Knowledge Workers and Human Resource Management Strategic

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Abstract: Purpose – The purpose of this paper is to examine the impact of adopting a strategic approach to human resource management (HRM) in professional service firms (PSFs). It provides the empirical evidence by comparing and contrasting the adoption of a strategic approach to HRM in PSFs.Design/methodology/approach – A qualitative case study approach is adopted. Data were collected from multiple sources. The secondary sources comprised annual reports, press releases and industry reports. In total, 40 semi-structured interviews were conducted with senior partners, professional staff, HR managers and ex-employees of the two firms.Findings – The findings suggest that differences in the performance of PSFs could be explained by organizational control systems such as personnel and cultural controls. The qualitative data generated by the two PSF cases provided evidence to support the notion that strategic human resource management is an important factor in explaining firm performance. Our findings provide empirical support for the importance of strategic approaches to HRM. Research limitations/implications – One limitation of this study is the adoption of case study method, the findings of which cannot be generalized to a wider population. Thus, the study provides only a limited body of accumulated knowledge. Future studies could adopt a longitudinal research design to test the relationships between HRM systems, control systems and firm performance. Practical implications – To be competitive, PSFs must restructure their HRM functions to allow the department to participate in strategic decision-making. HR departments in firms should also incorporate cultural and personnel controls as a way to achieve higher levels of firm performance. Originality/value – The paper provides empirical evidence of how PSFs use HRM as a component of success.
Keywords: Professional services, Human resource management, Human resource strategies, Knowledge organization

INTRODUCTION

In recent years, there has been an increasing interest in the management of knowledge based firms (Robertson and Swan, 2004) as society shifts from an industrial age to a fully-fledged information-based age era. Despite the expanding literature in the field of

Strategic management and an emerging body of literature in strategic human resource management (SHRM) research (for example, Wright et al., 2001), little is known concerning SHRM in knowledge-based firms. While a significant amount of literature exist to support the importance of leveraging knowledge as the basis of creating core The current issue and full text archive of this journal is available at capabilities to achieve competitive advantage (for example, Jackson et al., 2003), few empirical studies show the relationships between structure, culture and HRM in knowledge-based industries.

Knowledge-based firms such as professional service firms (PSFs), employ individuals who are highly skilled. These firms produce, distribute and use knowledge and information as their source of competitive advantage (OECD, 1996; Soo et al., 2002).

Therefore, this paper aims to examine the empirical relationship between organizational control and firm performance in PSFs.

Managing knowledge workers in PSFs

The majority of PSFs have a distinctive ownership and governance structure. The form of ownership is the professional partnership. However, professional partnership is a neglected form of study in academic research (cf. Greenwood and Empson, 2003). However, partnership firms and organizations are worthy of study because they are associated with the management of knowledge workers. In addition, these firms have a prestigious aura around their context (Alvesson, 1995). Accordingly, they have been acknowledged as an archetype for the new economy (Greenwood and Empson, 2003).

Knowledge intensive firms are particularly appropriate examples of contemporary forms of "people dependent organizations" Robertson et al., 2003). They can be defined as: Companies where most of the work can be said to be of an intellectual nature and where welleducated, qualified employees form the major part of the workforce (Alvesson, 2000, p. 1101).

Furthermore, they encompass certain unique characteristics. As portrayed by Lowendahl (1997), these firms:

Are highly knowledge intensive with services delivered by people with higher education?

Are frequently closely linked to scientific knowledge development within the relevant area of expertise. . Involve a high degree of customization.

Involve a high degree of discretionary efforts and personal judgments by the experts delivering the service.

Require substantial interaction with the client firm representatives involved.

Deliver within the constraints of professional norms, including setting clients needs higher than profits and respecting the limits of professional expertise.

Knowledge-based firms differ from other industry types because of the nature of their work, which is of a professional intellectual manner that draws on mental abilities rather than physical strength and traditional manual craft (Karreman et al., 2002). For instance, in PSFs, knowledge workers are employed to solve complex problems through the development of creative and innovative solutions (Sveiby and Risling,١٩٨٧). Furthermore, PSFs provide intangible solutions to the problems of their customer by using the knowledge of their employees (Ditillo, 2004). This leads to not only a rigorous competition for clients but also for talented professionals (Maister,٢٠٠٣). In this respect, PSFs are appealing as a focus of study because these firms are likely to provide insights into how knowledge workers should be managed in other types of industries. This is especially the case with the rapid increase of knowledgebased

Firms (Dawson, 2000). Therefore, such employees should be perceived as "gold collar workers" because they effectively own the means of production (Starbuck, 1992) and highly mobile in nature (Kelly, 1990). Studies have demonstrated that specific HR practices, which include skills, knowledge and abilities can enhance human capital (Youndt and Snell, 2004), especially in the management of knowledge workers in the health service sector (Rodwell and Teo, 2004). This view is consistent with the human capital theoretical approach, which argues that the skills, knowledge and abilities possessed by HR provide economic

Value to an organization (Becker, 1993; Schultz, 1961). As firms focus on managing knowledge as a source of competitive advantage (Hall, 1993), the human capital approach provides opportunities for emphasising the intellectual aspects of a firms'

Capital (Guthrie, 2001). Research studies within the literature on PSFs (e.g. Hitt et al., 2001; Teece, 2003) show that human capital has a positive impact on firm performance. Although knowledge intensive firms are of various sizes and categories, they tend to include the notion of PSFs (Alvesson, 2001, p. 864). PSFs endorse strong professional norms encouraging homogeneity across the firm or organization. Due to the idea of a common knowledge, these firms have a significant impact on developing the identities of professionals and reducing variations between organizations (Alvesson, 2001). Research suggests that a range of non-accounting controls can also be used to manage professional service workers (Abernathy and Brownell, 1997).

Personnel controls include HR practices such as selection and training (also known as input controls), which can be used to regulate the antecedent conditions of performance such as knowledge, skills, abilities, values and motives of employees (Snell, 1992, p. 297). Arthur's (1992) study is another example that provides further empirical evidence that finding the fit between HRM controls and competitive strategy in manufacturing industries is essential. Snell and Youndt (1995) show that firms that use a behavioural control approach to HRM tend to be associated with higher levels of financial performance compared to firms that focus on an input control approach to HRM.

Abernathy and Brownell (1997) analysed personnel controls in a professional service environment, which is dominated by professionals who possess the competencies of a typical knowledge worker. A major finding of this study was that when task uncertainty is highest, reliance on personnel forms of controls would have a significant effect on performance. In this particular situation, tasks cannot be programmed and behaviour cannot be controlled through pre-determined actions.

It has also been demonstrated that health service firms use a range of SHRM practices to manage their knowledge workers and that these practices (including personnel control oriented HR practices such as staffing and training practices) lead to increased organizational performance (Rodwell and Teo, 2004). Widener's (2004) study also demonstrates that the reliance on strategic human capital by PSFs has led to the usage of personnel control as the means to achieve a firm's strategy. Personnel control is needed to regulate behaviour through selection, training and the socialisation of professional workers. In a similar vein, Ditillo (2004) argues that

personnel and cultural controls can be used to govern the behaviours of professional workers. These forms of controls allowed the professionals in the particular project teams to engage in effective communication and knowledge sharing among one another. The above studies provide valuable insights into how knowledge-based workers are managed in a professional services environment. Personnel controls in this environment assists in developing an employee's skills, knowledge and motivation to the effect that employees behave in ways that are instrumental to the implementation of a particular strategy (Bowan and Ostroff, 2004). This is a step to achieving superior performance (Delery and Doty, 1998). Although personnel controls are considered a vital means in the management of people in PSFs, in the process of managing knowledge workers there is still a lack of knowledge about the effectiveness of personnel controls within knowledge intensive settings. In this context, the initial research objective is to examine the impact of personnel control on the performance of knowledge-based firms. Organizational performance is enhanced by the powerful and pervasive role of a strong organizational culture (Saffold, 1988). Thus, organizational culture is a major influence on the success of a firm or organization. Kotter and Heskett (1992) suggest that strong cultures illustrate to employees ''the ways of doing things'' within an organization. Organizational culture influences practically all aspects of the working environment, from who is promoted and what decisions are made to how employees dress (Deal and Kennedy, 1992, p. 4). This opinion is supported further by academics in the field, who suggest that strong cultures outperform weak cultures (Kotter and Heskett, 1992). Organizational culture enables professionals to engage in effective communication and knowledge sharing. A study by Cravens et al. (2004) revealed that professional and cultural control both have key roles in nfluencing the performance of sales managers.

Robertson et al. (2003) concluded that institutional contexts (such as culture) have an impact on knowledge creation in a professional service consultancy firm. Robertson and Swan (2003, p. 831) also concluded that ''cultural control engendered a form of normative control whereby knowledge-intensive consultants operated freely and willingly participated in the regulation of their own autonomy''. evertheless, there is inadequate empirical evidence to explain how culture is managed in PSFs and its overall impact on a firm's performance. Keeping within this viewpoint, the second research objective is to examine the impact of cultural controls on the performance of knowledge-based firms.

METHODS

This study was conducted from mid 2004 to early 2005 within two international PSFs (PSF1 and PSF2. The names of the PSFs are withheld to maintain anonymity, which was a condition imposed on the researchers. Both PSFs are leading professional consulting firms worldwide. Both operate in over 142 countries and have some 125,000 professionals. The reason for choosing the two firms is that the two firms differ considerably in their organizational culture as well as in their approach to managing their knowledge workers. A qualitative methodology was adopted for the purpose of this study, which is multi-method in focus, involving an interpretive ad naturalistic approach to the subject matter. Qualitative researchers study people and events in natural settings and attempt to make sense of particular phenomena by examining the meanings people bring to such events (Denzin and Lincoln, 1998, p. 3). This is a way to obtain rich insights from in-depth observations and interviews from the firms in this case study. The methods of data collection and analysis provided the necessary rich in-depth contextual information required for understanding the nature and status of the HRM function in the strategic management of knowledge workers in the PSFs in this case study. Due to the interpretative nature of the current study, triangulation was used to demonstrate convergence and agreement as a means to increase reliability and validity (Snow and Thomas, 1994) of the qualitative data. This approach is consistent with the recommendation of Miles and Huberman (1994). Triangulation was adopted to provide bolster the qualitative research methodology (Johnson, 1987) and achieve internal consistency (or reliability) and convergent validation (Jick, 1979).

DATA COLLECTION

Data were collected from multiple sources. The secondary sources comprised mainly the Annual Reports of the sample PSFs, official press releases and industry reports. These data collection methods are common in management research (see for example, Ferlie et al., 2005). Data sources of this type were helpful in categorizing the performance of the two PSFs in the study. Primary data were collected through semistructured interviews. A total of 40 semi-structured interviews (19 in PSF1 and 21 in PSF2) were conducted with senior partners, professional staff, HR managers and ex-employees within the two firms. On average, the interviews lasted over an hour. The

interviews were audiotaped and subsequently transcribed fully for the purpose of data analysis.

Data analysis

Following Ferlie et al. (2005), external validity of the research was achieved by relying on a team of researchers to analyse the qualitative data derived from the semistructured interviews. At the outset, thematic issues were coded and analysed by the second researcher, followed by confirmation of the coding themes by the remaining members of the research team. Conceptual matrices were then developed to allow the researchers to provide further empirical insights on associations between themes. This methodology allowed the researchers to analyse thematic issues within and across the two firms and interpret the richness of the organizational life of those firms (cf. Ahrens and Dent, 1998). A summary of the main findings are presented below (more details can be provided upon request to the corresponding author).

RESULTS

Professional service firm 1 is one of the largest firms within the industry group worldwide provides a range of professional services to its clients. The firm recruits a ''high calibre'' individuals, who are degree qualified and are expected to continue their professional education. The second firm (PSF2) is also from the same industry group and has a similar global profile. The firm recruits from the same pool of individuals as PSF1 and provides further training to its new recruits in order for them to attain professional qualifications.

Structural control

The partners in PSF1 exercise control over their business in two ways – through people and client management. First, people management control involves partners ''developing, inspiring and providing challenging work'' to their employees. When the researchers questioned a partner about how much time he generally spends with his staff, he responded instantly All through the year, whether I directly have dealings with people at point in time or discuss certain people related matters like compensation at some other point in time or otherwise. Right away, I am going out with the [Business] Report. I would take a (seat) with the manager and his entire team . . . we will run through it. I would say it's a part of the development process (interview, partner, business group A).

Many employees in PSF1 commented that PSF1 partners have changed the way they behave. Another partner in business group A further explains this: . . .few of the partners who were once seen as being very difficult characters have actually changed by being empathizing. Furthermore, they have realised that own behaviour has a significant influence upon the people they work with. They have changed genuinely by becoming cosier about themselves and also by partaking their feelings about work, life and everything.

Client management requires partners to provide exceptional service to clients through people. Each partner has a client portfolio; thus, depending on the size of the client, there might be a team of professionals or only one or two professionals working on that client on behalf of the partner. The management of the client is actually ''a marketing facing role to use a much often quoted quote, be famous for something'' (interview, partner, business group T). For this reason, 40 per cent of partner's remuneration is based on meeting their client's expectations, whereas people and firm are 30 per cent, respectively.

Cultural control

In PSF1, behavioural changes in partners occurred as a result of a new cultural initiative, referred to as the ''high-performance culture'' movement. It was initiated two years ago, described by one partner as ''voyage of self discovery''. Enacting cultural change cannot be achieved solely by training. A partner from business group A remarked that:

To engender the voyage of self-discovery culture, the old ways of managing and controlling employees ought to be distorted. We need to extend employees sufficient space to grow, embark upon risks and pilfer opportunities in a very convivial way.

However, while the approach is top down, it allowed partners to understand their own behaviours and its effects on others. For instance, PSF1 partners are required to engage in a lifestyle inventory personality profile test to determine their working style.

However, each of PSF1's business groups has a distinct sub culture, which is based on its particular professional service. As part of the process of cultural change, PSF1 invested considerable time in educating its partners and potential partners in understanding the rganization's culture as a way of enabling partners to translate their culture in the context of their daily activities. The use of the lifestyle inventory personality profile test is

particularly revealing. With insights about how their behaviours influenced others, partners commented on their new cultural initiatives as a road to "self discovery". Within PSF2, evidence of strong reliance on cultural controls was not identified. The firm originally adopted a set of shared meanings and the firm's culture incorporates a range of values. However, ecause of a series of changes in the firm's senior management leadership team, the reliance on these signals slowly faded. As one senior manager commented: In theory, continual changes in the top management positions may trigger off uncertainty, but in our case the reason was unwavering and unambiguous commitment to craft a performance culture through staunch leadership. . . (interview, director, business group T).

It is interesting to note that when employees were questioned about the firm's culture, there were uncertainties concerning the organization's culture: We work in varied functions. . . We work together only when it is required . . . therefore, we don't have a thorough knowledge of each other's functions. For instance, we work with certain people from another business group on some projects. We would not know what they are precisely doing. . . (employee, PSF2). Sentiments of this type suggest that culture control is not put into effect to unify employees.

HRM control

Both PSF1 and PSF2 adhere to similar personnel controls in terms of recruitment, selection, operational HRM and performance management systems. However, the key difference within the personnel control is the role of training and development (T&D).

In PSF1, its HR division provides ongoing training to professionals at all levels. It is apparent that the division works closely with its senior management team. They have tailored their training programs and incorporate a strategic prospective to meet the needs of the business. Furthermore, PSF1 has instigated numerous soft skills training programs for all levels. Human resource management controls at PSF2 are exercised through its HR processes, which include recruitment, selection, T&D and operational HR. Respondents in this firm commented that the HR processes were in disarray. The HR role as described by a senior partner was an "operational and supporting role, but they could be engaged in being strategic, absolutely they could". Another senior director commented, "Without any disrespect, they (HR) are admin people, they advise us on what we have to do. . . and these are the forms we have to fill in".

In this setting, HR engages in the mundane transactional activities, such as payroll, organizing employee annual and study leave, retention issues, reward entitlements and the like. The primary role of the HR division in PSF2 seems to be in the recruitment process. The division also provides development assistance to newly promoted professional staff by sending them to career centres conducted by external consultants. There is also limited ongoing in-house training in day-to-day activities. Typically, organizing training is not part of their duties.

Performance management

Both firms adhere to a similar management structure. Partners in each firm are rotated from their current positions for a set period. In PSF1, the partnership hierarchy includes the firm's leadership team, national business unit partners, national industry unit partners and business unit partners. The process of admitting potential partners into the partnership level in PSF1 is highly formalised. It includes a nomination process, intensive training sessions and a skills-based assessment. The manner in which individuals are promoted within the hierarchy in PSF1 depends on their level of experience in the business unit or industry and overall performance. Partnership assessment at PSF1 is a very rigorous process; this is because PSF1 "weeds out" individuals who do not possess the competencies required of a PSF1 partner. PSF1 has a highly rigorous performance measurement system from partner level to cadets. This system varies slightly for different divisions and levels. The performance measurement system determines the employees' remuneration and career progression within the organization, according to the performance targets outlined in their individual business plans, appraisals per-job-engagements and their annual performance review. At PSF2, the partnership hierarchy has two distinct levels – senior and junior partners. Within the senior rank, depending on the number of shares these partners hold, they are further split into different level to differentiate their managerial and product responsibilities. The assessment process is more informal. Senior management "counsel out" applicants who do not possess the competencies required at the partnership level. The performance management system in PSF2 allows the firm to manage its people more effectively. For example, if an employee moves from one division to another, the same performance model exists. Thus, there is consistency on how performance is measured throughout the firm. Each employee is required to engage in the personal development planning process, engagement performance review and the annual performance review. The two underlying attributes that contributed to PSF1's higher performance level and what differentiates the firm from its competitors, al least according to the partners are the "people" and the

"organizational culture". When partners were asked whether recruitment or management of people was most important partners replied the latter:

If you get the best people in the door, but you do not spend time with them. Don't give them the challenging work, you do not develop them, you are not going to get the results (interview, partner, business group A). To achieve the high-performance culture, PSF1 "wants their employees to develop themselves . . . be high achievers and inspirational" (interview with partner in business group A).

Both firms use their performance management system as the means to achieve a proper alignment between employee and organizational goals. This system allows the firms to distinguish high performers from low performers through the constant monitoring of the erformance of employees throughout the year. This is achieved via appraisals following each job engagement, bi-annual performance reviews and meetings with coaches and/or counsellors. This performance management system encourages employees to conform to the behaviours prescribed by the firm. Employees who enact the right behaviours are rewarded. However, negative implications can arise from this system. Employees may engage in sub-optimal behaviours as a result of being assigned a poor rank – poor ratings generally affect an employee's remuneration and career progression within the firm. A resistance by partners to acknowledge the "daily grind" of the knowledge worker might possibly make inroads into the retention rates of employees. Highly knowledgeable individuals desire recognition and will consider departing the firm to pursue their careers elsewhere, especially, where a new
environment offers better prospects for self-actualisation.

Firm performance

Documents such as Annual Reports and industry reports were used to collect data relating to firm performance. In the general period of the study, PSF1 performed significantly better than PSF2. In 2003-2004, PSF1 increased its profit by approximately 2 per cent while PSF2 experienced a reduction of its revenue by just less than 10 per cent. In addition, PSF1 had a staff turnover of less than 1 per cent in comparison to PSF2 that had an annual turnover of approximately 18 per cent. Furthermore, PSF1's growth was approximately 8 per cent, whereas PSF2 was less than 5 per cent within the industry. These differences can be explained in the light of differences in the internal organization structure of PSF1 and PSF2. Firstly, in PSF1, the partnership structure has been used to engage in constant monitoring of the performance of partners, therefore, ensuring partners refrain from engaging in opportunistic behaviour detrimental to the firm. Partners were trained in all aspects of the skills required for effective performance. Secondly, the HRM function has to consider the operation of the business. In this type of setting, HRM should not just provide the traditional HR functional activities (such as in the case of PSF2) but also provide the necessary softer skills to professionals in people management roles. Finally, in order for any PSF to enact a strong culture, it needs to ensure that the professionals in the leadership (that is, partnership) roles are cognizant of the firm's culture and constantly endorse this culture in their everyday interactions.

Role of HRM function

The role of the HRM function in both firm varied considerably. PSF1's HRM function has partially adopted the strategic business partnership role. The HRM function worked closely with the senior management team to provide this group with a supportive function in their everyday transactional activities. The necessary training to assist them in people management was also present. These activities included the day-to-day transactional activities of payroll, organizing various types of leave, retention issues and entitlements. As commented on by a partner: We have about a few thousand employees across the country. . .but at present, we stumble upon a high rate of employee turnover that reach to the extent of 25 per cent. . . but that's the very nature of the industry.We are recruiting over a large number of employees every year to cope with this high turnover rate. For this reason, operational HR practitioners are perceived to "take away an element of administrative burden from the professional staff" (interview, partner, business group A). Operational HR is considered inevitably important within this professional service setting. However, there is lack of T&D for senior managers and below related to T&D itself. In contrast, HRM in PSF2 tends to incorporate the traditional aspects of HRM, including operational activities. However, there is a lack of guidance provided for partners concerning their people management role. However, more importantly, PSF2 has realised this issue and is trying to rectify problems by restructuring its HRM division and allow it to engage in a strategic partnership role.

Discussion and implications

The current study provides insights on how two PSFs manage their professional workers, whose tasks are inherently knowledge based. It also demonstrates that the alignment between structure, culture and HRM can be

important in explaining how PSFs perform. A robust performance management system requires employees to set goals, which are aligned closely with the objectives of the PSF in which they work. This alignment engenders professionals to engage in strong work ethics to achieve both personal and organizational goals. Furthermore, employees should be recognized and rewarded for contributing to this alignment. Continuous feedback to professionals is an integral component of this system. In addition, cultural controls should be strong, upholding persuasive work norms. Professionals therefore, will not be impervious to achieving the firm's goals as they strive themselves to achieve. This process will enhance further the level of motivation within the PSF and allow professionals to sharefreely knowledge with one another. The findings also provide some support for the notion of the importance of SHRM, especially in the linkages between HRM and firm performance (see, for example, Snell and Youndt, 1995; Wright et al., 2001). The findings also suggest that personnel controls in both the PSFs were utilized in different ways. In this light, PSFs will need to restructure their HRM functions to allow the HR department to participate in strategic decision-making as a means to become more competitive. PSFs should also implement cultural and personnel controls to achieve a higher level of firm performance because in this environment, employees behave in ways that are instrumental to implementing strategy in the PFS (Widener, 2004). The impact of organizational control system on the management of knowledge workers in PSF is also support in this study (cf.Robertson et al., 2003). As suggested by the analysis of the HRM function in PSF1, this function must engage in a business partnership role and provide strategic advice to line managers among others senior managers. Evidence was also found to support the importance of HRM functions, which adopt strategic approaches to the management of professional workers in knowledge-based industries. This finding supports the centrality of the HR department in assisting a firm gain competitive advantage (Barney and Wright, 1998). Generally, both the status and influence of the HR department is critical in linking the people management function and the strategic management process (Galang, 1999; Ulrich, 1997). In addition, the need for the HRM function to change its traditional role from personnel management to that of strategic HRM is highlighted. This move helps create the necessary organizational culture for knowledge management (Storey and Quintas, 2001).

The current study also highlights the importance of adopting a HRM investment orientation, as evident in PSF1. This orientation allows a firm to compete effectively in a highly competitive industry sector. In this context, knowledge-based workers must be treated as a valuable resource, which is a view consistent with the resource-based view of the firm and SHRM in knowledge-based industries (Barney and Wright, 1998). This also highlights the need to use the management of knowledge as a source of competitive advantage (Hall, 1993).

Limitations and implications for future research

One limitation of this study is the adoption of the case study method, the findings of which cannot be generalized to a wider population. In addition, the case method provides only a limited body of accumulated knowledge (Langfield-Smith, 1997). Future research might adopt a longitudinal research design to test empirically the relationships between HRM systems, control systems and firm performance. The study presented has a number of implications for further research. For example, no evidence was found in the study to explain the effectiveness of personnel controls in PSFs. Researchers could observe the operation of control systems in knowledge-based organizations to determine what elements within the management control systems are effectual in managing knowledge workers. Future research could also expand the relationship between firm performance and strategy to test for the moderation effect of the strength of HRMsystems within this relationship (Bowan and Ostroff, 2004).

CONCLUSION

The current paper has demonstrated that differences in the performance of knowledgebased firms might be explained by organizational control systems – in this case, personnel and cultural controls. The qualitative case studies of the two PSFs provide evidence to support the notion that SHRM is an important factor in explaining the performance of firms. However, the findings cannot be generalized across all PSF and similar organizations. Nevertheless, the current findings do point a way forward for researchers wishing to develop a research model to explain the strategic management of knowledge-based workers in PSFs and similar organizational types.

REFERENCES

Abernathy, M. and Brownell, P. (1997), ''Management control systems in research and development organizations: the role of accounting, behaviour, personnel control'', Accounting, Organization and Society, Vol. 22 No. 3, pp. 233-48.

Ahrens, T. and Dent, J. (1998), ''Accounting and organizations: realizing the richness of field research'', Journal of Management Accounting Research, Vol. 10, pp. 1-39.

Alvesson, M. (1995), Management of Knowledge-Intensive Companies, de Gruyter, Berlin and New York, NY.

Alvesson, M. (2000), ''Social identity and the problem of loyalty in knowledge-intensive companies'', Journal of Management Studies, Vol. 37 No. 8, pp. 1101-23.

Alvesson, M. (2001), ''Knowledge work, ambiguity, image, and identity'', Human Relations, Vol. 54 No. 7, pp. 863-86.

Arthur, J. (1992), ''Effects of human resource systems on manufacturing performance and turnover'', Academy of Management Review, Vol. 37 No. 3, pp. 670-87.

Barney, J. andWright, P. (1998), ''On becoming a strategic partner: the role of human resources in gaining competitive advantage'', Human Resource Management, Vol. 37, pp. 31-46.

Becker, G. (1993), Human Capital, University of Chicago Press, Chicago, IL.

Bowan, D. and Ostroff, C. (2004), ''Understanding HRM firm performance linkages: the role of the 'strength' of the HRM system'', Academy of Management Review, Vol. 29, pp. 203-21.

Cravens, D., Marshall, G., Lassk, F. and Low, G. (2004), ''The control factor'', Marketing Management, Vol. 13 No. 1, pp. 39-44.

Dawson, R. (2000), Developing Knowledge-based Client Relationships: The Future of Professional services, Butterworth-Heinemann, Amsterdam.

Deal, T. and Kennedy, A. (1982), Corporate Cultures, Penguin, Harmondsworth.

Delery, J. and Doty, D. (1996), ''Modes of theorizing in strategic human resource management: test of universalistic, contingency and configurational performance predictions'', Academy Management Journal, Vol. 39, pp. 802-35.

Denzin, N. and Lincoln, Y. (1998), Strategies of Qualitative Inquiry, Sage, Thousand Oaks, CA.

Ditillo, A. (2004), ''Dealing with uncertainty in knowledge-intensive firms: the role of management control system as knowledge integration mechanisms'', Accounting, Organization and Society, Vol. 29 No. 3-4, pp. 401-21.

Ferlie, E., Fitzgerald, L., Wood, M. and Hawkins, C. (2005), ''The non-spread of innovations: the mediating role of professionals'', Academy of Management Journal, Vol. 48, pp. 117-34.

Galang, M. (1999), ''Employee reactions to voice and choice in the workplace: the influence of culture'', International Journal of Human Resource Management, Vol. 10 No. 4, pp. 703-15.

Greenwood, R. and Empson, L. (2003), ''The professional partnership: relic or exemplary form of governance'', Organization Studies, Vol. 24 No. 6, pp. 909-33.

Guthrie, J. (2001), ''High involvement work practices, turnover and productivity: evidence from New Zealand'', Academy of Management Journal, Vol. 44, pp. 180-90.

Hall, R. (1993), ''A framework linking intangible resources and capabilities to sustainable competitive advantage'', Strategic Management Journal, Vol. 14, pp. 607-18.

Hitt, M., Bierman, L., Shimizu, K. and Kochhar, R. (2001), ''Direct and moderating effects of human capital on strategy and performance in professional service firms: a resource-based perspective'', Academy of Management Journal, Vol. 44, pp. 13-28.

Jackson, S., Hitt, M. and DeNisi, A. (Eds) (2003), Managing Knowledge for Sustained Competitive Advantage, Jossey-Bass, San Francisco, CA.

Jick, T. (1979), ''Mixing qualitative and quantitative methods: triangulation in action'', Administrative Science Quarterly, Vol. 24 No. 4, pp. 602-11.

Johnson, G. (1987), Strategic Change and the Management Process, Blackwell, Oxford.

Karreman, D., Sveningsson, S. and Alvesson, M. (2002), ''The return of the machine bureaucracy? Management control in the work settings of professionals'', International Studies of Management and Organization, Vol. 32 No. 2, pp. 70-92.

Kelly, R. (1990), The Gold Collar Worker: Harnessing the Brainpower of the New Workforce, Addison-Wesley, Reading, MA.

Kotter, J. and Heskett, J. (1992), Corporate Culture and Performance, The Free Press, New York, NY.

Langfield-Smith, K. (1997), ''Management control systems and strategy: a critical review'',Accounting, Organization and Society, Vol. 22 No. 2, pp. 207-37.

Lowendahl, B. (1997), Strategic Management of Professional Service Firms, Handelshojskolens Forlag.

Maister, D. (2003), Managing the Professional Service Firm, Bath Press, Bath.

Miles, M. and Huberman, A. (1994), Qualitative Data Analysis: A Sourcebook of New Methods, 2nd ed., Sage, Newbury Park, CA.

Organisation for Economic Co-operation and Development (1996), The Knowledge-based Economy, OECD, Paris.

Robertson, M. and Swan, J. (2003), ''Control – what control? Culture and ambiguity within a knowledge intensive firm'', Journal of Management Studies, Vol. 40 No. 4, pp. 831-58.

Robertson, M. and Swan, J. (2004), ''Going public: the emergence and effects of soft bureaucracy within a knowledge-intensive firm'', Organization, Vol. 11 No.1, pp. 123-48.

Robertson, M., Scarbrough, H. and Swan, J. (2003), ''Knowledge creation in professional service firms: institutional effects'', Organization Studies, Vol. 24 No. 6, pp. 831-57.

Rodwell, J. and Teo, S.T.T. (2004), ''Strategic HRM in for-profit and non-profit organizations in a knowledge-intensive industry: the same issues predict performance for both types of organization'', Public Management Review, Vol. 6 No. 3, pp. 311-31.

Saffold, G. (1988), ''Culture traits, strength, and organizational performance: moving beyond 'Strong' culture'', Academy of Management Review, Vol. 13, pp. 546-58.

Schultz, T. (1961), ''Investment in human capital'', American Economic Review, Vol. 51 No. 1, pp. 1-17.

Snell S. and Youndt, M. (1995), ''Human-resource management and firm performance: testing a contingency model of executive controls'', Journal of Management, Vol. 21 No. 4, pp. 711-37.

Snell, S. (1992), ''Control theory in strategic human resource: management: the mediating effect of administrative information'', Academy of Management Journal, Vol. 35, pp. 297-327.

Snow, C.C. and Thomas, J.B. (1994), ''Field research methods in strategic management: contributions to theory building and testing'', Journal of Management Studies, Vol. 31No. 4, pp. 457-80.

Soo, C., Devinney, T., Midgley, D. and Deering, A. (2002), ''Knowledge management: philosophy, processes, and pitfalls'', California Management Review, Vol. 44, pp. 129-50.

Starbuck, W. (1992), ''Learning by knowledge-intensive firm'', Journal of Management Studies,

Storey, J. and Quintas, P. (2001), ''Knowledge management and HRM'', in Storey, J. (Ed.), Human Resource Management: A Critical Text, 2nd ed., Thomson Learning, London.

Sveiby, K.E. and Risling, A. (1987), Kunnskapsbedriften-arhundrets storste lederut fordring?,Liber Forlag, Oslo.

Teece, D. (2003), ''Expert talent and the design of (professional services) firms'', Industrial and Corporate Change, No. 12 No. 4, pp. 895-916.

Ulrich, D. (1997), Human Resource Champions: The Next Agenda for Adding Value and Delivering Results, Harvard Business School, Boston, MA.

Vol. 29 No. 6, pp. 713-40.

Widener, S. (2004), ''An empirical investigation of the relation between the use of strategic human capital and the design of the management control system'', Accounting, Organizations and Society, Vol. 29 No. 3-4, pp. 377-99.

Wright, P., McMahan, G., Snell, S. and Gerhart, B. (2001), ''Comparing line and HR executives' perceptions of HR effectiveness: services, roles, and contributions'', Human Resource Management, Vol. 40 No. 2, pp. 111-23.

Youndt, M. and Snell, S. (2004), ''Human resource configurations, intellectual capital, and organizational performance'', Journal of Managerial Issues, Vol. 16 No. 3, pp. 334-60.