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Designing a HR System: Pitfalls, Possibilities and Performance

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Designing a HR System: Pitfalls, Possibilities and Performance

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INTRODUCTION

There is a large and still burgeoning literature on what is now commonly known as the HRM-Performance debate (see, for example, Arthur, 1994; Becker and Gerhart, 1996; Patterson et al., 1997; Guest, 1997; Purcell, 1999). This debate has developed many strands and themes as researchers wrestle with the issues that emerge and the questions that are raised by the various studies that have now been conducted. The problems and difficulties - both methodological and conceptual - that are intertwined within this debate have been well documented (Purcell, 1999; Legge, 2001) and many unresolved issues still remain. At the same time, while much more is now known about HRM and performance issues, 'there appears to be a major "disconnect" between what the research literature says that firms should do and what firms actually do' (Becker and Gerhart, 1996:796). Becker and Gerhart argue that 'there needs to be better communication between the academic and management communities so that research findings can have a greater influence on actual policy'. They also suggest that 'more effort should be devoted to finding out what managers are thinking and why they make the decisions they do' (p.796). One manager who is a key player in this debate is the HR manager who has a critical role in the design of the HR system and who may have to shoulder the blame if that system does not operate successfully¹. While the HR manager generally inherits the systems that are dealt with on a daily basis, occasionally he or she is provided with the opportunity to design a new one.

This opportunity also creates the possibility for researchers to work with such a manager to track the initiative over a period of time and to consider the interventions to alter HRM practices that have been suggested as critical to establishing the linkages between HRM and outcomes (Guest, 1997). This paper reports on one such research approach. The researchers worked with the manager who had developed a HR system for a new power plant that was being commissioned. The research tracked the way in

¹ Research suggests that the ambiguity inherent in the HR role ensures that HR managers are unlikely to be praised when HR systems prove successful (Legge, 1978; Watson, 1977).

which the system was designed and implemented and the outcomes of the process. This paper recounts the stages in the design and operation of the HR system over a two year period. The paper begins by first of all exploring some of the literature on the design of HR systems and places this in the context of the research that has been conducted into greenfield sites. The way in which the HR system was designed and operated is then described.

THE HRM SYSTEM WITHIN A GREENFIELD SITE

HRM Systems

Interest in and an emphasis on the design of an HR system is closely linked with resource-based views of the firm (e.g. Barney, 1991). Writers in this area have drawn attention to the impact that effective systems of HRM, rather than individual HR practices, may have on the performance of an organisation. For example, Huselid (1995: 636) points out that such systems 'simultaneously exploit the potential for complementarities or synergies among such [HR] practices and help to implement a firm's competitive strategy'. Recent research has provided strong evidence that effective HR systems produce the types of effects on employee behaviours that have proved so elusive in response to individual HR practices. There is also acceptance of the fact that effective HR systems have significant positive effects on the financial performance of firms (Arthur, 1994; Pfeffer, 1994; Huselid, 1995; MacDuffie, 1995). A system approach may therefore help ensure that the economic returns to investments in HR practices are realised. Once it has been developed, the HR system itself may also become a strategic asset of the business and a source of sustainable competitive advantage. This is because unlike generic 'best practices', a HR system is difficult to imitate once it is embedded in the systems and processes of the organisation rather than in the mind of one individual, or in a policy manual.

The competitive advantage it generates is also sustainable because even if competitor organisations could imitate it, the idiosyncratic nature of the system ensures that its application would only be effective in the organisational context in which it was generated. One of the issues for consideration in the design of an HR system is the choice of HR practices that should comprise such a system. Recent research has focused on the inclusion of practices that are associated with high commitment and involvement. However, as Wood (1999) points out, while there seems to be general agreement on what high commitment practices are, there is 'no consensus that these represent the one best way of approaching HRM' (p. 368). In addition, there is the issue of how these policies fit together to create an integrated system rather than a disparate set of practices. Roche (1997), in an analysis of Irish data, differentiates between two versions or understandings of internal fit within the commitment model: 'threshold-fit' and 'leading policy areas'. In making this distinction, Roche calls attention to the level of coherence that might be required in order for a high commitment model to work effectively. In the case of the 'leading

policy' version, 'not all areas of HRM policy need to embody commitment-oriented principles to the same degree for overall policy coherence to be achieved and the presumed benefits of coherence or "fit" to be realised' (p. 6). He points to the work of Guest (1997: 271) who suggests that organisations may emphasise different 'building blocks' around which other practices are fitted. Research conducted in Ireland to explore the relationships between HR practices and commitment indicated that not all HR practices need to be adopted to the same extent in order to promote effective commitment. The research found that there was a need to distinguish between 'core predictors' and 'reinforcing variables' in understanding the relationship between HR practices and high commitment (Conway and Monks, 2002). Apart from the intricacies involved in constructing a high commitment HR system, there are the difficulties in linking such systems to high performance. Studies to date differ widely in the ways in which they have approached the topic, in what they have actually assessed, and in how this has been linked to performance. Wood (1999), in an extensive review of the literature in this area, points to the problems that these factors then create in making comparisons between the studies.

Greenfield Sites

One way of trying to understand the construction, operation and impact of HR systems is to consider situations in which new systems have been constructed within Greenfield sites. In these contexts, the construction of an HR system is somewhat easier to monitor as it designed from a start-up position and some recent studies provide interesting insights into this issue (e.g. Leopold and Hallier, 1997; 1999; Hallier and Leopold, 2000; Gunnigle and Morley, 1998). The studies by Leopold and Hallier focus on the analysis of greenfield sites in Scotland, Australia and New Zealand. From their research they develop a two dimensional matrix for categorisiing the employment relations philosophy and practices of a new plant (see Figure 1). The horizontal axis 'reflects whether these policies represent a replication of head-office policies at one end to a complete break with the past at the other'. The vertical axis represents approaches to HRM that range from the 'transactional and routine' to high commitment/high performance (p. 717). They suggest that the framework moves the 'debate on greenfield sites away from their depiction either as a greenfield or brownfield dichotomy or as a greenfield to brownfield continuum' (p. 718). However, they found that while greenfield site employers have a range of employment relations options, there were indications that employers had difficulty in 'sustaining their preferred approach' and that 'no single combination of practices and policies was sufficiently robust to be seen as a universal solution' (p. 719). Leopold and Hallier, from the analysis of other studies that have been undertaken of greenfield sites, suggest that 'greenfield employers, no less than their brownfield counterparts, need to monitor the status of their approach and to adapt to changing circumstances' (p. 720).

[Insert Figure 1 about here]

RESEARCH METHODOLOGY

The study reported in this paper is part of a larger longitudinal study of HR practices in power stations (Monks, Loughnane and McMackin, 2003). This aims to understand the ways in which traditional organisations change their HR practices over time and to consider whether or not they attain the characteristics of 'high performance' work organisations in the process. This paper reports on research that was undertaken in a newly constructed power station (PowerOrg)² that formed part of a larger entity, PowerUnit. PowerUnit is a large and complex entity employing approximately 2000 staff. Only 34 staff are employed within PowerOrg. The research comprised a mixture of extensive secondary research and interviews with key informants. The secondary research involved in-depth analysis of business and performance data in PowerUnit over a time span of five years. This included the compilation of performance data on absenteeism levels, industrial relations disputes, accident rates, and attitude surveys as well as information on business and human resource strategies. The primary research involved interviews with the top management responsible for strategic decision making, the station manager and union officials. Interviews also took place with managers and HR professionals in two other power plants within PowerUnit. The aim in taking a case study approach was to try to overcome some of the problems that have been encountered in exploring the introduction of high performance work practices through a survey approach and to provide the qualitative data that is seen as crucial to understanding these processes (Becker and Gerhart, 1996; Purcell, 1999; Guest, 1997).

The Design of the HR System

In 1998, a decision was taken within PowerUnit to build a new power station that would operate on natural gas. This was undertaken as a joint venture with another provider who were anxious to gain a foothold in the Irish market. The new plant had to be designed to operate at 'best practice' level and to be comparable with best international practice. As one business manager pointed out:

the plant determines the way of operating the technology and leads to a set of processes and operations that are put in place to operate the technology. [PowerOrg] interfaces with other plants world-wide and with its sister plants in the UK in sharing expertise and in knowing what you must do and what you must do well. (Business Manager #3).

The model for the operation of the plant was a power station in the UK that operated with no demarcation, annualised hours and a single union. In 2000, as part of this business decision, an HR system was designed specifically for the new plant. From

² The names of the organisations are disguised in order to protect their identities.

the perspective of the HR Manager of PowerUnit, the aim in designing the system was to 'come up with an internally consistent set of HR policies and practices which will generate the required employee behaviours to deliver competitive station performance' (HR Manager, 2003). The basis of this design was the high performance work practices identified in research undertaken into high performance work systems, in particular the work of Huselid (1995); Cutcher-Gershenfeld, (1991); MacDuffie, (1995); Kochan and Osterman, (1994); Arthur (1994) and Delaney and Huselid (1996). Table 1 shows the high performance work practices identified and emphasised in their research.

The design of the new HR system was also embedded in a requirement to ensure that problems endemic in existing plants within PowerUnit were avoided in the new power station. A tradition of adversarial industrial relations, marked by multiunionism and demarcation, had created ongoing problems within many power plants in the business unit. One major decision therefore revolved around whether or not a non-union environment would be the best environment in which to create this new system. In the end, taking into account the positive elements of union representation that have been identified in various studies (Pfeffer, 1998; Arthur, 1994; Storey and Sisson, 1993), a decision was taken to operate with a single union. Traditions in recruitment and selection within power stations had emphasised the fit between an applicant's existing skills and job requirements. However, such an emphasis on individual jobs does not work well where the focus is on team work and collective problem-solving. Thus, recruitment for the new plant was based on a willingness to learn new skills and an ability to work with others on the basis that skill levels can be improved through training but attitudes cannot. The assessment of these attributes was to be ascertained through the use of psychometric tests together with a structured behavioural interview. Those appointed would also be required to possess relevant qualifications or significant experience. Another issue that had caused major problems in the power stations was extensive overtime. In order to avoid this, an annual hours system which involved paying employees an annual salary in return for a contracted number of working hours comprising rostered and reserved hours was introduced. Employees would only have to work the reserve hours if required, for example during breakdowns, and they therefore acquired increased paid leisure time through improved plant performance. While the annual hours scheme to some extent plant availability rather than plant performance. A group or plant wide incentive scheme would therefore also a key part of the new system. In addition, feedback on performance goals would be communicated through team briefing and posted on notice boards.

[Insert Table 1 about here]

Traditionally, power stations were organised with a clear separation between the operations and maintenance sections with demarcation between these two sections and also between crafts within the maintenance section. In the new system, these

groupings were to be replaced by self-directed teams comprising 'plant technicians' with all working on shift work in contrast to the traditional arrangements whereby craft workers did not work shift. This creates a single high skill category employee and reflects the requirement of 'flexible production' where employees need 'both a conceptual grasp of the production process and the analytical skills to identify the root cause of problems' (MacDuffie, 1995). These high skill employees also required training and this is built into the design of the HR system. Finally, in order to assist in promoting the type of cooperation and commitment required to make the system work successfully, and to further distance the new plant from the historical 'them and us' behaviours in the old stations, single status working arrangements were introduced. These included standardised annual leave entitlements, sick pay, common subsistence and expenses, standard medical insurance and a common pension plan. There was also a common uniform (no neckties), cafeteria and parking. The momentum to drive the system was to come through annual attitude surveys and the introduction of a performance management system based on the balanced scorecard.

THE HR SYSTEM IN OPERATION

In order to assess how the system worked in practice, interviews were conducted with the power station manager, the business managers responsible for the strategic decision involved in setting up the new power station and with the union official. Employee reactions to the new system were ascertained from attitude surveys conducted in 2001 and 2002. Table 2 sets out the original elements of the HR system and the elements that are now in operation.

[Insert Table 2 about here]

The majority of the elements of the HR system were included when the power plant was commissioned. A single union emerged following discussion between the station manager and the unions as to how different unions would 'advertise their wares' (Business Manager #3). In effect, a 'beauty contest' (Storey and Sisson, 1993: 205) was held, with unions agreeing to abide by the outcome, and one union was chosen by staff themselves; management had no say in the choice. This plant thus became the first one within the business unit where only a single union was recognised.

The system used to ensure 'selective hiring' included all the elements envisaged in the original design except assessment centres. These were not used because 'there were huge costs and logistical issues involved and the individuals who were being recruited were not used to that system so they would have found it off-putting' (Station Manager, 2002). The profile of the ideal recruit was described as 'in their late thirties, settled and preferably made redundant once' (Business Manager #3) but in the end a wide range of staff were recruited. Clear guidelines were given at the interview 'as to how things would operate' (Business Manager #3) and, following the selection process, individual contracts were drawn up for everyone which set out the terms and

conditions and the flexibilities required. The contract was adapted from one that operated in a similar plant in the UK.

Pay was originally set lower than in similar plants that were being built within Ireland and negotiations with the union resulted in improvements in the remuneration package. An annual hours system was introduced and is in operation. However, the Station Manager pointed out that there were some downsides and that they may have to move to either a more extensive annual hours system or else move back to overtime. The difficulties with the system were echoed by the union official who pointed out that: 'it's a touchy issue with them, because a reduction in them [hours of work] causes a reduction in pay and it all goes back to what you have going home on a Friday in your pay packet' (Union Official #1). The issue over annual hours was the only issue that he had been called into discuss in the previous eighteen months. The other major element of the system that had not been implemented was the performance management system. There were several reasons for this. First, the plant was still being commissioned when the interviews took place and most of the time and energy had therefore gone into recruitment/selection and training. Second, the Station Manager was very conscious of trying to get the right performance management system in place. He felt that what was required was a 'one-to-one, nonthreatening system. A strong supporting culture is necessary'. He saw information and information sharing as critical to the successful operation of the plant: 'open access to information is important. If information is not shared then mistakes can happen - there are hundreds of thousands of components involved in the construction of the plant. If information is not shared then it is changed into power and control'. He was trying to introduce a no blame culture. He pointed out that maloperation can occur due to a range of factors and 'that it this does then we will explore why it happens. The message is that everyone is allowed to make mistakes and if they do they are supported. Only if a mistake is repeated, for example, three times, does it become a different issue and staff have bought into this idea'.

Additions to the HR system

While maintaining the core elements of the original design, the Station Manager had also expanded the HR system by introducing a range of benefits. The bonus system was extended to include a flexible options package with options on a bus/rail pass and bonus bonds. A range of health measures had also been introduced that include health screening, a counselling service, a sports and social club, flu injections and the free availability of fresh fruit in the canteen. The rationale behind the introduction of these measures was to 'prove to staff that they are valued and are important and are the greatest asset' (Station Manager).

EMPLOYEES' VIEWS ON THE HR SYSTEM

Employees' views on the HR system were gauged from responses to attitude surveys that were distributed in both 2001 and 2002. The survey was administered to all 34

employees on both occasions, with a 100% response rate, but some problems with incomplete or inconsistent replies meant that an overall 75% response rate is reported. Table 3 shows the results of the survey for the ten top statement statistics. Staff were asked to respond on a six point Likert scale (strongly agree/strongly disagree) to these statements.

[Insert Table 3 about here]

As table 3 shows, the survey indicated a positive working environment within the plant. Morale was high with staff indicating a belief that their future lay with the organisation. Motivation and the sense of personal accomplishment were strong. This pattern was also evident when the survey was repeated in 2002. However, the issue of performance management was causing some problems in 2001 and these had increased by the 2002 survey. Performance and discipline were identified in the 2002 survey as issues that were not being dealt with. The recommendations emerging from the analysis of the survey by the consultants were that there was a need to revisit the process of performance management and to ensure a greater level of recognition and feedback is provided and that there is training to both appraisers and appraisees in its implementation.

UNION VIEWS ON THE HR SYSTEM

The union official indicated that the lack of demarcation within PowerOrg meant that the category problems, that had traditionally taken up the time of the union official, no longer existed. In addition, he pointed out that attitudes had changed in the way in which industrial relations issues were negotiated:

From the staff side there is an acceptance now that the style of IR was an old style. It's not applicable or appropriate in today's environment. Having said that it doesn't suggest that you won't have the odd one still....but in the main I think people have come to the realisation that what's good for the company is good for us and if we can develop something that is good for the company then what follows is good for us also. (Union Official #1).

He also pointed to the different cultures that existed within the various power stations:

The culture in both [Power station x] and PowerOg is different to the culture in [Power station y]. You tend to have people from the old school in [Power station x] and the old style of industrial relations issues would still surface. Whereas in the new one there is an acceptance that they have signed up and are being rewarded for this change and this is the way forward and this is the way things should be done. I am quite sure that there are niggly bits of

problems but having said that there is nothing to the extent that it is creating mayhem or whatever.

The change to the HR system also meant changes for the union in the issues that they dealt with:

It's moved from a situation where you are dealing with what they call bread and butter issues to now you're dealing with things at a higher level. We've got to be very much aware of what's taking place at a European level, we've got to be right up to date with regards to legislation, you've got to have an understanding. In the past that knowledge would only have been required by the management to run the business now if we are to understand the business and the demands being placed on workers or whatever. So over the last seven or eight years in particular we found ourselves operating at a higher level. Now it hasn't mean that we have less work as a matter of fact I think it has contributed to more work but less niggly problems.

This wider understanding also created a more proactive approach to managing IR issues. He pointed out:

I think if you have an understanding of the industry and you have an understanding of the issues you actually address the problem before it becomes an issue. In the past you could have 24 different phone calls about the same thing because it wasn't set out in text that this is the understanding, that this is the agreement. Now it's a case of "this is the agreement", "this is why we have the agreement". It's a much easier climate to operate within and I think I can say that with my hand on my heart, both on a trade union side and a management side. It takes a lot more effort to ensure that it works and you have got to invest time and expertise and patience in the process to ensure it works.

The only minor problem that he had to deal with in the new plant was in relation to annualised hours and pay.

DISCUSSION

The operation of the HR system within PowerOrg provides a number of insights into HR system design. Figure 2 indicates where this organisation sits using the framework identified by Leopold and Hallier (1999).

[Insert Figure 2 about here]

A two pronged approach was adopted the original design of the system. It was embedded in the high commitment principles identified within the literature but it was also constructed at least in part to avoid the problems encountered within other power plants. Thus, there was only one union recognised and measures such as uniform job titles had been introduced to avoid the demarcation disputes that had traditionally plagued other power stations. However, one of the key elements of the original design, the performance management system, had not been implemented and this appeared to be causing some problems as evidenced by the attitude surveys. The Station Manager recognised this as an issue and considered that it was important to ensure that the right type of system was introduced. Part of the reason for the nonintroduction was undoubtedly the start-up situation in which the station was operating. At such a time, the focus is on commissioning the plant and ensuring that the right staff are recruited and that they have the requisite skills to undertake immediate tasks and these needs take precedence over longer-term issues. To try and introduce a fullblown system may therefore be difficult in such a situation. This supports the view that it is useful to distinguish between 'threshold fit' and 'leading policy areas' (Roche, 1997) and between 'core' and 'reinforcing' HR practices (Conway and Monks, 2002) in considering the construction of an HR system. However, the findings also raise the issue of needing perhaps to take into consideration the way in which different stages of organisational development may influence the decision as to whether certain HR practices are core or reinforcing. For example, in PowerOrg a great deal of investment was made in the process of 'selective hiring'. While one element of the original design - the assessment centre - was omitted because of lack of time, all the other elements were included. In addition, the provision of information on the exact nature of the job was also included as an additional component of the selection process and the work of Phillips (1998) suggests that realistic job previews reduce turnover and increase employee performance. Investment in selection was critical at this time because the recruitment of the 'right' type of employees was considered central to the success of the new plant.

As well as considering the design of the HR system, there is also a need to consider the way in which it may be adapted over time to take account of changing circumstances. Thus, following the start-up stage, the focus may switch to other elements of the HR system that require attention. For example, the station manager had already introduced a range of communications and wellness initiatives that were not in the original HR system design. In this case, the issue of who is doing the adaptation of an existing system and for what reasons may also be crucial. In PowerOrg, the station manager was someone who understood HRM and who was conversant with 'best practice' through his recent completion of an HRM programme. Another station manager, who might have spent long years fighting IR issues, might have brought quite a different interpretation and adaptation to such a system. Figure 3 illustrates these issues by identifying the various choices that are involved in moving from the design to the operation of an HR system.

[Insert Figure 3 about here]

The research provides insights into the HRM-Performance debate on several different levels. First, it indicates that it is possible to create a high commitment HR system based on the principles espoused within the literature and that such systems can work in practice. However, the creation is only one stage in a complex iterative process of ongoing maintenance and development. HR systems, like any other systems, are easily unbalanced. Definite decisions therefore have to be taken on the direction required for the system. In the case of the HR system in the new power station, the design, or guiding principles in its system architecture (Becker and Gerhart, 1996), was based on a conviction that the utilisation of a high commitment model was a core determinant of enhanced business performance when compared with traditional approaches to managing employees. However, the research revealed that in the operation of the system these core principles had to be balanced against the day-today complexities of running a power plant. This suggests that the design of an HR system needs to be considered in terms of both its short-term and long term-outcomes and that the core practices and processes in the system need to be clearly defined and embedded in order to ensure their ongoing survival as the system develops. In the case of the new power station, there was evidence that the design of an integrated HR system based on a high commitment model has had a positive impact on employee attitudes when assessed by the attitude survey. Performance metrics were more difficult to ascertain. At the time the study took place, the plant was still in its early days of operation and was still experiencing some minor teething difficulties that prevented performance comparisons with similar power stations. However, at an individual level, the Station Manager indicated that absenteeism was very low and turnover was not an issue. Thus, although in the early days of operation, certainly the HR system appeared to be having a positive impact on individual performance at least.

ACKNOWLEDGEMENTS

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TABLES AND FIGURES

Figure 4: HRM in Greenfield Sites: Framework of Analysis

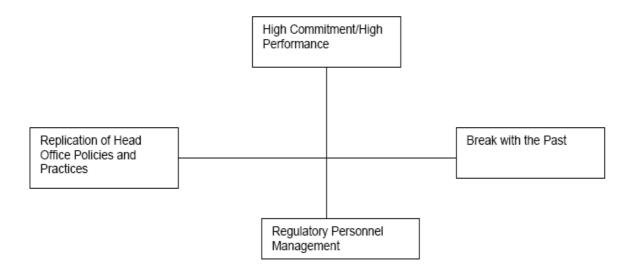


Figure 5: HRM in Greenfield Sites: Framework of Analysis

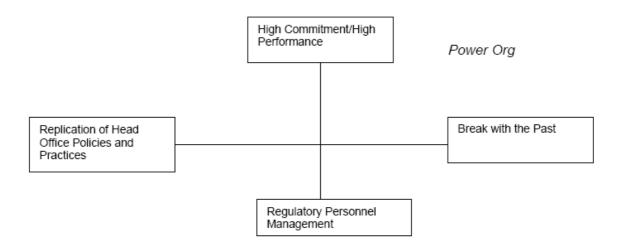


Figure 6: From HR System Design to HR System Operation

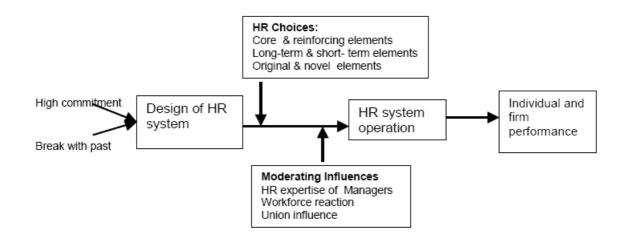


Table 4: Comparison of High Performance Work Practices

High Performance work practices	Huselid(1995)	Arthur(1994)	Cutcher-Gerchenfeld (1991)	Macduffie (1995)	Kochan And Osterman (1994)	Delaney And Huselid (1996)
Performance or 'contingent' pay.	√	√		√		√
Self-directed work teams		√	√	√	√	
Removal of status barriers and harmonisation				√		
Feedback on production goals			√			
Job design		√				√
Problem solving groups/quality circles		1	√	√	√	
Employee suggestions				√		
Rotation				√		
Decentralised decision making		1		√		
Selective hiring				√		
Training	1	1		√		

Table 5: Design and Operation of the HR System

Element	Original Design	Actual Operation		
Unionisation	One union	One union		
Selective Hiring	Psychometric tests, assessment centre; recruitment agency; structured behavioural interviews, reference checking	All elements except assessment centre		
High Wages	Competitive rates of pay for industry	Lower than existing plants but in line with competitors		
Annual hours	Annual hours	In operation but some drawbacks		
Contingent pay	Plant wide bonus scheme with KPIs relating to safety and environmental performance	Not yet implemented		
Feedback on performance goals	Team briefing; performance management system	Information sharing but no performance management system		
Job and Work Design	Self-directed teams with single high skill category 'plant technicians'	Implemented		
Training	Extensive training	Training focused on immediate job only.		
Single Status	Standardised benefit package; single status working conditions	Implemented		

Table 6: Top Ten Statement Statistics December 2001

Factor	Criteria	Statement Text	Mean	Std Deviati
				on
Climate	The climate sustains morale	I believe my immediate future lies with this organisation	5.46	0.59
Goals	There is goal fit	Our organisation has a bright future	5.42	0.72
Relationships	The relations between people are good	Manager-employee relationships are good in this organisation	5.38	0.59
Leadership	Leaders encourage people to share the risk	In this organisation, managers are always ready to help employees	5.33	0.69
Goals	There is goal fit	I believe that the organisation can realize its mission	5.33	0.55
Goals	There is goal fit	We place a high priority on customer satisfaction	5.29	0.69
Leadership	Leaders order internal conflict	The right managers are in the right places in this organisation	5.25	0.72
Relationships	The relations between people are good	On balance people get on well together in this organisation	5.25	0.66
Relationships	The relations between people are good	The people who need to work together in this organisation do it well	5.21	0.51
Goals	There is goal agreement	The organisation's mission is realistic	5.17	0.63