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Benefits-Led IT: Building The Organisational Capability – A Longitudinal Perspective

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Abstract

Although the enterprise-wide benefits realization capability has been touted as the most robust way in which organisations can counter the still too common incidence of information systems failing to deliver their promised value, there has been no research to explore the validity of this claim. Consequently, the aim of this paper is to present the results of a three year, action research study, which explicitly sought to establish just such a capability, within an Institute of Higher Education. The project commenced, in 2010, with a series of workshops, through which staff were introduced to the core components of this capability, namely a range of benefits-oriented competences and practices. This paper provides a longitudinal perspective, critically reviewing the adoption and impact of these competences and practices, over the past three years. The study has demonstrated that certain practices are enthusiastically embraced, as they are perceived to make a positive contribution to the realisation of benefits. However, it would be difficult to claim that a benefits realisation capability has been successfully created, as it is clear that there is still some reluctance to apply benefits practices in a consistent and extensive manner, across all areas of organisational activity. This paper concludes by exploring the lessons learned for organisations wishing to establish their own benefits realisation capabilities.

Keywords: IT value; benefits realisation; practice; higher education

1.0   Introduction

It seems that ever since the dawn of the business computing era, serious concerns have been regularly voiced about whether organisations are generating appropriate returns on the very substantial investments they routinely make in information technologies (Eason, 1988; Shpilberg et al., 2007). Although this phenomenon has been witnessed in nearly all business sectors and across all types of organisation, the exploitation of Information Technology (IT) has become particularly high priority issue within the Higher Education (HE) sector. Higher Education is a particularly challenging area within which to realise benefits from IT investments, for a range of reasons, including the federal nature of HE institutions and the importance of non-financial benefits, such as improvements to research quality or the student experience. The general economic climate and the competitive HE environment only increase the importance of exploiting existing assets and getting value from new investments.

As Sir Ron Cooke noted in his contribution, on behalf of JISC (www.jisc.ac.uk), to the debate on the future of HE: '*UK higher education enjoys a world class ICT infrastructure; this should be maintained, but more effective leadership, at all levels, is required to exploit this infrastructure.*' In highlighting the critical role that the human resource has to play in exploiting the full potential of IT, Sir Ron was hinting at an issue that has troubled academics for many years, namely: even excellent business technology will only deliver real value, if its introduction is accompanied by an appropriate programme of organisational change, to ensure that organisational processes, structures and behaviours are well aligned with the functions and features afforded, by the new piece software. (Doherty et al., 2003). Unfortunately, in practice, large numbers of systems fail or underperform, because managers are extremely reluctant to tackle the ill-defined and often challenging organizational changes, which are typically necessary to leverage the benefits from information systems, and the new software (Peppard and Ward, 2005)

To counter the incidence of system failure and system under performance, it has been argued that organisations should establish an enterprise-wide, '*benefits realization capability*' (Ashurst et al., 2008), to ensure that any IT-related organisational change is effectively managed. Whilst the form and function of this capability has been

reasonably well defined, it is not at all clear that organisations have risen to the challenge of adopting its prescribed practices and ways of working. Against this backdrop, the aim of this paper is to present the results of longitudinal study, conducted within the HE sector, which explicitly sought to establish a benefits realization capability.

The remainder of the paper is structured as follows: firstly, we provide some context for the project based on previous research. Then we set out the approach to the research and introduce the context for the work at the case study University. The research spans 2008 to 2013, with the main intervention taking place in 2010, and the findings present snapshots at various milestones. The discussion explores a number of learning points. The conclusions set out the contribution of the research and implications for further research.

2.0   Insights From Previous Research

The information systems literature (Peppard and Ward, 2004; Wade and Hulland, 2004) has started to embrace the key insights from the 'Resource-based View' (RBV) of the firm, to understand what competences and capabilities are needed for organisations to effectively plan, develop, operate and exploit their full portfolio of IT resources. Indeed, Ward and Peppard (2002) have proposed a '*fourth era*' of IT in which sustainable competitive advantage is likely to be leveraged through the application of a variety of valuable, rare, inimitable and non-substitutable IS/IT capabilities, rather than through the implementation of specific pieces of software or technology (Doherty and Terry, 2009).

As we noted earlier, poorly performing business software can rarely be blamed on any fundamental problem with the reliability, quality or performance of the underlying technology. It is far more likely that the blame for poor performance can be laid at the door of the human stakeholders, who are responsible for the managing the software project and ensuring that there is a high degree of alignment between the technical artefact, and the organisational context in which it will ultimately operate. Consequently, the resource-based view of capabilities and competences, comprised of appropriate blends of human skills, behaviours and experiences, appears to be

particularly relevant in the context of 'benefits realisation'. In this project we are making use of the model of the organisational competences that contribute to this benefits realisation capability developed by Ashurst et al. (2008), which in turn builds on previous work in this area (Ward and Peppard, 2004; Feeny and Willcocks, 1998). The benefits realisation capability of an organisation comprises four distinct, yet highly inter-related, competences (Ashurst et al., 2008):

- **Benefits Planning**: benefits do not simply emerge, as if by magic, from the introduction of a new technology, their realization needs to be carefully planned and managed from the very beginning of thinking about any investment in change. Benefits Planning includes a strategic perspective, as well as benefits-focused planning of individual projects.
- **Benefits Delivery**: benefits primarily arise from the organisational change that accompanies an IT implementation. The benefits and related changes need to be the focus of activity.
- **Benefits Review**: organisations must monitor and evaluate results on an on-going basis. This will improve the results of individual projects, and ensure that the organisation's ability to deliver business value improves over time.
- **Benefits Exploitation**: the quest to leverage benefits from business software should not cease as soon as it has been implemented. Continued focus is required over the life of the investment.

As each specific competence is supported by a *toolkit* of *practices* (Ashurst et al., 2008), we were very interested to explore how easy it would be to build and deploy these practices and competences over a variety of IT projects, within a single organisation. In traditional systems development projects, the implementation of the software artefact tends to be the point at which most of the project activity, as well as any senior management interest, tends to wane (Ward et al., 1996). Unfortunately, from a benefits realisation perspective, this situation is seriously deficient, as benefits need to be actively managed and nurtured, throughout a system's operational life (Leonardi, 2007). Consequently, it was necessary to initiate a longitudinal piece of research, as described in the following section, to give the benefits exploitation practices, the opportunity to take effect.

3.0   Research Methods

The project is seeking to gain insights into how organisations can develop the competences required to succeed in realising the potential of investments in IT to deliver benefits to stakeholders and improve organisational performance. In contrast with prior work, the project (1) focuses on the development of organisational competences for benefits realisation rather than the adoption of a specific method; (2) involves participatory action research to explore how the competences required for benefits realisation can be developed; (3) examines what is required to help organisations to develop the required competences.

The research has an interpretative and participative foundation. This approach is well aligned with the overall goal of the research which is to produce 'relevant and timely' research (Davenport and Markus, 1999: p20) and to 'produce knowledge about how to intervene in the world and change it in order to satisfy real-world needs' (Lee, 1999b: p29). Breu and Peppard (2003) make the case for a *participatory paradigm* for IS research where researchers conduct an *inquiry from the inside* together with the research subjects. The participatory paradigm links well with the fourth dimension of MIS that is put forward by Lee (1999a; p9) 'MIS researchers seek to *contribute* to the documentation, innovation, or illumination of better ways in which people in organisational contexts use, manage and maintain (in short 'instantiate') information technology…. MIS researchers *want* Hawthorne effects – we want our observations and theories to make a difference'. To implement this participative philosophy an action research approach has been adopted. This is now well supported as an important technique for IS research (Baskerville and Myers, 2004) partly because of the potential to make research practically relevant. Action research is 'one of the few valid research approaches' to study the effects of changes in 'methodologies' as change requires intervention (Baskerville and Wood-Harper, 2002; p137). This applies equally to the focus of this research on developing competences.

Organisational competences for benefits realisation are considered at three levels. Firstly, the practices adopted on specific projects and the success of the projects in benefits realisation. Secondly, the management of the entire portfolio of IS projects including: deciding which projects to invest in; sharing learning from project to

project; and resource planning and development. Finally, both projects and the overall portfolio will be considered in the overall organisational context: for example, the impact of organisational structures, performance measures, management education and career development. Opportunities for intervention at all three levels were considered as part of the action research programme.

The research extended between 2008 and 2013 with the main intervention, a series of 5, one-day workshops over a 6-month period taking place in 2010. The 25 key participants were from the IT function as well as the wider organisation and focused on stakeholders and project team members of 5 important projects. Appendix 1 provides a summary of the extensive data gathering through the extended period of the project. The participatory approach resulted in extensive engagement from design of the approach in workshops with the IT senior management team, to an interim benefits review of the research programme (Benefits Review – Section 6), to a final review of findings with the IT director and project sponsor.
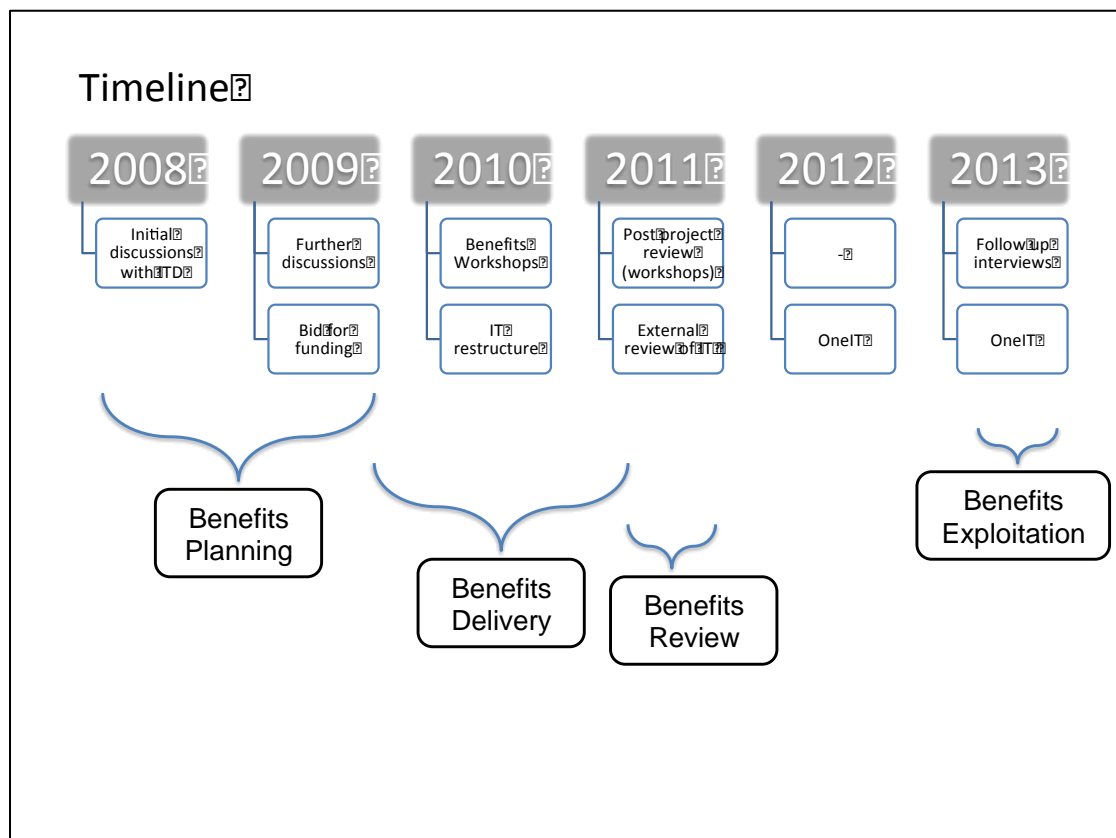

Diagram 1: Timeline and Outline for the Research

Benefits Planning	Benefits Delivery	Benefits Review	Benefits Exploitation
Initial period of action research focused on discussions with IT Director plus work to develop bid for external funding.	Series of benefits workshops. A structure of the IT function took place in this period.	Post project review of the benefits workshops, the main research intervention. During this time there was a major, external review of the IT function resulting in a number of programmes of action and a PVC level steering group. The PMO was also established.	Follow up interviews with the IT Director and 5 other members of staff. OneIT, the creation of a single university IT function was still on going.

Table 1: Outline of the Four Phase of the Research

In addition to the activity with the case study organisation, there were additional strands of research to explore practice in specific areas with other organisations and to explore gaining wider adoption of benefits practices. These strands are not discussed here.

4.0 Findings – Benefits Planning: Initial Assessment of the Benefits Capability Prior to the Research Intervention

The Benefits Planning phase of the research took place over an extended period. It was instigated by a newly appointed Director of IT (ITD), in June 2008, through to confirmation of approval of external funding for Benefits Delivery, the next phase of the research, in October 2009. This preliminary stage involved assessment of the current level of competences for benefits realisation and assessment of priorities for improvement and planning action. The initial assessment by ITD that there was a strong foundation of integrated systems and a sound IT infrastructure was supported by further experience during this period. (See Appendix 1 for a list of interviewees and other sources referenced in the paper.)

Table 2 sets out the challenges identified at the start of Benefits Plan and how the planned benefits workshops and other aspects of intervention to develop the benefits realisation capability in Phase 2 addressed each challenge as part of the overall action programme led by ITD.

	Challenge	Planned approach as part of benefits capability development
1	Project process and adherence to good practices.	A separate project, with IT as participants, was seeking to establish more consistent approaches to projects across the university. (This was cancelled early in the Benefits Delivery phase of the research by university senior managers). As part of engagement with the five pilot IT projects in the Benefits Workshops there were opportunities to explore wider aspects of project practice. During Benefits Review, we addressed incorporation of specific benefits practices into the project 'toolkit' for IT.
2	Setting priorities and taking into account learning.	Priority setting is one aspect of management of the overall IT portfolio that was considered as part of an exploration of current practice in other organisations as an exploratory element of the research (not reported here).
3	Post implementation reviews.	Reviews have taken place successfully on a number of projects, but the practice has not been consistently applied, and the related feedback loop established. This is incorporated within the Benefits Workshop programme, and forms a core part of the 'toolkit.'
4	Having a 'seat at the table'.	Specific challenges include: • the need for the capacity to engage at top level, given that 'IT is related to virtually every strategic issue.' • the ability to communicate / deal with unfashionable issues at senior management level (security, etc.). Relationship building is a key element of the Benefits Workshop programme.
5	Exploitation.	A separate strand of activity work is planned to establish a service catalogue and develop improved service management processes. Exploitation of existing systems, services and information was addressed by an exploration of practice in other organisations as part of the research (not reported here).
6	Delivery capacity.	Change delivery capacity (i.e. how the existing resources can be used most effectively to tackle IT-enabled change) is addressed indirectly through the Benefits Workshops. More importantly, work on setting priorities (as part of the exploratory project on portfolio management - see Challenge 2 above) relates to the challenge of making the most of the available capacity.

Table 2: Initial view (in 2008) of challenges affecting benefits realisation and planned activity and the response planned as part of the research project (2009).

5.0   Findings – Benefits Delivery: Introduction of Practices for a Benefits-Led Approach to IT-Enabled Change

5.1   Building Engagement

Following approval of funding for Phase 2, a benefits planning workshop was held with the IT senior management team as the first activity to broaden engagement in the project. This session explored the opportunities and challenges of benefits realisation from IT at the University. It resulted in good support for the assumption underpinning the project proposal, that it was a good time to shift focus from technology delivery to benefits realisation. The discussion also provided useful insights into challenges and opportunities to consider as the project progressed.

A further workshop session was held at the suggestion of one of the IT management team to explore '*what does success look like*' and to discuss the intended benefits of the project and how to achieve them. It was very valuable to share in this thinking as a team and to build on the work done on the intended benefits of the project for the proposal. As work took place on IT strategy and planning by the ITD and the IT management team it became increasingly clear that the adoption of a benefits-driven way of working was an important enabler of a range of strategic objectives. It was encouraging to note the adoption of a benefits-driven way of working became a major priority for 2010/11. More particularly, existing practices for a benefits-driven approach to projects (based for example on Peppard et al., 2006 and Ashurst et al., 2008) were adopted on this study to provide a '*benefits toolkit*', which helped maintain the focus on benefits, and facilitate user engagement with the projects.

Key members of each of project team on 5 projects attended the 5 one-day workshops run as part of the Benefits Delivery phase. At each workshop, we introduced specific benefits tools (practices) and participants had the opportunity to apply the ideas to their projects with input and feedback from their colleagues. At workshops 2 and 5 each project team provided an update on their project including progress, challenges and the contribution of the benefits toolkit. We also had feedback sessions with individuals to get their views on the benefits-led approach and to explore their progress in adopting the benefits tools. These sessions took place after workshops 2 and 4.

The initial projects were chosen to reflect different sizes and degrees of complexity, and different stages in the project lifestyle. We had:

- Implementation of a business process re-engineering project: purchase ordering and payments to vendors (POP).
- Moving from experiment to live: a production service for lecture recording (LIVE).
- Integration of a 'non-central' system: recording of marks for student assessment and exam board processes (MARKS).
- A technology project: testing disaster recovery (DR).
- An international project where IT is one of many risky 'planks': a new overseas campus and academic school (NEW-SCHOOL).

Key learning points and areas for further reflection / action reported as a result of a review after the second of five Benefits Workshops are summarised in sections 5.2 to 5.5.

5.2   Clarity of IT Project Objectives and Scope

There was some fuzziness about the goals of the various IT projects. For example, where a project included the Estates department, Human Resources, IT and an academic department, do all the players have the same understanding of the vision, objectives and scope? Is there a governance structure to bring together all the different (sub)projects and activities contributing to the overall goal?

We agreed that it would be important to check out if this fuzziness was a communication issue or if the scope, objectives and/or roles are not clear at a detailed level. Was there a more effective way of translating the senior management vision into appropriate programme objectives, roles and structures?

5.3   Common Language and Way of Working – Project Framework

A second aspect of fuzziness affecting the scope and objectives of the projects was an apparent lack of a common language or set of concepts. For example, some of the 'projects' were tackling a programme of various individual projects as well as management of an on-going service. The split between programme, project and service management was not clearly defined with relevant goals, roles, governance, teams etc.

At this stage we also considered how can the benefits toolkit introduced through the workshops could be linked with the planned new IT project framework in order to embed the benefits ideas and ensure that the project framework was addressing the common issues affecting benefits realisation.

5.4   Consulting and Teamwork Skills Development

Although much of IT work was about projects, the participants in Benefits Workshops 1 and 2 apparently had limited experience of creative and collaborative approaches to team working. We adapted later workshops to make this an increasingly important element of the benefits toolkit. There also seemed to be limited day-to-day opportunities for people to spend time working together outside their teams' silos, for example, to share learning. We considered if there was way that it can become business as usual to collaborate and share.

5.5   Skills to Engage With and Influence More Senior Managers

Many of the issues of benefits realisation came clear as we considered the big picture: what is the real scope of a project; how does it align with the University and IT strategies; how does the role of the sponsor align with the goals of the project? Many of these are big issues and often are closely linked with people at one or more levels higher in the hierarchy than the people involved in the projects on a day-to-day basis. We reflected that individuals tend to tackle the job they have been given to do (scope and objectives) and do not have the time, access, confidence, communication skills and management support to explore or challenge the bigger picture. For example, if the scope of the project appears poorly defined, there are gaps in the governance framework and how it is working, then it may be vital to engage senior management and convince them to take action. There is a premium placed on courage and communication skills if some of the bigger issues are to be raised and tackled. There is also a need for senior management to listen and to create an environment that is open to reflection, learning and challenge.

Many of the challenges in relation to benefits realisation identified in the workshops related to dealing with people – for example, communication with senior stakeholders, reflecting and learning lessons. As the workshops progressed there was an increased

focus on these skills and how people go about project activities rather than just what process they follow and what tools they use.

6.0 Findings – Benefits Review: Post Project Review - Reflections on Project Outcomes and Adoption of Benefits Practices

The review following the Benefits Delivery phase involved the opportunity for feedback via email from the attendees at the Benefits Workshops and a workshop session attended by members of the original 'research' project team and the new PMO team (Appendix 1). The review took place 13 months after the final benefits workshop, in Nov 2011 and addressed benefits realisation from the 5 specific projects included in the workshops and wider learning about the adoption of benefits practices and development of the benefits realization capability within the organisation.

6.1 LIVE

The vision for the LIVE project was clear from the start: to enhance student learning, in particular, to provide a resource to help international students; to enable students to think about concepts during lectures without having to worry about taking notes; to support revision; and to enhance support for different learning styles. The system was in place in 50 lecture theatres (Summer 2010) to provide automatic recording of lectures and was being widely adopted. Further deployment continued and it contributed to the sharp rise in the NSS score for IT in 2012/13 (ITD).

What is clear from the feedback is that LIVE provides a new capability for the university; the precise benefits only emerge as people start to *use* the technology. The unexpected benefits come as staff and students start to use the technology to work in different ways. Also new ways of getting benefits are emerging as the users' experience and confidence develops. LIVE is now evolving into a programme of activity as the scope is extended to include desktop video capture, which will open up a wide range of new opportunities.

LIVE provides a good example of the importance of Benefits Exploitation (Ashurst et al., 2008). The quest to leverage benefits from software should not cease as soon as it has been implemented. Continued focus is required over the life of the investment. It also shows the importance of a wide range of stakeholders – benefits realisation from

IT is not just about management of the IT function. LIVE had strong academic leadership throughout; working very closely with IT and this was an important factor in the success to date.

The team found many aspects of the benefits toolkit helpful: the stakeholder analysis and focus on stakeholder engagement; consideration of non-financial benefits; and the links of benefits with change. The project was a good example of the need for business leadership and a focus on benefits, in this case for staff and students. Following a Benefits Review session with the steering committee there was a sense that the project team as a whole is thinking in benefits terms: i.e. adopting a benefits 'mindset'.

6.2   MARKS

MARKS was developed outside IT, by a team in the Computer Science department. It evolved to play a key role in the student assessment process across half the University and was gradually being integrated with other core systems. MARKS supports assessment and exam board activities: taking the marks from the academic markers through external examiners to final degree classification. Significant savings in effort and elapsed time have been realised in the Schools that have adopted the system (17 at the time of the review). In addition, there were quality benefits, as the time saved allowed more time for checking and review, and because summarised and exception data (e.g. the spread of marks on a question or module) was available from the beginning of the process.

The MARKS team adopted key aspects of the toolkit developing a benefits realisation plan and stakeholder analysis. They found that 'the benefits approach is very clear' and that as a result 'people are thinking differently'. 'It's a very clear language that is helping communication with people and contributed to better working relationships' (Project Manager).

Key learning points included the value of allowing opportunities to emerge. The success of the early stages of MARKS revealed significant unexpected benefits, which were then used as a basis for further developments. MARKS also illustrated the

need for management of change at each local level, as more Schools took on the system – encouraged by the success of early adopters.

6.3   POP

Procure to Pay (POP) was sponsored by the Finance Director with the goals of achieving more effective procurement and more efficient processes. There were opportunities for significant cost savings from rationalising spend across different suppliers and being able to take early payment discounts. The process would be more flexible for users offering a 'click to buy' purchasing experience and enabling better use of time.

The project was challenging as it affected the jobs of a large number of people across the university. During the benefits-led project, initial work on POP resulted in a steering group, a project team and progressed system selection.

The POP team adopted many of the benefits-led ideas and found the work on stakeholder mapping extremely valuable. This contributed to the overall project structure, for example with clear roles for HR and the departments affected. In addition, there was a major emphasis on communication with early union briefings and a 'road show' to affected departments. The team commented: 'change management tools can never be implemented too soon'.

Key learning points from the project included: the challenges of actually 'banking' benefits even in an apparently clear-cut situation. POP saved a lot of time, but this is spread across an element of the job of many people. There was lot of work to establish how these time savings are translated into a range of benefits. The organisation-wide impacts also required input from many areas to deliver (HR, Procurement, a joint IT / Finance project team, Schools and Departments). The benefits-led approach helped these different groups work together to deliver the changes and there was significant early effort to build stakeholder engagement.

6.4   NEW-SCHOOL

NEW-SCHOOL was a major University initiative to set up a new School on a campus in the Far East in new buildings. It involved a range of stakeholders in both countries,

for example the contractors responsible for the new building. The curriculum was directly linked to the well-established School here. The IT element was a critical, but limited, part of the overall project. The outcome was positive: 'we've got telephony that just works, systems that just work and its very useful evidence of planning the benefits to the project before you start' (ITD).

A number of learning points emerged. Firstly, the value of the stakeholder mapping exercise, which quickly revealed that action was required to draw together the different strands of activity (HR, Estates, IT, School, UK, Far East) and establish more integrated programme management with sponsorship related to the overall benefits and strategic goals rather than specific components (the new campus). There was an opportunity for IT to take on a more general programme management role, which they tend to play by default, as they have an awareness of the issues and the skills required. NEW-SCHOOL also highlighted the importance of non-financial benefits. Although clearly strategic for the University, the direct financial impact was relatively small because of the financing arrangements, so the project did not trigger the enhanced focus reserved for 'large' projects although it was clearly strategic for example in terms of reputation. From a portfolio perspective, the project absorbed considerable senior management time and highlighted that this was a key issue in terms of capacity for change. The Benefits Review process also helped crystallise learning from NEW-SCHOOL, which was applied to another major international project.

6.5   DR

The aim of the DR project was to respond to Audit Committee and carry out a test of existing contingency arrangements. This was seen as the start for a longer-term programme of work to develop enhanced backup and recovery capabilities.

A key challenge for the project was to bring together different stakeholders and establish a shared understanding of the goals. Although apparently clear, it revealed, as with other projects, the major challenges of getting a good, shared understanding of the goals. The benefits approach played an important role because of the emphasis on stakeholders working together in well-designed workshop sessions, which helped to bring out into the open different assumptions and understandings. In this case, the

tension was between carrying out a test that would *prove* the recovery capabilities (the requirement as perceived by the project manager) and carrying out a test in a reasonable timeframe and with limited resources as a first step (the requirement as perceived by Audit Committee members in the workshops).

6.6 Overall Findings from the Benefits Review

A number of general points emerged from the work with the 5 specific IT projects.

- Firstly, participants found the benefits-led approach and tools valuable and they resulted in a significant shift in thinking and focus. Stakeholder engagement and organisational change were emphasised. The benefits perspective brought people together and provided valuable insights into how different elements of the projects fitted together.

- The benefits approach required, and encouraged, more collaborative working based on an understanding of the benefits and the cross-department team effort required to realise them. Perhaps more importantly in the longer term, the interactive approach helped build relationships between people, teams and departments and encouraged people to have fun.

- In many cases, there were important unexpected benefits, which were a major driver of value in new phases of work.

- There was strong support for the Benefits Review activity – which provided space to think. The sessions were an important enabler of new insights and shared learning.

- In several cases benefits realisation was an on-going process of learning, as people worked with the systems and discovered opportunities. A key challenge, and opportunity, was to facilitate this learning across the organisation, for example as individual lecturers or programme teams find ways to use LIVE to enhance student learning and experience.

- Finally, many of the projects, even an apparently transactional project such as POP, required considerable learning and change at a local level in Schools and Departments. This highlights benefits realisation as an organisation-wide capability.

7.0 Findings – Benefits Exploitation: Three Year Retrospective - Reflecting on the Sustained Adoption of Benefits Practices and the Development of the Benefits Realisation Capability

In late summer 2013, to explore Benefits Exploitation building on the earlier work, six interviews (Appendix 1), provided a longitudinal perspective on the continued adoption of benefits practices and the development of the benefits realisation capability at the University.

7.1 Value From Continued Use of Benefits Tools Within Projects

The interviews provide evidence that benefits practices have been used effectively to contribute to benefits realisation from specific projects. One interviewee emphasised getting greater clarity about the objective of a project and then making that explicit in terms of measures: 'the key take home from 'benefits-led' (i.e. Benefits Delivery), the phrase that really hung with me was 'start with the end in mind'. Which is something we struggle with. We do all the good stuff and then construct a narrative around the good at the end. You tend to find that you can't because you haven't measured what you needed to measure. I start with the end in mind, thinking about what you are trying to say about the project. It's been a massive benefit.' (SA)

Two examples illustrate the benefits. Consolidation of one of 16 data centres into the main IT data centre resulted in an agreed saving of £352k over 5 years including £255k energy saving (D4.A). A second project providing Microsoft software to students resulted in downloads to 1,512 unique users to a total value of £1.73m over a pilot period (D4.B).

The practice of stakeholder analysis was also highlighted as valuable by interviewees. 'The big focus has been on stakeholders and figuring out who the stakeholders are, cutting them down into separate groups, particularly around who your senior stakeholders are and how we can influence them. It's had quite an impact on the projects I've been involved in' (SA). A second interviewee described how she had built on the stakeholder analysis as the basis for developing a communications plan and was able to share this practice quickly with colleagues: 'I ran through the communications workshop with 'A' (a project manager) and she took it out to the School and used it on a project that they were working on' (COMS). She also

explained how she had adapted the practice: 'The session now works through to looking at the stakeholders and identifying priorities, then looking one by one at where are they now and where do we need them to be, and the key messages that they need to receive and then moving on a step and thinking this is the stakeholder and these are the key message for that stakeholder, what channels can we use to get to them' (COMS). Interviewee SA also illustrated the emphasis on stakeholder communication: 'another part of it was figuring out the communication styles. We'd figured out from some earlier work that when you are going up to PVC & Head of Estates level – pictures. Take pictures. That really paints the picture. We've got pictures of what the rooms looked like before (D4.A). You can see lots of kit. Then we have the 'after' picture – three racks in a well-managed data centre' (SA).

7.2   Impact of Benefits Practices at a Portfolio Level

Benefits practices have also been useful outside formal projects: 'I've used stakeholder-communications a couple of times, not on projects, on generally any activity, everything has some communication at the end of it, we have a service that needs more promotion: so who do we tell and how?' (COMS). The focus on measurements has also been useful in terms of setting priorities for which projects to undertake: 'the measuring phase where you figure out where the big chunks of the IT estate are really helped. Then you say 'yeah screens great idea, but a tiny % of the overall energy consumption, so we're not focusing there'. We're about desktops and servers. The key priorities not just nice ideas. The PVC used to throw some initiatives at us, 'why aren't you doing X and Y?' Now he knows that unless the initiatives hit the network, pcs or servers it won't have that much impact (SA)'.

7.3   Broader Changes to Attitude and Values Affecting the Organisation

The IT senior management team have made use of benefits language and adopted a benefits perspective: 'I think that's worked well, particularly 'B' gets the directorate team to stand back and look at the benefits. He has really got that. Each of the other 4 Assistant Directors has raised it and said 'lets stand back and look at the benefits of this, why are we doing this.'' (ITD).

The experience of the workshops and the use of the practices also seems to have contributed to broader changes in how individuals see and approach their roles: 'I

think for me that signals probably the first time that I was aware of as a department that we really started our relationship management even if we didn't know that's what it was, because we weren't just getting people together to tell them about stuff, we were working with them. I think we've changed a lot in the last four years' (COMS). The nature of what people understand as their job as an IT professional has changed: 'I think through giving people opportunities to come out from behind their desk, their confidence has grown' (COMS). There are signs of a positive impact: 'the last few weeks the NSS results, staff results, the comments I've had at staff inductions today, everything is 'your guys are great, your guys are brilliant, they've helped me out'. This is the core body of ISS that is driving this. I ask for volunteers and I get 10' (COMS).

7.4   Taking a Change Management Perspective

From the start of the work we considered the development of capabilities for benefits realisation as a business change initiative. We referred specifically to frameworks used by Ward and others at Cranfield who developed benefits management. The 'change analysis heptagon' based on Venkatraman (1991) (Ward and Elvin, 1999) in Figure 3 provides a way of exploring the evolving approach to developing the benefits realisation capability. The initial Benefits Workshops were part of a bottom-up 'education' approach to managing change (Balogun and Hope Hailey, 2004: p32) and targeted Skills and Behaviour. The Project Management Office established during Benefits Review created new Roles, brought in new Skills, and established new Operational Processes (Figure 3).
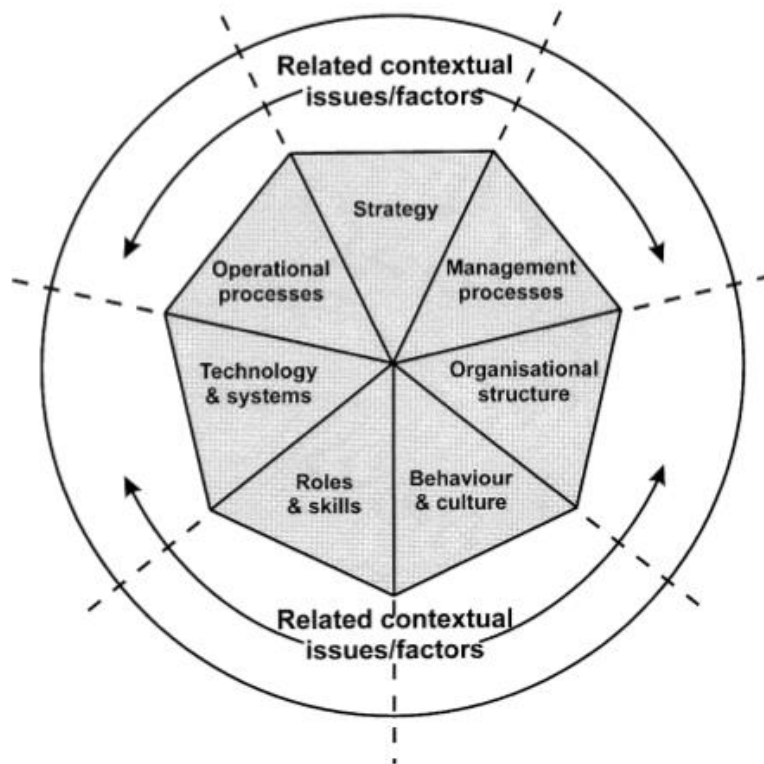
Figure 3: Change Analysis Heptagon

The Project Office provided support for benefits practices and ''benefits-led' is now ingrained into our default project management templates from the project office' (SA). However, adoption of benefits practices is not consistent across the department. There seem to be a number of contributory factors: 'I think some of the more experienced project managers tend to have developed their own style over the years. So they'll integrate little bits of it but they tend to do their own thing' (SA). On the other hand 'people are finding it useful to have a structure' (PM1) particularly where there experience is more limited. The pressure to adopt new ways of working is limited as: 'it's just like anything in the university, there is no consequence of not doing it' (PM2), perhaps reflecting a need for changed Management Processes. Reflecting on the original workshops suggested that we could have done more to simplify the approach i.e. 'do this and get that' (COMS) and also to provide 'an easy explanation of the benefits of benefits' (SA) in order to encourage 'bottom up' adoption.

A number of broader factors also seem to have impeded the adoption of benefits practices. Firstly, a lack of project management expertise: ''how do I do a risk log?' i.e. it's about project management skills rather than the toolkit' (PM1). There is also a cultural perspective, 'a distrust of anything that can be labelled as having a political element to it. Benefits is largely about winning the political battle. A lot of people got into IT because they don't want to deal with politics' (SA). This is perhaps a different perspective on the changing perception of the role of IT amongst some of the staff. At a different level a key issue is 'what's a project?' (COMS) and 'another barrier is that we are not identifying projects well enough or early enough. What's the difference between a project and work in progress? There are areas where we really could and should be using project management processes and we don't' (COMS). This relates to issues identified in Benefits Planning and Delivery. A different angle on this, a reluctance to get engaged with the 'bureaucracy' that comes with being an official project, 'why not call them activities that would benefit from the project management stuff, it's about using it in your everyday work' (COMS).

7.5   Leadership of the Change Initiative

Considering development of the benefits realization capability as a change initiative is valuable. Positive steps were taken in: running the original benefits workshops; recruiting experienced project managers and creating a Project Management Office (PMO); creating a project management toolkit and templates; providing advice and support from the PMO. However, the focus of the PMO has often been on delivering projects rather than improving how all projects are delivered (PM1, PM2), as the experience project managers have been needed to lead specific, major projects.

Alongside the focus on benefits there were many other improvement initiatives and one challenge has been 'initiative fatigue, genuinely, because having put in a new service desk, looking at incident management, problem management, change management, benefits, project management and re-organisation, it's a lot of stuff and it's a lot of stuff all at once' (ITD) Also senior IT management attention has been diverted in many ways 'OneIT has used up an awful lot of energy and when you have got a big one like OneIT it has starved the oxygen from quite a lot of other initiatives' (ITD).

At the organisational level, although an external review identified project and programme management as at a very low level of maturity, there was no support for action (ITD).

7.5   Summary of Findings From Benefits Exploitation

Overall the Benefits Exploitation interviews provided evidence that the initial workshops were successful in getting adoption of benefits practices and that these are seen as making a very valuable contribution by a number of individuals: 'I knew this was working when people started talking about 'driving out the benefits' in project meetings' (ITD). The individuals who have really taken on board the benefits practices now see them as a natural part of what they do: 'from my perspective, it was kind of, as with all good things in IT, benefits-led just seemed like structured common sense, which for me is a ringing endorsement. The good stuff does sound like structured common sense *after* you've heard it.' (SA). The practices were also seen as useful: 'It was a package and an activity that gave you a product at the end of it that people thought was definitely useful' (COMS). There is also evidence of a contribution to a new understanding of the role of individuals. However, there is still a long way to do to gain consistent, skilled adoption of a benefits-led approach to IT across the department and organisation.

8.0   Discussion and Conclusions

We would argue that this study makes three important contributions to the literature. Firstly, the research provides important empirical evidence in support of the view that the best way to deliver value from IT is through the gradual development of a benefits realisation capability (Ashurst et al., 2008). Eisenhardt and Martin (2000) have argued that the real test of the efficacy of practices and routines is the extent to which they get widely shared and practiced, across the organisation. The final set of interviews provided clear evidence that that many of the practices introduced to the participants at the introductory workshops, have now become an integral part of employees day-to-day working routines. However, it is important to note that these practices generally look rather different to the one described by Ashurst et al. (2008) as they have often been tailored to the local context in which they are deployed. Secondly, the research provides evidence that the adoption of new practices, is beginning to affect

the mindset of employees, as well as their behaviours. This adoption of benefits thinking as part of 'how we do things round here' was an aspect of the original vision and it's encouraging to see evidence of it happening, in much the way that had been predicted by Ashurst and Hodges (2010).

The final contribution, in many ways qualifies the first two. It is important to note that although there was very visible evidence of practice adoption and a benefits-oriented thinking, it would be very difficult to conclude that the organisation has already developed a fully functioning benefits capability, as it is apparent that there is still some reluctance to apply benefits practices in a consistent and extensive manner, across all areas of organisational activity. Because practices tend to be less structured and formal than processes or procedures, it is difficult for organisations to be very prescriptive about their adoption and application, and this may well explain the somewhat patchy take-up. Consequently, the next challenge for this organisation is to find ways of motivating staff to share and adopt these new ways of thinking and behaving. Looking to the future, from a research perspective, there is also still much to do. The original vision was to explore how to enable organisations to develop their benefits realisation capability and specifically to understand how to do that with limited external intervention. Our intention is to work with further organisations to build on the results of the current research.

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Appendix 1: Summary of Evidence Gathered During the Research

Phase 1: From ITD starting at University in June 2008 to Start of Funded Project in Nov 2009

- Transformation Capability Assessment – initial brief review with ITD in June 2008
- Meetings with ITD every 6 weeks (approx.) recorded in project journal
- Development of proposal to gain funding for Phase 2

Documents:
- IT governance at the University – presentation (June 2008)
- IT strategy – draft of Executive Board (Dec 2008)
- IT Annual Report 2008 (published to staff and other stakeholders)
- IT – a transformational agenda for the university – discussion paper (Feb 2009)

Phase 2: Funded Research Project Nov 2009 to End of Project Conference

- Progress and planning meetings with ITD every 6 weeks (approx.) – recorded in project journal
- Delivery of 5 one day workshops followed by post workshop review with core team
- Wider engagement and research activities (results not discussed in this paper)

Documents on file:
- Draft IT strategic plan 2011-15 (14 Dec 09)
- Notes from initial meeting with IT management team (Dec 2009)
- Notes from brainstorm with IT management team – what does success look like (Jan 2010)
- Outline benefits plan & project plan for the project building on Jan workshop (Jan 2010)
- IT Annual Report 2009 (published to staff and other stakeholders)
- IT Mission and Values
- Notes from progress review (1 March 2010)
- Initial benefits reviews of each of the 5 projects presented at the second benefits workshop (March 2010)
- IT reorganisation – initial briefing (12 April 2010)
- Notes from interim project review (7 May 2010)
- Interim project report – draft (May 2010)
- Project progress summary – to funding body (May 2010)
- Notes from workshop session with Local Gov CIO Council (15 July 2010)
- Notes of meeting with COMS (23 July 2010)
- File note – planning for IT strategy (2 Aug 2010)
- What does a good IT service look like – internal note (5 Aug 2010)
- Interim review – notes of meeting with ITD, COMS, ITG (new Assistant Director, Head of Security & Governance team – includes PMO) (6 Sept 2010)

- Briefing note for IT Steering Group (10 Sept 2010)
- Notes of planning for a benefits review workshop with HR ERP team (13 Sept 2010)
- Key points from discussions at RUGIT workshop
- IT reorganisation risk register (16 Sept 2010)
- Notes from LIVE benefits review workshop with project team and key stakeholders (13 Oct 2010)
- Notes from feedback and review at final project workshop (21 Oct 2010)
- Presentations by projects teams evaluating the 5 projects – as presented and discussed at the final workshop (21 Oct 2010)
- Notes from email feedback from project participants (Oct 2010)
- Benefits dependency network develop following review with ITD and senior management team – exploring next steps in the programme (11 Nov 2010)
- Draft IT strategy for 2012-2016 (2 Dec 2010)
- Discussion paper – priority IT work for 2011 (6 Dec 2010)
- Review of end of project conference (3 March 2011)

Deliverables from the research:
- Improving management of the IT project portfolio – discussion paper
- Knowledge work productivity – discussion paper
- End of project case study

Phase 3: Post Project Review Nov 2011

Workshop session with core project team members and and team responsible for continuing the benefits work:
- ITD
- COMS
- ITG
- PM1
- PM3

Phase 4: Interviewees – Summer 2013

Code	Role	Participated in 2010 Workshops
ITD	Director of IT (interview plus meeting to review / validate findings)	Y
COMS	Communications Officer	Y
PM1	Project Manager	N
PM2	Project Manager	N
SA	Systems Architect	Y

Plus documents as follows:
- Dreamspark benefits update (1 Aug 2013)
- Data centre consolidaton benefits report (draft 1.1)
- IT Project Management Process and Toolkit (0.7)