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Modern Costing Innovations and Legitimation: A Health Care Study

This article is a study of the introduction of a modern costing technology—activity based costing (ABC)—into a health care organization which is undergoing change. The transformation of this organization is of particular interest as it focused on the experience of a service which had always existed by collecting blood, which is given as a free donation (the gift), and which is then converted into a variety of health care products. Typically, accounting innovations in the U.K.'s National Health Service are at the behest of central government: In this case, the adoption of ABC is on the initiative of the health care organization itself. The attractiveness of the specific costing approach from the perspective of the management of this health care organization is as an ingredient in legitimation—the portrayal of this entity as a ‘complete organization’.

Key words: ABC; Gift relationship; Health care; Organization.

The implementation of new management accounting systems within health care organizations has attracted the attention of many researchers (Coombs, 1987; Preston *et al.*, 1992; Jacobs, 1995; Jones and Dewing, 1997; Doolin, 1999; Lapsley, 2001a). This research added to our understanding of the use of management accounting in health care settings. These studies share the distinction of being impact studies which have examined the implementation of government initiatives for new costing and budgeting systems in hospitals. The present study contrasts with the above articles: It examines a health care organization which has sought to implement a specific costing technology, activity based costing—ABC—in the absence of central government guidance.

This research reveals the adoption, rather than the deployment, of this costing technology. Adoption of ABC is shown to be a legitimating exercise, as the organization seeks to portray itself as modern. The organization studied has distinctive attributes, notably its basic raw material is donated blood (which has been described as ‘the gift relationship’) which has had a fundamental impact on this entity, as discussed below. Moreover, this study emphasizes the importance of the language of accounting in the social construction of what Brunsson and

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Sahlin-Andersson (2000) called the 'complete organization'. The concepts underlying the idea of the complete organization are *mimicry* and *legitimacy*: an exercise in which public sector organizations seek to present themselves as if they operated in a similar fashion to major private sector corporations, which are regarded as 'complete'. In this way the public sector organizations seek to be considered modern and legitimate.

CONTEXT: ABC AND HEALTH CARE

Activity-based costing has achieved a position of some prominence as a technology which can provide managers with sharper costs for product costing, for segments of organizational activity, for product design and for the identification of efficiencies and economies. Such attributes attract many proponents of ABC as a costing system (Shields and McEwan, 1996; Innes *et al.*, 2000). There are also advocates of ABC specifically in the context of public services, including health care (Antos, 1992; Moravec and Yoemans, 1992).

However, there is an emergent literature which depicts the transfer of ABC from the private sector to public services as problematic. Brown *et al.* (1999) discuss the application of ABC in government services and caution against the technical difficulties and resources required and the behavioural difficulties of successful implementation. Mullins and Zorn (1999) also challenge the portability of ABC to the government sector, citing its inappropriateness because it does not fit the public sector, and express serious doubts about the accuracy of the resultant cost allocations.

These misgivings over the transferability of ABC to the public sector are reflected in a new critique of the applicability of ABC to the private sector. At one level, reservations have been expressed about technical difficulties of implementation and also barriers to change when ABC information becomes available (Roberts and Silvester, 1996). However, there are more fundamental reservations over the nature of ABC. In the view of this new wave of critics, ABC emerged from a process in which its proponents highlighted the similarities of their cases and underplayed differences, made selective adoptions of certain features and rejection of others, and all of this in the context of differing interpretations of what constituted ABC (Jones and Dugdale, 2002, p. 158). Further, these researchers challenged the widespread extension of ABC to the public sector, specifically on the grounds that the advocacy of ABC for financial service firms, hospitals and universities did not capture the subtleties of the different kinds of changes which these organizations were experiencing (Jones and Dugdale, 2002, p. 152). Also, Armstrong (2002) depicts ABC as a management tool which does not reveal more accurate cost estimations than conventional techniques of cost allocation, and which has achieved its prominence because of statements of belief. As Armstrong (2002, p. 102) expresses it: 'people do not act according to the situation but according to their definition of it. So has been belief in the reality of activity-based costing. It is this belief which defines the difference between activity-based and absorption costing not differences in computations.'

Both Armstrong (2002) and Jones and Dugdale (2002) suggest that organizations adopt ABC as a costing technology to portray themselves as ‘modern’, as a legitimating device. This is particularly apposite for public sector services in the U.K., as the words ‘modern’ and ‘modernization’ constitute the leitmotif of public policy towards the reform of the public services (Lapsley, 2001b). Within health care policy, documents resonate with ideas of the ‘modern’. See, for example, the first substantive policy document after the election of the Labour government in the U.K. in 1997, the White Paper which portrayed the ‘New National Health Service (NHS)—*Modern, Dependable*’ (DoH, 1997; emphasis added). This aspect of ABC adoption, the sense of organizations seeking to portray themselves as ‘modern’ and, thereby, legitimate is of particular interest within the health care context.

When the U.K.’s National Health Service was investigating more sophisticated costing models for health care organizations to facilitate the production of more precise costs to support the internal market which existed in the early 1990s, the National Health Service (NHS) Management Executive commissioned a study to advise it on the appropriateness of ABC for the NHS. That study cautioned against the use of ABC for a variety of reasons, including the set up costs in the complex, multi-product environment of hospitals (King *et al.*, 1994a, 1994b). The NHS Management Executive then went in the direction of costings based on health-related groups (HRGs), a variation of the U.S.-derived diagnostically related groups (DRGs) (see Jones, 1999). Given these developments, the adoption of ABC by a part of the U.K.’s NHS, counter to government guidance, represents a distinct management policy. This matter is taken up further.

CONCEPTUAL PERSPECTIVE: THE GIFT RELATIONSHIP AND LEGITIMATION

This article examines the introduction and implementation of the new costing technology, ABC, both from the perspective of the changes in the organization itself and in the context of the gift relationship as the fundamental characteristic of the health care organization studied. The importing of new accounting technologies from the private sector to the health care setting can carry two logics at the same time: the means–end logic which is at the basis of the rhetoric of efficiency and also a logic of legitimacy (Carruthers, 1995). Indeed, it has been suggested that institutional legitimacy reasons for actions within organizations may masquerade as ‘technical’ changes in organizations (Powell, 1991).

The specific focus of this article is an entity which makes health care products from blood transfusion services. For reasons of anonymity we call this organization HCP. The blood transfusion services have a number of discrete functions to fulfil their role as an essential component of the health service. First, there is the collection of blood from blood donors. Second, from blood collected, the basic unit of blood is made into a number of blood products, some of which may be specific to the attributes of particular donors (for the development of antibodies); in addition to antibodies, there are factors for coagulation and reagents for blood grouping,

haematology. In essence, there is a complex process from initial collection of the blood donation through processing and testing to these final products.

However, at the heart of the U.K. blood transfusion service there is the concept of the 'gift relationship' (Titmuss, 1970). While the gift relationship has been subject to scrutiny in non-market economies since the seminal work by Mauss (1954) in remote Polynesian societies, the nature of the gift relationship within blood donation is unique. This characteristic is one of Brunsson and Sahlin-Andersson's (2000) prerequisites for the construction of the complete organization: a special identity makes autonomy possible and desirable. As Titmuss (1970, p. 122) describes it, the gift of blood in the U.K. is unique because the recipient is not known to the donor; the donors are screened on rational not cultural grounds; there is no certainty of reciprocity for the donor; there are none of the penalties of shame, remorse or guilt associated with not giving in primitive societies; there is no monetary return to the donor of blood; the gift is perishable and the donor and receiver have no say in when the gift is used and there is no permanent loss to the donor whose body quickly replaces the donated blood and, finally, to the receiver, the gift of blood may mean life itself. These distinctive aspects of the HCP organization infuse it with value (Christensen and Molin, 1995).

All of the above circumstances serve to make blood transfusion a very distinctive service, one in which the prime source material is given as an act of altruism. There are other models, in other countries, which have their proponents, notably the market model in which donors receive payment for blood donated, and there is no gift relationship (Stewart, 1992). In the U.K., the continued voluntary donations, in conditions of anonymity, bereft of the guilt and reciprocity considerations of less advanced societies (Berking, 1999), places blood transfusion in a special situation. The gift relationship can be seen as casting a long shadow over the nature of the organization. In particular, given the nature of the exchange, there are aspects of this activity which may be regarded as falling within Power and Laughlin's (1992) view of the clinical domain as 'sacred'. The focus on ABC as a modern costing technology may be seen as opening up to the possibility of accounting information shaping the organization: defining key elements of what this organization is, what it does and how its priorities may be developed. This is a process of 'accountingization' which may be a corrosive influence in the life of an organization founded on the gift relationship. This perspective presumes that the new ABC-type information permeates the organization and that managers act upon it. This contrasts with the possibility in the earlier discussion of ABC that this technology may be adopted as part of the social construction of the organization, as the portrayal of the organization as 'modern' and, thereby, legitimate. This tension is explored further in the case study.

While the technologies used by organizations may be important for legitimation, so may organizational forms be demonstrative of legitimacy (Christensen and Molin, 1995). Indeed, from the perspective of organizations seeking legitimacy within the public sector, Brunsson (1994) has observed the phenomenon whereby organizations, which may have been regarded as political institutions, started to take on the trappings of commercial companies, a process which he labelled 'company-ization'.

This has overtones of the process of mimicry of the private sector by the public sector (Meyer and Rowan, 1977; Di Maggio and Powell, 1983) in the pursuit of legitimation, often in the face of uncertainty. By seeking to enter the organizational field of ‘companies’ or by being seen to be a part of this field, the HCP becomes exposed to pressures to adopt patterns of behaviour to achieve legitimacy (DiMaggio and Powell, 1983).

However, Brunsson goes further: Political organizations revolve around ‘talks’ and the company is more about ‘action’. The implication of regarding itself as a company means that the political organization starts to assume the trappings of the commercial organization: For example, it regards the people in its environment as customers. The recognition of these differing perspectives shapes the organization in new ways. Brunsson and Sahlin-Andersson (2000) extend this perspective of legitimation by company-ization by examining how public sector organizations, as socially constructed phenomena, are being transformed into more ‘complete organizations’. They explain this process as follows:

traditional public sector services in many countries have lacked some of the key aspects of organization. They can be described, at the most, as conspicuously ‘incomplete’ organizations. When existing services have been compared with the organization concept, their incompleteness in organizational terms has become obvious, and they have seemed to call for reforms to render them—in this sense—more complete. (p. 122)

In Brunsson and Sahlin-Andersson’s view, for modernizers who construct organizations, the portrayal of the ‘real’ in complete organizations entails a high degree of identity, hierarchy and rationality. But much of this relates to organizations focusing on window-dressing, on portrayal rather than action (Mouritsen and Skaerbeek, 1995). These dimensions are identified, below, in the discussion of this part of the U.K.’s NHS move to become a ‘complete organization’.

RESEARCH CONTEXT

The research approach in this study reflects the continuing advocacy of carrying out research within organizations to explore management accounting. Since Kaplan’s (1986) call for case study research in organizations to better understand management accounting practice, the field study approach has been endorsed because of the richness of the data obtained (Ahrens and Dent, 1998) and the need to gain understanding of the broader context of management accounting practices (Whitley, 1999).

The HCP’s major activities are the collection and testing of blood and the manufacture of products for clinical purposes. The HCP calls its core business the blood supply chain. The description of ‘supply chain’ for the collection of blood donations is a clear example of the language of business being adopted as an element of the portrayal of the HCP as a ‘complete organization’. This is an example of the evolution of organizational language in a manner which uses vocabularies to present a picture of prudence, of rationality and of legitimation (Meyer and Rowan, 1977).

The HCP’s supply chain is divided into four phases: collection, processing and testing, stock management, and distribution. The first phase (blood collection) is

based in five different sites. Recently the HCP tried to increase donations following lifestyle changes; for example, offering more opening hours and better accessibility to mobile donating centres (MDC). The second phase (blood processing and testing) is performed in centres situated in two major U.K. cities. Stock management has facilitated the use of available supplies and ensures blood continues to be distributed according to need throughout the country. The systems were devised to monitor overall stock levels on a daily basis and facilitate longer term strategic planning. Finally the transport staff, besides supporting blood collection activities, provide an integrated system for delivery of products to hospitals. A fifth phase can be included in this first process: the clinical service. It is a support function performed locally by consultants providing specialist transfusion advice and services to hospitals.

In addition to the supply chain, the HCP has two manufacturing plants (named here MP1 and MP2). The first manufacturing plant (MP1) is the division of the HCP responsible for providing hospitals with plasma products. This plant manufactures the blood into four core products as a basis for a range which includes hundreds of antibody products, albumin and coagulation factors. A further process entails the development and manufacture of products (MP2) for use in clinical diagnosis, bioscience research and further manufacturing. The product range includes reagents for blood grouping, haematology, clinical chemistry and immunochemistry. Furthermore, HCP offers contract services to the bioscience industry and manufactures products for major global players in the medical device, diagnostic, biotechnology and pharmaceutical sectors.

The current case study enhances the prospect of studying the context in which management accounting is practised and doing so by tracing practices over time (Yin, 1984; Bryman, 1989). The particular approach adopted here recognises the need to stay in touch and to revisit case study settings to gain a fuller understanding of what has happened (Bryman, 1989; Gallmeier, 1991). As Bryman (1989, p. 242) observes:

When research is based on detailed case studies there are often clear benefits associated with either an extended stay *or a return to the organization* in question. One of the strengths of qualitative research which is based on detailed case studies is that it is able to capture processes over time. If the sojourn is too short, an uncharacteristic state may be observed. (emphasis added)

In this case one of the research team has observed the organization over a number of years, noting significant accounting changes.

In terms of the actual investigation, a strength of case studies is the capability of using a variety of research techniques to obtain data required (Yin, 1984; Bryman, 1989). The research team used the following data sources: (a) documentation (examples of internal reports, costing studies), (b) archival records (organizational charts, internal evaluations), (c) observations of software demonstrations of activity based costing, and (d) interviews and key informants. There was limited time for the observation of ABC use in this study. But observation can be problematic, in terms of Hawthorne effects and in validating findings (Atkinson

and Shaffir, 1998). This study therefore falls within 'type 3' of Bryman's (1989) classifications of qualitative research: The principal sources of evidence are interviews and documents. To the extent that there is observation in this study, it is non-participant and on the periphery of the action (Bryman, 1989, p. 153). As such, this use of observation is essentially supplementary, to augment data from interviews and documentary materials. Its use has included observation of activities of everyday organizational life before and after interviews or at breaks (meal times, coffee breaks). Crompton and Jones (1988, p. 21) stress the importance of drawing on such insights in undertaking case study investigations: 'You have to regard all the time you spend inside the organization as a part of research. Those who employ participant observation techniques will already recognize this, but it is more important to stress that it holds just as strongly for those using more formal techniques.'

In interviews, the study drew upon the experience of a number of key informants both currently and previously employed in the organization. Most of these key interviewees were interviewed on more than one occasion. The key informants are depicted here as the Initiator (the director of corporate strategy, who was the first senior manager to initiate developments in costing, twenty years previously), the Architect (the director of finance, who had made the first attempt to implement ABC but this failed to reach fruition), the Chief Implementer (who has been charged, with his team of implementers, with delivering an operational ABC system for this organization) and the Recipients (who include the director of a major manufacturing facility at HCP who has been interested in receiving refined costing information for the past two decades). In addition, there is a whole range of other lesser actors on the scene (see Table 1) and those who previously inhabited the scene who have been interviewed as part of this investigation.

These informants were located at different levels within the organization and within different functions to maximize the investigators' understanding of the processes of change (Whyte, 1984; Jones, 1996). This method requires a flexibility of approach in interviewing, with interviews being long or short, with the need for supplementary discussions to resolve queries and explore issues further (Bresnen, 1988). For example, the Chief Implementer was interviewed on five occasions. Also, a more open-ended approach, where necessary, allowed informants to comment more fully on the cultural information on the organization which gave a wider understanding of the context of the accounting changes (Christensen, 1988).

RESULTS: IDEAS AND ACTIONS

An appreciation of the general context in which the HCP is situated is fundamental to understanding the environment and the challenges for the ABC project. The HCP came into existence as a voluntary body. As part of the nationalization of the health service in 1947 it became absorbed into the then new National Health Service. However, it retained significant operational autonomy in this role as an adjunct to the hospital service. Its internal structures and organization went largely unchanged for decades until the pressures discussed below led to the desire of its

ABACUS

TABLE 1

THE KEY INFORMANTS

	Wider role	Designation
1	Implementer 1	Lead finance MP1
2	Recipient 1	Director of MP1
3	Implementer 2	Lead finance manager MP2
4	Recipient 2	Director of supply chain
5	Implementer 3	Lead finance manager clinical services
6	Architect	Director of finance
7	Chief Implementer	Financial controller
8	Recipient 4	Business manager
9	Recipient 5	Laboratory user
10	Recipient 6	Director of MP2
11	Advocate	Service director
12	Initiator	Director of strategy
13	Recipient 7	Operational manager
14	Interpreter	Business manager
15	Recipient 8	Clinical director blood transfusion centre
16	Provider	Deputy finance director
17	Implementer 4	Management accountant

senior management to portray HCP as a ‘complete organization’. The events which shaped the pressures for change at HCP are largely externally driven, although the specific locus of ABC as a mechanism for managers is attributable to the presence of a champion for ABC within the staff. These aspects of the change process at HCP are elaborated upon below.

The Changing Environment

During the 1980s and the '90s a slow process of ‘erosion’ (as described by the Initiator) affected HCP, which caused both greater difficulties in services management and a change in the ‘gift chain’ with donors and patients. The major event that dramatically changed the blood transfusion services in developed countries was the discovery of AIDS, as the following comment demonstrates:

I would say that for our service, but probably for blood transfusion services in most of the developed countries, what was the real watershed, it might be the *extinction event*, that actually was AIDS, the recognition of AIDS as disease, the discovery of the virus and the most devastating thing of all was the realization that patients who were receiving long term treatment with blood, with haemophilia for example, and that many of them were in some clinics where all of them have actually been infected with HIV, before the first whisper of a problem; this was actually something that the damage had been done before anybody knew about it. I think that’s a very fundamental crack in the foundation of confidence in our services. (Initiator)

The discovery of AIDS in 1981 suddenly put blood transfusion services at the centre of public examination, causing in some cases a widespread impact on the entire national health care services. Rosenbrock *et al.* (2000) refer to this first period (1981–6) as the

emergence of exceptionalism in which governments moved in uncertainty, trying to develop policies to address public fear and related political tensions. Everyone, researchers, doctors, politicians and patients discovered that blood transfusions could transfer a virus against which the available treatments were useless. The general certainty given by effective antibiotics that the age of infectious diseases had come to an end in wealthy, industrialized countries suddenly disappeared.

(See also Ballard, 1992; Kirp and Bayer, 1992.) This dramatic impact was experienced internationally (Feldman and Bayer, 1999) triggering a high degree of political readiness to spend money to rectify this damaging situation. This fundamental event affected perceptions of blood transfusion services both at the individual and at the national level.

The need for higher safety measures and the consequent increasing of costs, together with continuous budget reductions, ended in a major reorganization at HCP in the late '90s. The management board decided to restructure the organization, going from the initial five nearly independent units to the centralization of all support and analysis services at the headquarters (in this case the centralization was only partial, moving from the five initial local sites to the current two main centres). This accords with Brunsson and Sahlin-Andersson's (2000, p. 726) view that one of the first acts of a public sector organization seeking to construct itself as a complete organization is the establishment of an authoritative centre. The consequences of the restructuring were a massive reduction of the overall staff (one-third) and the better use of resources, achieving economies of scale both in the support services and the testing phase, which has become increasingly complex and expensive. Two processes of HCP have remained decentralized in the five directorates: the blood collection and the clinical service.

At the end of the '90s another crucial event caused great concern and changes in HCP: the appearance of bovine spongiform encephalopathy (BSE) and its human variant Creutzfeldt-Jakob disease (vCJD), first discovered in 1996 in the U.K. There is good scientific evidence that vCJD in humans is closely related to BSE. Though so far there is no evidence that vCJD has been transmitted by blood transfusion, a number of features of vCJD suggest this possibility. It is not known whether vCJD will prove to be transmissible between humans by blood products but the risk cannot be excluded.

The existence of vCJD deeply affected the running of HCP. Since 1998 it has been forbidden to use U.K. plasma and consequently it has had to be bought in from other countries. A previously free raw material has become regulated by market rules.

I think the major life change for us was in 1998 when the decision was made to stop using U.K. plasma because of the concern with BSE and vCJD and we had to go and buy our raw material—the major raw material; we had to learn what was going on in the wider world and we became much more aware of what our competitors were doing. And that

was also a question for our economic performance. Suddenly we had to find cash to go and buy these materials. (Business manager of MP1)

The ABC Story: A Management Solution

Within this context ABC has been a leitmotif for management change in the last two decades in HCP. The interest in a sharper costing methodology started in the 1980s but it was in the early 1990s that the HCP management board started to develop an ABC model. The first attempt at an application of ABC in HCP was in 1993. The awareness of the limited use of the low level accounting data in the organization drove the Architect to propose the introduction of a new approach which was more management oriented: ABC was considered apposite. The aim of the ABC project was to join accounting information with statistical data, which was to be translated into the language of managers using ‘activities’. But in 1993 contingent problems stopped the project in the concept phase. A lack of resources and a lack of top management commitment halted their first phase of ABC at HCP. Only in 1996–97 did the ABC project go ahead and a management accountant was employed for its development in one of the two manufacturing plants. The ABC design was supported by a consultant, who advised the project team, in an attempt to design cost information for management and not for use, just by accountants, as the following comment from the Architect shows:

We asked for the help of [...], he was of terrific help, to educate us and the team, because we drew a team of managers from across the organization who represented all the functions that we wanted the costing system to cover. Because we wanted this driven by the user and not another system an accountant devised, because we have plenty of them.

A second step was made but the urgent reorganization of the '90s stopped the ABC project again at the design phase; at that time the ABC model was built on high level activities, waiting for an appropriate software package choice before further development. HCP abandoned ABC temporarily, having realized that the organization, as a whole, was not efficiently structured and they were not able to achieve economies of scale in manufacturing and testing blood. Brunsson and Sahlin-Andersson (2000, p. 727) have described this as the *construction of rationality*. Top management realized that the organizational structure was not ‘intentional’ and not appropriate to the changed context. This process of company-ization (Brunsson, 1994) is the result on the one hand of the changes on the supply side, but on the other hand it was seen as the answer to the increased turbulence of markets, especially for segments providing products outside NHS. The need to remain competitive and to capture new customers is suggested by the director of MP2 as fundamental, as the following comment shows: ‘we operate in a global market. Twelve years ago we recognized the need for change—we had to change all the time to remain viable. We had to recognize that the market was changing and it continues to do so’ (MP2 Director). With this reshaped organization, an agreed decision of the management board led to the pursuit of the implementation and development of ABC, with the aim of getting a better understanding of HCP costs and building a useful tool for management decision making, as the Architect stated:

We trade worldwide, we do have contracts all over the world and we need better costing for that. So the primary driver for ABC was not needing a billing system, nor needing a pricing mechanism, it was entirely management information driven, which was nice, because we could design it as management tool and not as a short term pricing mechanism that never actually becomes a management tool. We compare what we do with other colleagues elsewhere who use it as a pricing tool and I don't think they are going much beyond that.

Despite this shared vision, the claims made for ABC were revealed to be multi-faceted, in line with the perspectives and the emphases given by different interviewees. Notwithstanding these differences, a common belief was perceived during the field study: Management perceived a need for a costing methodology and they chose ABC.

It is interesting to note that most of the interviewees were not able to justify the choice of this particular costing technology, whose selection seems to be more related to the presence of a champion of ABC in the organization and management's desire to use 'modern' techniques than to a real evaluation of its benefits and its costs. For example, the clinical director of a blood transfusion centre said that the reasons for choosing ABC, rather than another costing methodology, had never been formalized. He described the adoption of ABC as a 'blind belief' in this modern technology.

The lack of a formal cost benefit analysis of the policy to adopt ABC was not regarded by those interviewed as a problem. They considered ABC to be the right answer to external pressures for competing in a global market and for reducing budget expenditure. The reduced budget was an important trigger for looking outside the NHS, searching for new markets and possibilities to increase income. HCP has pursued this road in recent years, but being a public organization constrains this policy. The twin aims of efficiency and cost control consequently became complementary elements of HCP strategy, as the following comment from the Chief Implementer shows:

The motivation for that was our annual budget getting cut every year so the only way we can balance the books was *to try to get income in the door or to reduce cost*. Trying to get more income in the door over the last five years we were very successful by doing that, particularly working within context of public sector, *our biggest problem at the moment is not we don't have customers* if we had the commercial freedom to do it we could maybe triple the business overnight.

The comment highlights a contrast within the organization which derives from being between the public and the private sector. The process of company-ization emphasized by the awareness of being less 'protected' by the government, led managers to become more conscious of the organization, as this comment shows:

whereas in 90s-80s there was a sort of immortality about what we did, what the HCP does and we felt the need to be cost conscious but then at the end of the day the politicians would give us the money we required. There is a culture developing now, particularly in this part of the service, which is much more about continuing in the long term to deliver a good economic performance, we have become much more self-determined in how we run the business and when you make that sort of intellectual leap you have to have a good understanding of your costs. (Director of MP2)

These key informants put great emphasis on the need to sustain new, market oriented businesses, depicting them as the future of HCP. By contrast, the director of strategy affirmed the fundamental urgency of adopting a costing methodology in the traditional blood supply chain, for cost saving and not as a marketing strategy. The appearance of AIDS and vCJD dramatically increased the cost of processing and testing blood:

We now have to do special filtration to every single unit, which has a substantial cost for disposables, probably at least double costs for disposables, and substantially increases the labour cost, and the substantial quantity of overhead. Whereas until ten years ago we collected 500 ml of blood we could make three materials: red cells, platelets, and most of the plasma collected was fractionated into products. In the last three years we are no longer permitted to use that plasma. We have to be insulated, this is because of BSE, we have to import plasma from either the U.S. or other European countries that claim not to have BSE. If you like we went from a product whose value had three elements, we had lost one of them and we are seeking to obtain it at prices which are governed by the international price of plasma. Not surprisingly there is an international shortage of plasma and so basically they can charge whatever they want. (Initiator)

ABC Implementation: Try and Try Again

The perspectives expressed above underline the need for the ABC project which was felt to be more than necessary, it was urgent. The Architect, with the management board agreement, enrolled the Chief Implementer and the ABC project was extended to the whole organization. Five different project teams were built up for implementing the ABC technique throughout the organization: blood supply chain, first manufacturing plant (MP1), manufacturing plant for diagnostic services (MP2), clinical services, support services. However, there were aspects of the manner, timing and resources given to implementation which raise questions about senior management's commitment to a full-scale operational ABC system. This ABC implementation was carried out without the help of consultants; an external organization was enrolled only to provide software and some training courses for the implementers.

The first stage of the implementation was the identification of activities for each area, in which teams encountered different problems. First, they were not provided with sufficient training on the ABC conceptual framework. The move from the *generality* of what ABC purported to be to the *specific* requirements of this organization created difficulties for implementers without previous exposure to ABC. The problem was most evident in the clinical services where the team leader collected information from five different sites. He asked recipients to write down a map of activities and drivers but his incomplete knowledge of ABC and the culture of hospital clinicians not being prepared to 'talk to accounting people' (see also Jones, 1999) generated many problems.

At the beginning we didn't understand what they wanted from us, we didn't know how detailed we had to be and the meaning of drivers, it took several months to get into the job. You have to consider that we have done it in addition to our routine tasks. (Clinical Service Recipient)

Second, they had to upgrade the information collected in the ABC software, but the training was provided four months after the beginning of the project. Implementers lost a lot of time in understanding where and how to insert information.

As part of my training as an accountant I learnt some of the theory, but not very detailed and one difficulty was for example we are using software but we didn't have formal training since the beginning of August, which would have been useful to have had earlier. The fact that I didn't have training slowed down all the process of inserting information. (Implementer at MP2)

The lack of background knowledge on, and the specific requirements of, ABC at HCP and the non-alignment of training slowed down the implementation process and created confusion. As the Initiator stated, the implementers were not prepared for such a task, they had inadequate preparation and, moreover, they had to follow the ABC projects concurrently with their routine tasks, as the following comment illustrates:

They worked like hell to set it up and my sense was that the vast majority of the efforts in establishing that bit of ABC for the rest of the operational staff was entirely an addition to their existing job, and the finance people had an idea of the concept but actually they couldn't operationalize it: (a) they weren't prepared to spend the time, (b) they didn't have sufficient understanding of the processes. They were not prepared to get the understanding of the process that would allow them to do a significant part of basic data definition, without which things are guaranteed to give you the wrong financial information.

As the comment shows, another critical aspect of the implementation process was getting an understanding of the processes, because the teams were constituted by finance people, with no experience of the field and technical preparation. This experience underpins the complexity of the ABC implementation process, especially in complex organizations such as health care. ABC phases, especially the inventory of activities and the ascertainment of cost drivers (Innes and Mitchell, 1995), require a process knowledge that takes activity-based technology away from accounting ownership.

While this difficulty can be seen as common to all the teams, specific barriers were encountered in the different divisions of HCP. In clinical services the major problem was the initial resistance of clinicians. Such rejection on cultural grounds is suggested to be one of the most important reasons for ABC implementation failure (Roberts and Silvester, 1996). This finding resonates with the general finding that clinicians are reluctant to adopt, or are resistant to, accounting and budgeting information (Preston *et al.*, 1992; Jones and Dewing, 1997; Lapsley, 2001a). The particular field in which this issue was raised cannot be seen as chance: Two reasons can explain the differences in reaction by the users. First of all the cultural background. After the reorganization, the other four areas became more centrally controlled by HCP managers, but by contrast the clinical services were decentralized in the major hospitals and still remained under the responsibility of clinicians, who are less used to dealing with accounting, costing terminology and whose work is basically driven by the patients' interest. Secondly, the activities involved in the other four processes are indeed closer to a private sector operation. However, the

clinical services, in a virtual continuum, can be seen as the closest to the essence of public sector organizations. These issues are reflected in the comments of the Clinical Service Implementer (who encountered behavioural difficulties of acceptance) and DS Implementer (who did not encounter behavioural difficulties):

The major challenge is culture, their [clinicians] attitude to their cases is, well, 'I have to spend it is for the benefit of my patients', and I have extreme difficulties in arguing against that, because there is a patient benefit. At the end of the day somebody is going to have a different method of treatment, improved method of treatment, I find it very difficult argue against it but I've got to try and argue and say how are we going to pay for it. (Clinical Services Implementer)

The difficulties I had, not from the people, managers were totally behind it to realize that in their daily activity this information was extremely important. (Implementer at MP2)

Another operational difficulty was the identification of cost pools. The implementation teams approached the development of the ABC model differently, experiencing various problems in data aggregation. For example, the MP1 Implementer started the whole design from the existing cost centres, not from an inventory of activities. This reverse approach proved to be critical at the moment of linking costs to activities and created delays in the whole project. The other services approached the process in a traditional way, which helped to facilitate pooling the costs in accordance with the activities that cause them.

Though the diagnostic services seemed to be efficient and coherent in approaching their ABC design, some problems affected the implementation in this area too, in particular the collection of cost driver information. While the financial information was contained in the financial ledger, the non-financial information was collected from old, non-homogeneous reports, as the following comment shows:

historically within diagnostic services the costing information was very old, so there wasn't really reliable information in there. I have used some reports but for example the unit of measurement is not reported near the number; so that measure might be in litres or might be in millilitres. It was very difficult for me to know that one was litres and the other one millilitres. It was resolved by managers who know these things, by asking questions and by making mistakes. (Implementer at MP2)

Finally, a major operational problem during implementation was the incompatibility of the software with the two existing information systems that manage the financial information and the manufacturing cycle data. The situation forced the Diagnostic Services Implementer at MP2 to transfer the information among the systems manually. The non-sustainability of such a process has been recognized by all the interviewees but no solutions have yet been clearly defined. All of this undermines HCP's stated aim of having an operational ABC system.

ABC and the Complete Organization

The HCP can be set on the blurred and ambiguous boundary between public and private organizations (Metcalfe, 1993), with its divisions shifted differentially towards public or private. This heterogeneity entailed different needs and uses of

ABC, though under the same urgency of introducing a more precise costing technology. The two manufacturing plants share a major company-ization process (Brunsson, 1994) assuming many features of private companies derived from the need to compete in the outside market. The operational management is expected by top management to see the introduction of ABC as an essential tool for a better understanding of the cost of products and using it both for pricing policy and product rationalization, as the following comments show:

it was important we developed a costing methodology that would fit into pricing, and the pricing is important if we want any contracts outside the NHS because we were subsidising some activities and not fully recovering the cost. It was a danger that we weren't doing that because we were charging the marginal cost . . . another benefit of ABC is product rationalization, because at the moment we've got more than two hundred products, we are not Jack of all trades, it is not feasible. So we have been using the costing methodology developed in diagnostic services to look at profitability and see how we can rationalize their products. (Chief Implementer)

The goals of ABC suggested by the Chief Implementer were confirmed by documentation and other interviewees within the two manufacturing plants, but these objectives were depicted as potential and not so far realized. The ABC output, to date, is not considered reliable enough to inform management decisions, as this comment shows:

At the moment I don't think managers want to react to the information, because some data are missing. We need to develop and update it. But it more or less indicates which products are loss-making, but we need to validate the model. At the moment because it has not been updated and validated it gives the manager an excuse not to act upon it. (Implementer at Diagnostic Services, MP1)

The dynamic process of company-ization can be clearly seen in the MP1, in which previous attempts at introducing ABC were carried out. In particular, the way in which the first introduction was endorsed in one of the manufacturing plants clearly shows the process of picking out attractive individual bits from different institutions (Brunsson, 1994). A recipient observed: 'we were doing ABC because the Architect and some managers knew ABC, nobody knew what we were talking about but we knew we were enthusiastic about it. We didn't know what we wanted but we knew that we wanted it.'

The above comment portrays the adoption of ABC as an 'act of faith' (as one of the interviewees suggested) instead of the image of a conscious introduction of a technology suited for their purposes. The abortive failure and the consequent reorganization shape a situation described by Brunsson and Sahlin-Andersson (2000) in which the 'attraction' by a management technique can lead to looking at the organization and finding out its inappropriateness:

Policy makers or local managers may have been attracted by certain popular ideas about leadership or management accounting techniques, and later have found out that these ideas or techniques actually presuppose the existence of a complete organization. In arguing for the favoured techniques, they have then found it necessary to claim organizational status, and the concept of the organization has then inspired further organizational reforms.

The management have now been making a more conscious attempt at introducing ABC in the reshaped organization, nevertheless a major degree of resistance has slowed its implementation in the areas most affected by the reorganization: blood collection and the clinical services. The major resistance is reflected in the attitude towards the introduction of ABC, a technology which appeared to the recipients inappropriate for an organization not driven by profit but by the creation and support of values (Brunsson, 1994). There are differences within the constituent elements of the HCP which reveal the loosely coupled nature (Weick, 2001) of the organization and the pressures of the ‘near-market’ part of the HCP, as the following comment from a Recipient, the Director of MP1, illustrates:

Except for ourselves and diagnostic services [MP2], the rest of the service is driven . . . if you ask the manager of the clinical directorates or the supply chain what their priorities are on Monday morning they won’t be economic performance, it is about looking at the patients, collecting enough blood, satisfying the minister’s requirements on hepatitis C, there tend to be more political issues, but there is an emerging political concern about the cost of blood that is going up and up. On the other hand in the manufacturing bits of the organization (actually clinical diagnostics is just as aware if not more so), we actually have to interface with the commercial industrial part of the world as well. We sit between a sort of public sector and ministerial stuff and have the heartache of actually delivering and dealing with economic performance. (Recipient 1, MP1)

Nevertheless as the Recipient acknowledges, it is the battle for economic performance which is important, as the HCP seeks to transform itself into a ‘complete organization’ in the search for legitimacy.

Ultimately, however, the accountants acknowledge that, after a decade, only modest progress has been made in devising an operational ABC system. The management accountant summed up progress on ABC as follows:

Things go slowly—we are not there yet . . . the managers on the ground are not using ABC, because ABC reports are not given to them routinely . . . The ABC models are used on an *ad hoc* basis, if at all. We are not certain of when we will go to monthly reports. This is more of a long term plan. Then every month there is something changing. ABC information has frailties. A lot of our work is still a first stab. It doesn’t seem quite right. But we should have a better idea of outcomes and inputs. There is a bit of ‘tweaking’ going on.

The management accountant saw ABC as an *ad hoc* costing system which would provide back-up to the present budgetary system and an input into strategy development. However, the management accountant acknowledged that the ABC system was not operational and that to date there was no definite plan as to when ABC would become operational, or for a full evaluation of the work done. The management accountant suggested that those areas of the HCP which had found ABC to be of some use should be able to continue with it, but that it was not compulsory. Interestingly, at this time, in terms of imperatives, the director of finance had an action list of important tasks listed on a whiteboard. There was no mention of ABC. This is an example of an organization paying more attention to the appearance of what they do than to the actions themselves (Mouritsen, 1994).

CONCLUSION: FROM GIFT RELATIONSHIP
TO COMPLETE ORGANIZATION

This research has examined the implementation of ABC in a health care setting. This implementation process has taken a decade. But ABC is not yet operational. These findings confirm Suchman's (1995) observation that early adopters of innovation reside at or near the locus of theorization and adopt innovations for instrumental reasons, but late adopters (such as HCP) are remote (as HCP is from the private sector origins of ABC), and where the innovation is adopted for reasons of meaning and legitimation. Nevertheless, as noted in passing, despite the technical difficulties of implementation in a complex multi-product public service organization, certain senior managers support, or lay claim to, ABC as one of their tools. This phenomenon can be viewed in the light of significant disruption in the external environment of this organization which has shaped the manner in which it has sought to project itself as modern, as legitimate—as a 'complete organization'. Given the change of direction of HCP, both in terms of its purchase of plasma in commercial markets, and its active pursuit of lucrative contracts to ease the constraints of being funded as a public sector agency, there is a very strong sense that the transformation of this organization is company-ization, a move to the complete organization. This outcome is intensified by medical innovation. Specifically, the imminent advent of commercial products which are given to patients instead of, and are as effective as, human plasma in hospitals. With such innovations and the dwindling number of targeted donors (for reasons of safety, risks and the need for specific antibodies), the very core—the gift relationship—which has sustained this institution for decades is threatened, and the pressures for the HCP to become a 'complete' organization become inevitable. In all of this, the adoption of ABC as a badge of efficiency is questionable. This is in the face of uncertainties in the environment over markets for its products, its relationship with donors and with funding agencies. At best ABC is part of an exercise in legitimacy.

This study has shown the merits of case study research which gathers findings in depth and which reveals a richer story than survey methods which would have reported an ABC implementation. Also, in examining the portability of accounting technologies for management which originate in the private sector, the findings of this work support the view that the underlying complexity of public sector organizations undermines the simple transfer of ideas and practices from private to public sector. This study also points to the careful examination of language in change situations. The adoption of business language may not serve an instrumental purpose: The adopting organization may be seeking to portray itself as 'different' (especially from its public sector origins) and may use the vocabularies of modern accounting and business practice in the private sector to paint a particular picture of itself. This finding on language is intensified by the findings on, and need to study, the impact of the external environment on organizational practices. In this study, mimicry of what was considered best private sector practice and the need to portray the organization as 'modern' and 'complete' to legitimate its activities were important elements of the adoption of ABC. This research underlines the need to look at

interdependencies in studying accounting changes in organizations in general but in public sector organizations in particular. The interweaving of instrumental and symbolic logics for the adoption of specific technologies is an important element of understanding the nature of organizational changes in accounting practices.

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