

Are Outsourcing and Skill Formation Mutually Exclusive? The Experience of a Heavy Manufacturing Firm

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This article draws on case study research that analyses the impact of outsourcing on skill formation. The subject of the study, a restructured heavy manufacturing enterprise, used outsourcing as a key 'transformational' strategy. The discussion is contextualised within a framework of the changing emphasis on the role of skills in competitiveness, major reforms in the vocational education and training (VET) infrastructure, and Australian workplace data which illustrates the increase in 'numerically flexible' firms. Evidence from the case study organisation suggests that through strategic alliances, partnerships and outsourcing many of the vendoring contracts provided an opportunity for skill enhancement, rather than skill diminution. These findings challenge the view that contracting out represents a 'threat' to the current mechanisms for skilling the workforce.

INTRODUCTION

The drive to enhance organisational performance is a constant theme in contemporary economics, industrial relations, human resource management and organisational behaviour literature. Much of the pressure to transform enterprises is typically attributed uncritically to, as Domberger (1998: 23) suggests, 'the usual suspects of globalisation

(and) competition from low-wage developing countries, and advances in communications...'. Whilst these forces may be 'shrouded in speculation and hyperbole', their vivid currency often convinces many organisational stakeholders to feel 'that Adam Smith's invisible hand is trying to push them off the cliff' (The Economist, 1996: 3, cited in Domberger, 1998: 23).

This article considers whether the 'transformations' of workplace structures to accommodate these forces are challenging traditional methods of skill formation. Increasingly, workforce skills have been emphasised as an essential determinant to improve organisational performance through, for example, extending functional flexibility, building employee commitment and by encouraging innovation. Cappelli et al. (1997) and others have characterised these transformations as engendering a 'new world of work'. Much of its agency centres on the growing practice of outsourcing, where firms contract the delivery of services to external providers.

Using a case study approach, this article examines the experience of a major production department at BHP's Newcastle steelworks located on the Australian eastern seaboard. The department changed from a traditional, vertically integrated structure, to one with a heavy reliance on outsourced providers. The subsequent impact of this strategy on organisational learning and workplace skills is considered in this article. A major research focus is whether it can be demonstrated that the firm's dramatic shift to outsourcing services and supply chain product providers had a negative influence on the formation and maintenance of skills. The extent of empirical evidence on this topic is limited, as VandenHeuvel and Wooden (1999: 1) comment:

Given that the use of both casual employment and outsourced labour have been increasing in recent years, important questions arise concerning access to, and participation in, structured training. Very little attention has been paid to such questions in the existing literature.

SKILL FORMATION, COMPETITIVENESS AND FIRMS

Skill formation has been regarded as critical to the effective performance of the nation-state economy, for both maximizing competitiveness in organisations and as a key variable in determining labour market and earnings outcomes of individuals (Crouch, 1997;

Smith, 1998). Within the last two decades, considerable public policy in Australia has been developed in the vocational, education and training (VET) sector following, for example, the 'reform' recommendations articulated in the Finn, Mayer and Carmichael reports.¹ At the micro-level, the management of many firms has rethought skill formation in the application of post-Fordist production processes and organisational structures (Brown, 1997).

In most cases the role of the individual worker and their skills is seen as an unshakeable imperative. Thurow (1992: 52) is emphatic on this point stating, 'in the century ahead ... skilled people become the only sustainable advantage'. Moreover, EPAC (1995: 59), reporting on their research findings across the OECD, found a premium being placed on the skills of the workforce as 'the pressures for productivity and quality are intensifying, and because the new technologies require increased analytical and behavioural skills'. Globalisation suggests all factors of production are now accessible or copyable. The distinguishing asset between competitors is the unique knowledge held within individuals and their organisations. Firms can reproduce the capital, technologies and other assets of their competitors, but as Field and Ford (1995: 4) argue, advantage and 'enterprise success depends on the capacity to acquire, extend, apply and exploit knowledge'.

Many of the Australian industrial relations arrangements and other regulatory mechanisms, within which firms are embedded, have been altered to accommodate this 'new' emphasis on skill-based competitiveness. Developments centring on award restructuring and enterprise bargaining have adopted broad banding, multi-skilling and career path planning as change levers. The national training reform agenda has also emphasised skill acquisition through a variety of policy devices. Examples include the federal training guarantee legislation and an extension of the traditional apprenticeship 'on' and 'off' the job training concepts to other occupations through the Australian Traineeship System (such as in retailing and hospitality). Competency based training supported by, *inter alia*, workplace assessment, recognition of prior learning and current competencies has also been pursued as well as better articulation arrangements between the hierarchy of public and private training providers. Overall, Boreham et al. (1996: 4), conclude that:

These strategies were designed, in part, to provide a basis for the introduction of flexible, modular systems of training that equip

employees for the specific environments in which they work, and to facilitate the development of a multiskilled workforce. In return for participation in training, the acquisition of skills and greater workplace productivity, employees would be able to make wage gains through productivity bargaining and advancement along skill-related career paths.

While much has been said of the demand to emphasise skills in the 'new world of work', the discussion needs to be tempered by a critical appraisal. For example, skills enhancement is often accompanied by a 'high road' rhetoric which extols the virtues of empowered, team-based and multi-skilled workforces yet the 'real' position may be less certain (Milkman, 1998). In a review of the diffusion and impact of high performance work systems (with their upskilled workforces) on organisational outcomes, Le Queux (1999: 7) cites evidence (especially from Europe and North America) of the transformation of some firms' performance against a variety of measures such as productivity, defect rates, customer satisfaction and employee relations. Other empirical evidence suggests many of the accounts of autonomous, knowledge-enhanced workers imbued with a strong sense of organisational commitment are more rhetoric than reality. Thompson and Warhurst (1998: 5-8), for example, argue that 'much contemporary work remains routinised', employee involvement through just in time (JIT), total quality management (TQM) and corporate culture are 'new, oppressive forms of regulation and surveillance' and that there are 'few exemplars of the high road strategy'. After reviewing European survey data and the UK Workplace Industrial Relations Survey, Le Queux (1999: 12) noted that 'despite their promise, high involvement practices still remain limited in scope and intensity ... while employees may enjoy more autonomy, make greater use of their skills and find more opportunities for self development, there is considerable intensification of effort levels'. Australian evidence points to similar conclusions (ACCIRT, 1999; Allan, O'Donnell and Peetz, 1999) as Pickersgill (2000: 2) concludes:

In general, under the guise of a response to (mostly undefined) forces of 'globalisation', employers have responded to the need for 'flexibility' by adopting numerical, or temporal forms. We have not seen any major shift to 'functional flexibility' options (based on 'post-Fordist' and 'flexible specialisation' theses) which underpinned the 'multi-skilling' proposals of award restructuring. With the adoption of, or rather

imposition, of competency based training, itself based on Tayloristic assumptions of job fragmentation, ... we have seen skill formation processes directed towards promoting 'multi-tasking' ... the intensification and extension of labour through longer hours and a greater range of task activities.

Consequently, the impact of outsourcing on skill formation generally, needs to be considered within both the context of major government policy initiatives to upskill workforces (the 'high road') and how, or even whether, firms translate the policy agenda into investments in the human capital of their workforces. The evidence of Pickersgill and others illustrates that the implementation of these policies has been somewhat patchy.

THE 'FLEXIBLE' FIRM AND OUTSOURCING

Many organisations, especially since the 1980s, have restructured around the model of the 'flexible' firm with its concept of core and non-core workforces (Atkinson, 1987; Connell and Burgess, 1998). Handy (1989) popularised this model as the (three leafed) 'shamrock organisation'. The model suggests an organisational structure comprising firstly of a central core of permanent, highly qualified technicians, secondly a peripheral labour force of casual, part-time employees and a third external contractual 'fringe' made up of temporary workers who are either self-employed, employed by contractors or hired through employment agencies. Considerable contention exists over the conceptual strength of the model of the (numerically) 'flexible' firm. Legge (1995: 153), for example, posits that the model has taken a 'battering' for sloppy 'conceptual specification', a lack of 'unequivocal empirical support' and for being an agent of a 'covert ideological agenda'. Nevertheless, its widespread adoption in management discourse does have some utility for the purposes of the case study reported in this article. Other researchers have adopted similar approaches (see, for example, Mylett, 1998).

Typically, as to the contracting out 'fringe', firms outsource those activities and functions which are perceived by management as necessary, but distanced from the key 'business that they're in'. Rather than 'core competencies', an expression which he considers 'ambiguous', Domberger (1998: 51) prefers to describe this as the drive

to find the organisation's relative specialisation; that is, firms should concentrate on 'those activities in which the organisation is relatively more efficient [so that] total value added is maximised'. These 'non-core' or peripheral functions may, depending on the individual characteristics of the firm, include cleaning, security, catering, information processing, plant/equipment maintenance (scheduled and emergency) and human resource management services such as payroll, industrial relations advocacy and workforce counselling. Contracting may also be used to access resources that are temporarily required or which cannot be economically sustained long term or full time in-house. As an illustration, enterprises may use contractors specialised in event management, or call centres for commission-based selling as planks in their marketing strategy.

Outsourcing allows firms to reduce both their capital base and manufacturing costs (Abraham and Taylor, 1996). Other benefits include achieving higher flexibility by forcing suppliers to carry adjustments in demand, and cost savings especially through competitive tendering. These cost savings, are on average, claimed to be up to 20 per cent, and 'as a rule efficiency gains need not lead to lower quality' (Domberger, 1998: 51, O'Looney, 1998). However, Walker and Walker (2000: 156) argue that the standardised expectation of '20 per cent' is an 'extreme and unsupportable interpretation' of the research, and that the validity of the analysis has been 'seriously contested by a series of authors'. Walker et al. (2000) are dismissive, maintaining that the '20 per cent' is a mere 'part of the repertoire of catch phrases favoured by privatisation advocates'.

THE EXTENT OF CONTRACTING OUT IN AUSTRALIA

Reporting on the results of a 1998 national survey of 1 222 organisations on the 'contours' of organisational change in Australia, Dawkins et al. (1999) found that a 'staggering' 88 per cent of respondents had restructured between 1994 and 1998. Of these, a majority (56%) had modified their work organisation from the 'traditional' vertically integrated corporate structure by outsourcing some 'non-core' functions. In the public sector, federal government expenditure on contracting was estimated to be \$8 billion in 1994/5 (Domberger, 1998: 21). Using the Victorian government's budget papers, Walker and Walker (2000) illustrate how extensively the state

has utilised outsourcing. Expenditure on contracting grew from \$650 million in 1995-96 to almost \$1 billion in 1999-2000. Activities which have been contracted out by federal and state governments have ranged from corrective and parole services, fleet and records management, bailiff services, home detention, toll collection, help desks and government printing (Walker and Walker, 2000: 183).

The generic expression 'contractors' captures those who are self-employed and those who are employed by a firm or employment agency providing contracted services. Wooden and VandenHeuvel (1996) conducted research for the National Institute of Labour Studies on the use of contractors in Australia, randomly surveying 1 656 public and private sector workplaces employing at least 100 persons.² The survey asked the respondents to provide data that differentiated between three types of contractors, viz:

- *Independent contractors* - individuals who are self-employed or who are the only employee of a company they own. Also include homeworkers who are not on your company's payroll but work for your workplace. If the individual is contracted through a company which has more than one employee, that person shall be treated as an employee of a contractor.
- *Employees of contractors* - persons working at your workplace who are employees of a company (but not one they own) that has contracted to provide a service.
- *Agency workers* - persons paid by a replacement or employment agency while working at your workplace. (Wooden and VandenHeuvel, 1996: 7)

Typically, as shown in Table 1, the survey data demonstrated that self-employed (or independent contractors) tended to provide professional, consultant styled business services (28.7%) and computing (35.7%). This includes those who are genuinely self-employed with a large number of clients and another group who usually rely on only one client. Up to 40 per cent of contractors are highly dependent on a single hiring organisation and they 'more often than not, describe themselves as employees rather than self-employed' (VandenHeuvel and Wooden, 1999: 8). Employees of contractor firms were engaged in activities such as maintenance and cleaning (29.5% and 46.3%), whilst agency workers principally performed clerical and administrative roles (70.4%).

**Table 1: Contractor activities by type of contractor
(all workplaces using contractors)**

<i>Activity</i>	<i>Self-employed contractors (%)</i>	<i>Employees of contractors (%)</i>	<i>Agency workers (%)</i>
Engineering/drafting	25.3	20.1	8.8
Accounting services	11.0	8.2	19.6
Computer services	35.7	26.6	10.4
Other professional/business services	28.7	12.7	4.8
Clerical services (e.g., secretary, data entry, receptionist)	5.0	8.2	70.4
Transport services	13.3	11.5	1.2
Equipment/building maintenance	21.7	29.5	2.4
Production/manufacturing	6.0	8.6	15.6
Construction	6.0	16.0	0.8
Cleaning services	17.0	46.3	2.0
Other	15.7	15.2	8.0
(N)	(300)	(244)	(250)

Note: Columns do not sum to 100 per cent since some workplaces used contractors for more than one activity.

Source: Wooden and VandenHeuvel (1996)

Table 2 details that the principal growth in contract employment between 1989 and 1995 occurred for those employed through agencies, which doubled their proportional share from 0.8 per cent to 1.6 per cent. The number of workplaces at which they were present increased from 13.5 to 20.6 per cent. These workers are engaged either by supplementary labour hire companies (where they are employed by the agency) or via a 'body hire' broker, in which case the exact legal nature of their employment relationship is far less certain (ACCIRT, 1999: 143). The other contract labour categories; that is, outworkers and independent contractors, experienced modest increases.

The proportion of the Australian workforce employed through outsourcing grew significantly in the period 1989 to 1995 (see Table 2),

even though the proportion of non-farm workplaces using outsourced labour declined slightly from 46.7 per cent to 45.0 per cent. The Australian Workplace Industrial Relations Survey (AWIRS) data showed an increase of approximately one third in contractor numbers from 3.5 per cent to 4.7 per cent of the respondent's total workforce. Contracting was particularly evident in mining (55% of firms), construction (61%), education (60%) and utilities sectors (67%) (ACIRRT, 1999; Morehead et al., 1997), but less prevalent in the non-profit sector. The 'true' extent of contracting may be understated by the AWIRS data. It is argued that the definition of contractors is 'quite vague'. For example, small workplaces (fewer than 20 employees) are not included, the agricultural sector is excluded and 'there are good reasons to question the ability of management to provide accurate information about workers who do not appear on their payroll' (VandenHeuvel and Wooden, 1999: 20).

Table 2: Growth in the use of contract labour by labour type, 1989-1995

<i>Labour type</i>	<i>% of workers^a</i>		<i>% of workplaces</i>	
	<i>1989</i>	<i>1995</i>	<i>1989</i>	<i>1995</i>
Outworkers ^b	0.2	0.3	3.4	4.1
Contractors and their employees	2.5	2.8	39.1	32.9
Agency workers	0.8	1.6	13.5	20.6
Total outsourced labour	3.5	4.7	46.7	45.0

Note:

^a Workers are defined here as the sum of employees and contract labour.

^b Although this table uses the term 'outworker', it is assumed to have the same definitional meaning as 'independent contractor' used by Wooden and VandenHeuvel (1996) and explained earlier in the article.

Source: 1989/90 and 1995 AWIRS main workforce surveys (Workplace Characteristics Questionnaires) cited in VandenHeuvel and Wooden (1999)

Other data suggests that the extent of contracting may be greater than the estimate of (a low) 4.7 per cent of workers set out in Table 2.

Wooden and VandenHeuvel (1996) found 90 per cent of the respondents to their survey had made use of contractors in the preceding year (August 1993 – August 1994) which represented (a high) 10.3 per cent of the respondent's total employment. Of the contractors, 2.9 per cent were self-employed, 3.6 per cent were employees of contractors, with the balance (3.6%) contracted as agency workers. The differing estimates can be explained by definitional and sampling differences (VandenHeuvel and Wooden, 1999).

As to overall employment in the Australian labour force, VandenHeuvel and Wooden (1999) calculate the 1995 data to imply a weighed estimate of approximately 244 000 persons working across the three categories of contracting. This represents an annual growth rate of 7.5 per cent since 1989 or almost five times greater than that cited for employment in the AWIRS data.

OUTSOURCING AND SKILL IMPLICATIONS

Whilst contracting is a growing but still relatively small sector of the Australian labour market (when measured as a proportion of total employment), the growth of the 'numerically flexible' firm requires a considered analysis of its ramifications on micro and macro training policy issues (Connell and Burgess, 1998). ACCIRT (1999: 145) contend a 'decline in training opportunities' is one of the 'hidden costs' of the marked increase in contracting and labour hire. Also, 'new work' arrangements can test the direction and emphasis of the VET infrastructure. This is especially the case when matched by higher individual responsibility for skill acquisition and a neo-liberal belief in the enterprise, rather than government, as the kernel of skill formation decision-making (Crouch, 1997).

Research evidence in Australia indicates that access to specialised skills is of critical importance to firms using the services of contractors. On a four point Likert scale ranging from 'of no importance' to 'of large importance', respondents to the Wooden and VandenHeuvel (1996) survey reported that the most dominant reason given for engaging contractors was to utilise skills not available within the firm (58.5%). In the next order of importance, contractors were engaged to cope with periods of peak demand (44.5%) and to access specialised equipment not available in-house (15.8%). No other response, for example, to statements such as to avoid costs of complying with government

regulations and charges or to overcome recruitment problems, ranged above 10 per cent. Interestingly, given the perceptions of contracting being used as a cost-minimisation strategy, only 8.6 per cent of respondents rated this 'of large importance'. Equally, only 3 per cent stated contracting was of large importance as a device to reduce trade union influence.

This finding is consistent with employers using contractors to access skills not available in-house. It may also be regarded as rational behaviour by firms using outsourcing as a means to avoid 'costly' investment in the human capital of their own workforce, especially when the contracted skills may be applied irregularly or available at lower cost from outside providers. Research by Marshman, cited in ACCIRT, found that in medium to larger firms training was only provided for workers in sufficient numbers and skills as was consistent with predicted labour demand (ACCIRT, 1999). VandenHeuvel and Wooden (1999: 33-34) cite evidence of a KPMG study of 200 labour hire firms in skill-intensive fields, which found:

Labour hire firms rely upon the pool of skilled people available in the labour market, and are not large providers of formalised training ... There is little evidence of a recognition that the longer term development of the skills pool is a responsibility of individual labour hire firms

Plainly, the onus to ensure a skilled labour force falls on contractors as firms rely on them to provide workers with the skills they require to be competitive. Conceivably, this may not translate to contractors undertaking training of their own employees, or those on the agency lists, as the KPMG study suggests. The short-term nature of contracting and the potential of 'poaching' by contractors of any workers trained by other firms act as significant disincentives to contracting organisations to invest in human capital and training. However, these 'impediments' to skill formation can be argued to apply to all organisations, whether they are providing contracted services or not.

CASE STUDY

Broken Hill Proprietary Limited (BHP) has operated an integrated steelworks at Newcastle, New South Wales, since 1915. It has two other

similar steel mills (at Port Kembla and Whyalla) and a mini-mill in the western suburbs of Sydney. In the 1980s, the company had to contend with a series of predominantly exogenous environmental changes. These included shifts in the nature of the product market, and technological developments in steel-making especially in microelectronics and the pursuit of neo-liberal competition strategies by the federal government. As a result, BHP Steel adopted a tripartite micro-corporatist strategy, negotiated with the industry, unions and government. Significant reductions in employment at the company's three steel mills were at the centre of the strategy. Job losses between 1982 and 1988 amounted to 12 780 or 39 per cent of total employment. Labour productivity was transformed and profitability restored (Kelly and Underhill, in Kitay and Lansbury, 1997). Not inconsiderable portions of this labour shedding occurred through outsourcing as the plants restructured, utilising both core and peripheral workforces. Labour productivity at the Newcastle plant rose from 300 tonnes per person in 1987 to 700 tonnes in 1997 (Macdonald and Burgess, 1998).

This case reports on the outsourcing experience of the Bloom Mill and Billet Processing Department (BM&BP) at BHP's Newcastle steelworks which occurred from 1995 until 1999 when the plant was closed. As a principal department within the integrated steelworks, the BM&BP manufactured, packaged and transported 1.7 million tonnes of steel products per annum. Blooms and billets are ingot-like steel products used as feedstock in downstream processing such as wire manufacture. BM&BP's physical assets included a two million tonne per annum hot rolling mill, a plant wide rail system and three testing, inspection and packaging yards. Over 380 permanent employees and up to 100 contractors were organised into functional groups composed of operations, maintenance, technical, administration, quality assurance, management systems and miscellaneous support staff.

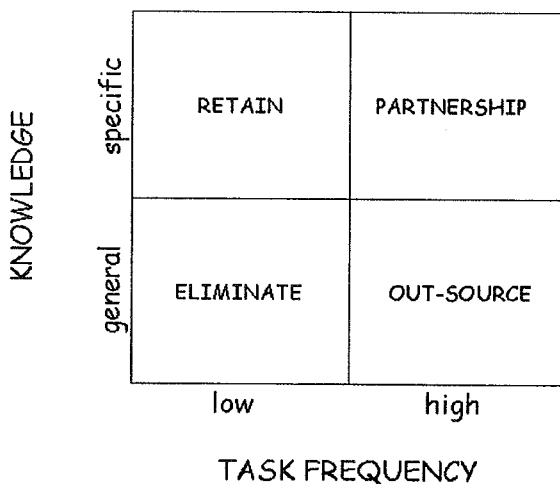
Data for this case study was gathered through semi-structured interviews with BHP line managers responsible for identifying those activities to be outsourced, developing the contract specification, negotiating the change and providing an ongoing evaluation of the contract performance. The co-author of this article was a senior manager at BM&BP during the implementation of the outsourcing program. The restructuring changes that occurred at the plant make it a useful case study for analysing outsourcing and its relationship to skill formation. As qualitative research though, the usual caveats apply especially those which limit drawing generalisations for the

population. In this case study, when BM&BP is compared with the AWIRS data discussed earlier, the level of contractor usage at 38 per cent of total employment is much greater than that generally experienced in Australian workplaces at 4.7 per cent. BM&BP's experience then may not be consistent with other organisations which have engaged in extensive contracting out programs.

Before reviewing the experience at BM&BP, a generalised proposition suggests that the evaluation of the effect of contracting out on skill formation may turn on the nature of those activities that are outsourced and whether the vendor (the external supplier of the services) has a commitment or competitive obligation to train their own workforce. As Connell and Burgess (1998) suggest, the skills of the workforce can be differentiated across the core, periphery and external segments of the flexible firm's workforce. If it can be shown, for example, that the contracted out activities are relatively 'unskilled', it could be argued that the impact on skill formation, both for the individual worker, the contractor (the firm engaging the vendor) and the vendor firms has been relatively unaffected by the rise of the 'flexible firm'. Equally, if firm behaviour is to outsource a service or function to an agency that builds and maintains the skills of its own contracted employees, it could be argued there would be no net negative impact on skill formation. The vendoring organisation has a vested economic interest in providing skilled employees to those firms which it services.

As to the experience of BM&BP, its outsourcing approach is set out in Figure 1. In their model, outsourcing decisions were based on the frequency and the degree of industry specific knowledge required to perform a function. This differs from the outsourcing decision models that rely on judgements of core and non-core business activity. The management of BM&BP contend that the quality of this decision has significant implications for the success or otherwise of the outsourcing program. This twin factor decision-making framework has antecedents in the contracts management literature. O'Looney (1998: 198) uses (particularly for the privatisation of government functions) an 'outsourcing relationship continuum' based on the level of strategic impact and the degree of substitution, referred to as the depth and range of the service to be outsourced. For example, food services have low substitution and strategic impact whereas contracts to manage a whole service such as the planning, design, building and maintenance of roads would have high strategic and substitution values.

**Figure 1: Bloom Mill and Billet Processing
Department outsourcing criteria³**



As Figure 1 details, the BM&BP model divides tasks into four groups. Each group presents different opportunities and has different implications for skill. Task frequency is reasonably self-explanatory, referring to the degree of repetition. So, for example, payroll services fall into this category. General and specific knowledge is categorised against the uniqueness of the skills, understandings and competencies to BM&BP. Forming billets, a core function, has high specificity of knowledge.

Eliminate

The utility value of maintaining the skills and knowledge necessary to complete low frequency, low specialised knowledge tasks was questioned as part of the restructuring process and it was decided that these functions could be eliminated where possible. If a task could not be eliminated often it was simplified and made more cost-effective through mechanisms such as business process re-engineering (BPR).

Retain

Low frequency, highly specialist knowledge tasks were retained within BM&BP. Activities such as the production and distribution of steel, specialist equipment maintenance and process engineering expertise formed the core function of the department. As a result, management determined that outsourcing would be inappropriate.

Outsource

High repetition, low specialist knowledge tasks included the supply of pre-assembled components, office administration, routine equipment maintenance, IT services and payroll. All were clear candidates for outsourcing using the BM&BP model. Since these tasks are common across many industries, sufficient business volumes exist to encourage growth of specialist vendors. The experience of the managers in BM&BP suggested that market forces encouraged these vendors to remain 'in the game' by investing in the latest training and staff development. This ensured service quality and costs remained competitive. Examples of these vendors included multi-national accounting and financial services providers, BHP IT (an internal supplier from within the BHP Group) and smaller outplacement consultancies. The large contractors were agency-styled businesses with the resources available for training. That is, they undertook training of their own consultants and technicians.

This is an important finding from the case study. Specifically, the individual contractors ensured skills and knowledge remained competitive by direct investment in training and education, using industry association resources and by gaining access to customer training programs through contractual arrangements. In the case of outsourcing pre-assembly tasks, it was common for vendors to offer a JIT supply arrangement. In this case, vendors leveraged off the skills of their employees to eliminate stocks of semi-finished goods from the value chain. This had the effect of both lowering manufacturing costs and strengthening the power of vendors' employees.

BM&BP customers of their steel products did not report concern when high repetition, low specialist knowledge activities were outsourced by the business. Firstly, this practice was accepted as part of the 'conventional wisdom' and secondly improvement in task quality and lower task costs were expected to eventually be passed through the value chain in lower prices. In addition, there was limited cultural

impact reported within BM&BP occurring from the outsourcing strategy. Similarly, managers stated there was little need to modify existing business processes or develop new business processes to accommodate the new vendors. Existing contractual processes readily accommodated new vendors. This form of contracting inter-organisational learning between BM&BP and the vendors was reported as low, as the business relationship centred on the provision of a commodity type service.

Partnership

The partnership section comprised infrequent tasks requiring specialist knowledge. While these activities formed part of the core of BM&BP, the company decided to outsource them, arguing that this achieved significant benefits. BM&BP adopted a partnership approach to ensure transfer, protection and maintenance of outsourced skills, maintain organisational identity, ensure stakeholder needs were satisfied and to maximise learning between BM&BP and its outsource partners. Specialist tasks such as proprietary plant maintenance, product inspection and testing, and management coaching have all been outsourced. Given the importance of these activities within the department, it was deemed essential that outsourcing relationships extended beyond mutual commercial gain. The company achieved this by:

- Selecting partners based on skill, relationship-building ability and commitment to learning.
- Investing time up-front establishing relationship and work principles.
- Key stakeholders sharing losses and gains.
- Establishing performance measures for key stakeholders based on improvement, learning and mutual benefit.
- Modifying BM&BP contract management processes, including recruitment and training of contract management staff.

The managers at BM&BP reported that, in their view, a partnership approach places a far greater emphasis on involving key stakeholders and establishing vendor relationships based on joint accountability, maintenance of specialist skills and mutual gain. This approach was adopted to ensure that proprietary knowledge be developed, protected,

and deployed to the collective benefit of the key stakeholders. Key stakeholders were defined as an organisation or group that was significantly affected by the outsourcing venture. Depending on the outsourced activity, stakeholders could include employees, customers, regulatory bodies, owners, trade unions, management and outsource vendors.

Contractual arrangements were written to contain specific provisions for the ownership and improvement of specialist knowledge. This included clauses specifying how the partners would contribute to staff conditions, the remuneration structure, staff training and the celebration of outstanding staff performance. This approach ensured knowledge was enhanced and that key staff were attracted to and retained by desirable employment conditions. The result was a highly motivated workforce who chose to be a part of a beneficial partnership. The arrangements reinforced the importance of skill maintenance for staff in the partnered firms.

Substantial changes in contract management functions can be required to accommodate partnerships within the outsourcing department. Managers at BM&BP conceptualised this as a need to evolve from a 'lowest cost vendor selection mentality'. Furthermore, vastly different vendor selection and assessment processes were required from before, as was the need to recruit and train new contract management staff to administer and maintain partnership arrangements. Consequently it could be argued that contracting arrangements increased training needs within the outsourcing company. Anecdotally, perhaps the growth in training courses concerning contract management reflects this.

BM&BP management reported that the partnership approach created a 'rich environment' for inter-organisational learning. Since outsourcer and vendor are not market competitors, BHP stressed that there were significant gains available for both partners in sharing knowledge. In BM&BP joint learning occurred in areas such as safety, staff training and development, and inventory management. New sources of knowledge provided important market advantages through partners learning from each other and adapting this knowledge in their own markets.

By categorising tasks according to frequency and knowledge, the company developed specific approaches which ensured the provision of services in a way that was both commercially attractive and which retained or enhanced knowledge (see Figure 2). In the case of the

partnership approach, while a high degree of cultural change was required in both outsourcing and vendor organisations, BM&BP management reported that significant gains were considered achievable through greater inter-organisational learning.

Figure 2: Who retains and develops employee skills?

KNOWLEDGE	specific	Out-sourcer develops core staff skills	Both out-sourcer and vendor share skills development
	general	Little investment in skill development	Vendor develops employee skills to remain competitive
		low	high
		TASK FREQUENCY	

As Figure 2 summarises, the impact of significant contracting out by BM&BP suggests a pattern of skill formation which is markedly a function of both the nature of the activity being outsourced, and the nature of the ongoing relationship between the outsourcer and the external vendor. Should the function be widely available in the market place and be non-organisationally specific (general knowledge and high task frequency), the skill formation issues may be quite benign. These externally sourced services, such as payroll, were contracted to BM&BP by specialist providers employing trained personnel. Without appropriately skilled workers, these service providers would not meet the tender specifications of BM&BP.

From the commencement of the outsourcing program to the plant closure in September 1999, BM&BP developed six strong alliance arrangements covering plant and rail track maintenance, waste removal, demolition, training and IT services. As to the overall impact of the outsourcing on organisational performance, the firm estimated average cost savings across the head contracts were not less than 8 per cent per annum without reductions in quality. Indeed, management reported some vendors improved against quality measures such as plant and equipment breakdown.

CONCLUSION

Skill formation is said to be critical to building competitive, knowledge-based and innovative organisations. There has been some shift to the 'numerically' flexible firm and, understandably, this has given rise to a consideration of its impact on future skill development and maintenance. How can skills, knowledge and vocationally-appropriate attitudes be developed and maintained if the conventional approaches, which relied on integrated firms offering considerable employment tenure, are threatened?

Whilst estimates concerning the extent of outsourcing are muddled by methodological issues, it can generally be determined that up to 10 per cent of the Australian workforce are engaged in some form of contractual arrangement. Most of those engaged in contracting are employed by labour hire agencies or companies that provide contracted services. Only a small proportion are self-employed. This data indicates therefore that, as a proportion of the total labour force, a relatively small number of workers are caught by this particular skill formation issue. Also, there is no conclusive evidence as to whether these workers are more or less likely to gain access to training than workers in general. For example, there is no data concerning whether or not workers providing IT services in-house have a higher probability of training than workers employed by external providers. The Australian evidence does show, however, that firms use contractors to gain access to skills not available in-house. It can be assumed, therefore, that these contractors must employ skilled workers.

The BM&BP case illustrates, even given Legge's (1995) and others scepticism, that organisations have extensively outsourced a variety of functions, in a manner not dissimilar to that described by the 'model' of

the 'flexible firm'. Furthermore, the case study evidence suggests that it does not hold as a general principle that the drive to the 'flexible' firm through outsourcing will always have a negative impact on skill formation processes. The experience of BM&BP implies that outsourcing may enhance skill formation, especially where the vendor provides specialist knowledge and where a 'strategic' partnership is developed between the vendor and the outsourcer. This challenges the proposition that outsourcing must mean, *ipso facto*, a 'decline in training opportunities'. These economic relationships depend on the capacity of the vendors to deliver value added services to the outsourcer. Plainly, this is, in part, a function of the current and future competencies of their workforces, most of whom are employees.

NOTES

- ¹ For an overview of these reports see, for example, Smith, A. (1998), 24-25.
- ² 522 questionnaires were returned, giving what the authors described as a 'low, but not unexpected' response rate of 31.9 per cent.
- ³ The complete version of this model includes a third dimension labelled 'impact'. This intercept rates the importance of the task to BM&BP and its key stakeholders.

REFERENCES

- Abraham, K.G. and Taylor, S.K. (1996), 'Firms Use of Outside Contractors: Theory and Evidence', *Journal of Labor Economics*, Vol. 14, No. 3, 394-424.
- Allan, C., O'Donnell, M. and Peetz, D. (1999), 'Three Dimensions of Labour Utilization: Job Broadening, Employment Insecurity and Work Intensification', *AIRRANZ Proceedings*, Vol. 1, Adelaide.
- Atkinson, J. (1987), 'Flexibility or Fragmentation? The United Kingdom Labour Market in the Eighties', *Labour and Society*, Vol. 12, No. 1, 87-105.
- Australian Centre for Industrial Relations Research and Training (ACIRRT) (1999), *Australia at Work: Just Managing?*, Prentice Hall, Riverwood.
- Boreham, P., Lafferty, G., Roan, A. and Whitehouse, G. (1996), 'Training, Careers and Numerical Flexibility: Equity Implications in Hospitality and Retailing', *Journal of Industrial Relations*, Vol. 38, No. 1, 3-21.

- Brown, R.K. (ed) (1997), **The Changing Shape of Work**, Macmillan, London.
- Cappelli, P., Bassi, L., Katz, H., Knoke, D., Osterman, P. and Useem, M. (1997), **Change at Work**, OUP, New York.
- Connell, J. and Burgess, J. (1998), 'Workforce and Skill Restructuring in Australia', **International Employment Relations Review**, Vol. 4, No. 1, 39-55.
- Crouch, C. (1997), 'Skills-Based Full Employment: The Latest Philosopher's Stone', **British Journal of Industrial Relations**, Vol. 35, No. 3, 367-391.
- Dawkins, P., Littler, C.R., Ma, R.V. and Jensen, B. (1999), **The Contours of Restructuring and Downsizing in Australia**, University of Melbourne, Melbourne.
- Domberger, S. (1998), **The Contracting Organisation**, OUP, New York.
- Economic Planning and Advisory Commission. (1995), **Human Resource Management and Workplace Change**, Proceedings of EPAC Roundtable in Canberra, 6 February, AGPS, Canberra.
- Field, L. and Ford, B. (1995), **Managing Organisational Learning: From Rhetoric to Reality**, Longman, Melbourne.
- Handy, C. (1989), **The Age of Unreason**, Harvard Business School Press, Cambridge.
- Kelly, D and Underhill, E. (1997), 'Australian Steel: A Corporatist Transformation?', in Kitay, J. and Lansbury, R. (eds) (1997), **Changing Employment Relations**, OUP, Melbourne, 158-179.
- Legge, K. (1995), **Human Resource Management: Rhetorics and Realities**, Macmillan, London.
- Le Queux, S. (1999), **High Performance Work Systems: International Trends, Practices and Policy Implications**, unpublished paper, Employment Studies Centre, University of Newcastle.
- Macdonald, D. and Burgess, J. (1998), 'Globalisation and Industrial Relations in the Hunter Region', **Journal of Industrial Relations**, Vol. 40, No. 1, 3-24.
- Milkman, R. (1998), 'The New American Workplace: High Road or Low Roads?', in Thompson, P. et al. (eds), **Workplaces of the Future**, Macmillan, London.

- Morehead, A., Steele, M., Alexander, M., Stephen, K. and Duffin, L. (1997), **Changes at Work: The 1995 Australian Workplace Industrial Relations Survey**, Longman, South Melbourne.
- Mylett, T. (1998), 'Flexibility and Labour Market Structures: The Role of Employers', **The Economic and Labour Relations Review**, Vol. 9 No.2, 285-309.
- O'Looney, J.A. (1998), **Outsourcing State and Local Government Services**, Quorum Books, Westport.
- Pickersgill, R. (2000), **Walking Backwards for Christmas? Skill Formation in Australia Beyond 2000**, paper delivered to the conference Skills, Training and Labour Flexibility – Year 2000 and Beyond, University of Newcastle.
- Smith, A. (1998), **Training and Development in Australia**, Butterworths, Sydney, 2nd edition.
- Thurrow, L. (1992), 'Head to Head: The Coming Economic Battle among Japan, Europe and America', cited in Field, L. and Ford, B. (1995), **Managing Organisational Learning: From Rhetoric to Reality**, Longman, Melbourne.
- Thompson, P. and Warhurst, C. (eds) (1998), **Workplaces of the Future**, Macmillan, London.
- VandenHeuvel, A. and Wooden, M. (1999), **Casualisation and Outsourcing: Trends and Implications for Work-Related Training**, National Centre for Vocational Education and Research, Leabrook, SA.
- Walker, B. and Walker, B.C. (2000), **Privatisation Sell-off or Sell-out? The Australian Experience**, ABC Books, Sydney.
- Wooden, M. and VandenHeuvel, A. (1996), **The Use of Contractors in the Australian Workplace: Evidence from a Survey of Employers**, National Institute of Labour Studies, Adelaide.