Chapter 4 Responsible Project Management Tensions in a Tier 1 UK Infrastructure Organization



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Abstract Researchers have previously examined the tensions between individual actions and organizational structures. In the domain of Responsible Management, these tensions may manifest in the conceptualization of an organization's corporate responsibility and the individual agency of managers. In this paper, we examine these tensions using the case of a large UK infrastructure firm. To identify these tensions, organizational documents and interviews of professionals were conducted and analysed. Results indicate the presence of tensions including Cognitive Organisational-Individual Responsibility Dissonance, External role tension and Visibility of values. Future research could examine the role of smaller incremental organizational actions which demonstrate values internally on overall organisational sustainability behaviours.

Keywords Responsible project management · Procurement · Tensions · Sustainability

4.1 Introduction

The debate about the nature and extent of the responsibility of professionals, shareholders and stakeholders has been a prominent subject in management research. Corporate social responsibility can be considered a visible commitment to humanistic values predicated on an exchange basis where organisations attempt to secure future financial or non-financial returns (Kitzmueller & Shimshack, 2012). More recently, responsible management shifted the focus from the organisation to the

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beliefs, behaviours and practices of managers of sustainability and social responsibility (Laasch & Conaway, 2015). This individual basis is currently explored in Project Management by the Responsible Project Management movement with current activities at www.ResponsiblePM.com (Thompson & Williams, 2018). For this paper, we define Responsible Management in Projects as the actions of people involved in the management of projects (Project Managers, Project Sponsors, Project Team Members) who seek to deliver beneficial environmental outcomes as part of their roles and are not dedicated to sustainability or social value professionals. These differing dimensions, organisational and individual, may result in tensions or paradoxes as organisations attempt to reduce their environmental impact.

Project Management is currently configured around a linear economic model in which resources are extracted, processed, assembled and disposed of at the end of useful life (Ghisellini et al., 2016). An alternative economic approach has been provided in the form of the circular economy that takes a closed-loop approach. The goal is to minimise the number of materials that are disposed of. In contrast, another economic model that has been gaining attention in the last decades is the Circular Economy, defined as a regenerative approach that aims to keep resources in a closed loop at their highest value (Within, 2015). This economic paradigm is opposed to the current linear take-make-dispose resource model that generates a significant amount of waste.

In the Circular Economy models, the end of life materials should be reused and their components and parts deconstructed to act as material banks for new initiatives, keeping the components and materials in a closed-loop. Firms have begun incorporating ideas from the circular economy to find useful ways to reduce, reuse or recycle (Andrews, 2015). These factors aim to find the best possible opportunities to eliminate waste materials (Prendeville, 2014) by implementing sustainable design into company processes (Esa, 2017). However, this idea is still developing in the project domain (Pomponi & Moncaster, 2017). To accomplish this paradigm shift requires project stakeholders to hold a shared conceptualisation of environmental responsibilities (Ghaffar et al., 2020). While corporate social responsibility requires organisations to respond to material environmental requirements, responsible project management suggests that personal values may drive the Project Manager's implementation of circular economy principles and practices. This sets up a tension between responsible management (focused on the individual manager in daily practice) and corporate social responsibility, which is focused on organisational level representations and processes of enacting societal and community responsibility. For example, the RPM principle of stakeholder engagement may be at odds with organisational interests in responding to entities that have been defined in CSR frameworks. There is, therefore, a need to examine the differences between organisations and project procurement employees' conceptualisations of environmental responsibility to identify tensions that can shape the responsible management activities of managers involved in projects. The research question is, therefore:

What are the tensions between organisational and individual conceptualisations of responsibility for circular economy activities in the procurement function of Project Organisations?

This study was conducted in the UK, where projects produced 131 million tonnes of solid waste in 2014, just over half of the country's municipal solid waste (DEFRA,

2019). A significant amount of this waste is generated by tier 1 construction companies, defined as the top 100 UK building and infrastructure contractors (Institute of Civil Engineers, 2018). The study focuses on the procurement function of a company that is involved in the buying of goods and services that enable an organisation to operate profitably and ethically responsible manner (CIPS, 2019). Project procurement consists of the acquisition of resources from outside of the project environment. Depending on the project, this could include materials, machinery, tradespeople, consultants and a host of other goods and services (Pheng, 2018). With procurement being recognised as strategically significant (Humphreys, 2001) and some organisations spending nearly two-thirds of their revenue within the procurement function, they hold a significant influence and responsibility to source responsibly (CIPS, 2020).

4.2 Literature Review

As a significant amount of resources are used in projects, efforts have been made to encourage resource efficiency and reuse. In the project domain, the circular economy perspective integrates institutional and individual perspectives (Pomponi & Moncaster, 2017) where organisations develop processes to design, maintain and regenerate outputs (Mahpour, 2018). A significant amount of current research identifies the use of circular economy approaches at the front end of projects where decisions for subsequent development and delivery activities are made. Related research examines the use of life cycle analysis as an approach to compare design options for reducing the environmental impact of projects. This research implicitly takes an economic approach where organisations translate different types of sustainability value (environmental and social) into financial costs and benefits. This aligns with the usage of tools such as Life Cycle analysis or the Triple bottom line, which fits within existing financial reporting frameworks (Lake et al., 2015). In this way, they can be integrated within organisational improvement and development initiatives.

In addition to internal goals, the adoption of these circular economy practices reflects the need to respond to external pressures. Circular economy approaches provide a signal to external shareholders that the firm seeks to maximise long term value as waste is perceived as a financial loss in energy, effort and materials (Gray, 2006). In this way, the adoption of the approaches supports the acquisition of repeat business from customers who increasingly seek organisations that share their values. They are also used by organisations to obtain legitimacy or a "social licence to operate" from external stakeholders in the geographical communities in which project organisations operate.

In addition to regulations and standards, environmental sustainability in infrastructure projects is dependent on the beliefs and knowledge of stakeholders who participate in activities. While the circular economy may be planned/not planned into significant infrastructure projects based on regulatory and voluntary commitments, the realisation of these outcomes can be influenced by the knowledge and beliefs of procurement personnel. Specifically, the level of awareness of the circular economy, along with professionals' response uncertainty to the implementation of circular practices, can actively influence the nature and extent of implementation of circular economy practices (Sparrevik et al., 2021). These gaps may be linked to the systems characteristics of projects with the ambiguity of boundaries, negotiated responsibilities and temporal dynamism (Martin et al., 2013). It is not uncommon for these stakeholders to have conflicts of interest about sustainability within a network of a project (Lin et al., 2017). Project procurement professionals often have to make a personal decision on how to balance different stakeholders' wishes (Mok et al., 2015). While organisations have attempted to implement holistic sustainability frameworks, these may be more effective on internal rather than external stakeholders. For example, internal competency development by organisations does not only develop capability but also supports the development of sustainability mindsets (Silvius et al., 2017). Previous research has also examined the perception, awareness and sustainability behaviour of organisations and professionals (Masi et al., 2018). Other research has examined gaps in each of these dimensions, such as the gap between sustainability awareness and behaviour (Diófási-Kovács & Valkó, 2017).

These differing conceptualisations, organisational and legal requirements (standards and regulations) and individual beliefs and knowledge suggest a dialectical scenario in which the organisational entity has pluralistic interacting conceptualisations. Organisations can treat these tensions as a conflict engagement and seek to "win" by suppressing dissenting views, establishing the company sustainability narrative (Neale & Northcraft, 1989). Others may seek a creative synthesis that can be formalised into organisational routines. This approach recognises that environmental stances can be contradictory, resulting in tensions and paradoxes that can influence and change the overall stance of sustainability over time (Das & Teng, 2000). For project activities where there is a high degree of uncertainty, the latter approach may predominate as individual managers need to address emergent issues that cannot be entirely resolved via organisational processes (De Rond & Bouchikhi, 2004). This research, therefore, seeks to examine these competing conceptualisations to identify their possible influence on the implementation of project circular economy practices.

4.3 Methodology

The research was conducted as a case study of the procurement function of a large UK infrastructure project organisation using a process perspective. Process perspectives assume that context, organisation and individuals are linked, enabling the examination of complex relationships among entities, including tensions and paradoxes in a case study setting (Eisenhardt, 1989). Data collection was conducted via semi-structured interviews with eight procurement employees of a project organisation along with analysis of organisational policy and process documents related to

Participant	Sub-category	Findings
All	Knowledge	Buyers had varying levels of understanding regarding sustainability
2		Some had a detailed understanding of job-specific requirements, e.g. sustainable wood
All All		
All	Personal	Sustainability is considered by all participants to some degree
2,3,5	opinions	Some feel it should be considered in every action a buyer makes
1,6		Others feel it should be driven from the top
3,4	-	The older participants have seen it become more prominent over the years
All	-	All noted that it isn't as important to the company as commercial goals – business comes first
4		One participant had negative views on HS2 regardless of JMS' involvement in the project

 Table 4.1
 Example of categories

environmental sustainability. As this research involves capturing the knowledge of procurement personnel, semi-structured interviews were used to examine sustainability beliefs and experiences. Analysis of sensemaking was done using coding to identify concepts and themes. Coding is defined as a label for assigning meaning to a segment of text which was then summarised into themes. An excerpt of categories derived from the interviews codes is provided in Table 4.1.

To analyse the organisational representation, company policy and related documents were analysed and compared with the interview findings. In the case of this research, any documents provided were compared to interview responses and findings of both interviews and secondary data were triangulated. This enabled the discovery of any differing perspectives between individuals and organisations that might occur at the company.

The benefit of this approach was not only the capture of different perspectives but the creation of new knowledge via triangulation. An example is presented in Table 4.2.

Sensemaking or theorising from these codes was done during a two-stage process of Narratives and Visual Mapping. Narratives were used to present a description of the emergent tensions in sustainability between company and individual. Visual mapping was then used to provide data expansion (making new connections between concepts), transformation (converting data into meaningful units) and reconceptualisation (rethinking theoretical associations) (Langley, 1999).

4.4 Findings and Analysis

The analysis identified four tensions in perspectives that can influence responsible management actions in project procurement: (1) Cognitive Tension, (2) Sustainability Direction Dissonance, (3) Stakeholder Role tension and (4) Visible Symbolism.

Source	Document content	Comparison to interviews
Social responsibility and sustainability policy	It aims to protect the environment, communities and stakeholders Ensuring the business and supply chain are governed correctly	Supports what was said in the interviews, specific policies that govern how the buyers operate
Environmental sustainability strategy	3+ year strategy It aims to include IS014001 Both an internal and external strategy	Buyers didn't know as much about IS14001 as shown in the policy Supports consideration of aligning external and internal strategies
Procurement sustainability strategy	Aims to meet government legislation in the area of net zero/circular economy Considers clients, suppliers and environment	Buyers had very limited knowledge of legislation Supports consideration of sustainability/circular economy across all levels of the procurement strategy
CP6 procurement strategy	Explains partnership with supply chain sustainability school. Through participation in the school, the company will partner with the government and competitors to reduce environmental impact	Supports that the client leads how sustainable a project can be Buyers showed a lot of support and interest in the supply chain school
Supplier sustainability questionnaire	Ensures suppliers can operate to the required sustainability level Considers emissions of vehicles, sustainability products and waste management	Supports buyers as indicate suppliers are crucial in reducing impact as they cover a large portion of supply chain

 Table 4.2
 Organizational perspective and individual perspective comparison

4.4.1 Cognitive Tension

Buyers had knowledge gaps in the scope of standards for sustainability (Table 4.2). Research has found that industry standards that support the circular economy, like ISO14001, are most effectively used when integrated with suppliers and clients (Weingarten et al., 2013), this in contrast to what the buyers said as they only considered ISO as an internal tool for sustainability. When asked about ISO14001, the buyers had minimal knowledge of the capabilities of the standards. This lack of understanding may have led them to disregard it's capabilities to provide guidance to not only them but also to suppliers and clients. This indicates that potentially this industry-standard may have supported alignment across both perspectives, supporting a consistent drive for sustainability (Weingarten et al., 2013). The existence and impact of cognitive tensions in the form of knowledge gaps have been identified in previous research (Diófási-Kovács & Valkó, 2017). In this study, this tension could have led to individuals' perceptions that the organisation was not making sufficient efforts towards sustainability which is in contrast to the organisation's financial and resource commitment to the circular economy via these standards.

4.4.2 Organisational–Individual Responsibility Dissonance

In this tension, the direction from which sustainability initiatives should be implemented has clashing perspectives that are not easily harmonised, hence dissonance. The procurement personnel's perspective is that more guidance could be top-down while the organisation indicated that top-down and bottom-up perspectives could be accommodated. This is in contrast to both responsible management perspectives that indicates that individual values can guide circular economy behaviour, and CSR perspectives that indicate that indirect or direct financial views are the primary drivers of behaviours. This dissonance occurs as the buyers' beliefs are sometimes challenged by the formal signals in the form of KPIs (Key Performance Indicators) that have been presented by senior management. The situation was further challenged as individual managers may have different views on undesirable consequences, therefore, will consider, for instance, commercial over sustainability. Procurement personnel buyers focused more on aligning sustainability with companywide policies but held the belief that the company perceived that commercial is more important than sustainability. Sustainability was considered to some extent by the buyers; they indicated that company KPIs did not weigh this area as heavily as commercial or health and safety. As one person stated:

And one of the elements within the tender process is you know about sustainability. How sustainable are they? And we'll ask for examples of reduced plastics, carbon emissions, vehicle fleet... things in that space. Now that is weighted when you get your tender return. The sustainability element will have a weighting. That weighting won't be as prominent as commercial or health and safety.

The organisation saw sustainability as having top-down and bottom-up dimensions. The organisation saw itself as a major contractor and felt a responsibility to act sustainably. However, buyers believed that their opinion may often be overlooked as they are required to achieve certain commercial goals regardless of the impact on sustainability which contradicts the organisations' idea that sustainability should always be considered and that sustainability was part of their differentiator and responsibility. This tension may influence these buyers perceived responsibility for environmental matters. The buyers believed that the organisation should create the framework for responsibility; however in projects, due to the high level of uncertainty, the organisation sought to rely on the professional's expertise and judgement in procurement matters.

This tension created dissonance about incorporating external input. As projects have unclear boundaries, capabilities based on externally supplied knowledge can be built. However, without a shared conceptualisation of the organisation's stance, it may be difficult to determine the type of knowledge to be utilised, and which entity (organisational or individual) has responsibility for integration. For example, ideas were also being offered from outside the organisation from suppliers in the areas of reducing environmental damage and carbon offset. The buyers took the initiative to incorporate some of these methods, including low emission vehicles, carbon offset schemes and sustainable products.

4.4.3 External Stakeholder Role Tension

For large infrastructure projects, the government is both the major client and the creator of the circular economy institutional framework. This creates challenges as the government may mandate both environmental sustainability and the use of locally produced materials that may not necessarily meet the former requirement. Industry transformations towards sustainability are facilitated by government support but may cause challenges for individual organisations via contrasting policy dictates (Pitt et al., 2009). As a commercial entity, the organisation and the procurement personnel saw the client as the key stakeholder who, in many of their projects, was not only the negotiator of commercial terms but was the manager of the framework in which commercial transactions are negotiated. This challenge is exacerbated with local projects. As one respondent asked:

How do Network Rail requirements influence our procurement processes? So at the beginning of a major project for a local government, our procurement point of contact will have to write a procurement strategy about how they're going to procure goods and services and subcontractors throughout the project life cycle to meet those requirements and local needs.

A related issue was the contrast between organisational and project specific policies. Requirements for the circular economy from the client perspective were focused specifically on projects (Zainul-Abidin, 2008) while the procurement personnel talked about sustainable policies as a companywide entity, supported by organisational policies including Environmental Sustainability Policy and Procurement Sustainability Policy. It was not entirely clear whether the effect of sustainable goals was achievable when policies are implemented companywide and not just restricted to a specific project. Although stakeholders such as pressure groups and activists may be heavily opinionated about certain projects, they may not actually have a direct influence on outcomes in current institutional framework (Xiong et al., 2015). For the procurement professionals in this study, this tension is another influence on the perceived scope of action. As the main client (the state) is also the shaper of institutional rules, then input from smaller stakeholders will necessarily be ignored. For buyers seeking to responsibly procure products, this adds uncertainty to their scope of action.

4.4.4 Visibility of Values

The case organisation made a significant amount of investment in formal systems to manage sustainability as it saw sustainability as a differentiator among other competing organisations. In addition to ISO14000, the organisation engaged in industrywide initiatives such as membership in training schemes, voluntary carbon reduction and circular economy initiatives such as materials reuse and recycle. The organisation also invested in internal initiatives such as workshops that would bring together people from different aspects of the organisation in order to work on and

implement sustainability. However, from the individual professional's perspective their belief was that the values of sustainability were not embedded at the individual level. The organization needs to encourage the adoption of visible micro practices that while they acknowledge would not achieve significant carbon savings, were a demonstrator that the institutional character was embedded in daily practice of organisational employees. One respondent stated:

It shouldn't have to be an initiative that this month we are having low plastics month. I want it to be how people live.

The organisation focused on the larger picture of carbon and emissions and did not consider the smaller incremental changes to environmental impact reduction, for example office plastic reduction. From the interviewee's perspective they wanted a greater consistency between the values practiced at the organisational level and the daily activities of managers. This perspective that these visible micro practices could signal a deeper commitment to sustainability may set up another implicit tension at the peer level where these managers who do not have responsibility for sustainability are attempting to shape lifestyle actions of organisational members. While there is some support for this in the literature, the organisation attempted to provide support for attitude change via events like hub days to reach a larger proportion of staff (Ehrenfeld, 2008). Figure 4.1 summarises these tensions below.

The outcome is an emergent responsibility stance that has a static and dynamic character. The static character is based on the organisations' external commitments in the form of standards, industry partnerships and supplier activities (Table 4.2). The dynamic nature is based on the internal uncertainty of procurement professionals as they seek to translate these ideas into daily practice.



Fig. 4.1 Project procurement professional responsibility stance. (Source: The Authors)

4.5 Discussion and Conclusion: Tensions in the Project Procurement Professional Environmental Responsibility Stance

The debate over the responsibilities of managers and management dates back to the early formulation and recognition of management as a separate discipline. Research discussions have moved from notions of shareholder to stakeholder to societal responsibility, however in projects due to their high degree of uncertainty this extent of responsibility is still very much a debate among practitioners and professionals (Derakhshan et al., 2019). The identification in tensions based on sensemaking by stakeholders of different organisations has been identified in sustainability research (Chen et al., 2021). To date, however, there has been little exploration of tensions in circular economy responsibility stances within a given organisation. In this case study, we identified four tensions that can shape the emergent responsibility stance or perceived environmental responsibility role of procurement professionals in an organisation involved in large infrastructural projects. These tensions emerge between the beliefs of project procurement professionals and official organisational representations and the outcome has its own inherent contradictions. For example, the belief from practitioners that sustainability should be top-down is in contrast with their belief that visible micro practices shape organisational behaviour. In the former organisational rules may result in a particular set of behaviours while engaging in company sanctioned activities (Ahn, 2013) but will probably not extend to personal and individual actions outside of the company. However, the view of Procurement professionals in this study was that they not only wanted sustainability to be led from the top-down but also wanted individual organisational to engage in practices that extended beyond the boundaries of the workplace into their personal lives. This is not consistent with a top-down view of sustainability in projects. It is also not consistent with a Responsible Project Management perspective that focuses on the individual activities of managers as they attempt to encourage, not impose environmentally sustainable practices on the organisation. Responsible management seeks to increase the agency of managers, encouraging them to broaden their scope of action, and additional research could identify feasible pathways for procurement professionals to successfully enact change in their organisations.

Addressing of this tension may require joint sensemaking between the senior members of the organisation and the procurement team. This can take the approach of participatory workshops such as roadmapping sessions to establish shared sustainability values. These initiatives can be supported with shared KPI development to ensure that internal signals are congruent with organisational intent and participant values. Further, to further embed an agreed shared responsibility stance, the organisation can consider the development of a formalised circular economy workplace learning program to embed ideas and to ensure that internal participants have a shared understanding of organisational commitments (Andrianova & Antonacopoulou, 2020).

Further, the client was both user of the outputs and creator of the environmental regulations. These goals may result in stakeholder conflict of interest (Lin et al., 2017). The situation could become complex in mega projects where the central government seeks the economic benefits from the project, while local politicians and activists may wish for the project to be stopped altogether for environmental reasons. This may increase the uncertainty experienced by procurement professionals as they negotiate the differing perspective of client and community. Further research into the circular economy in infrastructure projects may need to explicitly recognise the monopsony or buyer controlled nature of this market. To date, little research has examined the impact of these tensions on internal organisational participants. In the case of this research, it may have created uncertainty in procurement participants. Industry participants may wish to work with joint initiatives such as the sustainability school (Table 4.2) in order to create industry frameworks that detail the responsibility for central and local government circular economy responses (Pinto & Williams, 2012).

The dynamic interplay among tensions will result in changes to responsibility stance over time, in some cases, dramatically. Specifically, large-scale rapid changes in personal circumstances such as the impact of COVID19 may result in the members of the organisation either seeking a more significant amount of assurance from official organisational values or may embolden professionals to provide stronger signals of personal values. These radical changes are consistent with a dialectical perspective of interacting organisational/individual perspectives.

These tensions and paradoxes are not easily resolvable at the organisational and industry level and will require additional research as well as action by the project community as a whole. Future research could examine the role of these smaller incremental changes that will have an impact on organisational sustainability behaviours. The emergence of the Responsible Project Management community (www. ResponsiblePM.com) could work alongside existing professional associations to support organisations and professionals as they navigate these tensions to embed circular economy principles in projects.

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