A Pilot Study of Client Complexity, Emergent Requirements and Stakeholder Perceptions of Project Success

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Abstract

Construction industry reliance on performance metrics fixed at the project outset is being superseded by increasing use of emergent client judgements to characterise success. Clients may still consider a project that fails to meet formalised time, cost and performance goals successful if it satisfies emergent requirements not understood during initial briefing. Construction practitioners do not routinely recognise that client awareness of requirements improves as projects progress. Internal conflict among the client stakeholders and their reflections on the emerging project solution help client stakeholders to better understand their needs. Dissatisfaction results when these emergent requirements are not acknowledged. The need for practitioners to recognise and respond to these issues is explored by paradigmatic case study of an office relocation and refurbishment project. The role of the 'Project Sponsor' as a synthesiser of client requirements and reflections on the emerging solution was observed to be subverted by stakeholders in a client body who found their emergent requirements were not acknowledged by construction practitioners. By characterising the harmful effect of pluralistic client complexity and emergent requirements on perceptions of project success, the rationale for a revised project sponsor role to better address these influences on perceptions of project success is contributed.

Keywords

case study; client requirements; complexity; project sponsor; stakeholder.

Introduction

The projects that construction practitioners consider failures are often perceived by customer stakeholders as successes. Construction practitioners tend to focus on fulfilling a definition of client requirements captured only at the project outset. They seldom allow stakeholders to influence this definition of requirements during project delivery (Rowlinson and Cheung, 2008). Construction practitioners tend to assume that fulfilling an initial definition of requirements will result in project "success." This approach devalues the dialogue that stakeholders have with the

emerging solution and each other in which they socially construct improved understanding of their requirements.

When the client is considered pluralistically (Newcombe, 2003), the complexity of achieving success becomes apparent. Conflict often arises within the multi-stakeholder client body – which includes construction practitioners and end user stakeholders – and perceptions of project performance can diverge. As reflected in the 'temporary coalition' view of construction projects (Shirazi et al, 1996; Newcombe, 1996), power gaps and political groupings (Bourne and Walker, 2006) often develop among stakeholders. Stakeholder reflections on the developing solution inform the discourse and negotiation from which, ideally, a collective understanding of requirements emerges. Because this process is not generally acknowledged by construction practitioners, it is not promoted. Emergent differences between stakeholders' collective and individual understanding of what is required and the success factors defined in the initial project brief are left unresolved.

The consequences of ambiguous stakeholder perceptions of project success are explored by phenomenological study of an office refurbishment and relocation project performed for a public sector client with diverse internal stakeholders. An exploratory case study is presented as a precursor to further investigation of emergent stakeholder requirements and the ability of the single project sponsor to capture, synthesise and communicate same. Two propositions guided the study:

Proposition 1: The pluralistic multi-stakeholder client cannot fully express its requirements at project outset because the act of engaging with the project stimulates the reflection and social discourse from which improved understanding of requirements emerges. Project success factors must, therefore, be elicited throughout project progression.

Proposition 2: Perceptions of project success are socially constructed through the interaction of client body members with each other (a social constructionivist view) and with the emerging project solution (a social constructionist view). Client body complexity and the emergent nature of requirements is such that the project sponsor cannot be reasonably expected to synthesise all emergent stakeholder requirements into a single unified expression as mandated by current public sector procurement guidance.

Using Customer Satisfaction to Define Project Success
Understanding Success
Defining project "success" is problematic. Lim and Mohamed (1999) suggest that construction success can be related to customer stakeholders by 'macro' evaluation of the building's social acceptance and performance and to practitioner stakeholders by 'micro' evaluation of functional, physical or financial objectives. Both stakeholder types judge success in response to the project's fulfilment of agreed criteria, articulated as success factors.

A 'designing by numbers' criticism is often associated with "explicit and measurable quality criteria" and desire for "objective or universal quality standards" (Dewulf and van Meel, 2004). Nicholas (2004) suggests that the traditional focus on budget, schedule and performance

metrics often overlooks client stakeholder needs, yet is ingrained in the "attitudes, practices, and structure" (ibid, p. 536) of construction practitioners. Indeed, Bryde and Robinson (2005) characterised a preference to focus on tangible time and cost success factors rather than other, perhaps less tangible, factors and a tendency to place greater importance on satisfying the procuring stakeholder alone, despite recognising that many other stakeholders evaluate project success. While this may lead to client satisfaction (Leung et al., 2004), Murphy (1974) suggests that satisfaction is largely perceived by clients by combining: good coordination of collaborators; avoidance of initial over-optimism; and clarity of success factors.

Outside of construction, clients are also pluralistic, being "more or less heterogeneous assemblage[s] of actors, interests and inclinations" whose identity must be "constructed" so that stakeholders can be identified by solution providers (Alvesson et al., 2009). The treatment of client complexity is, therefore, transferrable wherever client ambiguity and complexity is found. Taking lessons from project management in general, Shenhar and Dvir (2001) observed little agreement regarding "what really constitutes project success." Rodriguez-Repiso et al. (2007) discovered that emergent views supersede formalised goals when characterising success in IT projects. Thiry (2002) found that IT projects often encounter problems because they emphasise 'performance' rather than 'people' issues. In business generally, and in contrast to construction, Dvir and Lechler (2004) found that managers consider success to be more dependent on the ability to change goals during projects rather than on defining them at the outset. Hoorn et al. (2007) suggest that the realisation of an initial brief is secondary to generating the stakeholder value that results from customer satisfaction. In construction, Liu and Walker (1998) note that project success is evaluated by stakeholders' value judgements and is, thus, framed by their values, experience, and expectations rather than success factor targets alone.

Understanding the Client

Construction practitioners need to engage with clients during projects (HM Government, 2006). The Audit Commission (1996) have observed that projects fail due to "confusion over who the client is and failure to understand the project requirements." Client complexity is highlighted by Bana e Costa et al.'s (2001) observation of convoluted stakeholder interactions with the emerging solution and each other. Public sector clients can be particularly pluralistic (Tzortzopoulos et al., 2006), comprising stakeholders who seek to use project outcome and those interested only in it as a capital asset (Hartmann et al., 2008). These goals often conflict. Olander and Landin (2005) note competing value systems, diversity, internal complexity, and changing relative importance of the client's constituent stakeholders; each of whom has differing influence (Olander, 2007). Bourne and Walker (2006) have characterised stakeholders as politically motivated agents who seek to maximise their representation in the project solution and will adapt their goals during delivery to achieve this. Emergent project requirements goals arise from stakeholders' reflective learning (Schön, 1983) informed by the interaction of: the emerging solution and their needs; emergent and prior understanding of those needs; and incompatibilities between stakeholder needs.

Liu and Walker's (1998) adoption of the iterative "behaviour-performance-outcome" (B-P-O) model of individuals' perception of goals, performance and outcomes encompasses individuals' iterative perceptions of intent, goal setting and outcomes and thus provides a useful structure to

interpret the observations of this study. Specifically, by linking goal setting with the aggregated behaviour of individuals within an organisation, the B-P-O cycle allows client stakeholder reflections on the developing solution to be related to the emergence of new requirements if observed outcomes are perceived to not reflect goals. The cycle also relates them to internal client complexity and the project's organisational structure as it is modified by stakeholders' goal-seeking behaviours. This need to satisfy many different and independently goal seeking stakeholders, each of whom introduces changing requirements into the project, supports Proposition 1.

Defining Success Criteria

A broad view of construction project success is emerging in which customer satisfaction with project outcomes and the manner of their provision is the primary goal (Bartlett School of Planning, 2002). The premise now emerging in several sectors is thus: if customers (i.e. stakeholders) are satisfied with the process and the outcome, then the project is a success (Jiang et al., 2002). Olander and Landin (2008) specifically relate this view to construction, commenting "If all suppliers are 'keeping their customers happy' the process is successful." Public sector procurement guidance requires projects to identify and realise the 'benefits' that stakeholders seek from projects (Office of Government Commerce, 2007a; Sapountzis, S. et al., 2009) even though these are subject to change during delivery. Project success is characterised by stakeholder views of the extent to which the goals they seek have been realised (Cooke-Davies, 2007; Liu and Walker, 1998). Stakeholders' understanding of success evolves as they come to better understand their own requirements and what is possible by reflecting on the emerging solution (Newton, 2004). Reiss et al. (2006) suggest projects are perceived as unsuccessful because they do not acknowledge or articulate their role in providing emergent sought goals. The dual role of stakeholders as originators of project success factors and arbiters of project success in fulfilling them is important and should be recognised by construction practitioners. This need for stakeholders to judge project success against emergent success criteria, many of which are intangible sought 'benefits' also supports Proposition 1.

The Shortcomings of Fixed Success Factors

Morris (1987) places the initial project brief secondary to customer satisfaction noting that "the presence of a numerical overrun is only indicative of the possibility of project failure. It is not in itself a proof of incompetence or even necessarily of problems." Despite 'briefing as a process' (Barrett and Stanley, 1999; Yu et al., 2007), construction projects usually only address success factors defined during project conceptualisation. Even when these success factors are completely fulfilled, stakeholders are only "somewhat" satisfied (Mbachu and Nkado, 2006). Furthermore, Liu and Walker (1998) note that the identification of success factors is usually biased by the brief-taker and, more significantly, by the information available at the time of definition. As discussed above, stakeholders do not fully understand their requirements at the project outset, yet current briefing practice attempts to translate these requirements into success factors that will remain fixed for the project duration. This need for the project brief to be updated to capture emergent success factors further supports Proposition 1.

Responding to Client Complexity and Emergent Requirements

The client's pluralistic (Green, 1996) and complex (Newcombe, 2003) composition can be addressed if briefing continues over time. If project managers do not stimulate dialogue among stakeholders, conflict and distrust can develop, particularly between client and practitioner stakeholders. As each project stakeholder seeks its own goals and these are often incompatible other stakeholders, conflict and project dynamism results (Sidwell, 1990).

Despite linear representations (e.g. Phillips, 2008), design is highly iterative (Steele, 2000; Austin et al., 2002), exploratory and reflective in nature (Newton, 2004). Further, Luck (2007) suggests that emergent stakeholder requirements become visible in their reactions to design proposals. Design tools such as the Design Quality Indicator (Gann et al., 2003) and Value in Design: VALiD (Austin and Thomson, 2005) can characterise stakeholder satisfaction with the emerging solution. Such tools can reveal differences between stakeholder perceptions of success. Managing design as a reflective process informs the negotiation of a solution that all stakeholders can support (Bucciarelli, 2002; Boujut and Laureillard, 2002).

Barrett and Stanley (1999) conceive the client as a single entity expressing a unified voice in a linear briefing process. Internal client conflict is obscured by a "Project Sponsor" (e.g. Office of Government Commerce, 2007b). This individual combines construction industry experience with knowledge of the client (Commission for Architecture and the Built Environment, 2003) to - somehow – express coherent requirements representing all client stakeholders to construction practitioners (Office of Government Commerce, 2004). Despite finding "a paucity of research on the project sponsor" when examining project management in general, Bryde (2008) found that successful projects had an effective project sponsor. In construction, where client stakeholders are particularly diverse and have ample time to reflect on their requirements during elongated project delivery, an individual's ability to perform the project sponsor role effectively is questioned: clients, and their emerging requirements, are potentially too complex. Liu and Walker (1998) imply that, even when an effective "project management process" (read: project sponsor) results in a superficially satisfied client, satisfaction cannot necessarily be ascribed to the project sponsor's contribution: the nature of client satisfaction is "much more complicated."

Proposition 2 is supported by suggesting that construction client complexity and requirements are too great for a single project sponsor to identify, understand and reconcile. Instead, it is suggested that construction practitioners work directly with client stakeholders to capture and respond to their emerging requirements through delivery, while acknowledging the constraints of the procuring client's resources and willingness to accommodate.

Research Method

A predominantly inductive social enquiry was implemented, with two limitations:

1. The opportunity to study the propositions arose retrospectively. This prevented observation of live practice, necessitating retrospective desktop survey and interview; and

2. The study focused on one project. Although a paradigmatic case, findings could not be generalised. The insights of this pilot study are therefore largely anecdotal. As the study did

not seek to generalise its insights, this was acceptable. Further, the studied case is a refurbishment project and may not be illustrative of wider construction.

Investigation of the propositions was directed by preliminary literature review in accordance with Strauss and Corbin's (1998) approach to grounded theory. A case-centred approach was adopted to study a "contemporary phenomenon within its real life context" (Robson, 2002). Case study was the analytical instrument used to conceptualise the research domain (Yin, 2003).

Case Study Design

The project studied was undertaken for a public sector client (an agency of the UK National Health Service). The work commenced in January 2005 and had a capital value around £750,000. The project comprised refurbishment of office space and commenced in early May 2005, with occupation in July and completion in October 2005. The project brought space users from four London locations to a single site which, in accordance with government policy (Allen et al., 2004), introduced open plan working.

Project success was characterised by exploring the relationship between qualities of the refurbished office space, the manner of its provision, and users' perceptions of the outcome. The client had to promise "high quality, high specification" accommodation to gain space users' support of their relocation. The client's internal structure was politicised, comprising six functional units each with a unique identity. Certain tensions existed within the client and between it and the project intent.

The two propositions focused observations on the emergence of stakeholder requirements during the project (proposition 1) and the project sponsor's role (proposition 2). Theory was built from insights into phenomena; a key strength of case study (Hayes, 2000). The case study was implemented on a phenomenological basis to interpret observations in their context (Denscombe, 2003; Groat and Wang, 2002), including the researcher's own constructs. As Sayer (1992) notes, observation of practice is always "theory-laden" as it is framed by the researcher's prior knowledge. Although biased, critical incidents (Easterby-Smith et al., 1991) were, for reasons of practicality, identified as "breakdowns" (Agar, 1986) between the researcher's expectations and observed behaviour.

The case study was implemented in two stages. The first stage reviewed the client organisation's email records to identify critical incidents where: stakeholders expressed emergent requirements not known at the project outset; or the actual, rather than intended, project sponsor role was established. 1,522 emails distributed among 24 individuals working for 11 different organisations were reviewed. The implications of each critical incident were inferred by the researcher and validated in the second case study stage.

In the second stage, seven exploratory interviews were conducted with ten individuals comprising: representative space users (3 no.); the space user organisation's project manager (1 no.); the deputy head of the space user organisation (1 no.); the procuring client's project team (3 no.); the head of the procuring client (1 no.); and a representative of the client's facilities management contractor (1 no.). Interviews were semi-structured and explored interviewees'

perceptions of relevant critical incidents in relation to: 1) pre-project activities; 2) project delivery; 3) activities after the project; and 4) the interviewee's organisational role. The interviews took place three months after the refurbished space was completed. Interviewees were asked to reflect on critical incidents from two perspectives: first, with regard to requirements the researcher characterised as emergent; and, second, with regard to the project sponsor's role in identifying and communicating those requirements to construction practitioners. Each interview discussed only those requirements relevant to the interviewee's role in the client organisation.

Interviews were recorded with permission. Questioning probed the interviewee's interpretation of relevant critical insights. Transcriptions were examined by discourse analysis at the text and co-text (Abell and Myers, 2008) level. Body language, utterances, and so forth were not analysed. Codification was thematic, using a dictionary derived from the desktop study and the researcher's notes aggregated across all interviews. Illustrative transcript extracts were identified, although the researcher's bias in selecting them (Denscombe, 2003) was acknowledged. Further bias arose from limitations in access to project data and participants. The desktop survey reviewed information provided by the procuring client, potentially under-representing some project aspects.

Case Study Findings

Stakeholder Perceptions of Project Delivery Success

The case study documented vignettes (Hayes, 2000) that illustrated emergent requirements or the project sponsor's role in articulating them. Vignettes were identified by the desktop survey and further characterised by the interviews. Of the 1,522 emails sent during the project, the desktop survey determined that 897 (59%) addressed emergent issues. Of these, 381 (42%) addressed expected issues related to project management, design development and design review. The remaining 58% addressed emergent requirements. The pattern of requirements emerging from stakeholder reflections on the emerging solution is illustrated in Figure 1.

Figure 1: Timing of Emergent Requirements Documented by Project Communications

The timing of issue emergence and ongoing resolution was of particular note. Expected issues largely concerned with project management arose immediately on commencement and continued to the project end, albeit with varying frequency. 11 unexpected and project-specific requirements emerged after activity commenced on site. Notably, nine of these issues were raised by space user representatives and related directly to physical qualities of the space or its use. Only two emergent requirements related to construction practitioners' concerns ("M&E services" and "commissioning"). Most emergent issues continued to be discussed until the project end. Continued address of several issues after occupation was also observed.

It was inferred that late emergence of some issues precluded client satisfaction with their resolution as construction practitioners did not have sufficient information or time to develop a

satisfactory solution. This was observed with "internal lighting" and "air conditioning." The emergence of unresolved requirements after occupation, namely: "commissioning issues" (two weeks after) and "computer monitor mounts" (nine weeks after), suggested they were not captured with current practice and arose from space users' dissatisfaction with the new space. The facilities manager commented "I felt sorry for … the people who were fitting it – changes were made at the very last minute – you know, things that didn't have a huge impact on the whole of the floor but they had an impact on the people and then they had an impact on us of keeping the maintenance of it."

Conflict between Client Stakeholder Groups at the Practitioner-Client Interface

The procuring client assembled the construction team from an existing framework agreement. A prior relationship therefore existed and effective communication between construction practitioners was anticipated, along with some understanding of client complexity. The construction practitioner team comprised individuals from: a facilities management organisation (3 no.); the architect and project management organisation (3 no.); an interior designer (3 no.); cost and procurement managers (3 no.); a planning supervisor (1 no.); an IT services provider (1 no.); the contractor (3 no.); and the office furniture supplier (1 no.). The client body comprised six stakeholder groups with each represented by the head of the associated functional section.

The desktop survey identified situations where client stakeholders asked for the emerging solution to be varied, or questioned the rationale supporting its qualities. Such requests illustrated tension between stakeholders' initially-expressed requirements and their developing understanding of their actual requirements, informed by reflection on the emerging solution.

Figure 2: Organogram of Project Stakeholders

An organogram (Figure 2) was developed by adapting the space user's published organisational hierarchy to identify additional individuals expressing requirements. Arrows in the diagram illustrate the paths of communication to the construction practitioners. Communications from practitioners back to client stakeholders are not illustrated. Pathways were inferred from the patterns of communication observed in the project's email archive. Recipients and senders of the reviewed emails are identified by nomenclature on their corresponding circle. Of the identifiable individuals, heads of functional client sections are denoted by the prefix "S;" members of the client's estates function are denoted by the prefix "C;" and construction practitioners are denoted by the prefix "P." Subordinate space users are represented by unmarked circles. The project sponsor is denoted "S2P." Larger circles denote greater engagement in the requirements-related communication. Dashed lines illustrate the boundaries between stakeholders performing different functions, either within the client body or the construction practitioners. As illustrated, individual space users could not communicate directly with construction practitioners and instead required their managers to convey their requirements.

The formal definition of the interface between construction practitioners and the client body mirrored recommended practice. The project sponsor role was assigned to a programme manager drawn from one of the client's functional sections. Space users were expected to convey their views to construction practitioners via the project sponsor. However, the deputy head of one functional section within the client ("S1") depreciated the project sponsor role by communicating directly with the architect / project manager.

Figure 3: Organogram illustrating Depreciation of Project Sponsor Role

To illustrate this, Figure 3 presents a further organogram also derived from recorded communications. Three communication pathways between construction practitioners (again denoted by a "P" suffix), the client's estates function ("C"), and members of the space user's organisation ("S") were observed. Each functional section head was expected to relay emergent space user requirements to the procuring client (C2) who would prioritise them for relay via the head of Section 2 (S2) (who approved requests) to the project sponsor (S2P) for eventual expression to the practitioners' project manager (P1). This created the intended interface with the construction practitioners denoted "A" in Figure 3. However, the head of Section 1 (S1) depreciated the project sponsor's role by, in addition to relaying requirements as all section heads were required to (S1 to C2), also communicated directly with the practitioner project manager (S1 to P1). This created an additional interface denoted "B" in Figure 3. The consequences of this were significant. Definitions of project requirements grew because the client could not validate them against resources and strategic intent as S2's approval was not sought. This observation suggested a divergence in the requirements of Sections 1 and 2 and concern on the part of Section 1 that the project sponsor's position within Section 2 was causing it to under-represent Section 1's requirements to construction practitioners. A third, interface (denoted "C") was also observed, but this represented ongoing communication between the client's estates function and its long-term facilities management contractor and was not significant.

Thus, two voices – not necessarily coherent and one without recognition of project constraints – were presented to construction practitioners. Interface "A" complied with the project sponsor role. Interface "B" was unplanned and was a consequence of the political conflict within the client body and the goal-seeking actions of the Section 1 head. It created a route for uncontrolled expression of emergent requirements to the construction practitioners.

The interviews explored the reasons for this "two voice" interface. Section heads commented that it had arisen to deliberately expose construction practitioners to conflicting definitions of requirements. These space user managers had noted that Section 2 was pre-disposed to the open plan working being introduced by the project, whereas Section 1 was thought likely to oppose it. The procuring client had seconded a programme manager from Section 2 to the project sponsor role in an attempt to temper this issue. Section 1 reacted by exposing internal

client conflict to construction practitioners and expecting them to resolve it. The four remaining stakeholder groups had to rely on the depreciated project sponsor to convey their views.

The above observations support Proposition 2 by suggesting that, in the observed project, the project sponsor was perceived as unable to reconcile the stakeholder complexity of the client body, causing the actions of the Section 1 stakeholder representative. Although this ill-defined interface depreciated the project sponsor role, it was somewhat helpful. Construction practitioners were exposed to internal client complexity that a functioning project sponsor paradigm would obscure. Practitioners found themselves ill-equipped to respond to their awareness of this complexity, however, because their existing techniques did not acknowledge emergent requirements that resulted as postulated in the literature above and was illustrated by the desktop survey. They remained focused on initial definitions of project goals.

Ambiguity of Communication among Construction Practitioners

The client's estates staff considered appointment of construction practitioners from a pre-existing framework agreement sufficient to ensure effective project team communication. Although practitioners' roles were well defined by profession, reporting structures were left undefined. The client's cost and procurement manager found itself communicating cost and change control information to the client's operations manager (who was responsible for aligning the project with corporate strategy) and to the client's estates function (which provided authority for the project), but neither was clearly responsible for reacting to that information. Thus, the project budget remained undefined and understanding of an appropriate value of this critical success factor was not formed. The implications of this issue were not addressed until late in the project. As space users were not paying for the accommodation, neither their initial or emergent success criteria included financial control. The procuring client continually received stakeholder reflections that were not constrained by a perceived need for budgetary control. The client's estates staff did not realise until late in the project that budgetary constraints had not been defined and had to be imposed on space users and the architect.

Ambiguity also arose around the contributions that space users could make to the project. A representative user commented: "We were shown … what the options could be for soft furnishings, flooring, desks and things like that and we were asked what we thought, but I think, ultimately the final decision was up to senior management. We were shown what it could be, but the ultimate decision on what we had… I don't think we really had a very strong decision making voice." A further user supported this perception, commenting "it was understood that nearer the time there would actually be some sort of discussion and we would have some input into where we went."

Self-Appointing Client Body Representatives

The inability of all space user stakeholders to readily communicate their reflections on the emerging solution was compounded by the self-nomination of their representatives. Managers became concerned that these self-appointing representatives were conveying their own requirements and reflections rather than those of the group they claimed to represent. Client section heads attempted to counteract this by opening all project meetings and workshops to everyone in their organisation. However, they did not allocate time for this engagement and

participation was accordingly limited. The space user programme manager commented: "[it was a matter of] getting together a representative group – but understanding that everybody wanted to put in their two pence worth. And trying to accommodate that but still carry on with the fairly heavy workload and … you would be running round having meetings here and there on different aspects of it, but actually … it formed no part of an acknowledged work stream for you" and, with regard to the selection of office furniture (a critical decision for a project of this type) "it was again pretty ad-hoc as to who came along. If you were around or could make a few minutes to do it you could come along." This view of project delivery did not pervade to the senior management, as, in contrast, the head of the client's estates function commented "space users were involved in the process and communicated with. This was 'serious listening' to their concerns and the reasons stated for them."

A Voice, but no Ear

In interview, several space users commented that their opinions and suggestions were sought, but not conveyed by their management to the project sponsor. Space users became disillusioned with the project delivery process as emergent requirements were ignored. Space users commented that they were not expecting their 'every whim' to be fulfilled as they acknowledged that resource and appropriateness constraint was necessary, but that they merely wanted to share their reflections on the emerging solution. A common theme in their commentary was a lack of benefit from engaging in the process. These stakeholders felt disconnected from their representative on the project and the construction practitioners. They often found that a section head's view of an issue could not be swayed by their contributions. A view of section heads having a veto over users' views emerged. The social negotiation of requirements in which internal client conflict could have been resolved was not allowed to develop. Instead, these stakeholders formed the view that their representatives had only engaged with them notionally; and largely in an attempt to pacify internal client conflict rather than to identify and negotiate emergent requirements.

The actions of the Section 1 head in establishing an informal relationship with the construction practitioners that bypassed the project sponsor suggested that the project sponsor was failing to convey the section's requirements to the construction practitioners. The view that space users' opinions were not listened to was prominent, viz: "The department are well known for promising one thing and delivering another so … there was concern about whether they would keep their word." More specifically, users commented: "I began to feel that we weren't being… You know decisions were being made and we weren't being consulted about those decisions" and "they made lots of notes and but then that's it. Not all the points that we raised were actually taken on board - they seemed to be dropped." However, there were occasions when users were heard: "at one stage we were shown plans and a few people voiced concerns about the way that the desks were actually structured because of the groups of people – to be fair, that was actually changed."

The above observations support Proposition 2 as the disconnection perceived by space users between themselves and the construction practitioners would not have arisen had the project sponsor been effective in resolving internal client conflict and expressing a coherent view of their requirements to the construction practitioners.

Stakeholder Perceptions of Project Outcome Success

Overall, the client stakeholders were satisfied with the final solution's accommodation of their activities. In addition to replicating prior processes, several social benefits were experienced. Improved visibility afforded by the open plan space improved general awareness of the organisation's activity and helped space users to move quickly between business projects. Further, section heads found their improved visibility caused subordinates to more readily approach them, although this was considered a disbenefit by one manager who felt that the interruptions prevented them completing their own work.

The deputy head of the space user organisation concluded "there is a bigger team spirit in terms of people know each other, they talk to each other, they see what they are doing" while a representative user reflected "there's better communication – there's more of the old informal chats coming along because you see people again – so you are always picking up these little bits of information."

The space users did express some dissatisfaction with the inappropriateness of some construction materials and social spaces; themselves a consequence of decisions made by client representatives in the early project stages. Their perceptions of the project delivery process - most notably their symbolic, rather than meaningful, engagement in it - were, as outlined above, not generally favourable. User stakeholders did, however, consider the outcome a success because it supported their activities and provided additional unexpected benefits for the social cohesiveness of the business unit.

Discussion

Although only examined through a pilot study of a single refurbishment project, the propositions that client requirements continue to emerge throughout project progression and that a single project sponsor cannot reasonably be expected to reconcile the many perceptions held by the client's constituent stakeholders were anecdotally supported. Exhaustive audit of project emails established that approximately half of those arising after activity commenced on site were concerned with unforeseen issues originating within the client stakeholders. Further research will be required to determine if this is a generic trait of all construction projects or merely a trait of this project which may have been caused by inadequate briefing, poor quality design information, an indecisive client, poor client expectation management, and so forth. The inappropriateness of the project sponsor in situations of client stakeholder complexity has been suggested by the literature and confirmed by observation in this exploratory case. This suggests that the current project management paradigm of framing stakeholder interactions with construction practitioners will be problematic as project sponsors will lack the ability to reconcile differing viewpoints, and the requirements that emerge from them, into a coherent stance. Indeed, Newcombe's (1994) "shifting multi-goal coalition" definition of a construction project suggests this may not be possible.

The "internal sponsor" role of Bryde's (2008) internal and external perspectives on the project sponsor appears to be underdeveloped. Further research must establish the typicality of the client complexity and internal conflict faced by the project sponsor in the studied case. This should examine Leung et al.'s (2004) proposition that construction team (note: not client) conflict

and goal commitment do not predict satisfaction with project outcomes; rather the initial goal setting process does: a finding at odds with this work.

Complexity could be characterised by adopting the analytical techniques of social network analysis to extend Pryke's (e.g. 2004) project observations to examine the relationships between stakeholders within the client body and construction practitioners. Establishing the project sponsor's centrality in such networks would provide a reliable ascertainment of the complexity faced in its synthesising and linking role. If the complexity faced is untenable, it is suggested the role be divided to task several individuals with consideration of: resolving internal client conflict; elicitation of individual stakeholder reflections on the emerging design solution and synthesis of same into a coherent response; and working with construction practitioners to ensure design iterations are purposeful by continuously negotiating the relationship between design intent, resource allocation, and the emerging client requirements that will always result from their reflective design evaluation.

Conclusions

Shortcomings in current briefing practice and the project sponsor role have been identified. A pilot case study of a refurbishment project with a politically-complex client has suggested that the single project sponsor may find it difficult to reconcile internal stakeholder conflict and disparate requirements to present a unified client voice to construction practitioners. The measures taken by a stakeholder in one instance to depreciate the project sponsor role has been illustrated and inferred to be a consequence of the difficulty faced by a single individual in fulfilling that role effectively. The consequences of a poorly implemented client interface have been reviewed and its influence on stakeholders' perceptions of project success observed. In the case studied, these perceptions were negative with regard to project implementation and representation of the client 'voice' but positive with regard to the project outcome. Further study is required to determine if this observation can be generalised.

The anecdotal evidence gathered suggests that the interface between practitioners and client stakeholders requires careful consideration. The case study has shown that tension can emerge within the client body if suspicion that client-appointed representatives are not fully representing all internal client stakeholders to construction practitioners. In the studied case, subversion of the project sponsor role in structuring the construction practitioner and client interface prevented the project organisation and management style from reaching maturity. In Sidwell's (1990) "Outward looking > Iterative > Sequential > Focused" process maturity model, the project became stuck at the "iterative" stage of development. Sidwell suggests that, during design development, project organisational should allow for iteration between client and practitioners. This is entirely appropriate to the iterative nature of design. However, Sidwell suggests that projects should move to a sequential, decentralised and mechanistic function during construction before adopting focused, specialised approach during commissioning. In this case, the continued emergence of requirements through construction and commissioning "locked" the studied project into iterative function. Design development effectively continued through the delivery phases of the project and, as a consequence, practitioners had little time to address later-emerging requirements and were hindered in doing so by the absence of sequential activity. Client dissatisfaction, manifested as the emergence of further requirements after occupation of

the refurbished space (e.g. expressed as discomfort caused by the air conditioning installation, for example), resulted.

In part, this finding suggests that Sidwell's linear delivery model does not accommodate the client complexity and consequent emergent requirements observed. It also suggests that the traditional practice of defining success factors at the outset is inappropriate. A balance must be found between the dynamic organisational structures that can accommodate the ongoing iteration (as observed in the case study) and the need for reasonably fixed goals to purposefully direct construction practitioners and assign client resources. In the case studied, emergent requirements overwhelmed the project sponsor because the machinations of one of the client stakeholders were not constrained by a sufficient rigid project structure.

The findings of this preliminary study are not sufficiently salient to identify implications for practice, however the issues of pluralistic client complexity and the emergence of requirements during project delivery have been confirmed as problematic. Study proposition 1 was supported by observation of the effects of internal client conflict inferred to be caused by divergent requirements, as manifested in one stakeholder's subversion of the project sponsor role. Proposition 2 was supported by stakeholders' desire to see their emergent requirements (rather than those embodied in the initial brief) reflected in the building and the disillusionment of those who received only a superficial response from their managers to their emerging needs.

Having established that, in the studied case, requirements continued to be emergent until after occupation and internal client complexity was such that conflict was enivitable and could not be resolved by the project sponsor positioned at the interface between the client stakeholders and the construction practitioners, further work should seek to determine if this finding is generic and applicable to construction project types other than refurbishments. To this end, further study is recommended. Revisiting Walker's and Hughes's (1984) prior applications of "linear responsibility analysis" possibly combined with Bourne and Walker's (2006) "stakeholder circle" may allow the formal and social roles assigned to and adopted by stakeholders to be better understood. This would, in turn, allow the origins of emergent requirements, and the prominence of Liu and Walker's (1998) B-P-O model in practice to be better understood, informing development of the project sponsor role to overcome the problems of the "shifting multigoal coalition" (Murray et al., 1999). The project sponsor, rather than being a formally-assigned role, may, for example, come to rely on informal authority (Walker, 2002) nurtured by the development of appropriate personal traits; yet to be determined.

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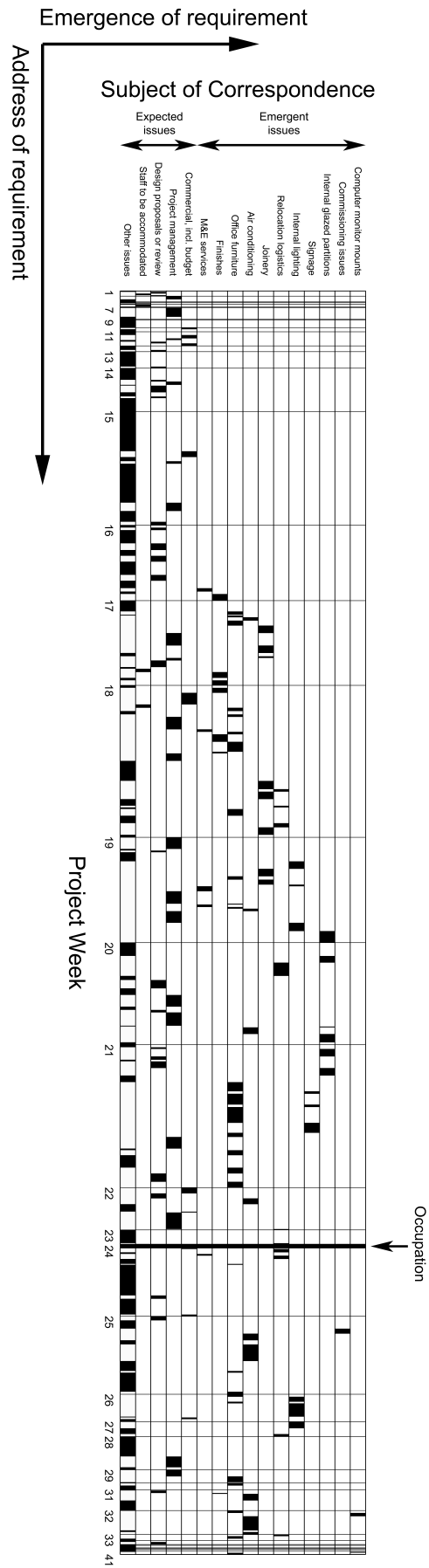
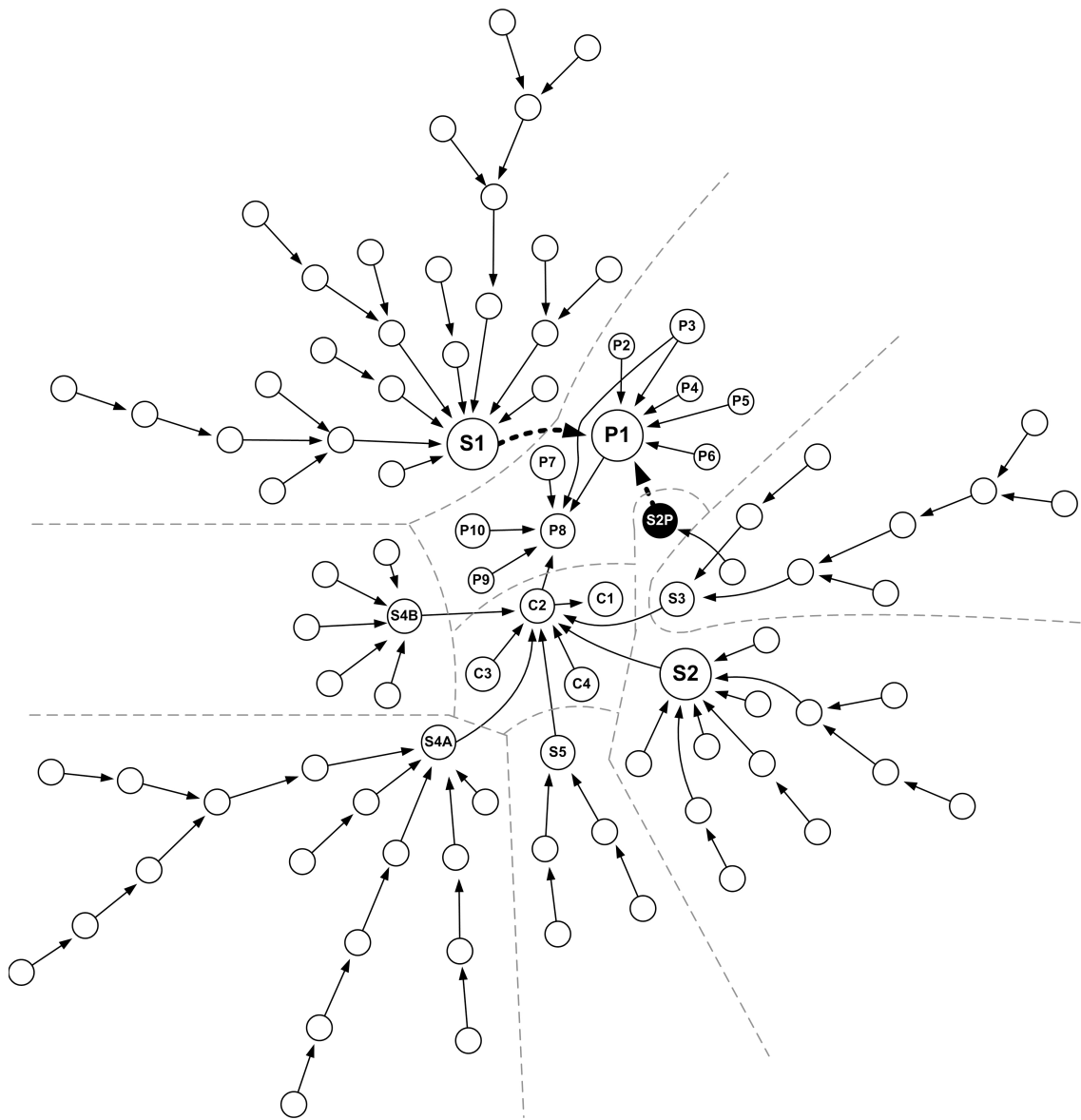**Figure 1: Timing of Emergent Requirements Documented by Project Communications**

Figure 2: Organogram of Project Stakeholders

Key for Figure 2:

Key Client Body Stakeholders:

       S1 = Deputy Head of Client Section 1

       S2 = Deputy Head of Client Section 2

       S2P = Client Section 2 Programme Manager (assigned Project Sponsor role)

       S3 = Deputy Head of Client Section 3

       S4A = Deputy Head of Client Section 4A

       S4B = Deputy Head of Client Section 4B

       S5 = Deputy Head of Client Section 5

       C1 = Head of Procuring Client

       C2 = Deputy Head of Procuring Client

       C3 = Procuring Client's Programme Manager

       C4 = Procuring Client's Senior PA

Key Construction Practitioner Stakeholders:

       P1 = Architect / Project Manager

       P2 = Office Furniture Supplier

       P3 = Cost and Procurement Manager

       P4 = Interior Designer

       P5 = Planning Supervisor

       P6 = Main Contractor

       P7 = Facilities Manager

       P8 = Client's in-house Estates Services

       P9 = IT Contractor

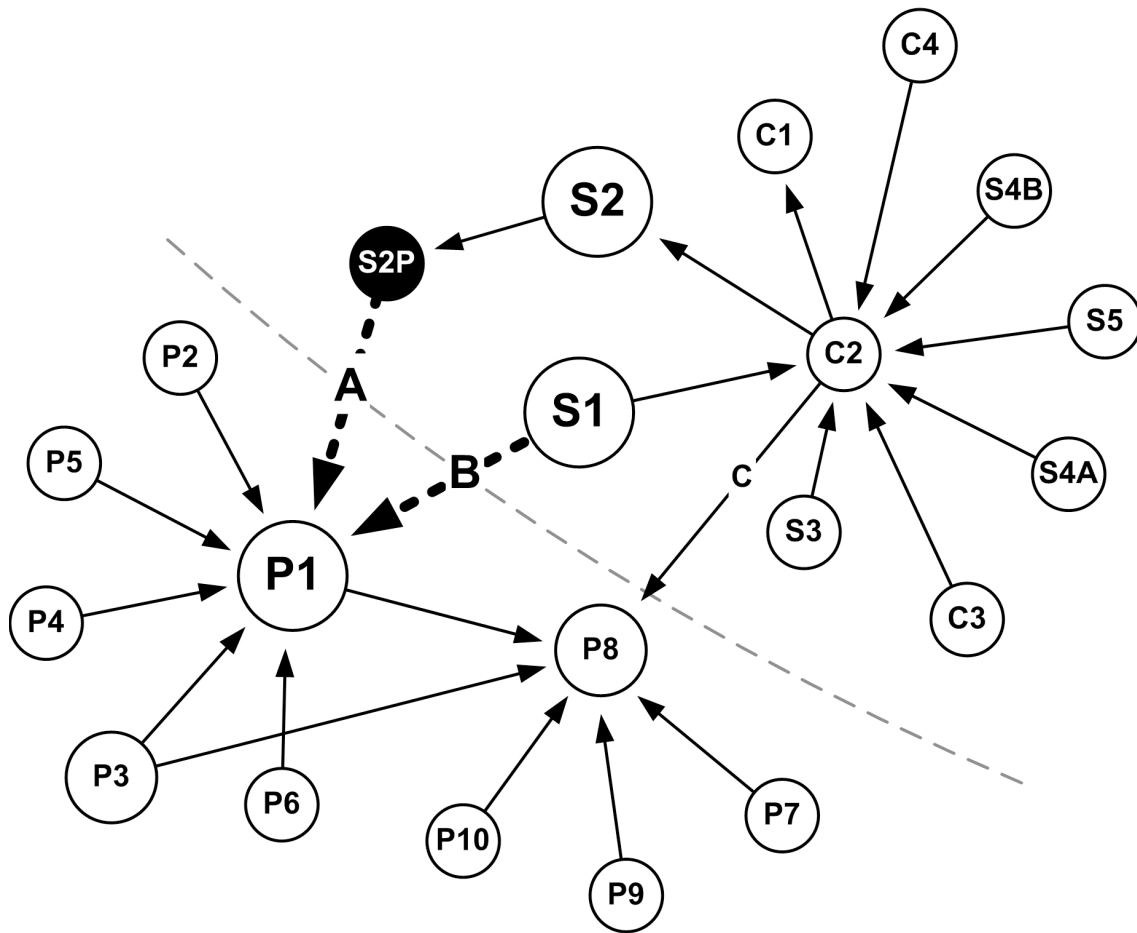   P10 = Operations Manager

Figure 3: Organogram illustrating Depreciation of Project Sponsor Role

Key for Figure 3

Key Client Body Stakeholders:

       S1 = Deputy Head of Client Section 1

       S2 = Deputy Head of Client Section 2

       S2P = Client Section 2 Programme Manager (assigned Project Sponsor role)

       S3 = Deputy Head of Client Section 3

       S4A = Deputy Head of Client Section 4A

       S4B = Deputy Head of Client Section 4B

       S5 = Deputy Head of Client Section 5

       C1 = Head of Procuring Client

       C2 = Deputy Head of Procuring Client

       C3 = Procuring Client's Programme Manager

       C4 = Procuring Client's Senior PA

Key Construction Practitioner Stakeholders:

       P1 = Architect / Project Manager

       P2 = Office Furniture Supplier

       P3 = Cost and Procurement Manager

       P4 = Interior Designer

       P5 = Planning Supervisor

       P6 = Main Contractor

       P7 = Facilities Manager

       P8 = Client's in-house Estates Services

       P9 = IT Contractor

       P10 = Operations Manager

Project Interfaces:

       A = Intended Project Sponsor interface

       B = Emergent interaction of Client Section 1

       C = Project Mandate from Procuring Client