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The Migration of Bureaucracy: Contracting and the Regulation of Labour in the Telecommunications Industry

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Abstract

This is a study of the reconfiguration of bureaucracy based on a case study of subcontracting within BT plc, the UK's largest telecommunications firm. The 1990s have witnessed significant quantitative and qualitative changes in the utilisation and management of subcontracting. The expansion in the use of subcontractors in this period was paralleled by reforms to the processes of negotiation, administration and monitoring contracts. This article traces these developments and analyses their implications. The continuing process of reform saw a significant redrawing of the boundaries of responsibility between the patron firm and its supplier, as discrete elements of the production process were transferred to the remit of the subcontractors. This *migration* of responsibility was, however, predicated upon the *exportation of bureaucracy*, from the patron to the supplier; the relocation of the bureaucratic mechanisms appropriate to the management of the widening range of tasks. The movement towards an increased reliance on external sources of labour could ostensibly bring greater exposure to market imperatives, however, it is argued that contrary to the theme of dismantling hierarchical employment structures, these reforms represented the reconfiguration of the bureaucratic organisation of production.

The Migration of Bureaucracy: Contracting and the Regulation of Labour in the Telecommunications Industry

The reported demise of internal labour markets over the course of the 1980s and 1990s has led to a renewed interest in contracting as an instrument of economic organisation. According to Deakin and Michie (1997) one of the key features of the deregulation of the economy over the past two decades has been the revival of the contract as the foremost organising mechanism of economic activity. The emergence of external contracting represents a significant development in the organisation of production, relocating the mediation of the firm's activities through a series of commercial contracts rather than via vertically integrated bureaucratic structures. This ostensibly means the movement away from hierarchical relationships, and toward market based exchange. Such developments have implications for both the mediation of the relationship between two discrete capitals, and the nature of the capital-labour relationship. For example the patron firm relies upon the contribution within production of labour with which it no longer has a direct employment relationship. There is therefore a need to ensure suitable mechanisms are in place to regulate the capital-labour relationship in the absence of a direct employment contract.

This article examines these issues through a case study of BT plc. The employment relationship within BT has traditionally been regulated through structures and mechanisms associable with a classic internal labour market (Batstone *et al* 1984).

The reform of employment structures and practices has been a long running feature within BT (Batstone *et al* 1984; Ferner and Colling 1991; Smith and Terry 1993). In the 1990s the pace of reform has accelerated. In the context of a major labour shedding programme, which saw more than 100,000 employees leave the firm within a five year period, BT changed the nature of employment within the firm and transformed the firm's dealings with the external labour market. In keeping with wider labour market developments, the boundaries between the internal and external labour markets have been shifted through the increased use of subcontracting. This led to the reorganisation of production in areas put out to contract, a shift in the capital-labour relationship, and the reform of the mechanisms by which BT co-ordinated activities in key areas of work. It has been argued elsewhere (MacKenzie 2000) that the shift to a less regulated form of labour supply led to unforeseen outcomes, which necessitated the effective re-regulation of the capital-labour relationship. This broader redefinition of the firm's relationship with the external market was facilitated by the restructuring and realignment of its existing contracting arrangements explored here. This article argues, however, that the expansion of the use of subcontracting led to a series of reforms to the contracting process that blurred the notion of a nominal shift towards more market based approaches to contracting for labour.

Following a review of pertinent debates within the literature and a discussion of methodology, the article traces the programme of reform of subcontracting arrangements that accompanied, or rather facilitated, the increased use of such labour. The process involved the rationalisation of the number of contract partners and a movement towards much larger contracts with fewer supply firms. This was paralleled by the reform of the internal mechanisms for the negotiation, administration and

monitoring of contracts, which reflected the development of a heightened level of bureaucratic underpinning to support the increased recourse to external market sources. The establishment of these new internal structures provided the basis for the continued reform of the contracting process. This saw the development of a new regime of contracting, based on the redrawing of the boundaries of responsibilities between contract partners, and the increased reliance on the terms of the contract as a mechanism of control over labour within the organisation of production. Ostensibly this could be taken to represent the movement away from the underpinning of subcontracting by internal bureaucratic functions. It is argued, however, that the *migration* of responsibilities associated with this process was predicated upon the exportation of the appropriate administrative mechanisms and management systems to perform the new role, and that rather than representing the supplanting of bureaucracy with market relations, this represented the reconfiguration of bureaucracy within the contract relationship. The penultimate section reflects on some of the theoretical considerations to be drawn from these developments, notably in terms of transactions costs analysis and role of bureaucracy. A summary and conclusion follow.

The Contract Relationship

The growth in the utilisation of subcontracting over the past two decades has been recorded in various studies (Hunter *et al* 1993; Marginson 1989; McGregor and Sproull 1991; Wood and Smith 1987). The recent WERS study demonstrates the pervasiveness of subcontracting within UK industry (Cully *et al* 1999), echoing Deakin and Michie's (1997) contention on the significant revival of the contract as a

mechanism for organising economic activity. The administration of commercial operations through Weberian (1968) bureaucracy was becoming increasingly displaced by more market orientated mechanisms of governance. With subcontracting apparently increasing in importance a great deal of attention has been paid in recent research to the nature of contract relationships. Emphasis has been given to longer term, more stable contract relationships which bear increasingly distant relation to spot contracts and market transactions. The benefits of long-term contracts have been heralded at both a theoretical and empirical level. Exponents of transactions costs analysis point to the advantages associated with the 'harmonisation of interests' (Williamson 1991), or the reduction of 'goal incongruity' (Ouchi 1980), and the benefits of 'managed markets' (Butler and Carney 1983) augmented by mechanisms usually associated with hierarchical forms of organisation. Alternatively, Stinchcombe(1990) points to ways in which uncertainty over future events, which may act as an incentive for hierarchical organisation, have been obviated in areas of the economy primarily organized through contracts by the existence of 'contractual functional substitutes for hierarchy' (Stinchcombe 1990, 196), including relations of command, incentive systems, standard operating procedures, dispute resolution structures, and pricing variations that are partially insulated from market forces.

On an empirical level the research associated with the apparent growth of interest in so called Japanese style 'relational' (Oliver and Wilkinson 1992) or 'obligational' (Sako 1992) contract relationships provide an insight into such subcontracting arrangements (Trevor and Christie 1988; Turnbull 1991). Many of the features of the 'Japanese style' contracts are mirrored elsewhere, within 'supplier partnerships' or 'partnership sourcing' arrangements (Collins 1997). These are discrete capitals

engaged in long term relationships, founded on loyalty and trust, in which contract partners are less likely to take a short term view or act opportunistically (Sako 1992).

Yet we must also understand the processes by which such relations are constructed; moving from arms length, spot market contracts to ‘obligational’ contracting may be a protracted process, requiring interim measures and structures to help facilitate the development of such relations. Trust must, therefore, be rooted in the institutional framework or contractual environment within which it operates (Deakin *et al* 1997). Such ethereal qualities should not be reified to the extent that they obscure the more tangible structures and mechanisms that underpin them, such as substantive regulatory mechanisms and accreditation systems (Collins 1997; Deakin *et al* 1997). Collins (1997) suggests that large firms can compel suppliers to comply to such schemes. This raises a crucial point over the nature and conduct of contract relations, when this represents the articulation of a power relationship. Exchange is not evenly balanced, as assumed in many contributions to the analysis of contract relations – including Transactions Costs analysis. Issues of respective degrees of dependency, the distribution of the costs of termination, and the allocation of risk, are both reflections and functions of the articulation of power (Bowles and Gintis 1993; Deakin and Walsh 1996; Macneil 1981; Pfeffer and Salancik 1978).

Although this issue of the mediation of the relationship between two capitals is important it must be remembered that subcontracting also represents a reorganisation of labour within production (Nolan 1983), and thus holds implications for the capital-labour relationship. Over the 1980s and 1990s firms have increasingly dismantled the traditional internal labour market mechanisms for the regulation of the employment

relationship. This has necessitated the development of alternative mechanisms of regulation. Significantly firms have sought to utilize intermediaries between the internal and external labour markets (Gottfried 1992; Peck and Theodore 1998). Overcoming the uncertainty introduced into the capital-labour relationship by the deregulation implicit in the shift to non-standard employment contracts is not just an issue of supply. There is also the problem of underwriting the contribution of labour within production in the absence of the mechanisms of control associated with the internal structures of the firm (Edwards 1979). Peck and Theodore's (1998) work on the intermediary role played by temporary employment agencies notes the extension of their sphere of control from the labour market into the labour process (Peck and Theodore 1998: 665). Subcontracting ostensibly distances the firm from such employment issues (Atkinson and Meager 1986). If intermediaries are introduced to regulate the employment relationship, there remains a need for mechanisms by which to govern the relationship between the patron and the intermediary. This returns to the issue of contracting and the relationship between contract partners.

To draw these threads together, there is a need to examine how the contracting process works to address these issues; to demonstrate the link between the nature of the contract relationship between patron and supplier, the mechanisms by which this is mediated, and the use of subcontracting as an alternate approach to the management of labour in production. This study examines the development of a contracting system that sought to address the problems of mediating the commercial relationship between firms to ensure the requisite delivery and performance, and furthermore, act as a mechanism for underwriting the contribution of labour within production.

Methodology

The data utilized within this article was collected using semi-structured interviews and non-participant observation within BT and several of its contract partners. The contracting process was traced from end to end through the structures of the firm, and beyond. Interviews were conducted with representatives from the internal operational groups that impacted directly and indirectly upon the contracting process. This included senior operational managers with responsibility for the performance of work whether by direct labour or subcontract, senior, middle and line management within the contracting function, and representatives from each subsequent stage of the contracting process, from the initial decision making through the allocation and planning of work, to the day-to-day interface and inspection functions. At an operational level, case studies were conducted in two of the twelve geographic zones into which the field engineering functions were organized, comparisons between which helped validate the findings from the data collected. Interviews were also conducted with the with representatives form the industrial relations function within BT, at the corporate, national divisional, and operational levels, plus representatives from the Communications Workers Union (CWU) at both the national and local level. Although the utilisation of external labour was subject to influence of the internal industrial relations mechanisms (see MacKenzie 2000), the union's involvement with the contracting process was purely internal to BT. The relationship between BT and its external labour supply was beyond the province of exiting mechanisms of joint regulation.

As the engagement of labour for use within production went beyond the boundary of the firm, analysis followed this path. A series of interviews were conducted with representatives from each of the main contract partners, and with a representative from a firm subcontracted by one of these partners, and thus twice removed from BT. More than eighty interviews were conducted over the various stages of the research process. In the course of the research the opportunity arose to attend a series of Review Meetings, to observe the conduct of the meetings, processes at work, and the dynamics that characterized what represented the main operational interface between BT and its contract partners. These Review Meetings provided crucial insights into the nature of the relationship between BT and its suppliers. Non-participant observation was also conducted through the attendance of unannounced site inspections by both BT and one of its contract partners. The use of observation at both the review meetings and site visits allowed a more naturalistic insight into the relationship between the research participants, and facilitated the triangulation of findings from the interview data. The research was funded by a grant from the Economic and Social Research Council.

Contracting and the Organisation of Production within BT

There was a long precedence within BT for operating within the external labour market on a contingency basis to supplement the labour available on the internal market (Cmnd 3218, 1967). Since the late 1980s the use of such labour had proliferated throughout the corporation, management estimates put this at around 10% of the total workforce. The focus of the study, however, is upon the unprecedented

expansion of the use of contract labour in the network engineering functions during the early to mid 1990s [1]. According to union figures the presence of contract workers within the field engineering functions grew from less than ten to around ten thousand. The majority of this growth in the use of contractors was in civil engineering work - digging the trenches, building underground chambers, laying the duct to carry cables - and 'cable and jointing' - laying the cable and connecting it into the existing network, a telecoms specific task never outsourced previously. These significant changes, both quantitative and qualitative, in the use of contractors within the firm during the 1990s, were paralleled by reforms to the processes of negotiation, administration and monitoring contracts. This in turn reflected a wider change in the nature of the relationship between BT and its contract partners, and thus by extension BT's policy towards involvement in the external labour market. The expansion of the use of subcontract labour was predicated upon the restructuring of the firms dealings with the external market, but this required the development of the internal machinery to co-ordinate the implementation of these reforms, and deal with the potential consequences. The movement towards an increased reliance on external sources could ostensibly bring greater exposure to market imperatives; however, in this case the reform of the contracting processes demonstrated some contradictory tendencies

The Bureaucracy of Contracting

Traditionally contracts had been let through localized contract offices, on the basis of individual pieces of work. Contracts Managers would tend to maintain a list of preferred local firms, and tender amongst them for the execution of the work. Over a

period of years BT centralized and rationalized the contracting process. The responsibility for tendering and negotiating was incrementally relocated, moved from being a local operational function, to Local Procurement, and then in 1991 to a nationally centralized procurement function, namely Supply Management. Paralleling this process, the number of suppliers was rationalized, from literally hundreds of small local suppliers working on individual contracts, to a handful of much larger contracts. Supply firms were registered on BT's *Qualified Suppliers List*, an accolade requiring external qualification for BS5750 quality accreditation, plus internal endorsement from Supply Management, thus representing an attempt to ensure that the general quality of suppliers was underwritten by both internal and external qualifications (Collins 1997). This created the 'Term Contractor' system, which designated all work of a particular type, within a given geographical zone to a specific supplier - rather than allocating jobs on an individual basis - for execution under the general contract terms established in negotiation with Supply Management. The duration of tender periods varied by work area, but the emphasis was on developing more stable relationships with the suppliers, with contracts running for up to three years.

Contracts were let on a zonal basis, via Supply Management; however, in a simultaneous process of centralisation and decentralisation, it was within the zones that the mechanisms were in place for administration and monitoring of the contracts, through the various functions of the 'Contracts Groups' operational at this level. The role of the Contracts Group changed over the course of the 1990s, in reflection of the wider 'evolution' of the contract process. Traditionally the Contracts Group provided the main interface between BT and its suppliers, liaising between the external firm and any relevant functions internal to BT, such as the Planning Office, BT stores, or

Logistics. The Group also took responsibility for monitoring the conduct of the contract. Analytically this could be divided into two forms: the direct monitoring of the work performed by contract labour; and the monitoring of the supply firm's overall compliance to the terms of the contract, although this distinction became increasingly blurred by reforms of the system. The reorganisation of the internal mechanisms for contracting, and the reconfiguration of the profile of external suppliers was complemented by a radical reshaping of the terms and conditions of the relationship between the parties involved, institutionalized within the development of a new form of contract, known as the CAT type contract. As well as representing much larger contracts in terms of duration, work volumes and value, the CAT form symbolized a wider movement that sought to establish a new contracting regime through initiatives that followed the broad logic of systematising procedure and asserting control over the contracting process.

The Migration of Responsibilities

A key aspect of this new form of contract was the incremental relocation of responsibilities away from BT and to the contractor. Subsequent generations of the CAT contracts diminished the role played by BT internal functions within the execution of work by external labour, and supplanted direct involvement with governance through the terms of the contract, thus metamorphosing both the role of the contractor and of the Contracts units within BT. Crucially the first generation of CAT contracts altered the process of supervision and monitoring of work performed by external labour. Previously BT staff would have provided instructions for the

conduct of the work and directly monitored the performance of the labour to ensure the required standards of productivity and quality were met. Under the new system the contractor became responsible for the supervision of their own staff and the quality control of the product, with the emphasis of BT monitoring moving from direct surveillance towards contemporaneous and retrospective quality checks.

Traditionally, quality issues had been left to the discretion of the BT Works Supervisor to ensure that the performance of the contractors was satisfactory. The new CAT contract regime brought about the establishment of systematic and standardized quality checking within BT, through the development of a specified 'check list'. The establishment of the internal quality system facilitated the further migration of responsibility, as the development of commensurate systems and standards within the contract partner was encouraged, which provided for the passage of the obligation for supervision and the monitoring of quality to the supply firm. The process was predicated upon training the supply firm's Contract Agents to the standard of supervision equivalent to internal specifications, for which courses were provided at BT's training school. Indeed, one Contract Manager lamented the constraint placed upon the deployment of the system by the capacity of the school to process the additional training demands.

BT therefore became increasingly reliant upon the process of monitoring the conduct of work through the monitoring of the terms of the contract. This was underpinned by the exportation of systems and processes - the monitoring of the data relating to the quality of work became a function of the frequent Review Meetings between BT Contract Management and the contract partners. Furthermore, whereas

previously a BT supervisors' role contained a considerable amount of on-site operational involvement including acting as intermediary between the contractor and the various relevant BT units; the contractor and the customer; the police; the Local Authority and any other agencies involved - plus general 'problem solving' to ensure the smooth running of the work under contract. All these additional on-site responsibilities transferred to the supply firms' Contract Agent.

In addition, the process for the allocation of work became rationalized, by-passing the mediating role of the Contracts Group, and thus further facilitating its redefinition as a quality liaison function rather than a operationally involved unit. As the process progressed more functions were exported to the contractor, for example the storage of materials and crucially aspects of the planning of work, both of which required the development of new areas of competency and appropriate management systems within the supply firm. These developments represented almost a new dimension to contracting. The horizontal spread of contractors into new work areas was a contentious industrial relations issue. However these new forms of contracts provided for the growth of contracting along a vertical axis in areas of work where the presence of non-direct labour at ground level was already established. The migration of responsibilities was a less visible form of expanding the role of contracting, which allowed for the reduction of BT staff within the contracts related functions - Contracts Managers, Works Supervisors [2], Planning, Stores, and so on - the ironic self consumption of the contracting functions. It 'slickened' the process, and fitted into a twin logic of appearing to cut operating costs, through reducing BT involvement (which also provided for labour shedding) and the wider logic of moving towards the

'market'. Therefore BT moved closer to the position of utilising such services as 'purchaser, not administrator'.

This process seemed to be dismantling the structures established to underpin the contract relationship under the previous regime, substituting the terms of the contract for the bureaucratic structures. The incremental development of the CAT style contract must, however, be set in the wider context of the changing nature of the contract relationship. At the zonal level BT had sought to move towards forging long term relationships with its contract partners; to move away from the apparently out-moded mind set of what one manager described as 'beating the contractors'; to develop trust, familiarity, and a degree of informality, to benefit the running of the contract.

Performance, Compulsion, and Discipline

This increased reliance on the terms of contract as a mechanism of compulsion, underpinned by a new approach to the fostering of relations with contract partners was exemplified within the issue of quality and performance of work. Quality was a key concern within the new contract regime. In one of the zones studied the move away from direct supervision by BT Works Supervisors initially caused a downturn in the quality rating of contractor performance, based on the number of 'failed' jobs. In 1992 in one area of work the failure rate of jobs performed by contract was as high as 60%. The development of internal quality and monitoring systems within the contractor firms, plus the supervisory role of the Contracts Agents, raised the success rate from

40% to 80% by 1995; in 1996 92% success was being achieved. The ground level supervision may not necessarily have changed in tone particularly, however, the direction of work, the monitoring of labour, the incentives offered, or the coercion employed were no longer a direct function of BT. The direct assertion of control over the labour process was exported to the new supervisory functions of the supply firms, whilst the ultimate need to ensure the contribution of labour within production became upheld through the mechanisms of the contract relationship. As such these processes were ostensibly invisible to BT -albeit that they were refined through a degree of involvement and exertion of influence that belied the remoteness implied by a transaction based relationship.

In addition to the issues of quality, compulsion, and discipline, the nature of BT's response to unsatisfactory performance again provided an interesting insight into the changes in the nature of the relationship with contractors. Under the system of numerous atomized contracts, prior to 1991, the practice of termination had been more prevalent. BT managers involved in the process at the time conceded that the firm developed a reputation for ready recourse to 'market solutions', a view echoed by representatives from the contracting industry. Even under the new contract regime developed in the early-to-mid 1990s, characterized by fewer partners and closer more stable relations, the market oriented solutions persisted. Withholding payments, or starving particular contractors of custom by diverting work to alternative suppliers as an incentive to recalcitrant contractors to 'get their act together', and ultimately termination remained within the arsenal of coercive measures utilized by BT. However such coercive approaches represented the 'harder line' within a range of options, and an extreme to which BT management themselves claimed to be more

reluctant to venture due to the perception that such action was no longer considered to be in BT's best interests. Such coercive measures were of diminished utility in terms of actually getting the job done, which perhaps reflected a position of increased dependency upon contractors for the performance of work to meet the imperatives of operational needs in light of the reduced direct labour alternatives. The increased commitment of larger contracts and workloads militated against such action; however these new terms also offered new alternatives. The bureaucratic linkages between the patron and supplier firm, and the new nature of the contract relationship, provided mechanisms and processes for problem solving where previously market based punitive measures such as termination would have been invoked. It could be argued that such developments represent a retreat from the logic of the market, and the institutionalisation of solutions based on 'voice' rather than 'exit' (Hirschman 1970).

The changed nature of the contract relationship was demonstrated by an initiative taken to address quality problems; a second level Contracts Manager led a team of BT staff on a 'Road-show' - visiting contract workers on site to deliver presentations promoting quality of work issues. A plateau had been reached in the quality improvements achieved through the development of management systems and monitoring of work, and it was felt that a new approach was needed to 'reach the people in the trenches' (Field notes. *This was a literal reference to civil engineering workers, rather than a militaristic metaphor*). The use of such techniques for communication to direct staff may have become commonplace within BT over recent years, but to extend the process to contract workers represented a significant development in the nature of the contract relationship.

Within this wider movement there was a subtle but notable change in the notion of culpability for poor performance. Under the traditional system poor performance was regarded as the fault of the external firm as an entity, and as such the external firm would be held culpable. The shift to the role of the Term Contractor as the supervisor of the ground level workers had changed this process. Intuitively this should have passed greater culpability to the outside firm, however the development of the closer relationship had been characterized by an increased degree of tolerance of performance problems. The establishment of quality monitoring systems, that rendered the performance of ground level worker visible to BT, shifted the onus of blame. The contracts firms were not routinely disciplined through the market, but through the communication of problems to their management structure - as if due to the establishment of systems and procedures - both sets of management implicitly subscribed to the view that the real source of the performance problems lay within the ground level labour, and thus sought united solutions to address this. In addition these bureaucratic linkages reflected a subtle but perceptible shift in attitude towards the management of contract labour within the organisation of production. For the patron firm, guaranteeing performance that achieved the desired quality and productivity depended not on the transaction with the external firm as a unitary entity, but on the exertion of control over the labour working within it. The panoply of reforms within the contracts regime could be seen as attempts to ensure that the movement beyond the structures of the internal labour market could be pursued with increasing confidence regarding the assertion of control over labour within production.

Analytical Implications

The continued assertion of control over labour within the production process must be seen as a key factor in the restructuring of the contracting process, but can these reforms be reconciled with other analytical approaches? To return to the contribution of neo-institutional economics, such developments would be explained in terms of their capacity to render transactions costs efficiencies (Williamson 1975). Invoking the logic of transactions costs analysis, however, reveals some interesting and contradictory implications.

The reform of the contracting process within BT had led to a situation of more stable, committed and complex relations with fewer contract partners. The development of long term, high trust, contract relationships as a means of addressing the problems apparent in individualistic contracting arrangements have been well documented (Williamson 1975; Deakin *et al* 1997; Collins 1997; Macneil 1981). In transactions costs terms the advantages accruing to such arrangements would have to outweigh the potential problems associated with bi-lateral monopoly situations arising from small number exchanges (Williamson 1975).

Bowles and Gintis (1993) point out that the *Darwinesque*, ex post efficiency, deterministic logic of transaction costs analysis assumes that the fact that one form of organisation supersedes another reflects its superior capacity for transactions costs efficiencies. Furthermore, as Nolan (1991) draws attention to, the malleability of the framework is such that it can cope with contradictions in its own terms of reference, and thus be similarly applied to logically opposing developments. Such increased

levels of commitment to fewer suppliers raised obvious dangers of dependency. These pressures would be heightened as an initiative to reorganize production led to the further rationalisation of the supply base, which in transactions costs terms again brought both potential efficiencies and possible dangers. In the round of contracts issued in the mid-to-late 1990s the production process for network construction had been divided into the civil engineering element and 'cable and jointing' work, with separate contracts allocated to different suppliers.

BT's policy of withdrawal had put the onus on the two contractors to liaise with one another directly - but whether due to inability or unwillingness, co-ordination had seemed to have been a problem. Overcoming the difficulties represented by the need to co-ordinate the passage across the interface between two stages of production through uniting the stages under one agent, would have followed a familiar transactions costs logic (Williamson 1975). The extension of this logic would hold that the end to end process could be wholly incorporated within one agent, thus establishing an integrated, network building, supply company. The contracts issued in 2000 combined these functions under the auspices of one contractor. This brought the two stages of the production process under the control of one firm, and therefore served the logic of the superior transactions costs efficiencies associated with co-ordinating the passage across stages of production through hierarchy rather than contract. However, this also reduced the number of contracts utilized, thereby moving further towards small number exchange, and heightening the dangers of bi-lateral monopoly situation (Williamson 1975).

In a situation that had come to be characterized by the general lack of discipline from direct competition, the Supply Management function had taken the role of monitoring and comparing the performance of various contractors operating across the different zones, albeit not in direct competition, in a system akin to the 'Yardstick' regulation of the regionally based utilities. Over dependency on a single supplier in a particular zone was supposedly precluded by the implied threat of competition, inherent in the capacity of an alternative supplier from another zone to take over the running of the contract in the event of unsatisfactory performance. The take-over of the contract by an existing supplier from a another zone, one with all the appropriate systems in place, would have had obvious advantages; however, this would ultimately have served to reduce the overall number of suppliers and increase the pressure on the issue of over-dependency. The potential dangers of a bi-lateral monopoly situation should have provided concern for both parties to a given contract. Supply firms were highly committed to BT - in some cases up to ninety percent of business depended on BT. In turn BT was highly committed to particular suppliers; a supply firm's failure would have been damaging for BT in terms of meeting operational requirements. To avoid such eventualities an 'open book' policy was operated, whereby BT could monitor the financial health of their partners. The power relationship implicit in this instance perhaps diminished the 'bi-lateral' nature of things, but it is well documented that power is a phenomena which is of little consequence within transaction costs analysis (Bowles and Gintis 1993). Furthermore, in terms of 'resource dependence', the vulnerability of the small supply firms was far in excess of that of the large patron organisation (Pfeffer and Salancik 1978).

The process of rationalising the number of suppliers to create a single point of contact 'Term Contractor' could be regarded as having been advantageous in reducing the number of individual contracts previously made with small suppliers. In actual fact, the original small suppliers largely remained in place; the ground level labour stayed relatively constant with regards to the individuals involved, but worked to the Term Contractor rather than direct to BT. The Term Contractor therefore supplied labour on the basis of a mixture of its own directly employed workers supplemented by further subcontracted labour. The 'Term Contractor' role was one of contract management; in addition to the responsibilities they eventually assumed from their major client, the firm had also taken on much of the management and liaison functions of the small individual suppliers. The advantages to BT were obvious - the reduction in the number of contract negotiations and repeated administration processes, with resultant cost savings from staff reductions, plus the exportation of concerns over the quality and supply of labour, as such issues ostensibly became the concerns of the Term Contractor. The role of regulating the supply of external labour was migrated. It must be remembered, however, that this did not remove the necessity to make the spot contracts from the overall process, it merely externalized it; the cost of negotiating and monitoring individual contracts remained.

In terms of the efficient execution of the production process, the number of movements across work stations that had to be individually contracted for remained constant, albeit now remote from the purchaser. In fact an extra stage could have been said to have been introduced, for although the Term Contractor represented the exportation of bureaucracy from BT, as the purchaser, the patron firm retained its capacity to monitor the contracts. One major contract may have replaced a series of

smaller spot contracts for BT and its internal administrative functions, but in the overall process it complemented rather than wholly substituted for individual contracts. However, any presumption of additional transactions costs, must be reconciled with the development of superior methods, and proficiency, in monitoring the work done by contracts. A shift in the powers to monitor contracts was in fact regarded as a prime method of reducing transactions costs (Williamson 1975) - again the duality of possible interpretations undermines the usefulness of this form of analysis (Nolan 1991). Furthermore, transactions costs considerations must be offset by more visible operating costs. BT's systems for administering such contracts became highly developed, and sufficiently proficient for BT to want to see them replicated in whatever entity was set to supersede the internal mechanisms. Nevertheless, reducing BT's administrative involvement brought cost savings, in relation to the price paid to the Term Contractor to adopt these functions. The parallel development a more systematic approach to cost comparisons meant that in theory the utilisation of contract labour would be limited to instances where it could be justified in commercial terms.

The shift in the capacity to monitor contracts and the performance of work was precipitated by the reform of the bureaucratic mechanisms of governance. It has been suggested that the processes of rationalisation and centralisation created an essentially bureaucratic underpinning for the contract relationship. In turn, the later generations of the CAT form of contract appeared to dismantle aspects of this bureaucracy, and seemed to represent a move towards the logic of the market. At various stages of development this represented the combination of bureaucratic and market mechanisms (Ouchi 1979), the issue is that the locus of this bureaucratic support shifted. An

extensive internal apparatus grew up to support the market relationship with external suppliers. Internal functions were developed with specific responsibility for the administration of work performed by external labour. In a model of bureaucracy consistent with Weber's (1968) classic model, rules were established to govern performance, a hierarchy of tasks descending through the decision to utilize contractors, through the planning and allocation of work, to the management and supervision of the labour process and the monitoring of the quality of work. A set of rules institutionalized within mechanisms of administration, populated by officials with no direct ownership over these mechanisms, for the co-ordination of activity - in this case economic. The hierarchy of tasks remained in place; however the point at which this hierarchy crossed the boundary of the firm changed. To accommodate this the rules and procedures that governed these activities, which were previously a function of the apparatus of the patron firm, also shifted. The function was exported and so were the structures, not physically, but by virtue of their reproduction in the apparatus of another economic entity.

Ostensibly BT became more reliant on the terms of contract to ensure work was performed as required, but essentially this was relying on the terms of the contract to monitor the functioning of the relocated bureaucratic mechanisms. Given the history of development this was qualitatively different from a market relationship between two discrete capitals with their own internal bureaucracies, and in no way meant the substitution of the price mechanism as the means of transmitting information and the basis for decision making. This shift in the terms of contracting for labour represented the reorganisation of production process. However, the organisation of the production must be such that it guarantees the continued, and increasing, contribution of labour.

BT had forgone the direct supervision of the labour process, for reliance on the terms of contract to underwrite delivery. Again, however, this eventuality was predicated upon the redefinition of the bureaucratic mechanisms needed to maintain the supervision of the labour process. This was not so much the assertion of bureaucratic control of labour as defined by Edwards (1979), but rather the provision of the bureaucratic apparatus to facilitate the continued assertion of essentially 'simple control' through direct supervision and monitoring.

Conclusion

Ostensibly the increased use of alternative supplies of labour represented a movement away from an organisation of work characterized by bureaucratic systems of regulation, and towards more 'market' oriented arrangements. It has been argued, however, that the actual nature of the developments within this broad logic demonstrated sufficient contradictions to challenge this notion of a nominal shift from bureaucracy to the market.

The programme of change initiated in order to revize the terms of the contracting relationship over the early to mid-1990s also involved a significant degree of internal reform and modification. Consequently an analytical model predicated upon the dichotomy between bureaucratic organisation and marketplace contract relations is not particularly useful in explaining these developments. The response to implications arising from greater complexity and monitoring problems created by an increased reliance on contracting had been actively addressed by initiatives in the development

of proficiency and the emergence of new structures of governance, in the centralized Supply Management and in the local Contracts Groups. Thus the benefits apparently sought through the recourse to external contract relationships were in fact dependent upon the development of internal bureaucratic structures to underpin them.

The subsequent movement away from internal bureaucratic arrangements was facilitated by a programme of reforms within the system of contracting; reforms which in large part relied upon the support of internal mechanisms to mediate the conduct of the contract and the performance of the work subject to it. The incremental shift away from dependence on these internal mechanisms relied upon the development of a new kind of relationship with the contract partners. This process was characterized by a migration of responsibilities to the contract firm, which in turn was underpinned by the exportation of bureaucracy, or relocation of structures appropriate for the administration of these newly expanded functions. For example, the transfer of responsibility for the supervision and monitoring of work was predicated upon the encouraged development of quality systems within the supply firms that were equivalent to BT's own internal processes - effectively migrating the bureaucratic mechanisms needed to manage these new responsibilities. Rather than representing a shift from bureaucracy to the market, the nature of the new form of contracting for labour was actually characterized by the reconfiguration of bureaucracy within the process.

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1. For organisational purposes BT's national network was separated into two parts; the Access Network connected individual users to the 'exchanges' for interconnection into the national transmission network – or Core Network. Subcontractors were used on the Core network, in the form of specialist exchange equipment suppliers providing the labour for the installation of new plant. Such arrangements had a long precedence within BT and its predecessors, although the range of tasks performed by external supply firms was expanded in the mid 1990s. The major growth in subcontracting was however in the Access Network.
2. For example, prior to 1991 one of the zones studied had employed between eighty and ninety Supervisors on the 'civils' contract, by 1996 this figure had been reduced to twenty-two positions.

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