, 2018). Thereby, the use of calculations enables the actors in the investment process to explore different alternatives. This current paper also presents practical implications that are directed toward top management, controllers[2] and project managers who are working on constructing investment proposals. These calculations are seen as valuable tools to use to create a common frame of reference, which then makes it possible to explore different investment alternatives.

The paper is structured as follows. In Section 2, a selective literature review on management accounting calculations and their use with a particular focus on strategic capital investment projects is presented. This section is primarily based on two streams of accounting research, namely, capital budgeting and management accounting and control. It presents the different uses of calculations in complex and uncertain situations. Section 3 provides research method and information about the case organization. Section 4 offers the case organization, and we illustrate the multiple roles of calculations in the early phases of SCIPs in the specific case organization. Section 5, we discuss the complex roles that calculations play in case organization and what calculations are done in the early phase of SCIPs. Finally, implications for research and practice are suggested in Section 6.

2. Different uses of management accounting calculations
This section provides a selective literature on management calculations and their use that is divided into three different approaches to calculations in strategic capital investment projects: The rational and instrumental view on calculations as an answering machine, calculations “beyond the answering machine,” and calculations as a mediating device. The first approach offers a summary of the accounting literature on capital budgeting that points to a gap, thereby underscoring the need for the present study. The next approach shows that calculations have other roles to play than merely presenting rational answers used to evaluate different investment alternatives. Finally, we present and discuss the emerging stream of research that has viewed calculations as mediating devices. This literature is important as it emphasized the relationship between actors and the instruments they use and can thus be used as a lens to explain what calculations do in SCIPs.

2.1 Calculations as answering machines
The accounting literature on capital budgeting has long focused on what tools and techniques managers should use to make informed investment decision. Research into the accounting literature on capital budgeting shows that calculations such as payback methods, return on investment, net profit and scenario planning are frequently used by top management to support decisions on SCIPs (Bhappu and Guzman, 1995; Alkaraan and Northcott, 2006, 2007; Lima et al., 2017; Palermo, 2018). Alkaraan and Northcott (2007) found that calculations such as pre-decision controls shape the investment decision, even before that decision enters the formal evaluation stage. One explanation could be that rational calculations are often perceived as easier to use effectively, more easily comprehensible for investors, and their immediate benefits are clear (Adler, 2000). Previous research has shown, however, that actors may place too much emphasis
Ezzamel et al. (2001) argued that rational calculation methods are developed for stable environments, and if these methods are used in environments with high uncertainty, they can have a negative effect on the investment decisions. The suggestion was that a rational use of calculations where calculations are used to provide key answers is not suitable during the early phase of the investment process.

This rational and instrumental view of calculations in the accounting literature on capital budgeting has still received a lot of criticism from other management accounting researchers (Burchell et al., 1980; Hall, 2010; Mouritsen and Kreiner, 2016). These critiques produced another perspective on calculations and their use. Inspired by Mouritsen and Kreiner (2016) this stream of research is called “calculations beyond the answering machine.” We present and discuss this stream of research in greater detail below.

2.2 Calculations beyond the answering machine

Researchers have found that calculations play much more complex roles in organizations than usually presented in the capital budgeting literature (Miller, 1991, 2001). For example, sociologists argue that calculations are even used to shape social and economic relationships (Miller, 2001). From this perspective, accounting is seen as a simple way of governing the actions of managers and other individuals in organizations. Miller (2001) explains that one of the principal achievements of management accounting is to connect responsibility to calculations and argues that the calculative practices of accounting enable both management and the coordination of individuals.

The framework of Earl and Hopwood has had great importance in the accounting research and has been an inspiration for many accounting scholars. In their framework, Earl and Hopwood (1980) identify several uses of accounting information in organizations. First, they distinguish between the uncertainty about organizational objectives, and secondly, they identify the uncertainty of any cause–effect relationships that are embodied in particular organizational actions (Figure 1).

Earl and Hopwood’s (1980) framework noted in Figure 1 represents different contingent views on how calculations are used in the aforementioned uncertainty dimensions. In situations with pre-set standards and formal rules, calculations are typically used as answering machines, which then automatically provide answers (Burchell et al., 1980; Earl and Hopwood, 1980). This view on how managers use calculations has already been discussed here, so therefore, we will focus on the other uses of calculations that “go beyond the answering machine.” Earl and Hopwood (1980) indeed argue that calculations also function as learning, dialogue, ammunition, ideas and rationalization machines.

![Figure 1. The use of calculations related to uncertainty](image-url)

Source: Adapted from Earl and Hopwood (1980)
Using calculations as learning machines is suitable in situations with clear objectives but when there is a high uncertainty of cause-effect (Earl and Hopwood, 1980). Thus, learning machines are appropriate when there is a need to explore problems, ask questions and analyze calculations before resorting to decisions (Burchell et al., 1980; Earl and Hopwood, 1980). Earl and Hopwood (1980) suggest that calculations in the form of learning machines are the result of enquiries, sensitivity analyses and what-if models. However, research has also shown that during any high uncertainty related to investment projects, calculations are less likely to be used as learning machines (Van der Veeken and Wouters, 2002). The reason is that actors in such circumstances will focus more on action-based skills associated with these calculations as answering machines to handle costs (Van der Veeken and Wouters, 2002). This view is in line with Earl and Hopwood (1980), who also suggest that calculation methods are more often designed to deliver answers despite the uncertain cause-effects and thus are still used as answering machines.

When uncertainties about objectives are high, Earl and Hopwood (1980) suggests that calculations are used as a dialogue machine. This approach is supposedly suitable for handling disagreements on objectives where there is a need for more discussion that supports problem-sharing (Burchell et al., 1980; Earl and Hopwood, 1980). The dialogue machine is thus associated with think tanks, consultations, and information centers (Ezzamel and Bourn, 1990). Using calculations as dialogue machines indicates there is constant interaction used to define the appropriate calculations based on the experience with and deep knowledge of operations (Chapman, 1997). For example, calculations applied in a dialogue machine manner are often used in organic and less formal organizations (Chapman, 1997). However, instead of a dialogue machine, the actual use of calculations may result in those calculations becoming an ammunition machine instead. The reason is that the use of calculations depends on actors, who in turn will have a diversity of interests. Research further indicates that under such circumstances calculations can be used to forward a political agenda (Earl and Hopwood, 1980; Mouritsen and Kreiner, 2016).

Idea machines suggest their use of calculations for inspiration and creativity that is more optimal to contingencies of high uncertainty regarding cause-effect and objectives (Burchell et al., 1980; Earl and Hopwood, 1980; Ezzamel and Bourn, 1990). However, to justify and legitimize decisions, the actual use of calculations can easily result in their becoming a rationalization machine that focuses on cutting costs or harvesting instead of investing further (Earl and Hopwood, 1980; Ezzamel and Bourn, 1990).

As stated above, the Earl and Hopwood's framework has held great importance in accounting research. This body of literature is, however, mostly concerned with the relationship between calculations and decision-makers (Mouritsen and Kreiner, 2016), rather than focusing on the actual investment process and how the different actors take part in the process of constructing the basis for making an investment decision. Thus, researchers have viewed investment processes and capital budgeting as a complex managerial and institutional process conducted by the different actors involved in an investment project (Miller, 1991; Miller and O’Leary, 2007). It is also argued that these calculations should be understood as constructions rather than representations of “reality” (Mouritsen and Kreiner, 2016). Below, we discuss this point further.

2.3 Calculations as mediating devices
The third stream of literature views calculations as enabling instruments that operate empirically to enhance socially situated practices of calculations and decision-making (Miller and O’Leary, 2007). Thus, the calculations are seen as active tools and techniques with a performative role to play to frame investment decisions in a particular way (Warren
and Seal, 2018; Warren and Jack, 2018). For example, Warren and Seal (2018) show how the DCF model frames the public policy debates in the electricity industry in Great Britain in a particular way. Within this stream, the relationship between actors and the instruments they use are at the center of any analysis, as well as the interaction between human agents as mediated by the material entities that are put into circulation (Miller and O’Leary, 2007; Doganova and Eyquem-Renault, 2009).

Miller and O’Leary (2007) focused on the mediating instruments, or in other words, the practices that frame the investment decisions of individual firms and agencies and that help them to align with investments made by other firms and agencies in the same or related industries. Further still, Miller and O’Leary (2007) analyzed two instruments in the microprocessor industry, Moore’s law and technology roadmaps, to illustrate the role that market devices play in the networks in which they circulate. In their study, they show how Moore’s law transforms into an industry norm and then illustrates how Moore’s law and the technology road maps mediate between actors, distinct imperatives and domains. Finally, they suggest that the capacity of the model to circulate depends on its material features that enacted the model, which in turn then can guide and coordinate the actions.

Doganova and Eyquem-Renault (2009) studied business models as innovation devices in technology entrepreneurship. They focused on the materiality, use and dynamics of these business models. Similar to Miller and O’Leary (2007), they argued that the capacity of any business model depends on its materiality. They discovered that a business model is a narrative and calculative device that allows entrepreneurs to explore markets and thus has a performative role to play in the construction of the techno-economic networks for an innovation. Warren and Seal (2018) also argue that calculations play a performative role. The technical characteristics of a DCF model enable a model to “do things,” such as framing the way different investment alternatives are presented. These models offer a single figure that expresses the relationship between costs and revenues and introduces time value for money and the costs of capital to capture both the business and financial risks. This figure makes it possible to observe the practical materiality of the individual model, as it mediates with science and the economy.

Calculations are powerful instruments because of their ability to combine complex processes within an organization and translate them into a single financial figure (Miller, 2001). This unique figure is then used to provide the means for action within that organization (Miller, 1991). Further, he argues that the management of almost any organization can be transformed into a complex of incessant calculations that are then used to link responsibility and calculations to create responsible and individuals.

3. The research method and case setting
The case organization for this qualitative case study is a high-tech international minerals group that produces processed iron ore products for steelmaking and is a supplier of mineral products for other industrial sectors. The organization was an interesting one for studying how calculations are used in SCIPs during their early phase for several reasons. First, at the time of the initiation of the study, the organization was the single largest industrial investor in the nation and recently had committed to several SCIPs. These SCIPs all aimed at expanding the organization’s mining operation to meet a high market demand in mines, processing plants and transportation (see Appendix for a description of this organization’s production process). Second, the organization’s dispersed production sites, however, posed challenges for both management and the proper coordination of investment projects, thereby making this organization a relevant case setting (Siggelkow, 2007) for studying the uses of calculations in the early phase/s of strategic capital investment projects. Finally,
gaining access was another relevant reason for selecting this particular case organization (Eisenhardt, 1989). It presented an opportunity to study how actors use calculations in the early phases of SCIPs in the same organization.

3.1 Sources of empirical evidence

The data were collected through interviews with actors, analyses of the provided documents and observations. The case description involves narratives from interviews with actors who have used calculations in SCIPs at various production sites within the organization. The fieldwork was conducted during three field trips. The interviewees included controllers, project managers and the group chief financial officer (CFO). The actors are involved in using calculations in SCIPs with costs ranging from €300m to around €2bn, so for this study, we focus on four specific strategic investment projects, discussed as four episodes in the next section (Section 4.1). Thus, when the actors talk about how they use calculations in the early phase, they sometimes discuss them in more general terms; however, they mostly relate to one of the four episodes. The selection of which actors to interview was made by requesting the participation of actors who were using calculations in SCIPs that were large scale and recent. All the interviewed actors either used calculations in the early phase or have had significant insight into the use of calculations in SCIPs in the early phase. The interviews lasted for a total of 20 h, and a total of 15 interviews were conducted. See Table I for a description of the actors who were involved in this study.

Complementing the interviews are the documents that were also collected, such as flow charts and related facts (e.g. estimations of ore volume, sales predictions and profit forecasts) concerning SCIPs and the internal guidelines and educational material, templates and organizational charts. See Table II for a full description of these data collection sources.

While all the investment phases to some extent are represented, the empirical data of the entire investment lifecycle could take several years to collect[3].

<table>
<thead>
<tr>
<th>Interviews round 1</th>
<th>Title</th>
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<tbody>
<tr>
<td>Capital investment controller</td>
<td>(C1)</td>
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<tr>
<td>Capital investment controller</td>
<td>(C2)</td>
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<tr>
<td>Capital investment controller</td>
<td>(C3)</td>
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<tr>
<td>Capital investment controller</td>
<td>(C4)</td>
</tr>
<tr>
<td>Chief financial officer</td>
<td>(CFO)</td>
</tr>
<tr>
<td>Project manager</td>
<td>(PM1)</td>
</tr>
<tr>
<td>Controller - client side, team member, financial projections - new main level</td>
<td>(C5)</td>
</tr>
<tr>
<td>Capital investment controller</td>
<td>(C1)</td>
</tr>
<tr>
<td>Project manager - feasibility studies and planning of new main levels</td>
<td>(PM2)</td>
</tr>
<tr>
<td>Interviews round 3</td>
<td>Title</td>
</tr>
<tr>
<td>Capital investment controller</td>
<td>(C1)</td>
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<tr>
<td>Capital investment controller</td>
<td>(C2)</td>
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<td>Capital investment controller</td>
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<tr>
<td>Capital investment controller</td>
<td>(C4)</td>
</tr>
<tr>
<td>Financial controller</td>
<td>(FC)</td>
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<tr>
<td>Project manager</td>
<td>(PM3)</td>
</tr>
</tbody>
</table>

Table I. Description of conducted interviews
3.2 Interpretations of the empirical evidence
The analysis of the empirical data was conducted in conjunction with the collection of new empirical material. During this process, we worked back and forth between the extant literature and the empirical material to gain a preliminary understanding of our case (Eisenhardt, 1989). The framework offered by Earl and Hopwood (1980) was used as a first sorting mechanism to identify how the calculations were used in the early phase of SCIPs in the mining industry. The first pattern that emerged in our analysis was that these calculations were used in a similar way despite project differences. To explain the uses of those calculations, we returned to the literature to gain a deeper understanding of why this pattern had emerged. This time, we used the literature on calculations as mediating devices and our lens to explain why the actors do use calculations in the early phase of SCIPs, despite the fact that it is difficult to create accurate calculations that can be used to evaluate and make different investment decisions. Thus, we focused on what calculations can actually do in the early phases of SCIPs. This focus is further discussed, but first we want to present the case organization and how the actors used calculations in the early phases of SCIPs in their case organization.

4. Uses of calculations in the strategic capital investment project early phase in the mining context
In 2008, the board of directors of the mining organization decided that an overall increased extraction capacity of iron ore was needed to meet the increasing demand for iron ore. This decision signaled a call to the organization to present alternative solutions for investments
to accommodate the board of directors’ decision to increase production. The decision made by the board of directors had a substantial impact within the organization, as it resulted in several strategic investment projects in the entire value chain (see Table III for a summary of the memorandum from the board of directors). We provide more information about the different uses of calculations within the early phase of strategic capital investment projects, but first, we provide information about the four strategic capital investment projects that the decision by the board of director’s decision produced.

4.1 The call to increase the overall extraction capacity of iron ore
This case organization’s value chain is connected, and a continuous flow of products is crucial for the organization (see Appendix for information about the production process). The value chain consists of a supply of products (mining extraction of ore), production (processing and refinement) and distribution (to the global market). Avoiding bottlenecks or delays in any of these steps is crucial. Thus, the decision to increase overall production capacity affected all production sites in the organization. To avoid any bottlenecks, a new harbor was also planned to improve distribution of the products. The board of director decision resulted in four different SCIPs, all aimed toward increasing the overall extraction capacity of iron ore (Table IV). We first provide a short summary of each SCIP and then describe how the involved actors constructed the investment proposals in the different SCIPs. Then we address how the actors used the calculations in these SCIPs.

The first strategic capital investment project (called Episode 1 later in the text) was the decision to invest in a new mining level at the main production site. This site is an underground mine and involves a high degree of complexity, partly due to geological and technological conditions. The complexity involved in this SCIP led to a high involvement of several different experts at the beginning of the planned project. Thus, several different experts were part of constructing the basis for the investment proposal.

The next SCIP was the decision to invest in the case organization’s second production site, also an underground mine. Thus, it was also an investment in a new mining level, but at the other production site. The conditions at the production site are less complex compared to the first SCIP. Thus, it was mostly the controllers who worked together to provide input for that investment proposal. When the controllers talk about this particular project, it is called Episode 2. The third SCIP aimed to increase the capacity in one of the open-pit mines. This investment is also described as less complex compared to the investments in a new mining level in both underground mines, mainly because this project involved fewer fixed costs, thereby making it easier to conduct and calculate. The controllers used their calculation tools in this project to try out different scenarios as presented in Episode 3 below. Finally, the last episode is the planned investment in a new harbor. In this planned project,

<table>
<thead>
<tr>
<th>Strategic capital investments</th>
<th>Preliminary decisions</th>
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</thead>
<tbody>
<tr>
<td>New mining level eastern iron-ore field</td>
<td>2008</td>
</tr>
<tr>
<td>New mining level western iron-ore field</td>
<td>2009</td>
</tr>
<tr>
<td>Increased hoisting capacity</td>
<td>2009</td>
</tr>
<tr>
<td>Extension of the mining level M1250</td>
<td>2011/2020</td>
</tr>
<tr>
<td>New mining level at 1500 meters</td>
<td>2013/2020</td>
</tr>
</tbody>
</table>

Table III. Memorandum summary call for SCIPs

Note: The table summarizes the necessary decisions identified by the board of directors in the memorandum regarding increased output (November 2, 2008)
contractors outside the organization conducted the early phase. This episode is included, as it was described as being essential for the overall decision made by the board of directors, and thus the controllers found it problematic to interpret and use the calculations made by the external contractors.

4.2 Formal company guidelines for using calculations for strategic capital budgeting

In an internal document, called “Templates for the presentation of capital investment proposals to the Board,” it states that “calculations shall be included in all investment proposals, with one exception; strategic capital investment projects.” In any proposals for strategic capital investments, the controllers should make an individual assessment and include calculations if and when it is possible to calculate the economic consequences of the planned investment project. If that is not possible, the calculations should be included at a later time in the investment process.

Investments and investment proposals are done frequently in the organization, and the organization also has an internal training program for actors that work with different types of investments, so that they can learn (?) how to create investment calculations. The purpose of this training program is illustrated in the following excerpt from one of the documents (see Table II on introductory accounting and control procedures):

The purpose of this learning program is to provide the right competence to managers, controllers and other significant actors involved in controlling SCIP in order to create the right conditions in a standardized manner.

In this training program, the participants are instructed to create calculations in spreadsheets and are provided with spreadsheet templates for capital budgeting calculations. In addition to the focus on calculations, other aspects are also addressed in the training program. Company guidelines also contain other categories for important focus areas to be included in the early-phase calculations. Categories include environmental, health and safety aspects. In addition, due the geological nature of underground mining,
SCIPs in the mining industry have repercussions for society. For example, this organization was forced to relocate an entire city because of shifts and fractures in the bedrock that was causing seismic events. Therefore, the organization has decided that calculations in the early phase should also involve details of any future potential societal transformations related to SCIP.

In Episode 3, one of the controllers questions the internal guidelines. According to the controllers, these guidelines are not always useful:

In this mining site, the calculations do not follow internal guidelines, I have no idea how such guidelines would be useful. We cannot follow guidelines; there are just too many questions that complicate our work. For example, we have to be able to postpone some payments, and for something like that you cannot have internal guidelines; we need expertise. We controllers have to know which supplier will accept late payments or whom we can afford to lose as a supplier; it is complicated and demands experience. We are also forced to adapt these open pit mines depending on how the underground mines fare. In part because it is easier to cut costs by shutting down an open pit mine, we can also increase output at an open pit mine faster than in an underground mine. (C5 in Round 3)

In sum, the internal documents indicate that calculations are viewed as valuable tools, with the main purpose being to evaluate the investment’s economic consequences already in the early phase of an investment project. The formal view presented in the internal documents is that calculations should be used to achieve efficiency early on in the investment process with the intent to ensure that the investments have a satisfying pay-off and will lead to the best option. This view on calculations can thus be interpreted in line with Earl and Hopwood (1980) answering machines, wherein the use of calculations has a clear objective and is supposed to explain a specific cause–effect. However, the internal documents also indicate that calculations can be effectively used for discussions of alternative investments, similar to a dialogue machine (Earl and Hopwood, 1980).

4.3 Using calculations to generate and prioritize ideas

The actors in the study declared that they regularly use calculations during the early phase. One experienced controller described his opinion of such calculations in the early phase and how calculations are used:

During the early phase, we use calculations to try out ideas and discuss them with different actors and other experts as well. The calculations are basic budgets or projections. One could describe them as capital budgeting methods. However, we use our own solutions almost unique in every separate case of SCIP. (C2 Round 1)

In the beginning of the investment process (in Episode 1), several different investment proposals were created to answer the call of the board of directors. More than 100 different alternatives of how to approach the call from the board of directors were offered. Several of the interviewed controllers say that they worked together with other experts during the beginning of the investment project to generate and prioritize ideas, and this aspect was important, as the planned investment project included several different types of uncertainty. For example, monetary, environmental, legal and timeframe issues were all examples of important issues that had high uncertainty; thus, a variety of different experts were invited to participate in the investment process.

This effort was organized through a workshop. Actors with varied expertise were invited to provide the basis for the decision to invest in a new underground mining level. One aim of the workshop was to limit the number of alternative solutions, and here,
calculations were used to sort and prioritize the different alternatives. This process allowed different experts from different fields to discuss the positive and negative effects of investments alternatives and their outcomes openly. The workshop required that actors with different expertise’s work together toward the overall common goal of increasing iron ore production. One controller explained:

Everybody in the workshop had different backgrounds and often different areas of expertise. Rock engineers want the investment to move in a certain way focusing on expensive maintenance. In order to evaluate the different alternative proposals, we put together groups of different experts. The groups then put score points on various areas of importance in the different proposals. These areas are, for example, areas of safety, working environment, production costs, and so on. From this effort, we ranked the investment proposals, so then the control group could decide on an alternative with help from this ranking. This was important work because the actors sometimes disagree about certain objectives, and we might potentially overlook alternatives for the SCIP. (C1 Round 2)

The workshop resulted in three different investment proposals, and all proceeded forward to the end of the early phase.

4.4 Using calculations to learn and discuss potential outcomes
The actors in the study said that they regularly use calculations to discuss different alternatives during the early phase. One controller described this process in the following way:

Calculation allows for discussions and experience sharing within the controller group. In addition, we also discuss calculations in various competence groups where we gain understanding of how other operational areas assess problems from another point of view. This is how we learn from each other and we have to do this in order for calculations to be useful. (C2 Round 1)

The project managers also highlighted the importance of discussing the calculations. One project manager explained it in the following way:

The calculations contain financial information which is reported to the controllers. We also use these calculations in order to discuss with controllers how we fare, and if we need to adjust something in order to stay within the cost limits. (PM1)

One interviewed controller indicated that the purpose of calculations is not exactly the same in all situations. In Episode 3, calculations are used in a different way than in the investment projects for underground mines:

A lot of calculations, and I mean a lot, have to do with what happens if we close this open pit or that one. What happens if we decrease production in all three open pits? What contracts are ongoing, and what contracts can we cancel quickly and so on? We are dependent on the market prices, so should we put everything on hold or should we proceed or something in between? Because we mine open pits, we have less fixed costs and can easily close off an open pit.

This passage indicates that before resorting to decisions, the actors at this site use their calculations for what-if models related to market prices and supply situations at the underground mining sites in line with how Earl and Hopwood (1980) describe learning machines.

During the interviews, the controllers indicated that the calculations used at the beginning of the investment project are given more freedom than those used toward the end of the early phase. One controller said:
We controllers create calculations, and these calculations are then used in the discussion over which alternatives for the SCIP should be considered, and the calculations carry a lot of weight. (C3 Round 1)

It illustrates the use of calculations that Earl and Hopwood (1980) describe as dialogue and learning machines. For example, the interviewed actors discuss calculations and seem to agree to listen and learn from the controllers, who have a lot of influence, particularly during the early phase.

4.5 Using calculations to evaluate potential outcomes

In the formal documents, the ability to evaluate potential investment alternatives is put forward as serving an important and valuable role. For example, in the document called “Flow charts and time plan for SCIPs,” we can read the following “financial information of investment projects should be reported quarterly to headquarters to ensure effective control.” Here, we can see that in the company guidelines, effective control happens by following up on investments. Upon asking the actors, this point was of course also mentioned as one of the primary uses of the calculations.

In the early phase, calculations are allowed to deviate 25 per cent from financial profitability. One controller describes this aspect as a kind of leeway to allow discussion of alternatives:

We have project plans and that involves a total cost allowed for our calculations. However, these projected plans are, in the beginning of the early phase, pretty open for interpretation and discussion within the limits of the total cost allowed for the projected plans. Still, the projected plans also have room for changes, so even the outer cost limits of SCIP are open for discussion. (C4 Round 1)

This freedom is described as a way of allowing creative discussions of alternatives to SCIP to occur between the actors. However, this aspect is less true when calculations for SCIP mature in the early phase. The CFO expressed it in the following way:

When calculations of an SCIP have reached as far as the end of the early phase, there will usually be a go-ahead decision. This is because the work and people involved in the process leading up to this are substantial. The closer you get to a final decision, the more precise the calculations, although less frequent; it boils down to one final calculation.

This quote illustrates the point that the use of calculations is not static and rather shifts as the SCIP matures and the uncertainties are reduced. The first episode is a good example. The three proposals that were the result of the workshop all proceeded toward the end of the early phase. Here, they were only allowed to deviate 10 per cent from the projected total cost. The financial controller elaborated:

When the calculations mature toward the end of the early phase, the calculations need to become much more accurate. The projected costs are correlated with actual market prices for building the SCIP. In essence, we ask contractors what they charge and so on. We need this because we rarely do follow-ups on previous calculations. (FC)

4.6 Using calculations as mediating devices

One controller described calculations tentatively; “Calculations are forecasts used as a basis for decision-making, and the calculations are standardized following formal methods.” However, when questioned further, the same controller states that:
The difficult part is knowing what to put into the calculation, what part of the cash flow is important to show and how this investment affects the different areas in the organization. (C4 Round 1)

The CFO also notes the difficulty of choosing the right information to include in the calculations.

However, as a controller, you can never make calculations on your own because you do not know what to include. That type of information needs to come from the project leaders or other informed actors. But as a controller, you can be there and ask questions and critically question, so they don’t include too much or the wrong type of information in the calculations. (CFO)

The controllers state that the calculations in the early phase illustrate useful outcome scenarios that then serve as a foundation for discussions. One controller explains:

We controllers have probably spent thousands of work hours preparing calculations of what we consider the best alternatives for this SCIP. There is a lot at stake where interests differ and actors might even favor certain SCIPs because jobs and capital are somewhat secured where the SCIPs finally land. Calculations are our tools used for discussions in order to reach a sound decision. (C3 Round 3)

The open-pit mine in Episode 3 is seen as a complement to the organization’s other underground mines, and this mine relies on production volume and on-time delivery. This aspect creates differences in the perspectives of the actors involved in the investment process. One controller explained:

From the controller perspective, the project managers have almost absolute power, which means that there is too much focus on the production volumes of the SCIP and not the calculations containing pay-offs. We controllers should be more involved and use calculations to the same extent in this site as well. Sometimes project managers work too fast, something we controllers have a problem with because we have to make sure that financial information is precise. (C3 Round 3)

This episode illustrates that calculations are viewed differently by the actors involved in the investment process. On the one hand, the actors say that using calculations at this mining site (Episode 3) is a complicated social process with few guidelines to follow. On the other hand, the controllers say that the project managers have more influence on the calculations, which indicates that they can use calculations as ammunition machines (Earl and Hopwood, 1980).

In Episode 4, the controller in charge of the calculations for the SCIP for the new harbor took over during the start-up phase, which was the phase right after the early phase. The controller makes it clear that this circumstance was a problem:

The thought is that we controllers are on board from the early phase to the very end of the SCIP. To be handed something like this is problematic, I do not understand all the financial information; sometimes you have to understand the people to understand the numbers. (C5 Round 2)

This passage implies that not being involved in the early phases of an investment process can be problematic from a controller’s point of view. The same controller then continues:

In order to understand financial information, we controllers have to know the actors in the organization. Financial information is handled by middle managers during control group meetings, project managers’ who report to us controllers; we controllers report to the top managers, well, to everyone. We basically share financial information with other managers. This gets complicated quickly; therefore, knowing the actors involved is crucial in order to create calculations, regardless of which phase the SCIP is in. (C5 Round 3)
Our interpretation here is that calculations are indeed socially constructed, which implies that social interplay is important to fully understand any calculations and how they are used. We discuss this aspect more in the next section.

5. Discussion
This paper seeks to provide new insights about how actors use calculations in the early phase of SCIPs and then create and understand what calculations do in the early phase of SCIPs. The previous section illustrates how project managers, controllers and top-level managers use calculations in the early phase of SCIPs in the case organization. We report their words and actions. Rarely did they mention the benefits of accounting tools and techniques; rather, what we saw in common among the actors involved in SCIPs in this study was that they found calculations useful, as they provided a common frame of reference for actions taken during the investment processes.

As we have discussed previously, there is an ongoing debate in the accounting literature on capital budgeting of the roles and the value of calculations in strategic investment projects. On the one hand, the dominant view in the literature is that calculations are seen as passive tools and techniques used by managers to provide logical and rational answers and evaluate different investment alternatives (Butler et al., 1991; Slagmulder, 1997; Lima et al., 2017). On the other hand, recent research on capital budgeting and investment appraisals argues that calculations are active devices that frame investment decisions in a very particular way (Warren and Seal, 2018; Warren and Jack, 2018). Our study contributes to this debate by illustrating that calculations in the early phases of SCIPs are indeed socially constructed, and they are used by the actors involved in multiple ways to frame investment decisions and also provide directions for those related actions.

We used Earl and Hopwood’s (1980) framework as a sorting mechanism to identify and categorize how the actors in the investment processes used calculations in the early phase of SCIPs. We found that controllers, project managers and top management use calculations in the early phase to generate ideas, support learning and discussions and evaluate decisions. Our research supports the stream of research that we call “calculations beyond the answering machine” (Mouritsen and Kreiner, 2016) by showing that calculations do have multiple roles in the early phase of SCIPs. Our study also illustrates that the decisions made in these early phases of SCIPs are rarely made by top management; instead, they are the result of a complex social process among the different actors involved in the investment process.

Several times during our study, the controllers expressed that it was important to get to know the actors in the investment project to clearly understand the financial information they provided and how this information could be transformed into meaningful information. Particularly, the project managers were an important group of actors that had a great impact on the calculations and what type of information that was included in the calculations. The CFO also highlighted the importance of involving the project managers in the early phase, because of their operational knowledge, which indeed helped to construct useful calculations. This finding suggests that calculations in the early phase of SCIPs indeed are socially constructed (Miller, 2001). Calculations help the actors to align their different views by presenting and communicating different investment alternatives in a single model, which then creates directions for action (Miller, 2001; Doganova and Eyquem-Renault, 2009). In other words, calculations in the early phase of SCIPs help frame the investment decisions and play a performative role (Warren and Seal, 2018) that enables the actors in the investment process to take their action. Consequently, we suggest that the value of calculations in the early phase of SCIPs is that they frame the investment decisions...
and mediate the actors’ different interests in SCIPs, rather than provide rational answers with the intent of selecting the most efficient investment alternative.

In our case study, it became clear that considerable time and money were spent on constructing calculations in the early phases. Following the previous research on the early phase of product development (Khurana and Rosenthal, 1997), one possible explanation of this finding could be that a large part of the costs for the entire investment project often is determined at this point. Our empirical material, however, also suggests that calculations in the early phase of SCIPs are not used to provide rational answers because both uncertainty and risks often are high in the early phases of strategic investment projects. That factor makes it difficult to decide what to include in the calculations. Both the controllers and the CFO commented that this aspect was the most difficult area. Questions, such as what part of the cash flow is actually important to show in the calculations and what parts shall we skip, were frequently asked during the early phase of SCIPs. The CFO also said that controllers can never make calculations on their own, thus implying that the selection of what goes in the calculations is discussed with other actors in that investment project. It also suggests that calculations in the early phase of strategic investment projects are not faithful descriptions of the reality, but rather they are used as they mediate and provide directions for action (Warren and Seal, 2018). Thus, we argue that calculations in the early phase of SCIPs frame how investment decisions are made, which thus makes them active tools rather than passive answering machines. Our findings are also in line with the recent accounting research on capital budgeting, which shows that DCF models can frame public policy debates in a very particular way (Warren and Seal, 2018).

We found that the calculations in the early phase act as a mediating device and provide a common frame of reference for the actors in SCIPs. Our study also shows that the complexity involved in several of the SCIPs in the case organization already involved many different experts even at the beginning of the investment process. The experts often had different opinions on what they should do and how the SCIPs should be managed and coordinated. We argue that these calculations framed the investments and thereby helped the actors to sort out ideas and prioritize them.

To be able to do that, two aspects were important. First, the ideas needed to be written down, so other actors could see them. In other words, the ideas needed to be given material features (Miller and O’Leary, 2007). However, this task was not enough to create action in the investment projects. Second, the ideas needed to be expressed in a way that made it possible to compare different alternatives for them. Thus, the ideas needed to be visual, calculable and comparable (Miller, 1991; Doganova and Eyquem-Renault, 2009). We argue that this became the primary role of the calculations used in the early phase of our case study. Finally, many of the calculations were used as a basis for discussion in our case study, which suggests that communication and circulation of the calculations are indeed important for creating and guiding action on them (Miller and O’Leary, 2007; Doganova and Eyquem-Renault, 2009).

6. Conclusion, suggestions to future research and practical implications
The purpose of our paper was to illustrate how calculations are used in the early phase of SCIPs in the mining context and thus create a fuller understanding of what calculations do in these situations.

Our case study provides empirical evidence that calculations in the early phase of SCIPs are used in multiple ways. The actors in the SCIPs use calculations in the early phase to create ideas, share information, rationalize decisions and support political agendas. We also show that calculations in the early phase of SCIPs at least in the mining context act as mediating devices as their main role is to create a common frame of reference for the actors
in the SCIPs and provide a basis for action. Hence, we argue that the technical characteristics of these calculations enable the calculations to “do things,” or, in other words, become active devices that then frame the investment process rather than presenting rational and logical answers (Doganova and Eyquem-Renault, 2009; Warren and Seal, 2018).

The findings in our paper are based on a qualitative case study. Therefore, we acknowledge that our findings cannot fully be generalized or assumed to apply directly to other companies or contexts. Nevertheless, following Burchell et al. (1980), we do argue that insights from qualitative case studies are valuable for questioning certain “taken-for-granted assumptions about the roles of accounting in society.” In this paper, we question the dominant view in the accounting literature on capital budgeting and instead argue that calculations in SCIPs are understood as constructions that can be used in multiple ways to govern the actions of managers and other individuals during the investment process (Miller, 1991; Mouritsen and Kreiner, 2016).

The limitations associated with this study indeed point to directions for future avenues of research on this topic. First, we suggest that more capital budgeting research should focus on the investment process and further our understanding of how investment decisions are actually made. Our study provides some useful insights into this area, but more research is still needed to understand how calculations frame the investment processes. It would be interesting to undertake a longitudinal study of the early phases in a specific strategic investment process to create an in-depth study on how actors use calculations and what calculations do during these situations from the start of the early phase to its end in that particular project.

The study also has practical implications for top management, controllers and project managers working with SCIPs. Our study suggests that calculations in the early phase can be used to unite and create a common frame of reference in the early phase rather than just present rational answers to different investment decisions. These calculations can also be used to direct attention toward important areas, then sort out and prioritize ideas, communicate a shared viewpoint and function as a template for discussions. Thus, calculations are essential and indeed useful in the early phase of SCIPs as they can help transform activities into viable actions.

Notes
1. DCF is discounted cash-flow.
2. The term “controller” here is interchangeable with “management accountant.”
3. This data collection was broader than the scope and purpose of the current paper. Here, only the empirical evidence collected that concerns the use of calculations in the early phase for SCIPs is presented. Interview guides/guidelines will be provided by the first author upon request.

References


### Appendix 1. The production process at the case organization

An important challenge is to maintain profitability in a process-oriented and extractive mining organization. Production at the case organization runs non-stop and is not overly labor-intensive because of an automated and technically advanced process. Consequently, the case organization frequently maintains its production through large investments in engineering and operations-specific technology. Maintaining and operating this technology is energy-intensive and requires substantial capital. The case organizations extracted raw ore from three production sites, two underground mining sites and an open pit mine. The processing plants are placed directly adjacent to the mining operations, where the case organization processes all the mined iron ore into high-quality iron ore products. Figure A1 illustrates the production process from raw ore extraction to shipping of refined ore products to the global market.

![Figure A1.](image_url)

**Figure A1.** From raw ore to final products distributed to the global market.
The production process starts with extraction of the ore at three different production sites: two underground mines and an open-pit mine. When blasting is complete, underground loaders collect the iron ore and move it to rock bins. The next step is to transport the ore to a crusher facility. In both underground mines, this is done by underground trains which transport the ore to the crushing facility. In the open pit mine, dump trucks are used to transport the ore to the crushing facility. The processing of the roughly sorted ore continues further in the sorting and concentration plant, where the ore is separated from waste rock in magnetic separators. This process refines the ore into pure iron ore products (i.e. fines, mica and mineral sand). The case organization's most important product is pellets. The pellets are formed in the pelletizing plant, where heat melts the iron ore particles partially, creating a stable and easy-to-ship product. Following this, trains transport the ore to the organization's shipping harbor ports in Norway and Sweden for shipping to the global market.

Corresponding author
Bo Karlsson can be contacted at: bo.karlsson@ltu.se

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Public accountability reform in a Nigerian ministry

Waziri Sulu-Gambari
Department of Trade and Exchange, Central Bank of Nigeria, Abuja, Nigeria, and
Anne Stafford and Pamela Stapleton
Alliance Manchester Business School, University of Manchester, Manchester, UK

Abstract

Purpose – This paper aims to address the gap within the public accountability literature with regard to emerging economies and add to knowledge about how accountability is understood and how it plays out in practice in the context of public sector reform. While prior literature has focussed on the resource dependence of emerging nations, this paper examines the practice of public accountability in a non-resource-dependent emerging economy.

Design/methodology/approach – In a non-resource-dependent nation, we used a framework based on institutional theory but also draw upon the notion that international financial institutions act in an imperialist way to maintain their relationship with the country. The paper develops a concept of subtle coercion to explain the findings in relation to public accountability reform. The paper examines three reforms introduced and partially implemented in Nigeria: a local initiative that fits well with local understandings of what public accountability is and two imported initiatives that rely upon Western notions of accountability. The research method is a qualitative case study.

Findings – The paper reveals the ways in which accountability reform is complex and subtle. Local understanding of what accountability is led to perceptions that a locally designed reform had enjoyed some success, even though by its own admission Nigeria’s public sector still has a long distance to travel in terms of international notions of public accountability.

Research limitations/implications – The research is based in a single country which allows for in-depth study but limits the ability to generalise findings.

Originality/value – This case shows that specific and dynamic features of the political and economic environment can influence the nature of public accountability reform in a way which is not predictable or linear.

Keywords Public accountability, Nigeria, Institutional theory, Emerging economy

Paper type Research paper

Introduction

The globalisation of professions, the activities of external international financial institutions, particularly the International Monetary Fund (IMF) and the World Bank (WB), and adverse economic and social assessments by intergovernmental organisations, such as the OECD and the United Nations, have legitimised the transfer of Western practices and accountability frameworks into emerging nations. At play is a range of global and institutional forces (Gillis et al., 2014) that may be perceived as increasingly supplanting the traditional role of local actors (Suddaby et al., 2007).

These transfers are expected to improve accountability (Adhikari and Mellemvik, 2011), in countries that various authors have argued are characterised by accountability practices
that do not always achieve the highest standards (Williams, 1999; Uddin and Hopper, 2001; Hopper and Wickramasinghe, 2005; Alawattage and Wickramasinghe, 2009). Legitimated as adopting best international practice (Andrews, 2012), although the nature and drivers of such reform vary significantly across countries (Pollitt, 2015), reform may even be forced upon emerging nations by external financial institutions, exerting, it is argued, a form of coercive isomorphism over resource-dependent emerging countries (Therkildsen, 2001; Tolbert, 1995; Oliver, 1997; Modell et al., 2007).

But such reform may not achieve the expected benefits, indeed, it may even create adverse impacts on public accountability in emerging nations (Hood, 1991, 2010; Mulgan, 2000; Lapsley, 2008, 2009; Christensen and Parker, 2010; Humphrey and Miller, 2012).

Because the public sector is such a major potential source of development (Rahaman et al., 1997), any adverse consequences matter, so that there should be better understanding of how indigenous involvement in designing and implementing reform is achieved (Lassou and Hopper, 2016). There is, for example, limited research into how emerging economies even interpret the concept of public accountability (Rahaman, 2010; Kim, 2009; Broadbent and Guthrie, 2008; Guthrie and Parker, 2012). Especially in relation to notions of accountability stemming from NPM-inspired reform it is important to understand how accountability is interpreted in local contexts and how local actors cope with the inevitable tensions between local and international interpretations (Sinclair, 1995; Lonsdale, 2008). For example, because of the unpredictable nature of Parliamentary interests (Stone, 1995), the actual practice of governance and accountability may be very different from international best practice (Sinclair, 1995; Lonsdale, 2008).

Many previous studies of public accountability have bundled emerging economies together as if they were identical (Hood, 1991; Oliver, 1991; Pallot, 1992; Sinclair, 1995; Lapsley, 1998; Bovens, 2010). In contrast, this paper extends critical study of wider public sector reform through examining public accountability reform in one emerging African economy. This study of Nigeria, over the period 2004-2013, pays attention to the specific context of the country (Rahaman, 1997, 2010; Rahaman and Lawrence, 2001; Uddin and Tsamenyi, 2006; Broadbent and Guthrie, 2008; Kim, 2009; Hopper et al., 2008; Guthrie and Parker, 2012), where locally designed reforms have been introduced as well as Western-style accountability reform. Thus, because its experience runs counter to Suddaby et al.’s (2007) notion that traditional local roles are supplanted by global institutional forces, studying Nigeria contributes to understanding how systems of accountability play out in practice.

While the study started from an institutional theory framework, the most popular choice in public sector research (Dillard et al., 2004; Van Helden, 2005; Jacobs, 2012), the notion of coercive isomorphism does not readily apply to Nigeria. During the period under review, Nigeria had settled its debts and enjoyed a relatively low level of debt to GDP. It was not therefore resource dependent, so that its relationships with international financial institutions can not readily be characterised as coercive. Nevertheless, during this period, Nigeria unquestioningly attempted to implement reforms that owe much to Western notions of accountability, despite the fact that it had struggled to implement similar reforms in earlier periods, when they had been imposed as part of loan agreements.

The paper argues that a more subtle form of a coercive relationship existed in this period between Nigeria and international financial institutions, which essentially acted as imperialist institutions. An asymmetrical imperialistic relationship occurred as a result of voluntary collaboration. While the rhetoric from the financial institutions surrounding such collaborations emphasises the improvement of economic and social deficiencies in local economies, the primary purpose of such interventions is to promote the relationship between the imperial institutions and the state (Dixon, 2007). That is, the paper argues, the
international financial institutions acted as imperial organisations, as they sought to retain their influence over Nigeria by promoting, financing and encouraging reforms, including locally designed reforms. The paper argues that the relationship with the IMF/WB was one of subtle, rather than strong, coercion, because of Nigeria’s extant financial self-sufficiency.

The study focuses on the development and implementation of a comprehensive reform agenda, known as the National Economic Empowerment and Development Strategy (NEEDS), implemented in 2004. By means of field research, the paper examines the relationships between external financial institutions, the government and relevant public sector organisations, and the underlying challenges in the environment (Neu et al., 2010), to address the following research question:

RQ1. What are the differing understandings of public accountability and how do they play out in relation to the NEEDS reforms?

The paper takes a holistic perspective (Josiah et al., 2010) to argue that as Nigeria transitioned from resource-dependency to self-sufficiency its approach to reform has been multi-faceted, but our findings show mixed outcomes in terms of accountability.

The paper proceeds as follows. The next section introduces the public accountability literature; then, the theoretical framework developed for the study is presented. The research methods and the setting for the case are discussed next followed by the section on empirical findings, and the final section offers a discussion and our conclusions.

Public accountability
This paper focuses on public accountability in emerging nations, which have been targets for the implementation of reform, in particular, NPM-style reforms because Western donors and international financial institutions perceive their systems to be weak. Conditions about reform are frequently imposed by external powerful institutions as a condition of funding (Gamble and Lapsley, 2008). Weaknesses identified include wasted resources and undelivered services, corruption, political influence and instability, secrecy and weak rule of law (Grindle, 2004; Hopper and Wickramasinghe, 2005; Kim, 2008, 2009). Ineffective regulation and weak legal and audit institutions may encourage cronyism (Bakre, 2011). Economic uncertainty and poor performance by state-owned enterprises may further exacerbate emerging economies’ problems (Uddin and Tsamenyi, 2005).

Despite the large and growing body of literature showing that accountability systems do not necessarily operate as intended in Western developed contexts, these perceptions about local incapacity to bring about reform have led dominant Western institutions to uncritically impose reforms, including NPM-style public accountability reforms (Stiglitz, 2002; Uddin and Hopper, 2003; Uddin and Tsamenyi, 2005; Hopper et al., 2008; Tsamenyi et al., 2010) in a manner that we will argue resembles an imperialistic relationship. In particular, reform is expected to weaken political intervention and patronage (Hopper and Hoque, 2004). Reform focuses on notions of the capable state so that aid is channelled towards building the capacity of state organisations and civil servants’ skills (Lassou and Hopper, 2016). Local skills building is an important part of relationship forming because indigenous actors can enable the flow of accountability practices, perceived to represent best practice, from financial institutions to dependent less powerful nations (Rahaman et al., 2007; Uddin et al., 2011).

But Western-designed reforms may not necessarily improve public accountability. Indeed, the results of reform may be mixed and sometimes severely negative (Therkildsen, 2001). Various reasons may be identified: the complexities of beneficiaries may be ignored (Stiglitz, 2002); an already fragile institutional accountability framework may be further
weakened (Kim, 2009); and over-specified solutions may not improve poor quality accounting and auditing (Lassou and Hopper, 2016). Because of the unpredictable nature of Parliamentary interests (Stone, 1995), the actual practice of governance and accountability may be very different from best practice (Sinclair, 1995; Lonsdale, 2008).

While technical problems may be a barrier to improving public accountability, human interactions may be more important. For example, political interference can prevent success (Uddin and Tsamenyi, 2005). Thus, while Western governance systems depend upon transparency in financial reporting and performance measurement, in emerging nations, actors’ conduct and the sense of responsibility they demonstrate must be evaluated. Public accountability is concerned not only with the usage of public funds and conduct of public organisations and their officials (Sinclair, 1995) but also with the relationship between politicians, and citizens or officials (Mulgan, 2000) and with the connections between structures and outputs (Andre, 2010). Such activity takes place in a context of power relations (Roberts and Scapens, 1985; Gray and Jenkins, 1993), and implicit and explicit expectations regarding the provision of accounts (Bovens, 2005). However, it is not easy to establish empirically, even in Western contexts, whether an organisation and its members live up to appropriate standards of accountability as each entity has its own roles, institutional context and political perspective (Bovens et al., 2014).

Especially in relation to emerging nations, there is a gap in our understanding about these roles, context and political perspectives. There is, for example, limited research into how emerging economies even interpret the concept of public accountability (Rahaman, 2010; Kim, 2009; Broadbent and Guthrie, 2008; Guthrie and Parker, 2012). Moreover, there may be tensions between local actors’ understandings of public accountability and the notion of accountability stemming from transferred NPM-inspired reform. Such tensions may affect the roles of local actors in different and unexpected ways. Understanding is needed about how accountability is interpreted in local contexts and how local actors cope with the inevitable tensions between local and international interpretations of reform (Sinclair, 1995; Lonsdale, 2008). In particular, the case for greater indigenous involvement in designing and implementing reform is compelling, even though the benefits from such involvement may be only intermittent and incremental (Lassou and Hopper, 2016).

Thus, there is a need for more contextual research of public accountability in emerging economies, especially, given the significance of the public sector as the major vehicle for advancement and development (Rahaman et al., 1997). But such research may also provide insight to the on-going public accountability deficits evident in Western nations.

This study will compare accountability reforms that are transferred into Nigeria with reforms that were designed locally to examine how and why practices and outcomes varied. In so doing, we examine the nature of the relationships between Nigeria and the World Bank and the IMF, consider how understandings of public accountability might vary and analyse the benefits of locally, as opposed to internationally designed, reforms.

Theoretical framework
The paper adopts an institutional theory approach, which is the major theory used to study public sector reform (Jacobs, 2012; van Helden and Uddin, 2016). This approach has been used by earlier work on emerging nations (Hopper and Wickramasinghe, 2005; Alawattage and Wickramasinghe, 2009; How and Alawattage, 2012). It is appropriate for this study because it can give insight into the ways in which external political and cultural processes interact with accounting and accountability structures within organisations (Scott, 1985). In particular, the concept of coercive isomorphism is most relevant to this research. However, given that institutional theory has been criticised as being too elite (Modell, 2014) and not
giving sufficient consideration to indigenous beliefs and structures (Hopper et al., 2015; van Helden and Uddin, 2016), we also draw on the concept of imperialism, an ambiguous term (Davie, 2000), which we define as emphasising an asymmetrical relationship of dominance and dependence between different parties or institutions. The rest of this section develops our understanding relating to the interlinking of the concept of imperialism with isomorphism.

Isomorphism is the process by which organisations tend to adopt the same structures and practices as others in the same field (Meyer and Rowan, 1977; Powell and DiMaggio, 1991), whether due to coercive, mimetic or normative influences. In relation to emerging nations the driving influence is often presumed to be coercive isomorphism, whereby organisational change is instigated due to pressure from powerful stakeholders, and is thus linked with power and submission (DiMaggio and Powell, 1983). Emerging nations are likely to find themselves in a position of submission because of their assumed resource dependency upon international donors or financial institutions, which are thus cast into a position of power (Tolbert, 1995; Oliver, 1997; Modell et al., 2007). Thus, the WB/IMF’s promotion of reform in accounting and accountability practices (Adhikari and Mellemvik, 2011) represents a transfer of “best practice” by organisations that have an asymmetrical relationship of power and submission with emerging nations. The nature of their power is such that these international organisations have been described as imperialistic institutions (Mir and Rahaman, 2005). That is, this paper argues that the nature of the power wielded by these financial organisations has the nature of a modern form of imperialism.

Davie (2000) argued that imperialism emphasises not the changes or reforms but rather the nature of relationships that are asymmetrical between separate groups, societies, parties or institutions (Robinson, 1986; Wessling, 1978; Stephen, 2012). This relationship can take two forms (Annisette, 2000; Davie, 2000). First, imperialism can be seen to encompass the idea of resource dependency and unequal developments. That is, there is coercion by advanced countries and international institutions aimed at ensuring that their own best practices are transferred as part of lending arrangements. By means of domination and exploitation of non-Western societies, international financial institutions exercise power that is imperialist in nature such that they determine decisions governing public accountability (Lapsley, 1999; Rahaman et al., 2007).

Second, even without resource dependency, an imperialist type of influence may exist that enables the transfer of accountability mechanisms. Imperialism can be viewed as a result of collaboration not only through the discussion of the nature of western domination and political control but also by the way in which reforms are implemented (Davie, 2000; Peet, 2003; Collins and Rhoads, 2010). Even when there is no overt asymmetry of power that directly enables the imposition of accountability concepts and related mechanisms, a more nuanced relationship of a more gentle but effective imperialist influence may be in play through apparently collaborative processes. Collaborations apparently aimed at improving the economic and social efficiencies in local economies may present opportunities for imperialist institutions to maintain their influence over emerging nations. That is, the primary purpose of such interventions may be essentially to promote the relationship between the imperial institutions and the state (Dixon, 2007). Even without resource dependency local actors may be drawn into collaboration with imperialistic institutions through their involvement in apparently benign economic, social and political development affairs (Rahaman, 2010). In this more subtle form of coercion, emerging nations may, for example, be encouraged to adopt NPM-style reform purportedly leading to modern public administration (Adhikari and Mellemvik, 2011). However, this collaboration is a relationship, albeit perhaps a voluntary relationship, dominated by powerful external
institutions. Thus, the act of collaboration to implement reforms is a tool of coercion, which not only promotes neo-liberal and imperialist ideas (Rahaman et al., 2007; Uddin et al., 2011) but also whose purpose is to maintain that imperialist dominance.

But such collaborations can be undermined by political imperfections (How and Alawattage, 2012). Political interference can render public accountability ineffective (Uyangoda, 2000; Alawattage and Wickramasinghe, 2009; Fukofuka and Jacobs, 2012). Moreover, Alawattage and Wickramasinghe (2009) theorised that politicians institutionalise political patronage within public organisations, creating a coercive human override over accountability structures. This creates opportunities for breeches or inconsistencies in such structures.

Understanding why elites and other officials may seek to obstruct both coercive and more gentle forms of imperialism is important but may be complex (Lapsley, 2009; Fukofuta and Jacobs, 2012). Davie (2000) theorised that the successful implementation of imperial NPM-related policies may be hindered by a variance between imperialist ideas and emerging economies’ practices. Local politics and policies may be in conflict with neoliberal politics and policies (Bakre and Lauwo, 2016). The active involvement of suitable trained indigenous actors or groups of actors is thus important because suitably skilled actors will support and enable the flow of accountability practices from the WB/IMF (Rahaman et al., 2007; Uddin et al., 2011).

In this regard, it matters whether resource dependency exists. Where there is resource dependency the intention to obstruct must be hidden from imperialist institutions which have the power to implement sanctions, consequently nations’ obstruction may take various complex forms (Fukofuta and Jacobs, 2012) that may be difficult to identify. Where no resource dependence exists, specific reforms may be rejected without triggering sanctions as both the emerging nation and the imperial institutions seek to maintain the appearance of a collaborative relationship. In such circumstances rejection of reforms may be more visible. Moreover, the opportunity for alternative local reform also becomes possible.

To summarise, an institutional theory framework offers useful insights into understanding the complexity of reform in Nigeria’s public accountability system, in particular through the concept of coercive isomorphism. However, recent critique of institutional theory in the accounting literature coupled with the complex findings of the research case study means that institutional theory alone is insufficient to adequately explain what is happening in public accountability reform in Nigeria. The idea of subtle coercion is therefore developed through drawing on the notion of imperialism as collaboration to create a more nuanced understanding of coercion. Our research examines the ways in which the financial institutions behave as imperialist institutions. In this context, the opportunity for local reform is an alternative response to subtle forms of pressure.

Research method
Nigeria is an appropriate site for the study of public accountability reform. It retains a Westminster style of government inherited from its colonial past implying there is a general structure of constitutional authority relationships in which ministers, public officials and organisations are accountable to Parliament through processes of reporting, information seeking, oversight and scrutiny (Thynne and Goldring, 1987; Mulgan, 1997). Following the Westminster style model, Nigeria has put in place the so-called independent watch dog agencies (Theobald, 2002), the office of the Auditor-General and the Public Accounts Committee (PAC). Yet despite the existence of such reporting and monitoring systems, the Nigerian public sector has underperformed and citizens show dissatisfaction with service
delivery. Furthermore, despite the existence of potentially powerful oversight mechanisms, such as PAC, that could ensure reform is implemented, public accountability is a matter of political and public concern.

We use a case study approach as this enables us to examine the relationships between institutional actors, accountability structures and processes, and organisations within a particular setting (Yin, 2006). This method is commonly used in both public sector accounting research (Llewellyn and Northcott, 2007) and research adopting an institutional theory framework (Moll et al., 2006).

We focus on examining three major reforms introduced through the NEEDS agenda: The Procurement Act (2007) which sought to reform procurement systems and practices; the use of public–private partnerships (PPP); and the establishment of the Economic Financial Crimes Commission (hereafter Crimes Commission).

The site for our field research was the Federal Ministry of Transport (hereafter Transport), and two of its seven agencies, the Nigerian Maritime Administration and Safety Agency (hereafter Maritime) and the Nigerian Ports Authority (hereafter Ports). Transport was purposefully chosen as a suitable research site to examine these three reforms from a public accountability perspective for several reasons. It is perceived internally as having experienced decay, mismanagement and poor service delivery (Nigerian Performance Monitoring and Evaluation Report, 2011). In particular, it has been mired in politically sensitive controversies associated with missing taxpayers’ money allocated for the procurement of major capital projects that have been abandoned, so that reform of procurement systems and practices, and the work of the Crimes Commission are especially relevant. It is also the central government department with responsibility for Ports, which was restructured using a form of PPP. Like Transport, both Ports and Maritime have featured in the public press as implicated in various procurement-related scandals.

In addition, from a Nigerian perspective, while the most frequent site for research is the Ministry of Petroleum, Transport enjoys a high allocation of funding from the government and has been identified as having a crucial role in delivering economic development (CBN, 2003), as there is a need for many infrastructure projects across roads, rail and ports (Nigerian Performance Monitoring and Evaluation Report, 2011).

As this study examines public accountability reform, we also examined two organisations, which provide oversight of Transport and its agencies as part of the public accountability structure. The Office of the Auditor-General is a separate and independent entity set up under the 1999 Constitution to examine and promote accountability of public expenditure at every level of operations and activities in ministries and their agencies. The PAC is expected to oversee the work of the Auditor-General, and examine the accounts and accountability of public organisations on the basis of Auditor-General reports. As PAC is able to insist that it receives all information it requires and to impose sanctions on public officials or organisations found guilty of breaches of policy and/or agreed practice, it is a potentially powerful mechanism of oversight of reform processes.

We used a triangulation approach for our study, which included data from semi-structured interviews, a documentary analysis of published official reports and relevant press articles, and non-participatory observation. It was challenging and time-consuming to get access to the organisations and to gain the cooperation of the participants, in particular because we needed to interview people with sufficient authority and status, who would be credible sources of information about topics, such as procurement processes, which are very politically sensitive. While it took several weeks to gain access to Transport and Maritime, it took months to gain appropriate access to Ports, the Office of the Auditor-General and PAC.
A total of 22 interviews were conducted with senior government officials and parliamentarians with a high level of involvement in the operations and accountability of the three organisations. Contacts were made through personal association with members of each organisation and extended using a snowball technique. Interviews were conducted initially between July and November 2012 and followed up by further interviews between July and September 2013. Summaries of the interviews conducted are shown in Tables I and II. Interviewees were guaranteed anonymity and so quotations are annotated with the interview participant’s (IP) organisation and each IP has a unique number. A semi-structured approach was used to allow for flexibility (Ritchie and Lewis, 2003). Questions were derived from the issues raised in the literature review and related Nigerian reports. These included questions about the understanding of public accountability and the relevant processes in the interviewees’ organisations, the role of reforms and their impacts, questions following up attitudes to the findings of official reports and about resources allocated to achieving public accountability (Appendix). Each interview was recorded, transcribed and coded using a content analysis approach, which therefore enabled analysis to take place in a systematic way, being concerned with the case “in its entirety” (Schreier, 2012, p. 25) and ensuring a focus on how structure, categories and data interrelate with each other (Schreier, 2012). Content analysis enabled the identification of patterns and the grouping of similar responses together, leading to the refinement and linking of concepts in an iterative process. It also revealed the gaps and underlying reasons. Observational notes and documentary evidence were also analysed in the same way, adding important resources for triangulation, hence, increasing the validity and comprehensiveness of the research (Yin, 2006). In interpreting the data while we identified those sources which were presenting similar perspectives, we also attended closely to differences in the perspectives between interviewees and where their perspectives differed from official documents (Cooper et al., 2016).

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<tr>
<th>Organisation</th>
<th>Interviews</th>
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<tr>
<td>Federal Ministry of Transport (Transport)</td>
<td>1 Director 1 Deputy Director 1 Assistant Director 1 Senior Official</td>
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<tr>
<td>Nigerian Maritime Administration &amp; Safety Agency (MARITIME)</td>
<td>3 Assistant Directors 1 General Manager 2 Assistant General Managers 1 Head of Department</td>
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<td>Nigerian Port Authorities (PORTS)</td>
<td>1 Head of Department</td>
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<td>Economic Financial Crime &amp; Commission (EFCC)</td>
<td>1 Head of Department</td>
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<td>Office of the Auditor General of the Federation (OAGF)</td>
<td>1 Senior Official</td>
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<td>PAC</td>
<td>1 Deputy Director</td>
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<td>Ministry of Industry, Trade and Investment</td>
<td>1 Chairman</td>
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<td>PAC</td>
<td>1 Deputy Director</td>
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<tr>
<td>Ministry of Industry, Trade and Investment (final interview in March 2018)</td>
<td>1 Senior Official</td>
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Case study setting

Background

Nigeria is the largest country in West Africa, with huge reserves of human and natural resources. It is in one sense an emerging nation in transition from closed to open markets. However, due to its oil and gas reserves, it is classed as a Policy Support Instrument country rather than a Highly Indebted Poor Country and so was not entitled to the 100 per cent debt relief available to other emerging countries. In essence, during the period of scope of this paper (2004-2013), it had the natural resources and capacity to finance its economic, social and development programmes, although from 2015 onwards, its economy has been adversely affected by the downturn in oil prices.

Shortly after independence in 1960, Nigeria entered into civil war, which led to the military taking over the government until 1999. By the 1980s, Nigeria was in serious economic decline and had a rising debt crisis, which led to a Structural Adjustment Programme (SAP) being imposed in 1986. The SAP emphasised expenditure reducing and switching policies as well as commercialisation and privatisation of government-owned enterprises (NCEMA, 2008). The idea of reliance on market forces and liberalisation was to encourage the entry of foreign investors (Edwards, 1993; Tybout, 1992; Mkandawire and Olukoshi, 1995; Havrylyshyn, 1990). The SAP was initially designed to last from 1986-1988 but was extended to 1996 by a rolling plan of annual modifications with further neo-liberal conditions applied. This rolling plan was intended to take account of the rapidly changing internal and external environment as well as the resource profile of the country. Thereafter, a virtually continuous process of reform commenced with national development programmes broadly adopting a neoliberalist ideology that is still on-going.

Throughout this early period, the national story is one of a struggle to deal with high debt, and to make economic, political and social reforms. The nature of the relationship between the IMF/WB and Nigeria appears to fit the model of coercion because Nigeria had little choice but to accept the conditions attached to much needed borrowing.

But the economic and social environment began to change. Nigeria regained a form of democracy in 1999. Presidents, governors and other political leaders are elected for four years with the possibility of one renewal only. After 1999, the People’s Democratic Party was in power until the 2015 elections. It is divided into zones and ethnic regions each of which took its turn at leadership so that the underlying power base did vary and so changes in policy, governance and administrative structures did follow elections. Since 1999, Nigeria has had four Presidents: Obasanjo (1999-2007), Umaru Yar’Adua (2007 until his death in 2010), Goodluck Jonathan (2010 to 2015) and Buhari from 2015.

Public accountability framework at country level

As a former British colony, Nigeria adopted the Westminster system of public accountability. The regulatory framework comprises of a set of established precedents or instruments according to which accountability is practiced, the most important of which include the 1999 constitution of the Federal Republic of Nigeria, the Financial Regulations of 1958 (revised 2009), the Audit Act of 1958 and the Procurement Act of 2007. Three bodies provide oversight of public accountability. The Office of the Auditor-General (hereafter Auditor-General) is responsible for promoting accountability in management of public funds and auditing government statutory corporations, commissions, authorities and agencies. According to the constitution, the Auditor-General has the duty to scrutinise all financial statements from federal ministries, agencies and other government parastatals to ascertain whether public money was spent for the approved purpose with due regard for accountability, efficiency, economy and effectiveness. However, there is criticism that in
practice the Auditor-General lacks independence and authority, and this has an adverse
effect on management of public funds (Iyoha and Oyerinde, 2010).

The parliamentary PAC has a duty to examine the Auditor-General’s reports, ensure that
all issues are properly addressed and, in situations where any accused public official or
organisation is found guilty of breach of accountability, impose appropriate sanctions.
Although this system is potentially a powerful oversight mechanism of reform, it is also
seen as weak: public organisations have been reported as being unaccountable and wasteful
of public resources regarding procurements, contracts and abandoned projects (Bureau of
Public Service Report, 2004)[1].

Implementation of NEEDS reform agenda
The NEEDS agenda, driven by the highest Nigerian authority (the Presidency), sought to
focus on macro-economic, structural and socio-economic issues and identified a number of
key strategies including: poverty reduction; wealth creation; employment generation and
value reorientation. It had three substantive elements: privatisation and market
liberalisation; service delivery reform; and importantly from the perspective of this paper
transparency and accountability reforms. These reforms were intended to make policy
makers, ministers and public officials more aware of the need for accountability for
resources, and to provide greater transparency and accountability to strengthen control over
public expenditure.

Although these reforms were introduced in 2004 when Nigeria had become substantially
debt-free and no longer resource-dependent on the WB/IMF, as a Policy Support Instrument
country, it was able to seek help from the WB/IMF to prepare the programme. The reforms
therefore come with a strong flavour of neo-liberalism and were strongly encouraged by
international players. Such reforms reflect the IMF/WB attitude that developing nations’
problems may be attributed to inadequate financial institutions and policies (Todaro, 2000).

This programme aimed to provide greater transparency and accountability within
ministries, and agencies, in particular strengthening control over public expenditure.
Serious attempts were made to implement three elements of reform with specific relevance
to public accountability: government procurement, the restructuring of Ports and the
establishment of the Crimes Commission. The first two are examples of imperialist reform,
while the third is a local initiative. We briefly describe each in turn before addressing our
research question.

Procurement reform
The NEEDS strategy was a key driver of continued efforts that eventually secured the
enactment of the Procurement Act 2007, which sought to tighten control over public
expenditure and prevent fraud. This was significant because in Nigeria substantial sums of
money may be allocated to capital projects which are abandoned before completion and
without any accountability for the expenditure. As of 31 December 2013, a presidential
assessment committee (Jaye, 2013) estimated that there were almost 12,000 abandoned
projects with estimated capital value totalling US$47bn. However, although this reform was
seen as good in that it established processes to guide civil servants through procedures, it
was also regarded as unnecessarily bureaucratic and cumbersome. Furthermore, the
following statement drawn from an article published in Nigeria’s Punch news media
suggests that opacity is part of the procurement problem:

[...] there is a link between the opaque manner in which governmental business is run and the
frequent disappearance of billions of naira into private pockets of officials who do not have to
account to anybody.
This article calls for the adoption of better information disclosure in Nigeria because most international assessments find information to be either not available or available in such a dismal and unreliable condition that it does not meet international standards. Our study supported this finding. For example, photocopies of annual reports and financial statements had to be requested at interview, as they were not accessible via a website, and significantly, the latest available financial statements were some years out of date.

*Ports restructuring – a form of PPP*

Giving support to our argument of subtle coercion and an asymmetrical imperialism as the policy was strongly encouraged by the international financial institutions, Ports was restructured as a PPP arrangement to transform it into a commercial agency with the intention of reducing costs and refocusing its activities to promote the role of the market in service provision (Therkildsen, 2001). This was perceived to be a government priority because Ports had become publicly associated with fraud and corruption (Gberevbie and Ibietan, 2013). In particular, interviewees explained that Nigeria was recommended to investigate PPP-style arrangements at Dubai and Antwerp ports. As an interviewee from the Ministry of Industry put it, while on the face of it, there was no coercion, but the international financial institutions:

[...] “advised” that Nigeria privatised some of its government agencies and operate some as PPPs. It might not have sounded like coercion but it was a milder way of saying it.

In his speech to the World Bank in Washington (Between 2 and 5 June 2009), the managing director of Ports recycled this advice:

The World Bank and Federal Government initiative shifted the operations of Ports from port operators to landlords, attracting private sector participation so as to free public resources for public services and decreasing the cost to the Agency for a viable port sector.

That is, the motivations for this NPM-style of reform is that private sector involvement in public services is expected to improve the problems of wasted resource (Grindle, 2004) and is associated with notions of economy, efficiency and effectiveness making them attractive to policy makers (Lapsley, 2009). This perspective was broadly supported by staff at Ports. As one manager remarked:

The suggestion by the IMF and the WB is a good thing that happened to Ports and Nigeria. [...] It was understood that government is not a good businessman and since then there have been a whole lots of efficiency, revenue has improved, there is less expenditure and everything has improved (Ports, IP4).

The effect of this partnership working arrangement is that ports became not only a commercial entity but also, importantly, semi-independent with operational autonomy from government. Operational autonomy mattered because the ports managers now had freedom to implement further reform recommended by the IMF/WB and to move more quickly than Transport itself or other agencies. One example of this exercise of autonomy was in relation to Port’s quick adoption of internationally recommended accounting practices, compared to Transport, which has still to implement these.

This shows how the adoption of one reform – providing Ports with a commercial basis and some independence – provided the basis on which to implement further reform to change the nature of financial reporting to align it with international private sector practice. It is important to recognise that during the implementation stage, Ports maintained a direct
relationship with the IMF/WB. For example, its Managing Director travelled to Washington in 2009 to give a speech at the WB in support of private sector involvement in ports.

**Crimes commission**
The Crimes Commission is an example of local reform, being established by President Obasanjo in 2004 to investigate fraud, money laundering, looting and any form of corrupt practices. Its greatest power remains its ability to arrest and prosecute any accused public official in the court of law. Since its establishment, the organisation has recorded a number of successes as presented by its Executive Chairman to the press:

We saw highly placed public officers brought to book and made to refund illicitly acquired wealth. From zero conviction in 2003, the EFCC has registered nearly 500 convictions in just six (6) years of its existence. No other agency in the world can boast of this conviction rate in the area of economic and financial crime. (Farida Waziri, Executive Chairman EFCC, September 28, 2009)

In 2016, its founder, a former President, argued that it is now showing that “it is a bull dog that can bite” in the war against corruption. However, an interviewee at the Ministry of Industry had a more critical perspective:

Yes, they have had some successes, but I think it was a fluke and they have lost all the cases that matter. I think their success can be recorded when they go after people that do not have power or access to it [...].

Other interviewees also spoke of some success, which they attributed to the Crimes Commission alignment with local needs:

This was why reforms during former president Obasanjo’s time were good [...] The idea of scapegoat is typical to our country; this was needed and implemented (Ports, IP1).

The Crimes Commission has also enjoyed international support. For example, it collaborated with the British government to jail the former Delta State governor, James Ibori, in 2010. Furthermore, on the 25 January 2012, the US Government indicated its desire to support the commission. This support, which generates external expectations about success (Romzek, 2000), was acknowledged with appreciation by the chair of the Crimes Commission.

The representation of this reform as local may thus be a case of image management for which there is precedent in Nigeria. In particular, in the 1980s, the SAP reforms that were imposed by international financial institutions were passed off by government as local. The creation of an image of localness to disguise foreign reform raises the possibility that reform may be resisted and outcomes are not as expected. We now turn to address our research question:

**RQ1.** What are the differing understandings of public accountability and how do they play out in relation to the NEEDS reforms?

Accountability at Executive level may be quite broadly understood, as illustrated by the following quotation from the Crimes Commission:

Accountability is a concept deeply rooted in political power and democracy. It is the bridge linking the People or the electorate with the Executive - to whom enormous power has been entrusted. Public accountability is the public servant’s report card on how public money is spent and used on behalf of the people [...] It also includes the accountability of the public sector to statutory auditing agencies; (Executive Chairman EFCC, September 28, 2009)

But we identify several differing understandings of public accountability which we explain through locating them in relation to the NEEDS reforms. Notably, despite the reforms, a
procedural understanding of public accountability (Dubnick and Frederickson, 2010) persists across Transport and its agencies. That is, public accountability is viewed simply as compliance with the rules and regulations:

Essentially in terms of accountability, there are various rules and regulations. These are put as a way of ensuring compliance, which we must also adhere to (Transport, IP1).

This notion is contained in the official documentation (for example, the first page of the Financial Regulations) and persists across the different government department and its agencies. For example, a narrative on the Ports’ website stated that:

The Honourable Minister of Transport has reiterated the need for the management of [Ports] to continue to ensure Due-Process and strict observance of the tenets of the Procurement Act in their dealings regarding award of contracts, “so that everyone can go to their various homes and sleep well”.

This indicates that the public organisations and their officials comply with the rules and regulations in an unquestioned manner. In addition, the comment saying “so that everyone can go to their various homes and sleep well” may indicate that Transport, its agencies or public officials need not worry about the outcome of their jobs or activities (whether it is effective) provided compliance is observed.

Such a view contrasts with the shift brought about by NPM-inspired reforms, where public accountability should be related to outcomes and performance (Dubnic and Frederickson, 2010; Bovens, 2010). However, we found little evidence of this. There was some weak evidence of a shift in understanding of accountability at Ports, where reform was favourably viewed as bringing better efficiency. In comparison, at Maritime, there was criticism of the struggles to properly introduce reform. Further limitations were evident in the scrutiny system. Some interviewees suggested that the looser relationship between the IMF/WB and the government inherent in the Policy Support Instrument arrangement compared to a borrowing-based arrangement means that the proper processes of scrutiny do not take place; hence, funds can be diverted from their intended purposes. Quotations from two respondents are given by way of example:

The issue here is that they are not fully present to implement these policies […] so I will say they are trying but I haven’t seen the results yet (PAC IP3).

Mostly these funds go to private pockets and they now hold us indebted. Why can’t they have a direct line with the projects they fund? […] In my opinion, they are not effective in monitoring (Ports, IP5).

Furthermore, there are gaps between the public accountability system, as it might be expected to operate following a Westminster model and how it operates in practice. In his address titled, “Nigeria yesterday, today and tomorrow: governance and accountability” Former President Obasanjo (2016) reaches the conclusion that:

[…] the political elite accepted the liberal form of democracy under British colonial rule mainly because of the constraining effects it had on the colonial administrators. On the other hand, they rejected its continuation after independence precisely because they did not want such constraints on their own rule.

In particular, interviewees from the Crimes Commission and PAC were critical of the lack of independence of the Auditor-General, who while free to set his own programme of work, often lacks the financial resources to carry it out. Furthermore, an interviewee from the Trade and Industry Ministry argued that the Auditor-General’s office had “no powers whatsoever. They are not adequately managed, staffed, trained”. In the absence of adequate
financial and staff resources and training, this oversight mechanism cannot operate in line with international best practice.

PAC’s functioning was another area of concern. PAC conducts status enquiries confirming whether funds have been properly approved, whether the project has been carried out to the required standards and to investigate if there is value for money. But again interviewees noted break-downs in the system. First, PAC’s work is perceived to lack transparency. No reports are publicly available and during field work a researcher was only able to observe a meeting by obtaining permission to attend as a research member of the Auditor-General team. One unanticipated finding during the PAC sitting was the seizing of a press camera by the Chairman, following which the press man was asked to leave and recording of the Committee proceedings was prohibited.

The second, more major, issue is summarised neatly in the following quote from former President Obasanjo explaining the problems of oversight in earlier days:

Between 1960 and 1965, the effective functioning of the PAC was hampered by the uncooperative attitude of the senior public servants, the limited knowledge of the members concerning their responsibilities, the high turnover rate of membership and more importantly the preponderance of pro-government members on the committee including the chairman (Obasanjo, 2016).

This former President’s address makes clear that corruption and lack of accountability remain major issues of concern in Nigeria in 2016. While he notes that there are various control and accountability measures and checks and balances instituted in the Constitution, he argues these have been rendered inoperative or impotent by the same people who are expected to make them work; what is “starkly and shamefully lacking is compliance”. We identified similar perceptions among interviewees about a lack of enthusiasm for the processes of accountability related to PAC and the Auditor-General, but our interviewees especially stressed the weakness of sanctions. Several made comments similar to the following:

Look at this situation; they are people who stole money, case taken to court with substantial evidence, but then they are acquitted. This was the case with James Ibori, but when he was arrested in the UK, he was jailed on the same offences (Transport, IP3).

In particular, interviewees indicated frustration that PAC has spent a lot of time compiling reports and making recommendations, yet action fails to take place at the parliamentary level. This top level lack of adherence to the public accountability system therefore raises serious questions about its overall value, including its ability to oversee processes of reform.

For many of our examples, understandings of accountability were infused by the personal political dimension common in many emerging economies. Our interview at the Ministry of Industry noted that:

The organisation is dependent on the behaviour of the Minister. If he is inclined towards accountability, the whole Ministry will be [...] But to me the signing of the Freedom of Information Act was just a comedy [...] you were in a dream world to believe a public official would release the same information that would harm him.

Thus, from the perspective of collaborative imperialism, political commitment to reform is vital, as the IMF’s external relations manager[5] explained:

Continued political commitment is critical to preserving the recent macroeconomic gains and achieving the social goals of the NEEDS in Nigeria.

Without this commitment it is relatively easy to pull back from the reform process, especially when there is no international borrowing agreement and oversight to enforce
reform, as Nigeria’s Policy Support Instrument status means that future governments are not necessarily committed to any given course of action.

As the structures of accountability are a political hierarchy, subject to patronage and political appointees, any lack of political support hampers reform. Interviewee Maritime IP3 indicated that while reform initiatives might be started they tended not to be completely implemented; lack of continuity was the problem. Political interference was also noted in relation to a lack of financial independence for the Auditor-General’s work programme, despite this being the key expected feature of an Audit Office (Lonsdale, 2008).

The financial independence is a persistent issue, yes. Especially, when it is the Ministry of Finance that decides how much the Office of the Auditor-General works with, by deciding the finances, they also indirectly determine the scope of work for the Auditor-General (PAC, IP2).

While it is recognised that a new audit bill, designed to address the issue of independence and the financial challenges that the Auditor General faces, needs to be approved our interviewees explained that Parliament had spent years failing to finalise this legislation and PAC, IP3 indicated that realistically the necessary approval could not be expected any time soon. Unless there is the political will to address these deficiencies in the watchdog agencies, then oversight of reform is unreliable and reform can be avoided.

Finally, there appears to have been a lack of continued political will to tackle procurement fraud. In particular, interviewees explained that the Crimes Commission, which is the responsibility of the Office of the Presidency rather than a Ministry, has not enjoyed the same support from Obasanjo’s successors. They also questioned the level of commitment and determination of officials in tackling the highly sensitive procurement element of the NEEDS reforms. Furthermore, one interviewee suggested that the work of the Crimes Commission was being deliberately undermined. He described how Section 174 of the 1999 Constitution was being manipulated to hinder the work of the Crimes Commission. This section enables the Attorney-General to step in and take control of Crimes Commission cases, but rather than proceeding to prosecution the use of Section 174 has led to proceedings being halted indefinitely:

They have even started quoting the Section (174) in letters to us, the section is violated and this is how they have bent the law (Crimes Commission IP1).

This political interference in the work of the Crimes Commission suggests that accountability reforms in Nigeria can only come about if there is political support for the specific reform; otherwise, it can be blocked. In essence reform emerges as a by-product of political struggles (Bates and Krueger, 1993).

What was most interesting about our study of public accountability reforms were the responses to the coercive pressures from the collaborative imperialism. These responses took two broad forms. There was some obstruction of foreign (NPM) reforms, with concern over too much “hastiness in implementation” (Maritime, IP1) and the need that “a child should crawl before he runs” (Transport, IP2). Clearly, if there is to be successful implementation of change in public accountability systems, local actors need time to understand multiple reforms:

On paper the management reforms were good, but I think when it comes to the people that are driving it, then we have a problem. They only brought consultants from Europe, UK and all these countries including World Bank, they give you the roadmap, templates and then we are to drive the reforms ourselves, and this is where I think there is a problem (Transport, IP3).

Major reforms that are implemented over a period also allow for redesign during implementation (Wallace and Fertig, 2008) to cope with unexpected practical aspects.
Without such time and the adaption it allows, local actors seeking to implement foreign roadmaps were unable to create “finished products” (Ports IP3). In Maritime, interviewees explained the ultimate response was outright rejection of the reform around introducing non-cash forms of payment, meaning that the risk of procurement fraud remains.

Unlike in many emerging nations where reform is based on resource dependency, these examples of obstruction and partial implementation of proposals for reform by Nigeria indicates that there is a subtle rather than a strong coercion from WB/IMF for Transport and its agencies. One interviewee emphasised for example, that most of the reforms proposed by international institutions are “sometimes completely too alien” (Transport, IP1); hence, Transport is more interested in indigenous contexts.

Alongside the IMF/WB reforms, there was local reform, the most significant example of which has been the Crimes Commission discussed earlier. A respondent from Ports (IP1) summed up nicely in terms of suggesting that the distance between the IMF/WB and local actors means local actors have more scope for obstruction because accountability is not so localised:

I think there are two publics; one represents our local setting and the other is foreign. I think the foreign gives room to get away with so many things [...] but [...] if they make you the treasurer or president of a community, in charge of funds, you dare not steal it. If you do, your family will be exiled, you become outcasts and your family name is destroyed [...] So making an example was the most important mechanism of accountability there was (Ports, IP1).

That is, the sense of proper behaviour and accountability is not necessarily associated with accounting ideas and rules because appreciation, loyalty and traditional trust-based co-operation between clans matter more (Davie, 2004; Rahaman, 2010). Speaking of the Crimes Commission and local reforms in telecommunications, which he perceived as successful, an interviewee from the Ministry of Industry said:

Most of these (local reforms) reflect our uniqueness and this is also reflected in the payment systems. Here we are not trying to copy anyone. We do things that reflect where we are and how we want things to be done. But all those IMF reforms [...] we dump them because people do not key into them.

Discussion and conclusions
Our analysis of public accountability reform from Nigeria offers empirical and theoretical contributions to the literature examining the imposition of Western notions of reform on developing countries. This contrasts with Suddaby et al.’s (2007) concern that Western notions of reform are being imposed upon developing countries to the extent that international financial organisations are supplanting local actors. Rather, we provide evidence to support Pollitt’s (2015) argument that the dominance of Western ideas has not been, as great as it may have appeared and that space is opening up to legitimise and make visible reforms from different traditions. Rahaman (2010) has argued for greater inclusion of African cases in the literature. Our example of public accountability reform from Nigeria shows that examining differing understandings of public accountability and the way in which they play out in delivering or obstructing reform is both complex and subtle.

The roles of the state, public sector organisations and the IMF/WB are not always mutually exclusive but are dependent on local circumstances. Moreover, as would be expected from a relationship founded on imperialism, Nigeria has not been released willingly from the influence of international organisations. Rather, the Policy Support Instrument arrangement was put in place to secure international influence within weeks of the date when Nigeria was renegotiating its debt dependency. Consequently, although there
has been a shift in the relationship from one characterised by coercive isomorphism to something less overt – a more subtle form of coercion – Nigeria remains under the influence of imperialist institutions (Annisette, 2004), in the sense that relationships remain asymmetrical (Robinson, 1986; Wesseling, 1978; Stephen, 2012), as local skills are developed (Lassou and Hopper, 2016) that facilitate the transfer of best practice (Rahaman et al., 2007; Uddin et al., 2011). Senior government actors are involved in facilitating the development of this new relationship which we characterise as collaborative imperialism. That is, accountability has a social form (Bovens et al., 2014).

By examining the NEEDS reforms that took place after Nigeria had negotiated Policy Support Instrument status, we can see a continuing relationship between the government and the international financial organisations, with subtle coercion being applied in the adoption of further NPM-style policies and practices. This could be seen in the Ports reform, where the change to commercial-style management was “advised” and then that reform facilitated the adoption of accounting techniques such as accrual accounting. Senior management not only accepted the new management form but also promoted it at WB events. But there were also opportunities for obstruction, which is most likely to be effective if the pace of change is deemed to be too fast or out of line with cultural norms. In particular, if senior local actors seek to quickly transfer policies, which took years to develop in Western countries, then in practice local actors within departments or agencies may feel justified in resisting changes encouraged but not required by the Policy Support Instrument relationships. In practice, a lengthier implementation process giving time for the associated changes in education and business culture may have been more effective. This was particularly noted in terms of the Ports reform, as Ports IP3 commented:

We are like fire brigade, for instance, it took the ports of Antwerp in Belgium about fifty years to gradually adopt and perfect the landlord model (i.e. PPP) and do you know how much it took us? It took us one year […] As a result, the casualty rate was massive, for instance, before the Ports staff was 15,000 and now we are not more than 5,000, this was not planned for (Ports IP3).

This interviewee confirmed Dixon’s (2004) view that some externally driven projects can be too large for the host nation when he suggested that an initial experimental study using a smaller agency would have been beneficial. Given that obstruction may be caused by the negative results of reform (Therkildsen, 2001), such as loss of jobs, slower implementation may help to overcome such obstruction.

Furthermore, any country in transition from being resource-dependent to self-sufficient might seek to assert some independence by implementing locally informed changes. As Nigeria transitioned from being resource-dependent to self-sufficient, it has sought to assert independence by implementing changes perceived as locally informed, such as the Crimes Commission, with its moral authority based on the traditional notion of being accountable to the community. But here, as in other public accountability mechanisms such as the Auditor-General and PAC, there is evidence of obstruction due to political influence. Our findings show that officials and PAC members carry out their duties and prepare their reports, but politicians fail to take action and deliver appropriate sanctions. That is, whereas Western notions of accountability travel from public entity to high office holders (Hood, 2010) and especially to Parliament, the relationship between officials and individual politicians enabled political interference (Mulgan, 2000) in Nigeria.

While political actors may facilitate change that mimics international best practice, they may also set in place alternative procedures that undermine reform without obstructing it overtly, especially if the reform was an initiative of a prior administration. By 2011, some seven years after the NEEDS programme was first announced, Nigeria, by its own admission, still suffered from mismanagement, poor service delivery and poor
accountability (the Nigeria Performance Management Evaluation Report, 2011). This case study shows the importance of the commitment to change of the various public sector organisations involved in the public accountability system, and especially at the political level the importance of sustained commitment across administrations. In the Nigerian case examined, despite a process of collaborative imperialism being present, there has been only partial reform of the public accountability system, which, combined with the limitations of public scrutiny, remains weak. The case for more indigenous ownership of reform design and implementation (Lassou and Hopper, 2016) remains strong.

This exploration of Nigeria adds to Rahaman’s (2010) emerging research agenda by showing that the specific and dynamic features of the political and economic environment of an emerging nation influence the country’s relationship with the IMF/WB and mean that it is not straightforward or linear. This relationship changes over time, and as it does so the ability of political elites and public sector organisations to support, obstruct or resist governance and accountability reforms also varies. Our conceptualisation of collaborative imperialism as subtle coercion, a modification of the institutional theory concept of coercive isomorphism, offers an insight into the complexity of public accountability reform in non-resource dependent emerging economies, as it demonstrates one way of understanding the continuing but subtle pressures on such countries. Further work is needed to examine whether these findings are replicated in other non-resource-dependent emerging economies, whether in Africa or elsewhere.

Notes
1. Made available to researchers privately.
5. During an IMF executive Board review of the NEEDS under the policy support instrument (15 October 2007).

References


Further reading


**Appendix. Sample interview questions**

- Based on your experience, how do you define/understand public accountability?
- How is the Transport “Public Accountability” process structured? What sort of problems has this process created? Is the public aware of this process? If No – Have you considered the need to make the public aware of it?
- Do you think gaining an in-depth understanding of the accountability structure is essential to the understanding of public accountability in the ministry?
- What is the significance of politics in the public accountability system?
- According to the CBN reports in 2011, transportation decisions are taken at Ministry of Transport level and are in most cases influenced by politics and not necessarily actual needs. What is your opinion on this?
- The CBN report also said that, to enhance accountability there is a need to establish the culture of citizen’s participation in public and communal affairs of the Ministry of Transportation. What does this actually mean? What sorts of documentary evidence are available to prove this?
• What opportunities does the public have to engage in the exercise of accountability in the ministry?
• According to the literature, the present accountability procedure uses too much technical language and create the illusion of effective participation rather than actual. Therefore, a simpler version should be promoted to make it more open to the public. What is your view on this? How do you propose to improve this?
• What is the role of reforms in your accountability process and what are the indicators of success?
• In 2004, the National Assembly passed a bill and came up with NEEDS (Nigerian Economic Empowerment and Development Strategy), this included reforms on financial, transport system, accountability and transparency. What has been the impact of this innovation?
• The Auditor-General’s report in 2010 explains that there was insufficient public accountability in government parastatals. It argued that bad behaviour and poor performances are therefore often not sanctioned and are in some instances rewarded. What is your view on this?
• There is the perception that society does not bestow legitimacy on [the organisation] because it puts on a symbolic appearance (i.e. it constructs an image that is different from what actually takes place). How do you respond to this? What measures are you putting in place to repair such perception?
• In your opinion are adequate resources assigned to improvement of public accountability in [the organisation]?
• Lack of public accountability may lead to crisis and intensify controversy in the ministry. What is your opinion on this?

**Corresponding author**
Pamela Stapleton can be contacted at: pam.stapleton@manchester.ac.uk

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Reassessing and refining theory in qualitative accounting research

An illustrative account of theorizing

Lynda C. Taylor

Nottingham University Business School, University of Nottingham, Nottingham, UK

Abstract

Purpose – This paper focuses on the role of theory in the process of doing qualitative accounting research. It discusses the role of theory in qualitative accounting studies, and provides and example of how theory can be reflected upon, reassessed and refined during a research process.

Design/methodology/approach – This paper provides an illustrative account of theorizing during the process of qualitative accounting research. The paper places specific emphasis on an abductive approach to theorizing. An abductive theoretical framework is used to reflect on the theorizing process.

Findings – The “findings” reflect on the use of theory and the process of theorizing during a research process. The paper finds that abduction may be a useful way of theorizing in qualitative accounting research because it encourages the researcher to remain open to alternative explanations of data, which may promote theoretical development. This paper does not report the accounting practices of an organization in the traditional sense, but illustrates how the empirical findings led to an initial theoretical framework being developed.

Practical implications – The paper is intended to be informative in showing how theory can be used and developed during research. It may be of value and interest to new and emerging researchers. It may also interest established researchers seeking to reflect on their use of theory in research.

Originality/value – There are few contributions that focus exclusively and explicitly on how theory is used and developed during the process of qualitative accounting research. Moreover, the abductive approach has received limited attention in accounting. This paper aims to address these gaps.

Keywords Theory, Illustration, Qualitative research, Accounting, Abduction

Paper type Research paper

Introduction

In recent years, there have been numerous contributions discussing the rationale, features, benefits and problems of qualitative research in accounting (Berry and Otley, 2004; Vaivio, 2008; Chapman, 2008; Humphrey, 2014; Burns, 2014; Parker, 2012, 2014; Richardson, 2012; Nørreklit, 2014). Most of these scholars have commented, to some degree, on the nature and role of theory in such research. Such contributions have made it clear that theory plays an important role in qualitative research. For instance, as Vaivio

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(2008, p. 76) puts it: “without bold interpretation and theorizing, the qualitative study is just a collection of engaging field detail”. However, as Humphrey (2014, p. 57) points out, little attention has been paid to understanding the way in which theory informs the process of generating research findings. He states that, “Developing explanation is a fundamental part of field work, not something that starts once the field work has been completed”. Developing such an understanding is hindered by a lack of studies (barring notable exceptions, see Laughlin, 1995; Keating, 1995; Humphrey and Scapens, 1996; Llewelyn, 2003; Ahrens and Chapman, 2006) that focus exclusively on the role of theory in qualitative research. The story of how theory, method and empirical findings have interacted to arrive at the conclusions, is often hidden (Van Maanen et al., 2007) as, by the time qualitative accounts reach academic journals, they have usually been sanitized (Irvine and Gaffikin, 2006).

The motivation for this paper stems from my own experience of doing interpretive, qualitative research in management accounting. In the case study which underpins this paper, an initial theoretical framework was adopted and puzzling empirical data which could not be adequately explained by this framework, emerged during the research process. By remaining open to alternative explanations of my data, I ultimately reassessed and refined this initial theoretical framework. As such, this paper emphasizes the interrelated nature of the relationship between theory and research and specifically considers an abductive, continuous approach to theorizing in qualitative accounting research.

More generally, this paper provides an informative and pragmatic account of the use of theory and the process of theorizing during a qualitative case study. In explaining how and why initial theory may need to be challenged, reassessed and refined due to emerging empirical findings, the illustrative account of my research may be valuable to other researchers wishing to adopt an abductive approach. There are limited pragmatic accounts of qualitative research processes (Marginson, 2004; Bedard and Gendron, 2004; Irvine and Gaffikin, 2006; Scapens, 2006; Laughlin, 2007; Beattie, 2014) and few that focus exclusively on the use of theory. Whilst this paper does not aim to provide an instruction manual, I nevertheless believe that it does address a common problem faced by emerging accounting researchers seeking guidance, information (and perhaps reassurance) about the role of theory, including the processes of theorizing and theoretical development in their own research projects. The paper may also be of interest to more established scholars wishing to reflect on the use of theory in their research.

The next section discusses the relationships between theory and qualitative accounting research. A “gap” between theory and research, underpinned by opposing ontological positions and between deductive and inductive approaches to research, provides a foundation for the subsequent discussion of continuous theorizing and abduction. An abductive approach to theorizing is explained, followed by a discussion of similar approaches in accounting research. An explicitly abductive framework, which is used to structure and explain the illustrative findings, is then outlined. This is followed by the illustrative account of theorizing in my own qualitative study. The paper is drawn to a close by reflecting briefly on the process of abductive theorizing.

Theory and qualitative accounting research

Relationship between theory and research

In qualitative accounting research (and in this paper) theories can be considered as “ways of seeing” that enable researchers to theorize about a given setting (Llewelyn, 2003; Ahrens and Chapman, 2006; Vaivio, 2008). Llewelyn (2003) argues that ways of seeing are not limited to
grand theory (based on generic behaviours and structures) but can take a variety of forms from conceptual tools to ideas. These can be used to theorize at different levels including not only by general theorization of context-specific practices and enduring structures, but also by using metaphor and differentiation to understand social processes and action at the micro-level. In addition, Llewelyn (2003) notes that the usefulness of theory should be based on criteria of utility rather than truth. The possibility of challenging theory that has limited ability to explain emerging data, is possible and even preferable. Others go further indicating that, in addition to scepticism towards the theories that inform their research, accounting scholars should explicitly aim to engage in theory development (Richardson, 2012).

In explanatory terms, it is usual to differentiate between deduction and induction. These relate to how the research interacts with and uses theory to result in conclusions being drawn (Lee and Lings, 2008; Alvesson and Skoldberg, 2009). A deductive strategy emphasizes theory, as it is typically concerned with the deduction of hypotheses to test existing general theories, which are then either corroborated or falsified using empirical data. At the other extreme, an inductive strategy emphasizes data, by generating new theory from empirical data. In many methodological texts, these are often presented as differing logics with fundamentally opposed ontological and epistemological assumptions. For instance, referring to Table I (Bryman, 2008), a quantitative methodology involves theory testing, which is underpinned by objectivism and positivism. This is presented as the opposite of a qualitative methodology, involving theory generation, underpinned by constructionism and interpretivism.

Yet, such differences are not clear in practice. For instance, some “qualitative” grounded theory research is thought to be underpinned by a positivist epistemology (Eisenhardt, 1989; Alberti-Alhtaybat and Al-Htaybat, 2010). And there are several examples of other positivistic, qualitative work in accounting (Townley et al., 2003; Richardson and Kilfoyle, 2009). Debates in accounting and across the social sciences more broadly, have shown that the boundaries between “opposing” ontological and epistemological assumptions assumed to underpin the explanatory logics of induction and deduction, are contested (Hopper and Powell, 1985; Wilmott, 1993; Laughlin, 1995; Layder, 1998; Ahrens, 2008; Kakkuri-Knuuttila et al., 2008; Armstrong, 2008; Malmi, 2010; Vaivio and Sirén, 2010; Lukka, 2010; Cunliffe, 2011). Instead of understanding reality as either highly structured and constraining human agency, versus reality that is constructed by human agency, the seminal work of Giddens (1979, 1984) Archer (1995, 2003) and others (Stones, 2005, 2015) indicates that opposing ontological positions reflect a duality, not a dichotomy. Furthermore, critical realism, based on ontological foundations that combine “moderate realism with moderate social constructivism”, claims to transcend the objective/subjective dichotomy (Modell, 2017, p. 22 see also Sayer, 2000; Modell, 2015). As do recent approaches to interpretive research (Kakkuri-Knuuttila et al., 2008; Modell, 2015), including hermeneutics (Llewelyn, 1993).

Van Maanen et al. (2007) contend that the polarity of research strategies (i.e. deduction vs induction) is indicative of a “gap” between theory and research, which does not accurately

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<th>Role of theory</th>
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<th>Qualitative</th>
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<tr>
<td>epistemology</td>
<td>Deductive: testing of theory</td>
<td>Inductive: generation of theory</td>
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<td>Ontological orientation</td>
<td>Natural science model; in particular positivism</td>
<td>Interpretivism</td>
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Source: Bryman (2008, p. 22)
reflect how research processes actually work (Layder, 1998; Van Maanen et al., 2007; Blaikie, 2010). They describe how on the one hand, paying too little attention to data causes theorizing to be remote and divorced from practice. Whilst on the other hand, paying too much attention to data can stifle theorizing. In practice, theory, data and method are highly interrelated as many qualitative researchers would characterize their research as a process in which theory and data are in continuous interplay (Van Maanen et al., 2007; Vaivio, 2008). Such an approach is common in interpretive qualitative research, where a “willingness to modify initial assumptions and theories results in an iterative process of data collection and analysis” (Walsham, 1995, p. 76).

An abductive approach to theorizing
Some argue that an abductive strategy better reflects the reality of how many qualitative research projects are actually conducted (Van Maanen et al., 2007; Alvesson and Skoldberg, 2009; Dubois and Gadde, 2002, 2014). During an abductive research process, the empirical area of application can be adjusted, whilst at the same time, prior theory can be challenged and refined. Like recent sociological perspectives (Giddens, 1984), critical realism (Modell, 2017), and interpretive approaches to qualitative research (Giddens, 1979; Llewelyn, 1993; Stones, 2005; Kakkuri-Knuuttila et al., 2008), the pragmatist philosophy underpinning abduction (Peirce, 1960), straddles the objective/subjective divide (Lukka and Modell, 2010). Thus, abduction overcomes the polarization between deduction and induction, bridging the gap between theory and research (Blaikie, 2010).

Abductive theorizing is a continuous rather than discrete aspect of the research process. It takes place during an ongoing relationship between empirical data collection and withdrawal for reflection and analysis (Layder, 1998; Blaikie, 2010). Prior theory is combined with theoretical development based on empirical findings (Layder, 1998). And it provides a source of inspiration for the discovery of patterns that enable understanding. (Alvesson and Skoldberg, 2009). It is these underlying patterns that explain the individual case. Not all qualitative research involves such an approach. Theorizing can also happen in a more discrete sense, i.e. either prior to or following data collection. On one hand, theory chosen prior to and independently of empirical data, could be used to generate theoretical categories into which collected data is forced. On the other hand, extant theory can be used to explain and organize the findings post hoc, i.e. once all data has been collected.

Traditionally “inductive” approaches, such as grounded theory, reject the use of prior or general theory, as theory must emerge from empirical data (Glaser and Strauss, 1967)[1]. However, whilst grounded theory is often described as inductive (Elharidy et al., 2008), it is almost mythical to regard it as an approach which ignores existing theory. In practice, qualitative data will be inevitably and unwittingly theorized by the preconceptions of the researcher (Suddaby, 2006; Blaikie, 2010). As such, many grounded theory approaches do not eschew the use of prior theoretical frameworks. In this sense, grounded theory is similar to abduction (Richardson and Kramer, 2006; Timmermans and Tavory, 2012). The iterative nature of the relationship between theory and data is usually encouraged (Eisenhardt 1989; Strauss and Corbin, 1990; Orton, 1997; Gurd, 2008; Elharidy et al., 2008) and low levels of prior theorization are generally permitted (Strauss and Corbin, 1990; Suddaby, 2006; Gioia et al., 2012).

Nevertheless, despite the similarity to abduction, grounded theory does tend to privilege empirical data over prior theory (Layder, 1998; Blaikie, 2010). It emphasizes the generation of new theory rather than the refinement of existing theory. Some argue this leads to a waste of existing theoretical ideas and overall fragmented theoretical development (Layder, 1998). In contrast, abduction places more equal emphasis on the simultaneous emergence of theory.
and use of prior theory (Layder, 1998). The continuous interplay between theory and data is more heavily pronounced in abduction (Dubois and Gadde, 2002).

As a research method, grounded theory encourages systematic, highly structured and prescriptive procedures for data collection and analysis (Strauss and Corbin, 1990 method in particular). For this reason, it is generally less flexible than the approach I am seeking to illustrate here.

Theorizing and abduction in accounting research

In accounting many methodological contributions are based on an abductive approach to theorizing (discussed above). That is, prior theory can be used but may be challenged, reassessed and refined so that theoretical explanations emerge from the data rather than being preordained (Covaleski and Dirsmith, 1990; Humphrey and Scapens, 1996; Ahrens and Dent, 1998; Vaivio, 2008; Ahrens and Chapman, 2006; Humphrey, 2014; Parker, 2014).

Ahrens and Dent (1998) delineate the process of theorizing in qualitative accounting research. Using Eisenhardt’s (1989) work, they criticize the use of predetermined theoretical constructs in a way which forces them onto, rather than allowing them to emerge from data. Others note similar concerns. Humphrey and Scapens (1996) critique mere “illustration” of social theories in accounting research. That is, working from a theoretical framework and using empirical data to show how the case “fits” the theory. Although theory illustration can be a useful way of establishing the plausibility of a specific theoretical perspective (i.e. to illuminate some under explored area of management accounting, e.g. see Keating, 1995), it can lead to an excessive focus on the theory itself. They note (1996; p. 91) that:

Relying solely on the content of a preselected social theory necessarily forces the researcher to work out from the theory, leaving it unchallenged and resulting in a failure to develop a theoretical framework focused explicitly on the issues and questions raised by the case.

Such overreliance on a predetermined framework can tempt the researcher to look for issues that fit with a theory, whilst ignoring the potential importance of others which do not. This can be referred to as either theory-in-theory-out (TITO) (Berry and Otley, 2004; Marginson, 2004) or selective plausibility (Scapens, 2004).

Like abduction, Laughlin’s work (1995; see also Laughlin, 2004; Broadbent and Laughlin, 2014) refers explicitly to the dynamic role of prior theory in qualitative accounting research. Laughlin (1995) advocates “skeletal” theories that can be used reflexively with empirical data, as each informs the other. The theoretical skeleton needs empirical flesh to give it meaning and the empirical flesh is given shape by the theoretical frame (Broadbent and Laughlin, 2014). However, as Laughlin (2004; 268) states; “where empirical details do not fit the ‘skeleton’, the empirical data provides a basis for extending and/or reforming the framework”. To achieve theoretical development, Laughlin (1995) suggests using unstructured research methods (e.g. unstructured interviews) to capture loosely defined aspects of the social setting, e.g. agency, power or change. Scapens (1990, 2004) specifically advocates using explanatory case studies, indicating that patterns rather than general theory are used to explain the case. Theory should sensitize (Blumer, 1954) the researcher towards specific social issues (e.g. issues of power, norms or routines). Sensitivity refers to the openness of the researcher to alternative explanations and to the process of blending theoretical ideas with data (Blalikie, 2010).

As mentioned, prior theory provides inspiration for the discovery of patterns which enable an understanding of the empirical setting. Accounting researchers have sought to emphasize how theory can emerge through a process of identifying patterns or themes in the data (Kaplan, 1964; Scapens, 1990; Ahrens and Dent, 1998; Ahrens and Chapman, 2006). The
recognition of patterns leads to theoretical understanding as a broader picture of the organizational context and interrelationships, which may subsequently be explained using theoretical language (Ahrens and Dent, 1998), builds up. Whilst prior theory sensitizes the researcher, judgements about how theory can explain patterns, should emerge as an outcome of the continuous interplay between theory and data. Patterns are identified during a process in which the researcher tries to “make sense of” the data collected. In a practical sense, Scapens (2004) suggests highlighting relevant sections of interview transcripts, including interesting events that help to build a picture of the case. The perceptions of research respondents to organizational issues and events can form a pattern that builds up as data are collected. “Fit” is reached when the researcher can explain (theoretically) the responses of organizational members to certain issues (Ahrens and Dent, 1998; Ahrens and Chapman, 2006). However, in the absence of boundaries around a study pattern models can be extended indefinitely as data continue to be collected (Scapens, 1990). Where prior theory conflicts with the patterns emerging from data (as discussed in this paper) theoretical development is possible. To avoid selective plausibility (or TITO) patterns can be used to challenge, reassess and refine (or discard) prior theory. It is these emerging patterns which ultimately explain what is happening. Further evidence can be collected and existing theory reassessed to understand why contradictions between existing theory and emerging patterns exist. Additional or complementary theory can be sought to extend the explanations provided by an initial theoretical framework. Eventually, a refined theoretical frame (which can be theoretically generalized, see Lukka and Kasenen, 1995) may emerge.

The use of theory has implications for the validity of research outputs (Ahrens and Dent, 1998; Ahrens and Chapman, 2006). Validation broadly refers to how research is developed in a credible way, such that its findings can be relied upon (McKinnon, 1988; Modell, 2005). Accounts that seem authentic and plausible are more likely to be trusted by the reader (Golden-Biddle and Locke, 1993; Ahrens and Dent, 1998). Lukka and Modell (2010) point to a lack of consensus about how qualitative interpretive research should be validated. Based on recent debates (in particular Kakkuri-Knuuttila et al., 2008), they argue for the integration of objective/subjective approaches, to understand how validation may be better achieved. In particular, they indicate that abductive reasoning (combined with other facets of modern philosophy) shows how the integration of opposing ontological positions is possible. Abduction enhances the credibility (and thus validity) of research findings because “it stimulates the researcher’s reflexivity in their striving to make sense of observations” (Lukka and Modell, 2010, p. 467).

Some argue that reflexivity is needed to realise the true potential and value of qualitative case research (Alvesson and Skoldberg, 2009; De Loo and Lowe, 2012; Dubois and Gadde, 2014). Reflexivity involves recognising and reflecting upon the subjective nature of the researcher’s role in the research process, including how the researcher may impact upon the research. Dubois and Gadde (2014) note that qualitative research can be presented in a (reflexive) way that enables researchers to show how they have reflected on such issues. Such reflexivity can convince readers that the study is plausible. However, it is often absent in studies which (despite involving multiple iterations between theory and empirical data) are presented as if the research has been conducted in a linear way (Dubois and Gadde, 2014), taking no account of how the researcher has arrived at his/her (inevitably subjective) interpretations. The illustration detailed later in this paper provides a (reflexive) account of my own qualitative research study. Abductive theorizing encouraged me to be consciously reflexive by remaining open to multiple interpretations of my data. The reflexive account is
presented in a detailed way that enables me to illustrate my role in the process of abductive theorizing and how this led to my own interpretations of the empirical setting.

The theorizing discussed in this paper was informed by prior contributions from accounting that did not explicitly indicate an abductive approach, but were nevertheless based on abductive theorizing. This partly explains why abduction was not explicitly referred to at the time of my study. At the time of my PhD, I was unaware of its existence, including Dubois and Gadde’s (2002) work (see below). On reflection, this could be because much traditional research methods training tends to emphasize the polarity of deductive (quantitative) versus inductive (qualitative) approaches to theorizing. However, in my case an explicitly abductive approach was not necessary, as the accounting contributions (discussed above) enabled me to theorize in an “abductive” fashion. Nevertheless, an explicitly abductive framework such as the one outlined next could be useful to other researchers.

An abductive framework
Dubois and Gadde’s (2002) abductive framework encourages researchers to explicitly consider how continuous, abductive theorizing can happen in practice. It is particularly useful in providing guidance with which to reflect upon, reassess and refine theory during research. Specifically, it indicates why a researcher may come to question the utility of a chosen theoretical perspective. And how, once this questioning has taken place, the researcher can move forward in the theorizing process. This framework, though not used at the time of my study, has enabled me to structure and reflect upon how theorizing happened in my research. This process is described later in the illustrative account of abductive theorizing.

In responding to criticism regarding the “unscientific” nature of case research methods, Dubois and Gadde (2002, 2014) introduced an abductive framework. They position their approach as closer to induction than deduction, but note (Dubois and Gadde, 2002, p. 559) that their “Systematic Combining” builds more on the refinement of existing theories that on inventing new ones. Systematic combining refers to a process whereby the theoretical framework (initially taken into the research setting), empirical fieldwork and case analysis evolve simultaneously during the research process. The theoretical framework may be reassessed and gradually refined alongside the data collection and analysis processes. In this sense, systematic combining considers the theoretical framework (as in the “framework” and “theory” boxes in Figure 1) to be an input as well as an output of the research process. That is, the framework provides an initial direction in sensitizing (Scapens, 2004) the researcher towards the types of issues to look for in the field, but may be refined through the processes of matching, direction and redirection of the research.

Figure 1.
Dubois and Gadde’s systematic combining

Source: Dubois and Gadde (2002, p. 555)
If the framework does not adequately explain emerging patterns, then theoretical puzzles or “mismatches” may be identified. Such mismatches may drive the need to reposition the research focus and change its initial boundaries. This process is referred to by Dubois and Gadde (2002) as “redirection”. Redirection of the research may lead towards a search for complementary theories, which enable the researcher to critically engage with (and ultimately refine) the initial theoretical framework in light of emerging empirical data.

There may be several iterations between matching and redirection during a research process. For instance, once a theoretical framework has been adequately refined to address the mismatches identified during a first round of matching, the research questions may be revisited to make sure that they still correspond to the theoretical and empirical puzzles being investigated, and to assess the need for redirecting the research focus. Redirection of the focus may involve new research questions, which requires further matching of the refined theoretical framework with the case. At this stage, both the new direction of the research (if any) and the new theoretical dimensions added to the theoretical framework are more likely to entail the need for new empirical data to be sought during the second matching process. In turn, these new empirical data might introduce other mismatches that trigger a further phase of refinement for the theoretical framework. The iterative processes of matching, direction and redirection may continue until the theoretical framework adequately explains or matches the empirical insights of the research process.

As indicated by Figure 1, the core processes of matching, direction and redirection take place within the wider research context comprising several elements, each of which plays a role in the study. First is the empirical world, which contains no natural boundaries and is therefore broader than the subject of the study. As in most research, decisions need to be made about the initial focus or “boundaries” of the research. Whilst boundaries may expand if the initial focus of the research changes direction, such changes may be necessarily limited by timing and resources. This issue has implications for systematic combining, as the timing of when “mismatches” are discovered, may limit the ability to collect further data, engage with theory and undergo further rounds of matching. Dubois and Gadde (2002) themselves note that conclusions are a function of the time when the study was conducted. Second, based on the researcher’s theoretical standpoint and relevant extant research, the initial (theoretical) framework should identify the key concepts relevant to the phenomena under investigation. The theoretical framework acts as a road map guiding the initial direction of the research, including the formulation of the initial research questions and the early stages of the data collection process.

Dubois and Gadde (2002) advocate the use of a tight, yet evolving, theoretical framework. It is tight in that it articulates the researcher’s theoretically informed preconceptions about the case. At the same time, it is evolving in that it emphasizes abductive iterative movements between theory and empirical data, which may involve reassessing and refining the initial theoretical framework. Third, is the case study itself which is a jigsaw puzzle that becomes clearer as the data build up and can gradually be made sense of using theoretical language. Finally, Dubois and Gadde (2002) highlight the role of theory, arguing that the researcher should not be unduly constrained by previously developed theory, but be open to the ongoing development of theory during the research process.

An illustrative account of abductive theorizing

Background to the study

The case study which underpins and motivates this paper was based on a doctoral study (part of which was recently published in Taylor and Scapens, 2016). The study of management accounting change took place over three years at a well-known UK retail
company, named Reilys, in the study. The main research site was the accounting department of Reilys, called the SW accounting department due to its south-west location. The SW accounting department was seeking new accounting systems to improve management information and reporting, support its ambitious growth targets and track its financial performance. Around a year prior to the start of my study, the accounting department had selected a new system (called CODA) and were planning how it should be implemented. My then PhD supervisor had contacts at the company (having researched there previously) and suggested it as a good place to study organizational and accounting change. As the department was responsible for implementing the new systems, it represented an opportunity to follow the processes of organizational/accounting change in context as they unfolded. At that time, studies were focused on how new accounting information systems were implemented, including what might affect the implementation processes (Scapens and Jazayeri, 2003).

Processual theorists (such as Pettigrew, 1990; and Dawson, 2003) argue that longitudinal case studies not only provide rich and detailed analyses of a phenomenon, but also facilitate the study of context, processes and dynamics of change. As a PhD candidate, I was fortunate to have the opportunity to conduct a longitudinal study. I intended it to be an explanatory case study, as I wanted to understand the reasons for what might be observed in the case setting (Scapens, 1990, 2004). The purpose of explanatory studies is to “generate theory that provides good explanations of the case” (Scapens, 2004, p. 260). Prior theory could help to provide good explanations, but should be challenged if necessary (Laughlin, 1995; Humphrey and Scapens, 1996; Llewelyn, 2003). Such ideas aligned well with how I wanted to go about doing the study.

As noted in my doctorate:

Although the chosen theoretical framework was potentially useful in illuminating case findings, it was the findings themselves that were important in providing explanations. These empirical observations were used to criticise and extend the theoretical framework.

In attempting to engage critically with my initial theory, I also wanted to avoid selective plausibility and TITO (Berry and Otley, 2004; Scapens, 2004). This required continuous abductive theorizing and multiple iterations between empirical data collection, interpretation and analysis, as I moved from “reassessing” to “refining” theory based on the patterns emerging from my empirical data. An overview of this “process of abductive theorizing” is illustrated in Figure 2. The following sections describe and discuss in more detail how this process took place.

Figure 2. The process of abductive theorizing
Initial theoretical framework and research direction

Dubois and Gadde (2002) note that an “evolving” initial theoretical framework is the cornerstone of an abductive approach referred to as systematic combining. Like much qualitative research, the specific research focus and questions developed over time as my study progressed. My initial, rather broad, direction was to explore “the processes of management accounting change in a specific organizational context”. Studies emphasizing changes in management accounting systems, practices and roles and how these could be theoretically understood were popular at the time, especially in journals such as Management Accounting Research (Scapens and Bromwich, 2001). It also extended my Masters’ dissertation, which had begun to explore these processual explanations of change.

The initial theoretical grounding and framework for my case study was based on processual conceptualizations of change (Dawson, 2003). At the same time, institutional approaches were popular and offered an interesting perspective on management accounting (Scapens, 1994). Institutional theories are concerned with explaining the processes that underlie the emergence of new rules and institutions and how these might influence human behaviour. Management accounting systems are inextricably implicated in such processes.

Drawing upon Giddens’ (1979; 1984) and “Old Institutional Economics” (OIE) (Nelson and Winter, 1982; Hodgson, 1998), Burns and Scapens’ (2000) work seemed particularly well suited to the approach of my study. It represented a middle ground between “opposing” positions of reality as either shaping (or being shaped by) human behaviour. As Hodgson (1998, p.181) noted “Institutions mould, and are moulded by human action”. As depicted in Figure 3, change is assumed to take place within a pre-existing institutional context (or realm). Actors engage with new ways of doing (or rules) embodied within new systems by enacting and reproducing them (within the realm of action) until they eventually become routine and institutionalized or taken-for-granted (see Figure 3).

In aiming to explore processes of accounting change, Burns and Scapens’ (2000) framework emphasized evolutionary and processual modes of theorizing, as opposed to

![Figure 3](image_url)

**Figure 3.** Burns and Scapens’ (2000) framework of management accounting change

**Notes:** Key: a = encoding, b = enacting, c = reproduction, d = institutionalisation, **Source:** Burns and Scapens (2000, p. 9)
static forms of analyses common in other frameworks of change (Lewin, 1951; Wilson, 1992). It also offered a unique way of conceptualizing management accounting, which clearly consists of rules and procedures that result in predictable and specifiable outcomes e.g. the preparation of accounting reports (Scapens, 1994). The use of the framework reflected theorizing at the level of concepts by emphasizing practices and linking the macro institutional level with the micro-level practices of actors engaged in the accounting change (Llewelyn, 2003). However, as change was to be implemented into an existing institutional setting that constituted structural conditions (which were not necessarily empirically observable) it also reflected theorizing at the level of settings (Llewelyn, 2003).

I contrasted the tenets of my initial theoretical framework with other institutional approaches, especially those grounded in “New Institutional Sociology” (NIS) (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). The emphasis of NIS on explaining “institutional isomorphism” as a cultural and political process (Burns, 1996) may have been useful. However, it was not suited to analysis of the intra-organizational dynamics of change (Greenwood and Hinings, 1996) – a key focus of my research direction.

Based on abductive theorizing, the initial theoretical framework described above was reassessed and refined over time as the empirical data built up. As such, the following question became important: How does the adopted theoretical framework explain processes of change/stability and what are the problems with these explanations? I note that this question does not appear in Taylor and Scapens (2016) reinforcing that much published work hides the processes of theorizing, which underpin the final conclusions (Van Maanen et al., 2007).

Reassessing: direction, matching and mismatching

Matching involves going back and forth between the framework, data sources and analysis (Dubois and Gadde, 2002). Such processes have no obvious patterns and can take the researcher in various directions (Dubois and Gadde, 2002). The empirical data collection for my study comprised numerous visits to the organization over three years. Most of the data (including 33 semi-structured interviews) were collected at the main research site – the SW accounting department.

I used semi-structured interviews which allowed me to explore the behaviour and perceptions of the research participants. A pre-determined interview protocol would have contradicted the iterative and interpretive aim of my research. This was important, as social structures in Reilys did not exist independently of the accounting systems, and the perspectives of the actors engaging with them (Llewelyn, 2003; Ahrens and Chapman, 2006). Thus, emerging evidence and perspectives of the research participants shaped the nature of subsequent questioning, both in the interviews themselves (by means of on-the-spot questioning) and during later rounds of interviews. I acknowledged that my presence in the organizational setting (even as a visitor) may have limited my ability to be independent and neutral from the research (McKinnon, 1988; Humphrey and Scapens, 2006; Scapens, 2004). In terms of reflexivity, interviews can provide multiple interpretations of the same phenomena (Alvesson, 2003; De Loo and Lowe, 2012). Nevertheless, abductive theorizing encouraged me to be consciously reflexive and open to multiple interpretations with respect to how I matched my empirical data with theory.

My early visits to the research site were intended to gain general background information on the company and the new accounting systems, as well as to build my own relationship with the main contact (known by my PhD supervisor). The reasons for the implementation of the new system and how this was happening, were themes that I followed as part of the initial direction of the study.
The following questions provide an example of interview themes that were followed during the study:

1. What has happened so far where is the project up to?
2. How have things gone? What’s happened since the previous visit?
3. Have there been any problems? If so, how have these been dealt with?
   - The decision to implement CODA – who took the decision? And what was the process by which the spend was accepted?
   - What was the main driver for changing the system and why? Was it internally (old supplier refused to upgrade) or externally driven?
   - Could you tell me something about the de-merger? Why and how it happened?
   - As a result of the de-merger have there been changes in accounting policies (or ways of doing things, i.e. new rules) that have required a change in system (i.e. CODA)? (In other words, was the system a way of making changes to old ways of doing things, how instrumental was the de-merger?)
   - Or did these changes in accounting practice just come out of the system itself? (For example, last time we discussed the CODA system as a way of making processes more efficient).
   - Unclear about the relationship (or differences) between “processes” and “accounting practices/policies” are the processes the practices themselves or just the ways in which they are used?
   - Do practices drive the CODA system, i.e. does the system merely support underlying accounting practices? Or does (and has) CODA drive (and has driven) changes in these practices?
   - If there are any changes in ways of doing things (new rules/routines) within finance, what are they? And how does CODA support these?
   - What is the role of finance or, more specifically, management accounting, and how does this compare to the roles of other departments such as B&M?
   - The organisational structure of the company (any charts, etc.)

As in most qualitative research, the processes of data analysis and data collection overlapped. Whilst data collection was guided by the initial theoretical framework, there was ongoing data analysis to determine emerging patterns that needed to be followed up in later visits. This process formed part of redirecting the study, such that it focused on the issues that seemed important from within the case itself (see later sections). Interviews were supplemented by other evidence, including observations of the new system in use and training sessions for staff. This additional evidence was useful for understanding how the system was being implemented. It also enabled an understanding of broader contextual issues such as the role and activities of the department more generally.

As the initial theoretical framework indicated that changes may bring about new rules or ways of doing, interview themes also included determining the characteristics of the new accounting systems being implemented, versus the systems that were already in place (see Questions). General perceptions and events were collated, initially by highlighting the relevant sections of the transcripts. These were put together to build up a picture of how the implementation process was progressing. Data reduction techniques such as contact summary sheets, facilitated this process (Miles and Huberman, 1994).
In a first round of matching, the initial theoretical framework was useful for understanding and making sense of the nature of change that was being implemented. Burns and Scapens (2000) suggest that change is implemented into a pre-existing institutional context, which may shape the way that change develops. In my case, the nature of accounting in Reilys was not directly challenged by the content of the new CODA accounting system. Activities in the SW accounting department and across the organization, did not significantly change. The new system provided more efficiency and easier access to information. Yet, the SW accountants remained the main gatekeepers of the information systems, and of routine accounting information in general.

Direction is an important part of achieving matching. But Dubois and Gadde (2002) note that data collection activities, directed towards the search for data in line with a current theoretical framework, need to be complemented by efforts to discover data, which may lead to redirection of the study. In so doing, they indicate the importance of multiple sources of evidence. My PhD supervisor’s prior knowledge of the company (including some interview data) and its accounting practices and culture, provided a further source of evidence that I cross-referenced with my own data and developing interpretations. This additional evidence showed that the role of the finance function in Reilys was relegated to a traditional controller function in favour of the more powerful buyers and merchandisers, many of whom were qualified accountants. This was explained by the initial theoretical framework as the dominance of buying and merchandising (B&M) routines, which had become taken-for-granted and took precedence over accounting ones. As such, the relatively superficial change in a way of doing (described above), was not sufficient to challenge any prevailing power structures.

This was interpreted as a regressive change using my theoretical framework. Regressive change merely reinforces the dominance of “ceremonial” behaviour which emerges from a value system that discriminates between human beings and preserves existing power structures (Burns and Scapens, 2000). Although new technology (such as CODA) could have incited questioning of (previously dominant) ceremonial values, existing power structures favoured more dominant groups such as B&M. It was their activities (rather than those of accountants), which defined the ways that things were done in Reilys.

**Reassessing: discovering mismatches**

Whilst prior theory can provide inspiration for the discovery of patterns in abductive research (Ahrens and Dent, 1998; Scapens, 2004), mismatches occur when it fails to explain the empirical realities observed (Dubois and Gadde, 2002). There were emerging empirical patterns that my initial theoretical framework could not explain. In attempting to critically engage with (and possibly refine) my theory, such issues could not be ignored. As data collection progressed, data reduction in the form of contact summary sheets (Miles and Huberman, 1994) continued as a means of managing it, as well as becoming familiar with important emerging patterns. After several visits to the research site, an interim case summary was prepared. This was my first attempt to provide a coherent overall account of the case (Miles and Huberman, 1994, p. 79). The case summary (compiled from transcriptions and contact summary sheets) included a description of the case setting, a chronology of the implementation process so far and a section including the status of research questions and a list of puzzles and uncertainties.

Following a further visit to the research site (as CODA’s implementation progressed) my data revealed that SW accountants were claiming that implementation of CODA was “successful”, as it was being positively received by other groups across the organization. Those implementing it stated that the system had led to various improvements in the
services they provided, including enhanced management information. Interestingly, they thought that this had enhanced their overall value to the organization. To promote internal validity (Modell, 2005) such issues were checked by seeking contradictory explanations from other informants. Alternative views of CODA were sought from the users of its output. Thus, the study was redirected towards understanding how the CODA accounting system was perceived by other actors, in groups outside the main research site. Such redirection resulted in contradictory evidence, as the perceptions of SW accountants (that change was positively received and that they had become more valuable), were contradicted by another group of accountants. This group were based in London and worked more closely with the operational side of the business (i.e. B&M).

The data from this group revealed several specific criticisms. These included CODA’s poor report-writing functionality, which meant that accountants in London had to continue using other systems such as Excel. Furthermore, online access, which had been promised to other users (such as cost-centre and divisional managers) had not been properly developed. This finding was checked against other sources of evidence including internal documents relating to the content of the CODA system and how it was being developed. Overall, the London-based accountants argued that CODA had not been developed in a way that allowed them to become analysers rather than merely providers of information. They therefore questioned the system’s ability to provide the information that they believed was necessary to support Reilys’ future viability.

The initial theoretical framework could not adequately explain the contrasting views of change described above. But at this point, I did not understand why. From the institutional perspective successful change could be understood largely in terms of institutionalized change. Yet there was a lack of institutional change in my case. Outcomes of attempts to introduce change are usually explained by the power of institutions to influence the adoption and enactment of change strategies at the organizational level (Burns, 2000). This made it difficult to explain why there were different perceptions of the change process between the two different groups of accountants in my case.

If I assumed that all actors in Reilys were subject to the same institutional constraints, it was difficult to see how differences in their behaviour could be explained. Perhaps there were different institutional perspectives? That is, perhaps each of the two groups (of accountants) in my case had their own, distinct, ways of thinking that contradicted each other but explained their different views. However, although the institutional framework showed how different organizational sub-divisions (representing different occupational groups, e.g. accounting and engineering) can have different taken-for-granted assumptions, it did not fully explain why such differences can arise between groups within the same occupational function. It was puzzling that the different perceptions existed between two groups of accountants.

In my study, the initial theoretical framework was criticized for failing to explain these important emerging patterns. The mismatches between theory and empirical data (Dubois and Gadde, 2002) guided a further redirection of the study towards understanding two important patterns. First, there were differing perceptions related to the success of the CODA system. Second, the SW accountants seemed to believe that CODA was successful because it enabled them to become more valuable to the rest of the organization. Alongside the redirection of the study, the theoretical framework needed to be refined so that it better addressed these patterns. More specifically, my study and refined theoretical framework needed to address the following key question: How can differences in the perceptions of actors in relation to the ‘success’ of change, be explained? Again, this question did not appear...
in the published version of my study. However, it nevertheless reflects the iterative nature of the relationship between theory and data characterized by the abductive research process.

**Refining: redirection, mismatches and matching**

Dubois and Gadde (2002, p. 552) note that the search for useful theories, complementary to the general framework, is guided by the fact that empirical observations and the current theoretical framework do not match. Such mismatches led me to the question I noted at the end of the previous section (see above). But simply describing what these different perceptions of change were, was not enough. I also wanted to understand why they existed (Irvine and Gaffikin, 2006). For this, I needed to be clearer about what my empirical data was telling me about the reasons for the different perceptions. As Scapens (2004) notes, it is the patterns in the empirical data which ultimately explain things and can be subsequently theorized (Ahrens and Dent, 1998). To match my empirical data with theory, I needed to understand the patterns before I could theorize them. Further, to refine the initial theoretical framework, I needed to show how and why a complementary theory could explain the patterns and in so doing, extend the explanations provided by the initial theoretical framework.

To understand the reasons for the different perceptions of change observed in my case, I went back to my empirical data. Part of data analysis constitutes making sense of data (Irvine and Gaffikin, 2006). The reasons that the SW accountants gave about why they believed the CODA implementation to be successful, revealed two interesting issues. First, they explained that the new system was being used to promote a positive vision of themselves to other groups (i.e. users of the system) across the organization. In so doing, they used quite negative language to describe their current role and status in the organization, referring to themselves as “penny-pinchers” and “policemen”. I interpreted that their motivation to promote a “positive vision” seemed to be linked to a desire to improve their status and how other groups perceived them. Second, in explaining that CODA (from their perspective) had been successful it was inferred that their value (as perceived by other groups) had improved. As one finance manager noted: “people are more positive about us”. This change in how the SW accountants thought that they were viewed by other groups (expressed using negative language) correlated with a positive change in how they viewed themselves. For instance, the SW financial controller for reporting commented that: “We feel better about ourselves certainly”. My interpretation of this was that the SW accountants viewed the change as “successful” because it had led to two improvements. First, it improved how other groups saw them. And second, it improved how they saw themselves.

Dubois and Gadde (2002) note that the initial theoretical framework evolves during the study as empirical observations inspire changes in the view of theory and vice versa. The refined framework had to explain why there were different perceptions of the same change process, possibly arising from (in institutional terms) different taken-for-granted assumptions. Taken-for-granted assumptions provide a shared way for actors to understand their world (Burns and Scapens, 2000). However, as discussed in Taylor and Scapens (2016, p. 1077) “[...] institutions, which define certain ways of thinking and doing, may not be shared by all organizational members; there can be important differences within and between groups”.

In reviewing complementary theories that could help me to refine Burns and Scapens (2000), I considered the sociology of professions (Abbot, 1988) and occupational, or professional identity (Richardson and Jones, 2007; Kitay and Wright, 2007) literature. These gave some understanding of how and why perceptions may differ between different
professions. However, in attempting to match this theory with “the empirical world” (Dubois and Gadde, 2002), my case had shown that differences can exist within the same occupational group, i.e. accountants (as noted earlier). Given that such literature emphasizes the shared identity of professions, e.g. accountants, it did not seem appropriate. Moreover, whilst identity seemed to be important (given how SW accountants saw themselves) the way in which SW accountants were using CODA (to promote a positive vision of themselves) suggested that image was also playing a role.

I continued my search for complementary theory. As identity and image seemed to be important issues, I searched for studies within the identity and image literature. Two studies, one by Dutton and Dukerich (1991) and one by Gioia and Thomas (1996), caught my attention. These studies provided a useful way of conceptualizing identity and image. Dutton and Dukerich (1991) define identity as how group members define themselves and image as how group members believe outsiders define them. These definitions mapped well to my empirical data. Whilst identity and image are constructs in the minds of group members and cannot be directly empirically observed (Gioia, 1998), it was possible to infer them based on the language used by SW accountants. Such language inferred a negative identity and image. It also revealed a gap between their current identity and image and a desired future image. However, both identity and image seemed to have been improved by (in their view) successfully implementing CODA.

Further analysis revealed that the London accountants’ criticisms of CODA seemed to be shaped by their collective identity and image. In contrast to the SW accountants, the identity of this group was positive (e.g. they referred to their group as “ambitious”) and compared themselves favourably to SW. In addition, they blamed the different “culture” of SW for what they perceived as resistance to develop the system in a way that would meet the needs of users beyond SW.

Matching involved confronting the refined version of the framework (incorporating identity and image) with my case (Dubois and Gadde, 2002) in light of the question noted earlier, i.e. How can differences in the perceptions of actors in relation to the ‘success’ of change, be explained? Based on my analysis, I interpreted that differing perceptions of the change process were partly a consequence of differences in identity and image. The idea of identity and image providing “perceptual lenses” (Gioia and Thomas, 1996) was used to show how group members perceive, interpret and act upon issues arising in a change process. It was clear from my earlier institutional analysis that the different and quite separate identities and images of the two groups of accountants in my case were linked to broader historical contextual factors. Each group occupied different geographic locations and had quite different roles. Thus, as the system was developed in line with each group’s identity/image their perceptions of the change were also different.

**Refining: matching and the refined theoretical framework**

My interpretations of the identity and image literature complemented the initial theoretical framework. The studies used referred specifically to identity and image as “taken-for-granted” ways of seeing (Dutton and Dukerich, 1991 and Gioia and Thomas, 1996). Identity and image were used to conceptualize the different ways of thinking of different workgroups (SW and London) in the same occupation (accountants). Conceptualizing multiple institutions in terms of identity and image provided a mechanism for understanding how things can become taken-for-granted. This extended and developed Burns and Scapens’ (2000) framework. As my case showed, things became taken-for-granted differently by different workgroups because different sets of identities and images were formed over time, due to broader contextual factors.
However, the studies mentioned above did not provide a match to my data on their own. This was because they were focused mainly on understanding identity and image as something that is shared by all organizational members at the organizational level. In contrast, I wanted to understand identity and image at the level of groups (i.e. different groups with different identities and images). Thus, I used other literature based on organizational psychology (particularly social identity theory, e.g. see Hogg and Terry, 2000; Tajfel, 1978) to build a framework that (in combination with the studies already discussed) complemented and refined the initial framework. In social identity theory, groups are defined as distinct entities such that they can possess different and unique identities and images.

In refining my initial theoretical framework, I acknowledge a certain amount of “cherry-picking” of concepts and ideas that seemed appropriate. Such theoretical pluralism (Lukka and Modell, 2010) was necessary to ensure that the refined framework provided suitable explanations of my data. However, whilst the framework (depicted in Figure 4) enabled me to better match my interpretations of patterns in the empirical data with theoretical concepts, no set of complementary theories could provide an exhaustive and infallible account of the empirical world (Modell, 2015). In a reflexive sense, my understanding of change processes in Reilys was inevitably dependent on my own subjective interpretations (Humphrey and Scapens, 1996; Scapens, 2004; Alvesson, 2003; De Loo and Lowe, 2012).

The theoretical research questions which appeared in Taylor and Scapens (2016, p. 1076) were:

- Why and how can identity and image motivate change?
- How do identity and image shape the way in which change is perceived and enacted?

As these questions do not appear in the doctoral study but just in the published study, they reflect only the outcome of a continuous process of abductive theorizing. Details of the abductive research process which led to this outcome, did not feature in the published paper. Such linear presentation, whilst required by some journal editors, does not always reveal the

**Figure 4.** The refined theoretical framework

**Source:** Taylor and Scapens (2016, p.1079)
true value of qualitative case research (Dubois and Gadde, 2014). The abductive process nevertheless helped me to enhance the credibility and validity of the findings reported in the published paper. By focusing on whether my initial theoretical framework was useful in explaining my emerging empirical findings, I avoided simply fitting my data to preconceived categories (Humphrey and Scapens, 1996; Ahrens and Dent, 1998). In using abductive theorizing, I was reflexive in making sense of my data, by developing theoretically informed explanations of the puzzling findings and patterns that emerged (Lukka and Modell, 2010).

Conclusions
The introduction to this paper discussed the paucity of outputs that focus explicitly on the way that research is conducted, particularly with respect to the use of theory during the research process. Like Irvine and Gaffikin’s (2006) “first-hand” account of a qualitative research project, this paper has aimed to provide a personal perspective on the process of theorizing and theoretical development in a qualitative research project. In so doing, the paper has focused not on the case company itself but on how the emerging data interacted with and was explained (or left unexplained) by the initial theoretical framework that was taken into the case setting. By explaining how the relationship between theory and data unfolded during the research process, the paper follows Irvine and Gaffikin (2006) in reversing the traditional way in which most research is presented, i.e. providing only limited information about the process of how theory was used and/or developed.

The approach taken in this paper recognises the frustration of researchers, particularly emerging ones (like myself at the start of the study underpinning this paper), who lack information about issues such as why an initial theory was chosen, how the theory explained the emerging empirical data and what happens when the theory does not explain emerging data. The personal account refers to a paper published from the study and indicates that some of the research questions which were refined based on emerging data, did not appear in the final publication. This may give the impression that matters related to the use of theory within qualitative research are “predictable and trouble-free” (Irvine and Gaffikin, 2006, p. 139). This paper builds on earlier contributions to discussions of the role of theory in qualitative accounting research. However, it also departs from them by providing an account that focuses exclusively on the role of theory and how theorizing happens during the research process. The paper fills a gap left by the lack of such accounts. It may therefore, be valuable to other researchers.

As the processes of theorizing in qualitative research are often hidden, we can only guess at the messy processes and tough choices, which underpin the final conclusions. This paper has attempted to make these theorizing processes more explicit in two ways. First, the different approaches to theorizing were highlighted and discussed. Specifically, I make the case for abductive theorizing. I show that an abductive approach involving the use of prior theory and continuous theorizing, can be differentiated from qualitative studies in which theorizing happens at discrete stages in the research process. Abduction offers researchers a middle ground between pure theory generation and “theoretically informed” studies that demonstrate the applicability of theories through data, but do not use data to challenge theory (Humphrey and Scapens, 1996). Second, the paper provides a unique insight into how abductive theorizing takes place. This should serve to open the eyes of researchers to the challenges and idiosyncrasies of theorizing and of qualitative research more generally. The illustrative account described how and why patterns emerging from my data were not explained by an initial theoretical framework. As such, it was shown that critical engagement with prior theory was an essential aspect of theoretical development. It shows
that researchers can be confident in being more consciously reflexive by explicitly setting out to reassess and refine prior theory if necessary.

As the illustrative account shows, the specific nature of the theoretical development will depend on the unique circumstances of researchers’ own case studies. Although qualitative researchers may seek clear-cut guidance on how to proceed in the use of theory, there is no one way of doing things that can fit the idiosyncrasies and uniqueness of each, and every, case setting. This paper has provided only one account of (abductive) theorizing and a reflection on that process. My intention was to be informative rather than providing a manual of practice (Irvine and Gaffikin, 2006).

Frameworks, such as that provided by Dubois and Gadde (2002), may provide researchers with a more conscious and systematic approach to abductive theorizing. The systematic combing framework can enable the researcher to assess why it may be necessary to reassess theory (i.e. when there are mismatches) and how this may be achieved using successive rounds of redirection and matching of empirical data with complementary theory. However, it was noted that such processes do not follow a set path. My own case illustration involved several “redirections” of the case study towards re-focused questions based on emerging patterns and complementary theoretical concepts. The refinement of my initial theoretical framework began (and ended) using identity and image literature and social identity theory.

Dubois and Gadde (2002) point out that boundaries must be drawn around the timings for data collection, even though such boundaries do not exist in the empirical world. Whilst the complementary theoretical concepts used in my case, sufficiently matched (in explanatory terms) the empirical reality that was being investigated, the conclusions were necessarily a function of the time when the study was conducted (Dubois and Gadde, 2002). To this end, Taylor and Scapens (2016, p. 1091) point out, identity and image provided a suitable explanation of the differing perceptions of change of the two groups of accountants in the study. However, it was explained that these differing identities and images were shaped by broader contextual factors, which may change at some point in the future. Other researchers should be aware that the timing of when puzzling data becomes apparent may impact on their subsequent ability to critically engage with theory and collect further data, which may result in other mismatches being discovered, possibly leading to further theoretical reassessment and refinement.

In terms of the limitations of this paper, I acknowledge that in attempting to provide a coherent narrative, I may have inadvertently sanitized my own illustrative account. This reflects the challenge of writing in a way which is suitable for publication, whilst at the same time trying to capture the messiness of how qualitative research takes place. Moreover, in writing my abductive theorizing as a post hoc account, certain events may have been forgotten or misremembered due to the passage of time. Nevertheless, I do not believe this necessarily detracts from the ultimate purpose of the paper, which is to provide an informative and personal account of how abductive theorizing takes place in qualitative accounting research.

Finally, this paper has contributed to a plethora of methodological contributions that have aimed to discuss the rationale, features, benefits and problems of conducting qualitative research in accounting (Vaivio, 2008; Humphrey, 2014; Burns, 2014; Parker, 2012, 2014; Richardson, 2012). I draw the paper to a close by calling for further personal accounts explicitly focused on theorizing. Such accounts could consider and reflect upon how theory has been used and developed (or not) during the study. They could even be included within the methodology sections of research papers themselves. Along with this paper, such further
contributions would be a valuable way of showing other qualitative researchers how the process of using and developing theory in research, can unfold in practice.

Notes

1. Although it is recognised that there are several “schools” of grounded theory, a detailed review is beyond the scope of this paper (see Gurd, 2008 for a review).

2. Burns and Scapens (2000) drew on old institutional economics (Hodgson, 1998), evolutionary economics (Nelson and Winter, 1982; Nelson, 2002) and social theory, including Giddens (1979, 1984) structuration theory and the work of Barley and Tolbert (Barley, 1986; Barley and Tolbert, 1997) to develop a framework to inform processual studies of management accounting change. I recognise that institutional theory has moved forward in the intervening years since this paper was written. In particular, the issue of multiple institutional levels and realities has been addressed by several authors (e.g. see Lounsbury, 2008; Thornton, Ocasio and Lounsbury, 2012).

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Corresponding author
Lynda C. Taylor can be contacted at: Lynda.Taylor@nottingham.ac.uk

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Management accounting routines: a framework on their foundations

Martin Quinn
DCU Business School, Dublin City University, Dublin, Ireland, and

Martin R.W. Hiebl
Universität of Siegen, Siegen, Germany

Abstract

Purpose – Recent research provides useful insights on management accounting routines, yet little is written on their foundations. In particular, factors which may contribute to eventual management accounting routines have not been detailed in terms of the process of routinization. Thus, this paper aims to provide an initial theory-based understanding on the foundation of management accounting routines. In turn, it is hoped that this will raise further research interest on this topic.

Design/methodology/approach – Drawing on extant literature, a framework on foundations of management accounting routines is developed, and two empirical cases illustrate its operationalization.

Findings – The framework illustrates that a more complete understanding of change to management accounting routines can be gleaned when more is known about their foundations. The foundations are likely to be influenced by a combination and/or interaction of factors at the organizational level, the organizational field level and the economic and political level.

Research limitations/implications – Because of the so far limited understanding of the foundation of management accounting routines, more research is required. This framework may be useful to guide such research.

Originality/value – To the best of the authors’ knowledge, this is one of few papers to offer an initial theory-based understanding on the foundations of management accounting routines specifically. This understanding can be built on to improve our knowledge in the management accounting domain of the complex, but ubiquitous, concept of organizational routines.

Keywords Foundations, Routines, Management accounting

Paper type Research paper

1. Introduction

Much has been written on organizational routines and they are perceived as one of the fundamental building blocks of organizational activities (Pentland et al., 2010) and contribute to research in many areas of organizational life, including management accounting. Indeed, management accounting researchers have drawn on routines to explain the relatively stable, but simultaneously changing nature of management accounting routines.

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practices (Burns and Scapens, 2000; Busco and Scapens, 2011; Fiondella et al., 2016; Lukka, 2007; Quinn, 2011; Scapens, 2006; van der Steen, 2009, 2011). This extant research on management accounting routines has contributed significantly to our understanding of management accounting change and stability.

That organizations comprise sets of routines is generally accepted in organizational theory (Kilduff, 1992), and studying these is of merit as “to understand routines is to understand organisations” (Becker, 2008, p. 1). Many studies enlighten our understanding of organizational routines as a concept (see for example, Becker, 2005; Feldman and Pentland, 2003; Pentland, 2011) and have been drawn upon by management accounting scholars (Busco and Scapens, 2011; van der Steen, 2009, 2011; Quinn, 2011, 2014). Kilduff (1992) suggests that if we can understand how routines are produced, we can predict some things about the organization. Taking this to a management accounting realm, it is proposed that if knowledge of how management accounting routines emerge is gained, a better understanding of how management accounting is/was formed, shaped, changes or remains stable over time will result. However, extant management accounting literature tends to focus on management accounting routines in-situ, that is, after routines have emerged and are being enacted. While such literature assists our understanding of “programs that produce organizational routines” (Kilduff, 1992, p. 133), it does not detail how and why management accounting routines emerge in the first place. For example, Burns and Scapens (2000) assume rules (i.e. how things should be done) and routines (i.e. how things are done) already exist, and that new management accounting rules and routines are encoded from existing rules and routines – later work by, for example, Dillard et al. (2004), Fiondella et al. (2016), Hassan (2005), Jabbour and Abdel-Kader (2015), Lukka (2007), Quinn (2011, 2014), Ribeiro and Scapens (2006), Sharma et al. (2014), Siti-Nabihah and Scapens (2005), Soin et al. (2002), Spraakman (2006) and van der Steen (2009, 2011) takes such assumptions on board. Put differently, as Becker et al. (2005, p. 780) note, “one of the most unsatisfying features of more than two decades of research on organizational routines is the slow progress in understanding how organizational routines emerge”, which seems to also apply to management accounting routines. To borrow Kilduff’s (1992, p. 133) terminology, the question “How do ‘programs that produce organizational routines’ form?” could be posed. Or, what are the factors which influence such programs, which in turn influence the nature of the routines which emerge? Combining such questions, we begin to explore the foundations of management accounting routines.

In this paper, a theorization of the foundations of management accounting routines and factors which may contribute to these foundations is given. As already noted, Burns and Scapens (2000) provide a framework which depicts a process of how management accounting practices can become institutionalized, which includes routines, and this has been built on by others. We detail an earlier part of that same process, focusing on factors which may result in management accounting routines; first, an underlying meaning of the term “foundations” and then we draw on extant literature to derive potential factors which may influence the foundations of routines. These factors are then interwoven with the work of Burns and Scapens (2000) and theoretical insights on the foundations of organizational routines (Felín et al., 2012). We finally use two short cases to illustrate interplays of factors in the foundation of management accounting routines.

The remainder of the paper is structured as follows. Section 2 reviews extant literature on organizational routines. In particular, this section highlights the components of routines, micro-foundations of routines, and sets out our meaning of the term “foundations”. It also reveals factors from the literature which may cause routines (in general) to emerge. Section 3 provides a framework on how these factors influence the foundations of management
accounting routines. This framework presents a more complete process of routinization of management accounting, drawing on Burns and Scapens (2000), Felin et al. (2012) and others. Section 4 applies our framework to two illustrative cases to highlight how the framework can be used to empirically examine the foundation of management accounting routines. Finally, Section 5 discusses some implications for on-going research on management accounting routines.

2. The foundation of routines in management accounting

Before revealing our process of routinization of management accounting, some relevant extant literature on organizational routines is detailed. From the more general organizational and institutional literature, we extract a definition of routines and build up to our meaning of the foundations of routines. Then, literature which gives insights into factors which may represent the foundations of management accounting routines is detailed.

2.1 Defining organizational routines and their foundations

As noted in the introduction, this paper aims to provide an understanding of the foundation of management accounting routines. Felin et al. (2012) suggest studies exploring micro-foundations are necessary, as academic disciplines progress and seek to explain in detail existing assumptions about a particular field of research. For example, it is widely accepted that management accounting is a routinized practice, but, at the same time, detailed studies of how such routines come about are not plentiful. Thus, for this study we start by drawing on established work to provide accepted definitions of organizational routines. Pentland (2011, pp. 280-281) summarizes much of the extant research to define organizational routines as having four essential components:

1. routines are repetitive;
2. a recognizable pattern of action occurs;
3. actions are interdependent; and
4. multiple actors are involved.

Taking these four components[2], routines are presented as a crucial element of organizational life and a key building-block for stable organizational practices. Although routines are typically associated with stability, they are also a source of change. Work by Feldman and Pentland (2003) provides insights on how change to routines can be brought about. Feldman and Pentland (2003) and Pentland and Feldman (2005, 2008) highlight how interactions within the dimensions of routines – the ostensive and performative – can bring about change but also encompass stability. These works of Feldman and Pentland provide a conceptualization of routines which always have potential for change (at each performance through the performative routine dimension) but yet retain an underlying relatively stable understanding of what the routine is about in the minds of actors (i.e. the ostensive routine dimension).

Taking Pentland’s (2011) definition of organizational routines, together with the earlier work of Feldman and Pentland (2003), a useful and detailed understanding emerges which we draw on here. Pentland (2011) allows us to determine if something is a routine or not, essentially a check list of elements of routines. Thus, for example, it cannot be said that an action performed once is a routine, as there is no repetitive action. Pentland draws on Feldman and Pentland (2003), noting “routines exist as a duality of ostensive and performative aspects (or, if you prefer, abstract patterns and specific actions)” (2011, p. 289). Thus, the four elements of an organizational routine as proposed by Pentland (2011) are
underpinned by actual behavior patterns (the performative aspect) and potential behaviors (the ostensive aspect). Pentland’s (2011) work supports the broad constructs of other works on organizational routines (Becker, 2008).

Having outlined a definition of routines, we can begin to reveal extant literature on their foundations. First, we should clarify our meaning of “foundation”. In contemporary dictionaries, some different but similar meanings are given. For instance, Oxford Dictionaries Online[3] suggests that “foundation” in a technical meaning is “the lowest load-bearing part of a building”, but in a metaphorical meaning stands for “an underlying basis or principle”. Similarly, Merriam Webster[4] lists foundation as “something (such as an idea, a principle, or a fact) that provides support for something”. Etymologically, “foundation” originally stems from the Latin verb fundare (Hoad, 1993; Skeat, 1993), which – according to Oxford Dictionaries Online – may be translated to contemporary English as “to lay the base for”. Given that the metaphorical contemporary meanings of “foundation” in standard English-language dictionaries are variations of this Latin origin, here the term “foundation” in its original meaning of “to lay a base for” is used. In place of “foundation”, the term “emergence” could also be used to describe how management accounting routines come about in the first instance. However, we propose emergence as a term that applies equally to routines which are in-situ as they evolve (or “emerge”) into “new” routines; cf. Feldman and Pentland (2003), who note the omnipresent ability of routines to change at each performance. Using the term “foundation” (but see below), it is recognized that management accounting routines emanate from some baseline (Felín et al., 2012), but as mentioned earlier, the specific factors comprising this baseline are relatively under-researched in a management accounting context.

A body of literature on the micro-foundations of routines should also be acknowledged and distinguished from our “foundations” meaning here. Abell et al. (2008) note that micro-foundations had become an important theme in strategic management research. They suggest that the micro-analytical level is that of individuals, while the macro level applies to organizations. They also note the link between these two levels and suggest a need to explore and explain the micro level to obtain a deeper understanding of macro level concepts such as routines and capabilities. Barney and Felín (2013, p. 140) note there is some amount of disagreement on what micro-foundations are or are not and they suggest several “half-truths and misconceptions associated with micro-foundations”, which are worthy of mention. First, they suggest micro-foundations are not solely about individuals, as this would ignore interactions among individuals. They note “the foundations portion of micro-foundations is important in that it places emphasis on the need to specifically understand the unique, interactional, and collective effects that are not only additive but also emergent” (Barney and Felín, 2013, p. 141, emphasis added). A second half-truth noted by Barney and Felín (2013) is that micro-foundations lead to infinite regress. A key point in this regard is to bear in mind the level of analysis of the study or field, which is typically the organization, or in our case management accounting. Thus, drawing on Barney and Felín’s (2013) words, we could reduce our study to the detailed background of individual management accountants, their entire personal experiences, their employment history and so on, but such vast detail is likely unnecessary to help us understand their activities and behaviors in the organization and would ignore interactions of management accountants with other individuals. However, some individual experiences may help us understand activities and behaviors – the key point being studies of phenomena need not be reduced to the nth degree as suggested by Felín et al. (2012). A third half-truth noted by Barney and Felín (2013) is that micro-foundations deny a role played by structure and institutions. This, they note, is connected to the reduction of analysis to the level of individuals, which as mentioned above may deny the
interactions of individuals. This point is also clear in the work of Felin et al. (2012), who specifically mention structure as a micro-foundation of organizational routines and capabilities. Felin et al. (2012) propose three micro-foundations of routines and capabilities—individuals, interactions/processes and structure. Like Abell et al. (2008) and Barney and Felin (2013), the individual is acknowledged. However, Felin et al. (2012) equate structure to organizational structure, in contrast to the arguably more complete view of structure offered by Barney and Felin (2013). Processes as highlighted by Felin et al. (2012, p. 1362) refer to sequential interdependent events, which they note “maps directly to the definition of routine”, but they also mention that processes require individuals to be put into action.

While the above brief recounting of some literature on micro-foundations is valuable—and we will return to some parts of it later—it brings out two issues for this study. One issue is what exactly does “micro” mean? This is not something pursued in this paper, as while management accounting may be practiced by an individual (i.e. a micro perspective), it is more likely to be practiced collectively and its information disseminated to organizational members. While the role of an individual may be important, for the purposes of this paper, to reduce solely to the individual is likely a reduction too far (as hinted at by Barney and Felin, 2013). A second issue is one of the term “structure,” which also appears to be open to interpretation. While Barney and Felin (2013) recognize the broader meaning of structures and institutions, in management accounting (and indeed accounting in general) a separation of structure from individuals is less clear-cut. Accountants, as individual professionals, bring structures (e.g. training, accounting rules) to an organization. For example, as Martinez Franco et al. (2017) suggest, accountants’ roles consist of structures (e.g. position within the organization, formal training) and agency (e.g. personal traits, experience) and neither necessarily has primacy. Such accounting structures may also be embodied in non-human actors such as accounting software, which may be relevant at an individual and collective level. Thus, for the purposes of this paper, while we acknowledge our use of the term “foundation” in relation to management accounting routines may be similar to the term “micro-foundations” in the broader organizational literature, there are some important distinctions as outlined. In essence, in this paper, it is recognized that management accounting routines, while organizational routines, have some specific attributes such as their embeddedness in institutional structures (Englund and Gerdin, 2018; Englund et al., 2011) which we as management accounting researchers need to embody in our analysis. Thus, the term “foundations” as defined earlier is adopted to avoid conflation with the term “micro-foundations”.

2.2 Organizational routines in management accounting - founding factors

The work of Burns and Scapens (2000) is a useful starting point to explore how routines have been used in management accounting research. A key assumption of Burns and Scapens (2000) is that the changing (or stable) nature of management accounting can be interpreted using phenomena such as rules and routines. Burns and Scapens (2000, p. 5) defined routines as “the way things are done”. While less precise than Pentland (2011), it captures the importance of action. Their framework starts at the point of encoding “institutional principles into rules and routines” (2000, p. 10) and over time, new ways of doing things may evolve which will be interpreted in terms of existing rules and routines. The picture painted by Burns and Scapens (2000) is one of slower evolutionary change as rules and routines interact in a continuous process over time. It should be noted at this point that actors in organizations may exhibit habits. Like routines, much has been written on what constitutes habit. Hodgson (2004) cites Dewey (1922, p. 42) who states “the essence of habit is an acquired predisposition to ways or modes of response”. Habits, are socially
acquired, not inherited and are distinct from behaviors (Hodgson, 2004). Habits can be construed as the individual form of a routine and are thus a potential foundation of routines (Hodgson, 2008). Over time, through repetition of habits, routines may emerge (Pentland et al., 2012).

As noted in the introduction, many researchers have either drawn on Burns and Scapens (2000), offering developments of their framework, or used routines alone to explain management accounting change and/or stability. Thus, management accounting researchers generally accept organizational routines as useful to explore many aspects of management accounting. While some – such as Johansson and Siverbo (2009) or Quinn (2011) – have offered some refinements to the Burns and Scapens (2000) framework, the process of institutionalization of management accounting practices depicted therein is largely accepted. Here, we also do not delve into or challenge the process, but are interested in the beginning of this process and factors which may influence the nature of routines. To this end, some literature which provides insights into such factors is detailed, drawing on literature on management accounting routines and on general literature on organizational routines – the latter, with an eye on factors relevant to understanding the foundation of management accounting routines. In general, the management accounting literature offers a substantial body of literature on factors which affect management accounting in a given organization (Abdel-Kader and Luther, 2008; Chenhall, 2003; Haldma and Lääts, 2002; Herschung et al., 2017; Luft and Shields, 2003; Otley, 1980, 2016; Reid and Smith, 2000). Many of these factors may also be important for an understanding of the foundation of management accounting routines. It should be noted that the factors discussed below are not exhaustive, rather a selective synthesis of existing research on (management accounting) routines. Management accounting literature also offers a number of different approaches for organizing and classifying such factors. Such classifications mostly distinguish between factors as external or internal (Abdel-Kader and Luther, 2008; Haldma and Lääts, 2002), but some offer more fine-grained levels of analyses (Chenhall, 2003). We specifically draw on the classification suggested by Dillard et al. (2004). Their framework fits well here as it was intended to be used for the analysis of institutionalization processes and to address “the dynamics of enacting, embedding and changing organizational features and processes” in accounting (Dillard et al., 2004, p. 506). Dillard et al. (2004) distinguish between organizational, organizational field and economic and political levels, and below literature on each of these three levels is detailed with a focus on factors which may influence the foundations of management accounting routines. As will be detailed in Section 3, these three levels also inform the three micro-foundations of routines given by Felin et al. (2012).

**2.2.1 Factors at the organizational level.** At the organizational level first, actors and their habits are cited as a foundation of organizational routines (Cohen, 2012; Felin et al., 2012; Hodgson, 2004, 2008). It is generally accepted that actors play a key role in the creation and on-going enactment of routines (Becker, 2008; Pentland, 2011), and Pentland’s (2011) characteristics of routines clearly portrays the key role of (multiple) actors. More specifically, knowledge of actors may be a foundation for routines (Loch et al., 2013; Witt, 2011). Witt (2011, pp. 159-160) refers to “knowledge that is useful in solving problems, knowing how to do a job, factual and procedural knowledge relating to organizational purposes etc.” and that this knowledge can be “better coordinated by organizational routines” (Witt, 2011, p. 163). In management accounting terms, important actors in the foundation of routines might be termed professional actors, i.e. professional accountants. These professional actors may be one of multiple actors required for the foundation of a routine (Pentland, 2011) and play a key role in the eventual shape a routine takes. For example, professional actors may bring knowledge based on experience or normative
influences based on their professional training (cf. structures, Felin et al., 2012) to management accounting routines. Supporting this view, Marriott and Marriott (2000) note professional, external accountants are key drivers in establishing management accounting practices in smaller firms (Lavia Lopez and Hiebl, 2015).

The knowledge of non-accountant actors such as managers, employees or firm owners may also feature in foundations of management accounting routines. For instance, Burns and Scapens (2000) mention that newly appointed senior managers may require new kinds of information and thus establish new or additional routines and decisively contribute to founding these routines. Similarly, van der Steen (2011) refers to senior managers’ perceived need for more elaborate controls which led to the foundation of a new management accounting routine. In the case of employees from lower ranks of the corporate hierarchy, Perren and Grant (2000) identify employees’ management accounting knowledge gained from previous work experience as influencing management accounting. In the case of firm owners, for example, Hiebl et al. (2013) find that family-owned firms use less management accounting practices than non-family owned firms. They interpret this finding as suggesting that controlling families have deeper tacit knowledge about their firms than other kinds of owners and thus rely less on formalized controls such as management accounting routines (Tsamenyi et al., 2008). This suggests non-family firm owners may be more likely to be drivers of the foundation of management accounting routines. To summarize, it appears from the literature that human actors and their knowledge in various roles is an important factor in the foundation of management accounting routines.

Actors need not be human as “in typical routines, many actants are not human” (Pentland, 2011, p. 287). Earlier works from Feldman and Pentland also support this argument (Feldman and Pentland, 2003, 2008; Pentland et al., 2010). Pentland et al. (2010), for example, note the percentage of actions undertaken by humans in an invoice processing routine ranged from 15 to 89 per cent (Pentland, 2011). In a study of enterprise resource planning systems, Volkoff et al. (2007) introduced the concept of a material aspect of routines, which is embedded within technology (such as accounting software). As they note:

This material aspect is qualitatively different from the ostensive aspect […] the material aspect is concrete and specific. Because it consists of transactions hard-coded into the system, it is the same for everyone, and individual interpretations do not affect how transactions are performed. At the same time, the material aspect is not the same as the performative aspect because the transaction is not performed but is executed by the technology. (Volkoff et al., 2007, p. 840)

The distinction between “perform” and “execute” by Volkoff et al. (2007) is quite subtle, but it is an important point. Here, the presence (or not) of material routines may be a factor which affects the foundation of management accounting routines; today, it is almost inevitable that some non-human actors such as accounting software are involved in management accounting (Oliveira, 2018) – even small businesses are typically computerized in some way (Perren and Grant, 2000).

Artifacts are also a central component, not of routines per se, but as a “particularly prominent means of collecting data about routines” (Pentland and Feldman, 2005, p. 796). According to Pentland and Feldman (2005), artifacts can take many forms such as written procedures and physical settings. D’Adderio (2011, p. 197) notes the central role artifacts play “can influence [routine] emergence and persistence [and] can perform key functions, including acting as mediators and intermediaries.” However, as noted by Bapuji et al. (2012), artifacts are one type of intermediary. Above, it was suggested accounting software contains material aspects of routines, but it may also be an intermediary in the sense proposed by Bapuji et al. (2012). Accounting software is thus arguably an artifact, but it is also an actor. As an artifact, accounting can “transmit” an intended practice to other actors.
For example, the standardized menus and icons typical to accounting software can be easily “transmitted” by management accountants (professional actors) to other actors; or accounting software/information systems can influence how management accounting works (Grabski et al., 2010; Granlund and Malmi, 2002; Oliveira, 2018; Perren and Grant, 2000; Scapens and Jazayeri, 2003). Thus, the literature provides some evidence that artifacts may serve as a foundation of management accounting routines and displays elements of structure in the sense described by Felin et al. (2012) and Barney and Felin (2013).

2.2.2 Factors at the organizational field level. As expressed by Dillard et al. (2004), the organizational field refers to the inter-organizational context in which organizations are institutionally embedded. Being part of an organizational field, Barley and Tolbert (1997, p. 93) argue that “organizations, and the individuals who populate them, are suspended in a web of values, norms, rules, beliefs, and taken-for-granted assumptions, that are at least partially of their own making.” Thus, the foundation of new routines seems likely to be influenced by the organizational field. Important aspects of organizational fields include professional associations, industry trends and market competition. Their influence on the foundation of management accounting routines is now detailed.

As generally noted in new institutional sociology, in an organizational field there may be normative, mimetic or coercive pressures to behave in a certain way. Although focusing on institutions, Scott (2014) notes that institutions may form or become similar as a result of these pressures. As part of such pressures, Massini et al. (2005) argue that reference groups may significantly contribute to shaping organizational routines and such reference groups include professions and industry groups who set standards. Normative isomorphic pressure spreads new standards throughout members of the group. In the context of management accounting routines, there may be various normative pressures for professional management accountants. Such pressures may come from the management accountants’ professional education or from associations of professional management accountants (Seal, 2006). For instance, the Chartered Institute of Management Accountants (CIMA) serves as both an educational institution as well as an association of management accountants. As an example, CIMA recently published an updated version of its “Code of Ethics”, including clearly normative instructions for members:

As chartered management accountants CIMA members (and registered students) throughout the world have a duty to observe the highest standards of conduct and integrity, and to uphold the good standing and reputation of the profession. They must also refrain from any conduct which might discredit the profession. Members and registered students must have regard to these guidelines irrespective of their field of activity, of their contract of employment or of any other professional memberships they may hold. (CIMA, 2015, p. 3)

When professional management accountants lay foundations of new routines and adhere to such standards, the shape of the new routine will be – at least in part – shaped by normative pressures from professional bodies such as CIMA. In line with this notion, Greenwood et al. (2002) found that the routines of professional associations may reproduce prevailing practices (i.e. routines) in the accountants’ client organizations and that the influence of professional associations is stronger in smaller accounting firms. Thus, professional accountants may be very much influenced by their educational background when later founding management accounting routines. From the more general literature on organizational routines, the influence of organizational outsiders (such as accountants) on the foundation of routines also receives some support. Turner and Rindova (2012), for example, note the key role of organizational outsiders in the formation of change to new garbage collection routines.
Industry trends or standards may also be a foundation for management accounting routines. For instance, Soin et al. (2002) describe a case of a UK Bank, which—like other banks at that time—faced increased competition and cost pressures and responded with new management accounting routines. In addition to such trends, general characteristics of value creation or production technology in a given industry are likely to have an influence on the foundation of management accounting routines in specific organizations. There is ample evidence in the management accounting literature of the impact of industry sectors on the choice of management accounting practices (Abdel-Kader and Luther, 2008; Chenhall, 2003; Luft and Shields, 2003). Thus, Modell (2002) suggests that industry specifics such as technological complexity exert decisive influence on the institutionalization of cost allocations, which may imply that such effects also exist for the wider array of management accounting practices (Messner, 2016). As another example, Euske and Riccaboni (1999) note that deregulation—and thus the increasingly competitive market environment—of the Italian banking market in the 1990s did not imply new management accounting routines, rather an increased focus on routines which were symbolically set up in the earlier regulated environment. There is also some evidence for the converse argument, i.e. that lower market competition is related to lower reliance on management accounting routines. For example, Malmi (1997) presents a case where an organizational sub-unit successfully resisted the introduction of a new management accounting routine, in part because of marginally competitive market conditions.

Factors such as those described above portray structural qualities in the sense described in the literature on micro-foundations as outlined earlier. Of course, such structural factors influence and are drawn upon by individual(s) and are thus part of an on-going interaction of structure and action. In the context of this paper, they may also be factors which influence the foundation of management accounting routines in a particular organization.

2.2.3 Factors at the economic and political level. As coined by Dillard et al. (2004, p. 511), aspects of the economic and political level “make up the context within which an organization functions.” They further note (p. 512) that at this level, “norms and values are established and disseminated to members of the society.” Therefore, the context, norms and values— all of which are structures in the sense of Felin et al. (2012) and Barney and Felin (2013)—established at the economic and political level influence the organizational field and organizational levels. Aspects of the economic and political level which have potential to shape the foundation of management accounting routines include regulation/legislation and general economic conditions. Turning to regulation/legislation first, it is reasonable to assume that laws and regulations—such as accounting standards or company law—have direct impact on how accounting information is presented (Dillard et al., 2004). While such standards could be argued to be the sphere of financial accounting, there is evidence that (de-)regulation/legislation impacts management accounting routines (Covaleski et al., 2013; Coyte et al., 2010; Hopper and Major, 2007; Tsamenyi et al., 2006; van der Steen, 2011; Wagenhofer, 2016). For instance, van der Steen (2011) presents a case in which the managers of a Dutch bank introduced a new planning and control routine, which in part was attributed to new legislation. This legislation required Dutch bank managers to “document that they had informed customers about all risks associated to the financial services they offered” and thus implied increased internal control (i.e. management accounting) routines. Similar evidence of legislation driving the foundation of management accounting routines can be found in Coyte et al. (2010). They report that because of legal requirements, the public sector organization they studied had to use net-present-value calculations for capital investment projects geared toward non-commercial goals (e.g. allowing access for disabled)— despite such projects likely to yield negative net-present values. To summarize, while the influence
of regulation/legislation on the foundation of management accounting routines may be perceived critically by the actors performing these routines, there is evidence that regulation/legislation may have an important impact on the foundation of such routines.

General economic conditions may also lead to regulatory or legislative changes, which later affect management accounting routines (Van der Stede, 2011) or bring about new routines. The recent financial crisis has offered some opportunity to study the impact of weakening economic conditions on management accounting. While not explicitly referring to the concept of routines, Asel et al. (2011) analyze the effect of the recent crisis on some aspects of management control. They find that the more managers faced negative crisis effects, the more they “tightened their strings” and put emphasis on liquidity and cost cutting. These results may be interpreted as managers founding new management accounting routines under weak economic conditions (e.g. liquidity controls) or shifting the focus from certain management accounting routines to others (e.g. to those that monitor liquidity or costs) (Becker et al., 2016). Political crises may also affect management accounting routines and the historical literature provides some evidence here. For example, Quinn and Jackson (2014) present some evidence from the First World War, noting how it led to the foundation of new management accounting routines to account for war risk costs; Medina-Albaladejo and Menzani (2017) suggest that the Franco and Mussolini eras in Spain and Italy brought about both homogenization and development of management accounting practices (i.e. routines).

3. A framework on the foundations of management accounting routines

Earlier, we suggested some factors which may influence the foundations of management accounting routines. These factors, while drawn from various literatures, are not intended as an exhaustive list. However, we can begin to piece together a more comprehensive framework on the process of routinization of management accounting practices, which is depicted in Figure 1. We now describe in detail the process within Figure 1, and the next section provides some empirical data which is interpreted using it as an analytical lens.

The right-hand box of Figure 1 portrays the combined work of Burns and Scapens (2000), Felin et al. (2012) and Quinn (2011). As noted earlier, we do not challenge the general nature of Burns and Scapens (2000). Their framework begins with “the encoding of institutional principles into rules and routines” (Burns and Scapens, 2000, p. 10), which is depicted as arrow A. While it is generally accepted that routines are a component of institutions (Barley and Tolbert, 1997; Burns and Scapens, 2000; Giddens, 1984; Hodgson, 2008; Scott, 2014), as noted in Section 2, the literature on organizational routines is diverse. Here, we adopt Pentland’s (2011) definition of organizational routines, and this presents us with somewhat of a conundrum when related to Burns and Scapens (2000). The starting point of Burns and Scapens’s (2000) study assumes institutions are in-situ, and thus by definition, organizational routines also exist as these comprise the underlying repetitive actions of institutions[6]. As our objective is to explore the foundations of management accounting routines (which ultimately may become institutionalized practices) and factors leading to such foundations, a reverse engineering of the Burns and Scapens (2000) process is in effect required. That is, this paper works backwards from Burns and Scapens’ (2000) framework – in which routines are already formed or institutionalized – to trace the origins of the routines.

The right-hand box of Figure 1 depicts a process of the eventual institutionalization of management accounting practices which, like Burns and Scapens (2000), entails repeated enacting and reproduction. In contrast to Burns and Scapens (2000), Figure 1 depicts action as beginning at an organizational level rather than taken-for-granted assumptions/
institutional realm (which is represented by arrow A) they adopt. This initial action is depicted as \( C_0 \) in Figure 1, within the realm of action only, signifying that actions cannot yet be termed institutionalized or routinized [per Pentland’s (2011) criteria]. This is because an action cannot be regarded as a routine without sufficient repetition (Oliveira and Quinn, 2013). From this point in the process when particular management accounting action has been reproduced, it will over time through repeated enacting/reproduction (lines B and C) become a management accounting routine. Eventually, the routines may become institutionalized (lines D). As portrayed by Burns and Scapens (2000), these institutionalized management accounting practices will influence new rules and routines (lines A to D).

Finally, as per Quinn (2011), Figure 1 portrays the interactions between rules and routines as tentative (dotted lines), in that rules may not emerge. Quinn (2011) argues that rules are artifacts of routines, in that they are a written and formal statement of how things should be done. This argument by Quinn (2011) is similar to Burns and Scapens (2000), but it does suggest that routines precede rules – whereby rules are formalized and written – and this is accepted in this paper also.

Turning now to the left-hand box of Figure 1, factors which may be the foundations of the (eventual) management accounting routines – which start out at \( C_0 \) as an instance of action – are depicted. Burns and Scapens (2000) acknowledge that “routines which emerge in any particular case, may be difficult to predict [but] they are not arbitrary – they can be explained” (2000, p. 12). They also note “[change] will be path-dependent, in that the existing routines and institutions will shape the selection and implementation process.” (Burns and Scapens, 2000). They also mention factors such as other external institutions and professionals as influencers. They do not however explore or explain in detail such
influences and how they may interact in their process of institutionalization. Given our focus on routines as the unit of analysis, rather than institutions, the left-hand box of Figure 1 reflects factors which may influence the actions of members of an organization – such as management accountants – at point $C_0$. We are terming this point $C_0$, following Burns and Scapens (2000) notation of “$C$” being a point were action occurs, action being the reproduction of a management accounting practice by an actor. In contrast to their work, here, $C_0$ represents initial action of an actor, rather than reproduced action, and this is elaborated next.

Our review of the literature in Section 2 revealed factors which may shape management accounting. These factors originate from diverse literature sources, and are not intended as exhaustive (hence, the three dots in each of the rectangles in the left-hand side of Figure 1). As in Section 2, the factors are categorized according to what Dillard et al. (2004, p. 512) term “three levels of socio-historical relationships” – economic and political, organizational field and organizational. While Dillard et al. (2004) use these three levels to explain a cascading effect which results in organizational level institutions, we use them purely as descriptive categories to assist our analysis. This is not suggesting a cascading effect does not exist, and indeed is quite likely as suggested by Dillard et al. (2004) – this is visualized by the arrows between the three levels. The left-hand box of Figure 1 depicts factors such as regulation/legislation, economic conditions, professional associations, human and non-human actors and habits. An elaborative description of each factor is not given here (but see Section 2), but some elaboration on how they may interact and emerge as a foundation for management accounting routines is necessary. As mentioned above, Burns and Scapens (2000) noted that routines are not arbitrary, may be difficult to predict and are path-dependent. We agree that the factors depicted in Figure 1 may not be able to predict the exact nature of an eventual management accounting routine. However, when action occurs at $C_0$, being the first occurrence of a pattern of action(s) that can potentially lead to a management accounting routine, it is highly unlikely that it is random. The actor(s) will be influenced or informed by one or more of the factors. In Figure 1, potential factors are depicted as cogs. A gear mechanism is a useful analogy to convey how factors may work in combination to be the foundation of a management accounting routine. In any gear mechanism, there are several possible combinations of cogs which achieve one thing (assuming a power source), namely, motion. Thinking of the gear mechanism in a car or on a bicycle, for example, the type of motion, depends on the combination of cogs – a larger cog driving a smaller cog results in faster motion and vice versa; the more cogs in a gear mechanism the greater the degrees of motion ranging from slow hill climb to fast flat terrain.

Let us relate the gear mechanism/cog analogy to Figure 1 and the foundations of management accounting routines. When actors engage in some or other management accounting task for the first time in an organization[7], two things can be stated:

1. This is not yet a routine as no repetition has occurred.
2. The actors are likely to be influenced by some factor(s) which are depicted as cogs here.

The combination of cogs (factors) will influence the “motion” (or type) of management accounting practices which are likely to be reproduced. Over time, these practices may become routinized and institutionalized, and depending on the underlying foundations, what is observed as institutionalized management accounting practice, may vary considerably – even in similar contexts. If, for example, a new business enters a relatively complex industry sector, industry standards may be a factor which influences the foundation of routines; or if the organization uses non-human actors such as software (with embedded material
routines), the software design may be an influencing factor. For the sake of clarity, in Figure 1, each factor is shown as a cog of similar size, suggesting each factor has a similar importance in the foundations of a management accounting routine. In any given real-life organization, this is unlikely to be the case. For example, if present, the influence of a human actor such as a “professional accountant” on the type and sophistication of management accounting practice may deserve a larger cog in Figure 1; likewise, the non-human actor “software”. Also, it is conceivable that some factors could be classified as multi-level. For example, a professional accountant not only has his/her own experience to bring to an organization, but also that of his/her professional accounting body, i.e. organizational field level. Similarly, an organization could conceivably develop its own software which has an influence on management accounting. Thus, in a particular instance, to correctly visually depict actual cogs which influence the foundation of management accounting routines, they may be of differing size and place than our depiction in Figure 1.

As already described, C₀ in Figure 1 depicts the first occurrence of a pattern of action(s) that can potentially lead to a routine and is influenced by factors such as those mentioned. However, action requires actors, and while actors can be human or non-human, it is likely that human actors will feature more in the foundation of management accounting routines – for example, human actors are required to initiate the installation of accounting software. As the management accounting literature drawing on institutional theory mostly agrees that management accounting practices are embedded in structural arrangements (Englund et al., 2011; Lawrence et al., 2009; Modell, 2012; Ribeiro and Scapens, 2006), we can safely assume that also in the foundation of management accounting routines, there can be observed an interplay between individuals and structures. Human actors will draw on various structural entities, including the factors (cogs) depicted in Figure 1. Thus, C₀ depicts the interaction of the individual(s) and structures they may draw upon to bring about action – that action being a first occurrence of a pattern of action(s) that can potentially result in a routine being formed. While Felin et al. (2012) suggest individuals, processes/interactions and structure as micro-foundations of routines – and individuals, interactions and structures are depicted in Figure 1 – we do not (at point C₀) include processes. This is because what is depicted at C₀ is the first occurrence of a pattern of action and is not yet a settled and accepted pattern of action. Once action has been repeated several times and is potentially routinized, through the interactions of rules and routines (lines B and C in Figure 1), then a process emerges. Prior management accounting research drawing on institutional theory has found that individuals not agreeing with newly introduced management accounting practices often respond with resistance (Hiebl, 2018; Scapens and Roberts, 1993). While such resistance can result in an adaptation of the introduced management accounting practices or their outright non-application, there is also some evidence indicating that if new practices are introduced despite resistance, it can delay their introduction (Ashraf and Uddin, 2015; Sharma and Lawrence, 2008). We can thus assume that if there is less initial fit between the individuals and the structures involved in the foundation of management accounting routines, there is a lower chance of routinization and if routinization takes place nevertheless, this process is likely to be longer in terms of time than in situations of a high initial fit between individuals and existing structures. In Figure 1, the potential of such non-routinization – irrespective of whether caused by resistance or other dynamics – is represented by a dashed line in the arrow from C₀. Thus, C₀ is tentative as the acting out of management accounting practices does not always imply they will be routinized and the process of institutionalization (right-hand side) may not occur.

To sum up, our framework depicted in Figure 1 suggests that the actual foundation of a management accounting routine happens through the interaction between individuals and
structures. These structures may stem from the economic/political level, the organizational field level and/or the organizational level. If the initial fit between individuals and structures is high, we expect that routinization of management accounting is more likely and that it materializes faster than in situations of a lower initial fit between individuals and structures. In a similar way to Burns and Scapens (2000), our framework is intended to provide researchers who study management accounting as a routinized (and institutionalized) practice with an analytical tool to explore, explain and interpret the foundation of management accounting routines in an organization. Understanding the foundation of routines may help researchers gain a deeper understanding into issues such as why particular management accounting routines exist, why some organizations have more sophisticated routines despite similar contexts and how/why routines remain stable and/or change. The latter in particular may be useful to researchers and practitioners interested in management accounting change, as if the foundations of a routine can be determined as a relatively strong and powerful factor – such as a professional accountant – then it may be easier to select appropriate change methods. In the next section, we use Figure 1 to analyze empirical data from two cases.

4. Highlights from empirical cases
To illustrate what is depicted in Figure 1, we present two anonymized cases, Baby and Weavers. Both were part of a broader study of management accounting routines in small firms carried out between 2012 and 2016. Each case is presented and both are then discussed in light of Figure 1. Given our objective of analyzing the foundation of management accounting routines, small firms are useful illustrations as they typically provide more detailed access than larger firms (Lavia Lopez and Hiebl, 2015; Mitchell and Reid, 2000). The broader study of these cases used semi-structured interviews with managers, external accountants and management accountants. Both cases were similar in terms of turnover and staff numbers, but as will be detailed below, Weavers is almost two decades older than Baby.

4.1 Baby case
Baby was incorporated in 2003, by two siblings with no previous business experience. The company develops baby and nursery products and commissions their contract manufacture. It mainly sells direct to retail outlets. The remainder of this section describes the process of management accounting change in a general sense from 2003 to the time of the research.

When Baby was formed, management accounting was as Sam (one of the founders) put it “probably accidental actually. It wasn’t a big plan.” No one had previous accounting knowledge; hence, a practicing accountant, Tara, was consulted. Sam recalled, “the only thing I knew about accounting was Tara.” In 2003, Tara assisted in the preparation of basic cash flow and profit projections using spreadsheets. Regular business transactions (sales, purchases, etc.) were also captured using spreadsheets. It quickly became apparent that cash flow was an important factor in the business as contract manufacturers required up-front payment. The two founders quickly realized the limitations of spreadsheets and within a few months, Tara advised them to purchase QuickBooks[8] accounting software despite them being “totally alien” (Tara) to accounting. Tara recommended this product because of its relatively simple user interface and easy error correction. Thus, within the first year or so in business, Baby had established an accounting system for regular accounting transactions, the work undertaken by the two siblings for the most part.

As Sam became familiar with QuickBooks, she started to use its in-built inventory module. Baby outsourced manufacturing to the Far East, and inventory was (and still is)
located in warehouses near ports ready for shipment. Sam wanted to have information on the location and quantity of inventory, as well as information on inventory on order. While QuickBooks has a functional inventory module suited to smaller business, Sam’s lack of accounting expertise resulted in some oddities. Tara recalled how “there would be a gross loss, which is impossible.” Thus, Tara disabled the stock control module and re-called:

They were totally frustrated by QuickBooks in that they tried to, from the very start, to integrate a stock control system on it. Now, QuickBooks has a stock control system […] but when you have two people with no previous accounting experience, to try and integrate a stock control system is just not possible. So I had to disable it and Sam found that very frustrating, but from self-preservation for myself I had to. For example, when we went in to do the first set of accounts, they were a mess, because she was trying to use the stock control system and it just didn’t work.

At the end of the second financial year, “the accounts were a disaster” (Tara). While daily transaction processing was being done, Tara described the year-end situation as being poor – “there was an awful lot of stuff not reconciled, so it was poor. So there was a lot of deleting and tidying up.” Tara and Sam agreed that Tara’s accounting firm would now prepare bi-monthly management accounts, the objective being to keep the accounting records as accurate as possible. Thus, by late 2005-early 2006, Baby was now preparing bi-monthly financial statements.

As business grew, cash flows were an on-going issue. Research costs were substantial, and manufacturing in the Far East continued to strain cash flow. A first round of external investment occurred in 2006, when a combination of a state-owned business development body and private investors agreed to invest cash; a second round of investment occurred in 2011. In both instances, the investors were not actively involved in day-to-day management, but did attend board meetings. The investors requested more accounting information and required the instigation of new management accounting tasks, including detailed forecasts of activities (revenues, costs and cash flows) and variance analysis. As the investors insisted on these items, Baby had little choice but to comply. Tara noted the investor requirements as being “over-elaborate and there was no way they could do it themselves.” Thus, Tara’s firm now not only prepared bi-monthly financial statements, but also budgets with regular revisions and variance analysis. The investors also insisted that Tara’s practice conduct an audit of Baby, even though it complied with national audit exemption regulations.

From 2006, Baby continued to prepare bi-monthly management accounts (i.e. the key financial statements), together with (revised) budgets and variance analysis, with the assistance of Tara’s firm. As the business grew, Sam and her sibling began to appreciate the value of the bi-monthly management accounting reports:

It’s been good for us, because it gives us a bit more perspective and you know where you are. You know if you’re on a good or if you’re not, and if not, why not. Whereas if you don’t do it, you tend to only think of the good, you know. Now things can crop up, every two months you go, look, you’re way over budget on that. So, it keeps you in a good mind-set I suppose.

Following the second round of investment in 2011, it became clear to Tara that Baby needed a management accountant, for two reasons. First, Baby, for their size, was a complex client. The investors insisted on an audit; Baby had research and development expenditure; Tara or a colleague assisted in the bi-monthly management reporting process. Tara described Baby as a “write off” (or loss) in terms of billable time versus the chargeable fee. Second, Tara perceived a conflict in being involved in the preparation of internal management accounts and conducting an audit. As a result, in late 2010, Dan came on board as a management accountant initially part-time, assuming a full-time role in mid-2011.
Dan had 30 years’ experience as a management accountant. He worked with multinational companies and had experience of several accounting software products. Dan’s title was Financial Controller, although he was acutely aware that a financial controller in a small business is not the same as a financial controller role in a larger organization:

When you work for an owner managed business, where the owners of the business are actively day-to-day managing the business, then you have less control of the finances than you would otherwise have, because obviously the owners are the key decision makers at the end of the day. In essence, I’m in charge of the financial system, producing the management accounts for the shareholders, and also have an input in those strategic decisions [...] to grow the business.

When Dan joined, he changed the accounting software to Sage[9]. He had previous experience with Sage and was comfortable to make the change from QuickBooks. This change to Sage also saw the inclusion of a full inventory control module, which pleased Sam. It also pleased Tara (from an audit perspective), and with Dan’s accounting knowledge the system accurately reflected Baby’s inventory. Other regular management accounting tasks did not change their general form. However, Dan did change how some tasks were done. For example, he changed the budgeting approach to a more accurate bottom-up approach:

I introduced that, the bottom-up approach, yes. And the advantage that that gives you then, when you’re reporting your actuals against your forecast, you have a forecast by product and by customer, so you’ve something real to compare how are we doing by this customer and how is this product doing with this customer, how is this product doing overall, what actions do I need to take, how is my new product going.

Since I’ve come in, the investors obviously have made bigger and bigger demands in terms of reporting. So part of their requirements would be, to compare actuals to budget at the start of the year and there’s a variance. They want more and more explanation behind that variance. So unless you build it up in such a way, bottom up, you could go back then and say well because this product is not performing or this customer is not performing, because these costs are higher than we had budgeted.

Dan noted that higher-level budget figures were entered in the Sage software to provide basic variance analysis. More detailed variance analysis used spreadsheets. The changes he made to the budgeting process were approved by the external investors before implementation. Dan also mentioned how the bi-monthly management accounts now included an executive summary and key-financial highlights such as sales by product, major variances, unbudgeted costs and inventory levels. Dan also introduced weekly meetings with sales staff and a weekly cash forecast. As Dan noted on the cash forecast, “as the company grows the demand for working capital becomes increasingly more critical, so this is a control mechanism”.

4.2 Foundations of management accounting routines at baby
Since Baby was formed, management accounting progressed from spreadsheets to the regular provision of decision-making information using accounting software. Thus, management accounting has changed over time and likely routinized and institutionalized as suggested by Burns and Scapens (2000) and depicted on the right-hand side of Figure 1. Those doing the (management) accounting tasks have moved from the founders, to a combination of external accountants/internal staff, and ultimately to a financial controller. Changes and developments were instigated by various actors – the founders themselves (frustrated with spreadsheets), external accountants (doing bi-monthly management
accounts), investors (requiring detailed budgets and variances) and by the financial controller (budget improvements, weekly sales and cash reports).

Two key factors affected the foundation of management accounting routines at Baby, namely, software and professional accountants – organizational factors per Figure 1 – although the structures the professional accountants (Tara, Dan) brought with them as actors (i.e. knowledge and beliefs about accounting and accounting software) could also be regarded as stemming from the organizational field. In particular, the QuickBooks software package was a key foundation. As mentioned in Section 2, Volkoff et al. (2007) note that (material) routines embedded in software can assist in organizational change as they guide action – that is, the software has structural qualities. The QuickBooks software is capable of producing basic accounting reports, as well as budgets and basic variance reports. Within the first year of business, QuickBooks was being used by Baby to process regular business transactions and used by both founders. Thus, it can be stated that the daily transaction processing was routinized as it meets Pentland’s (2011) four components as described earlier (Section 2.1) – namely:

- repetition, transactions processed regularly;
- a recognizable pattern of action, through the QuickBooks software;
- interdependent actions, processing accounting transactions is by nature interdependent; and
- multiple actors, the two founders and the QuickBooks software.

However, the regular (month or year-end) internal financial statement-type reporting was not routinized, despite repetition, as they could not be deemed as part of interdependent action, i.e. the reports were not used for decision-making, or in other words management accounting. Even with QuickBooks in place, Baby lacked the accounting knowledge and experience to prepare accurate monthly financial statements for decision-making purposes. That is, the individuals interacting with the software showed little initial fit with the structures embedded in QuickBooks – only the experience of an external accountant (Tara) led to a more efficient usage of the software and the production of bi-monthly management accounts – late 2005, early 2006 – which were useful for decision-making. Of course, given the very nature of accounting, a transaction processing system must be in place before financial statements can be produced, but typically, input from someone with accounting knowledge is required to make such statements a fair reflection of the underlying business transactions. Thus, Tara was a key factor in the foundation of regular (bi-monthly) management accounting routines, as without Tara’s professional accounting knowledge the regular internal reports would not have been produced.

As mentioned, two key factors which formed the foundations of management accounting routines at Baby were accounting software (QuickBooks) and professional actors. Relating these to Figure 1, software is depicted as organizational on the left side. For Baby, as QuickBooks is a general software product used by many businesses, it is reasonable to also depict this as an organizational level influence. In Figure 1, human actors are also depicted (such as professional accountants) at the organizational level. In Baby, this was not (yet) the case, as arguably Tara was not part of the organization, but as suggested above, the role of Tara as a professional accountant could also be classified at the organizational field level. Thus, from the founding of the company in 2003 to late 2005/early 2006, while accounting was being “practised” and we have noted above that though the transaction processing element of accounting may have been routinized, management accounting was not routinized. That is, in terms of Figure 1, the necessary interaction between the founders (i.e.
individuals) and the accounting software (i.e. structures) in use was flawed, as the founders had insufficient knowledge and experience in using this software. Only around late 2005/early 2006, when this interaction was improved, a combination of individuals (Tara, the founders) and structures (QuickBooks software) – organizational and organizational field factors – interacted to lay foundations of management accounting routines. That is, only the point C₀ on Figure 1 was attained since all three cogs as parts of C₀ (i.e. individuals, interactions, structures in the form of accounting software) were present. From then, bi-monthly management accounts were prepared and used for decision-making/management accounting purposes and became routinized through repetition over time (the first set of arrows B and C in Figure 1). That is, at the time when professional actors entered the scene, the fit between the three cogs, as part of arrow C₀, was high, which can explain why the bi-monthly accounts were routinized quickly. In turn, the low fit between individuals (i.e. the founders) and structures (i.e. accounting software) before professional actors came in can explain why no management accounting routines materialized.

It is also apparent that, later as Baby grew, external investors played a key role in the (re-)shaping of management accounting routines, but after the foundations were in place as described above. Investors required more and regular accounting information, which ultimately led to the hiring of Dan. With his experience, additional budgeting tasks were added, which would not have been possible without existing routines in place. Although Dan changed how things were done, and there are some new management accounting practices, the overall practices (bi-monthly management accounts and reports) remained stable. While Dan and the Sage software shaped the present-day management accounting routines, they can be considered in conjunction with the foundations described above (QuickBooks and Tara). In 2011, when Dan became full-time staff, the present-day routines received their shape based on existing routines – that is, in Figure 1, there was a move from the left-hand set of arrows B and C to the right-hand set – as outlined by Burns and Scapens (2000).

To summarize the Baby case in terms of Figure 1, it is clear that the two key factors were software – a non-human actor – and (professional) human actors. Together, the professional accounting individuals and the structures embedded in the QuickBooks software (both foundations) resulted in routinization of management accounting at the end of 2005/early 2006. At this time, in terms of Figure 1, the three cogs as part of C₀ were present and led to the first set of arrows B and C. These existing routines then were the basis for later change in 2011 (second set of arrows B and C). However, Baby is a single case and to add some substance to this, a further case is now detailed, namely, Weavers.

4.3 Weavers case

Weavers was founded in 1985 as a joint-venture with a textile firm “Yarn”. Yarn’s general manager, Kirk, and Weaver’s founder, Rob, each held 25 per cent of the shares and Yarn held 50 per cent. At this time, Weavers operated as a contract manufacturer to Yarn, as Herb (the current Managing Director of Weavers) explained:

Back in the 1980s, Yarn enjoyed incoming orders of 70,000 meters or so per month. And they did not really know how to cope with this demand and produce sufficient quantities. This enabled a very smooth start for our firm. We simply produced a certain number of meters per month and it went lovely.

However, increased internationalization of the weaving business and a general shift to manufacturing in Asia left Yarn bankrupt in 1995. At this time, Herb held 50 per cent of the shares – after insolvency proceedings this increased to 75 per cent. By 2012, Herb and his
wife, Rose, had 100 per cent ownership. Thus, in contrast to most small businesses (Dyer and Handler, 1994), Weavers evolved to be a typical, owner-managed small firm only over time. By the time of this research, 70 per cent of Weavers’ turnover was exported to other European countries and 30 per cent to overseas markets (mostly the USA and Japan). Two-thirds of turnover are standard products, the balance being custom fabrics.

Until 1995, the vast majority of Weaver’s sales were to Yarn. Therefore, Weaver’s manager at that time (Kirk) had little need for management accounting information, as he was part of Yarn’s management team. Thus, there were no dedicated full-time administrative staff. However, Rose and Herb recalled that in the early days, monthly management reports were produced by an external accountant. The reports consisted of an income statement and lists of payable and receivables and were used to see whether the past month was in line with expectations. However, expectations were not formalized as monthly budgets. Instead, they calculated fixed costs for the entire year to be covered by sales and compared monthly accounts to fixed costs to assess if the latter were sufficiently covered. To relate sales to fixed costs, Kirk had introduced a basic calculation scheme which is still used today in a more developed form.

Since 1985, the same accounting firm has provided the aforementioned monthly management reports, and according to Herb, the structure of the statements has not changed. Nobody at Weavers questioned the structure of these reports, as Herb put it:

I think these accounts are standardized. I think our accounting firm produces these accounts in the same structure for their other clients.

With the bankruptcy of Yarn in 1995, Herb and Rose (the management team of Weavers) moved the business focus from contract manufacturing towards building their own market position. However, to make product offers to customers, they needed more detailed cost information. According to Herb, the cost allocation method still used today relies on a basic structure introduced by Kirk, Weavers’ former business manager. However, over time, Herb has gained more experience and the complexity of Weavers’ product portfolio has increased significantly, resulting in a more complex (but similar) calculation. Herb could not fully recall how or when their current cost allocation method was introduced:

Our calculation scheme, well this dates back a long time. It was initially introduced by Kirk, our former business manager, when our firm was started. After having taken over the majority in the firm, we also found it useful and this is how I started using it.

The method can be outlined as follows. At the beginning of the year, Herb budgets the annual fixed costs from past income statements provided by the external accountant. However, estimating budget sales for the year is more difficult and Herb notes that sales cannot really be planned in Weavers’ business sector:

In our business, we cannot plan sales. You know that the more you are out there, the more customer contacts you get. But what really translates into sales is still unpalatable and at risk. So we cannot plan what customers really order with us or which individual projects will happen.

Thus, Herb focuses on the extent Weavers’ machines were used the past year and calculates the necessary utilization to cover all fixed costs for the coming year. Herb obtains the number of shots[10] used the past year, and by using this, he plans total shots for the coming year and divides the fixed costs by the shots number. The result is a fixed cost per shot, and in turn, the number of shots to cover fixed costs. When Herb has finished these annual calculations, he knows the break-even number of machine shots to be attained:
I have to cover our fixed costs and I have to work on selling enough fabrics and reach a certain amount of gross margin. If I achieve this and the sooner I achieve this, it is great because from then on, we make profit. For instance, if I reach the breakeven point at the end of October, I have got two full months to create profits for the year, and then it starts being really interesting.

To track when they reach the breakeven point, Herb and Rose use the monthly management reports provided by their external accountant. These monthly income statements and payables/receivables list are now prepared by Herb, Rose, Norah (an internal accountant) and the external accountant. Before the actual statements are provided, Norah collects incoming and outgoing invoices for the month, puts them into folder and delivers them manually to the external accountant. A few days later, the external accountant sends the monthly reports to Herb and Rose, who then analyze and compare the numbers to the previous month and the same month the past year.

4.4 Foundations of management accounting routines at weavers
As with Baby, some human actors are key factors in explaining the foundation of management accounting routines at Weavers. First is Kirk, who brought broad industry experience with him to Weavers. He laid the basis for the cost calculation method still in use today. Second is the external accountant/accounting firm, who has provided Weavers with financial statements since its inception. We can deem the cost calculation and the monthly financial reports as management accounting routines as per Pentland (2011), as the four components of routines (Section 2.1) are present, namely:

- repetition, regularly produced reports;
- a recognizable pattern of action, similar reports produced monthly;
- interdependent actions, accounting documents collated within Weavers, sent to the external accountant, back to managers for decision-making use; and
- multiple actors, Herb, Rose, Norah (internal accountant) and the external accountant.

While the financial statements prepared by the external accountant do not appear to be overly useful, they are regularly produced and are an input to the cost calculations, and thus they represent the interdependency component of the routine. As indicated by Herb’s comments, both Kirk and the external accountants used their specific knowledge (weaving in the case of Kirk, accounting in the case of the accountants) and influenced the foundation of management accounting routines. As Herb’s statements above exemplify, his impression of the way the accounts are prepared by the external accountant reflects an “industry standard” in accounting. The weaving sector itself also encompassed certain standards. The calculation scheme which dates back to Kirk’s influence reflected an industry standard practice at the time and Herb indicated that sales planning in the industry was always difficult.

Thus, with reference to left side of Figure 1, human actors at an organizational level (Kirk and the external accountant) interacted with industry standards at the organizational field level in the foundation of management accounting routines at Weavers – i.e. the cost calculation and the monthly income statements. The two key human actors of course encompassed elements of structure (accounting expertise and training, industry standards and knowledge). Thus, in contrast to Baby, at Weavers, the organizational field level is more at play, through accepted industry standards of cost calculation and production scheduling. These organizational field level factors incorporating structure – industry standards and knowledge – interacted with Kirk (an individual) within the organization. As Kirk was an
experienced weaving industry manager at the time when the management accounting routines were founded, he showed a high degree of fit with the structures in the organizational field level. As far as could be recalled by our interviewees, this high degree of fit in the interaction between individuals and structures, which represents the three cogs as part of the C₀ arrow in Figure 1, resulted in a quick routinization of the respective practices – that is, the fixed-cost-per-shot practice and the reports from the external accountants[11] quickly became routinized. The exact point in time when Weavers can be depicted at C₀ on Figure 1 is not certain, but it was at an early stage in the life of the company and the resulting routines have remained relatively stable since then. In contrast to Baby, there have been no major changes to the routines (e.g. no new software, no new professional accounting staff). Thus, the repeated enacting of the routines at Weavers would be depicted by the left-hand set of arrows B and C on Figure 1 and not move across to the second set as at Baby.

4.5 Differing foundations, differing management accounting routines

As revealed above, the management accounting routines are different in the two cases presented. Differences in management accounting between two cases could be expected, given the different industry context for example or the experiences of various actors in each case. Arguably, the Baby case presented more sophisticated management accounting routines – it prepares more detailed budgets, manages cash flows, uses accounting software and employs a professional accountant. In contrast, management accounting at Weavers is less complex, with little or no accounting information produced or used internally. What management accounting there is at Weavers is routinized, however. To explain the differences, our framework presented in Figure 1 has been useful.

As detailed in previous sections, the foundations of management accounting routines in two cases revolve around different factors. These factors have been revealed from the case data using Figure 1 as a lens, allowing us to reflect on, categorize and isolate the key factors. The management accounting routines formed in both cases were founded on particular factors, and then the interactions of individual and structural elements embodied within these factors (i.e. the three cogs in the C₀ arrow in Figure 1) brought about routines. We can explain, through Figure 1, why Baby would appear to have apparently more sophisticated management accounting routines. The primary factor was the use of accounting software from an early stage of the company’s development i.e. software was a key foundation of the routines. Although Tara was an important actor at Baby initially and a founding factor, the accounting software brought structures to Baby (i.e. the software encompasses accounting principles and processes) which influence how the company operated. These structural properties of the accounting software could then be drawn on by individuals to create, maintain or change management accounting with the company – and as noted above, Baby arguably made a shift across Figure 1 to a new set of routines when Dan arrived. In contrast, Weavers did not use any such accounting software and was not influenced by structures within any accounting software.

What also becomes evident through the analysis of our cases in light of Figure 1 is that in the Baby case, the initial low fit between the C₀ cogs in Figure 1, that is individuals (i.e. the founders) and the accounting structures in place (i.e. QuickBooks software), resulted in non-routinization of management accounting practices. This routinization only took place when individuals showing a better fit with the accounting structures (i.e. the professional accountants Tara and Dan) became part of the action. In contrast, at Weavers, while generally featuring less sophisticated management accounting practices than Baby today, there was already a high initial fit between the individual in charge (i.e. Kirk) and the
respective organizational field level structures, resulting in a quick routinization of management accounting practices.

In summary, Figure 1 has allowed us to focus in on key factors and their interactions which resulted in eventual management accounting routines at two cases. This in turn allowed us to identify and explain key differences in the foundations of these routines, which offers some explanation for the nature of present day management accounting routines (although this not an objective of this paper). It also highlights from the two cases that the process of routinization of management accounting with firms can vary in time, and this variation can be (at least partially) explained by the foundations of these same routines. Having such knowledge and understanding may assist researchers to explain why, for example, an organization is more willing or unwilling to change its management accounting routines. Such examples point toward how the work presented here may be used in future research, which is detailed in the next section.

5. Concluding comments
The objective of this paper is to provide an understanding of the foundation of management accounting routines, and it brings together much extant research on routines in the organizational and management accounting literature. We now briefly discuss the framework presented through Figure 1, focusing on what it means for future management accounting research.

To begin, we could ask, how does the framework improve our understanding of management accounting routines? Considering the empirical aspect first, namely the two illustrative cases, without the framework, factors and the interactions between factors which contributed to the shape of the present-day routines would be less apparent. The framework has allowed us to identify factors more prevalent in founding (and subsequently shaping in the Baby case in particular) management accounting routines. These factors, as shown in the cases, are likely to vary within organizations, and some will be more influential than others. For example, in Baby, the relatively stronger influence of professional actors is apparent, whereas in Weavers, industry standards were more influential. For future empirical research, the process depicted in Figure 1 provides a prompting to researchers to explore the nature of management accounting routines in a holistic way – in particular, to understand and interpret existing routines in the context of factors and interactions between factors underpinning their foundation. As Quinn (2014) notes, some routines may be sticky over time, a conclusion derived by exploring one aspect of management accounting over a prolonged period. Similarly, Figure 1 should prompt researchers to think about the foundations of routines as they seek to interpret and explain present day management accounting routines in organizations.

What is presented in Figure 1 also adds a conceptual/theoretical understanding. In essence, by bringing together various strands of literature, a more comprehensive framework of the process which results in management accounting routines is given. From this, we can suggest several avenues for further research. First, research on what additional factors influence the foundations of routines would be useful, as the list depicted in Figure 1 is not exhaustive. Second, it would be interesting to further explore the processes of founding and forming of routines. A particularly interesting aspect here may be how long it takes for management accounting routines to form and what path they take (i.e. reach $C_0$) – as seen in the two cases here, it would seem to vary. Similarly, the relative influence of each factor could be explored, seeking out commonalities and differences across organizations. The cases presented here suggest accounting software as a foundation may result in more sophisticated management accounting routines over time. It would also be interesting to study the influence of founding factors on the stability of management accounting routines
over time, as to effectively change management accounting routines, it may be necessary to understand their foundations. The framework depicted in Figure 1 may therefore also be interesting to the further study of stability and change of management accounting routines. Finally, further empirical research corroborating the proposition that a higher degree of fit between acting individuals and structures results in a quicker routinization of the respective management accounting practices would be useful.

The work presented here has some limitations. First, two cases are used to exemplify the work. These represent typical small firms, but are insufficient in number to draw major conclusions. Thus, more case research is needed to broaden, deepen and possibly question the argumentation presented here. Second, although Figure 1 is portrayed as a process over time, the case data are from interviews at a point in time. Although staff at the cases gave us the history of their organizations over time in some detail, it would probably be even more insightful to actually observe routines form and emerge. Thus, research on management accounting routines as they form and emerge over time would be fruitful. Third, as noted, our list of factors which may affect the foundations of management accounting routines is not exhaustive. Consequently, more empirical research on such factors and the interactions between factors, or how and why some may be more influential than others, is encouraged.

To finish, we have provided an understanding on the foundations of management accounting routines which can be used by researchers as a tool to explain, understand and interpret how and why routines are shaped the way they are. We encourage its use in more real-life settings, where its usefulness and/or limitations will be highlighted.

Notes

1. Burns and Scapens (2000, p.12) do provide some factors which may influence institutions. We return to this in Section 3.
2. The ostensive dimension of a routine is the tacit element, with the performative being the actual acting out of a routine.
3. See www.oxforddictionaries.com/definition/english/foundation
4. See www.merriam-webster.com/dictionary/foundation
5. We are not intending to explore the differences between the terms non-human actor and intermediary as applied to accounting software. However, the later term is potentially more suited to a management accounting context as it is unlikely that typical management accounting tasks are “acted out” by accounting software, but tasks are “executed” (Volkoff et al., 2007).
6. Burns and Scapens (2000) depict arrow A on both sets on rule/routine interactions as portrayed on the right of Figure 1.
7. As we focus on the foundations of management accounting routines, the institutional realm within the organization does not influence its foundation, as by definition the task has not yet been routinized.
8. A common accounting software product for small business, which is designed with the lay user in mind.
10. A shot refers to a single pass of thread or yarn from one side of a web (a width of fabric being woven) to the other. This number is recorded on the weaving machines.
11. The external accountants, while influencing the foundation of routines, did not partake in action within the organization.
References


Further reading


Corresponding author

Martin R.W. Hiebl can be contacted at: martin.hiebl@uni-siegen.de

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