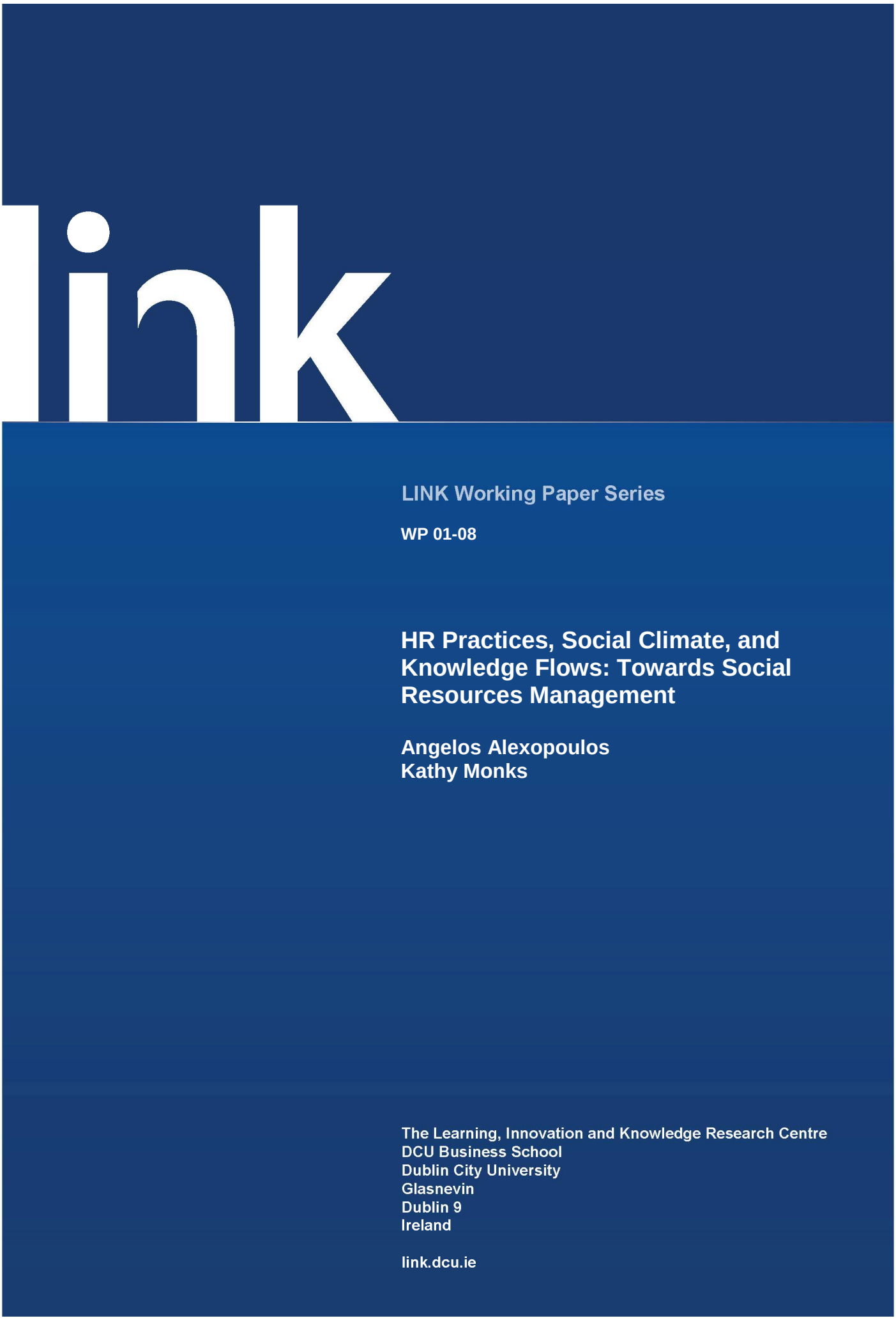

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HR Practices, Social Climate, and Knowledge Flows: Towards Social Resources Management

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HR Practices, Social Climate, and Knowledge Flows: Towards Social Resources Management

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ABSTRACT

Despite theoretical support suggesting a strong linkage between HR systems and knowledge management outcomes, only limited empirical evidence exists on the relative contribution of HR practices, particularly as experienced by individual employees, to facilitating intrafirm knowledge flows. Further, even fewer studies have investigated key intermediate mechanisms by which HR practices affect knowledge sharing attitudes and behaviour. Drawing on a survey of 135 core knowledge employees from three Irish-based firms, we found that reciprocal task interdependence, feedback from others, selective staffing and socialisation, relationship-oriented training and development, and line management support for knowledge sharing were the main factors associated positively with employee perceptions of a social climate that encourages cooperation and teamwork orientation. The implications of our findings are discussed.

***Key Words*:** Human resource management, knowledge work, social climate, cooperation, knowledge sharing.

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INTRODUCTION

In parallel with the widespread recognition that the transfer of people-embodied knowledge is a core basis for competitive advantage available in firms (Argote & Ingram, 2000), attention has recently focused on the role of the HR function in advancing the knowledge and knowing capability of the firm and, consequently, its value proposition (e.g., (e.g., Storey & Quintas, 2001; Jackson, Hitt & DeNisi, 2003; Kang, Morris, & Snell, 2007; Svetlik & Stavrou-Costea, 2007). While human resource management (HRM) scholars are increasingly aware of the importance of fit between knowledge management (KM) initiatives and people-related issues, there are significant gaps in understanding the synergies between HR practices and KM processes and outcomes. In particular, the mechanisms through which HR practices affect employee attitudes and behaviour towards participating in knowledge sharing activities remains a largely unresolved question. The objective of this paper is to address this gap by arguing that HR practices may influence employee knowledge sharing attitudes and behaviour through their impact on perceptions of an organisational social climate conducive to cooperative social relations and teamwork orientation. Such a climate has been identified in the literature as key to knowledge exchange and organisational learning (Nahapiet, Gratton, & Rocha, 2005; Jackson, Chuang, Harden, & Jiang, 2006).

The key theoretical contribution of this article lies in nudging the dialogue on the HRM-knowledge-performance linkage from human capital to social relations. HRM research has traditionally focused on methods of developing human rather than social capital (Brass & Labianca, 1999; Leana & Van Buren, 1999). From an individualistic HRM perspective, the social climate of the firm is considered little more than a context for individual needs, interests, values, motivation, and behaviour (Brass, 1995). However, given that the firm's knowledge and knowing capability depends both on human and social capital advantage, 'to focus on the individual in isolation is, at best, failing to see the entire picture' (Brass & Labianca, 1999: 323).

This article seeks to bridge the gap between intended and experienced HRM, thereby enabling a more accurate assessment of the impact of HR practices on employee attitudes and behaviour (Purcell & Kinnie, 2006; Wright & Nishii, 2007). It also aims at providing a nuanced understanding of the relative impact of people management practices (Wright, Dunford, & Snell, 2001) on employee perceptions of cooperative climate by examining the role of staffing, training and development, and rewards as well as knowledge-work design and immediate management support, two factors which, despite their importance, have received little empirical attention (cf. Ramamoorthy & Flood, 2004; Zárraga & Bonache, 2005; Cabrera, Collins & Salgado, 2006). More generally, consistent with a relational approach to the HRM-knowledge-performance link, it seeks to advance understanding of the breadth and depth of HR systems in a knowledge-intensive organisational context.

This article is organised into four sections. The first provides a critical review of the literature from which a set of research questions is derived, accompanied by our

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proposed model. The second presents the methodology used to test our model. The third presents the results of the study. These are discussed in the fourth section, followed by the theoretical implications of our study, its limitations and recommendations for future research.

HRM AND KNOWLEDGE-RELATED PERFORMANCE

A common goal of recent conceptual and empirical research on the HRM-knowledge-performance linkage is to explain variation in value creation as a result of coordinating HR with KM strategy. Four distinct approaches are identified in the literature. The first attempts to bridge the gap between HRM and KM by combining theoretical constructs, developed originally in the field of KM, with concepts more familiar within HRM theory. The starting point for building an understanding of explanatory mechanisms is the acknowledgement of the relative importance of different types of knowledge (e.g., explicit, tacit) that are more or less congruent with the strategic priorities of the firm (Hansen et al., 1999). Studies within this perspective reflect a 'best fit' approach to researching HRM-KM linkages (Haesli & Boxall, 2005; Shih & Chiang, 2005). A second line of work seeks to fill the same gap by utilising well-established concepts and frameworks from HRM as the basis for developing HR approaches to managing knowledge workers. Particular emphasis is placed on the role that high commitment HRM can play in eliciting employee-based capabilities that contribute to the success of KM initiatives. This can be described as the 'best-practice' approach (e.g., Hislop, 2003). As an evolution of the 'best practice' research stream, a third line of work places emphasis on the intermediate role of social relations, culture and climate in the HRM-KM linkage. This can loosely be termed the 'relational' approach (e.g., Zárraga & Bonache, 2005; Cabrera et al., 2006; Collins & Smith, 2006; Kang, Morris, & Snell, 2007). Finally, an emerging body of mainly qualitative studies takes a more critical approach (e.g., Hunter, Beaumont & Lee, 2002; Currie & Kerrin, 2003; Swart & Kinnie, 2003; Willem & Scarbrough, 2006). The relational approach is presented below.

The Relational Approach

Despite a growing consensus that HR systems are the primary means by which firms can manage value-creating social relations (e.g., Lado & Wilson, 1994; Leana & Van Buren, 1999; Jackson et al., 2003; Kang et al., 2007), there have been few empirical studies examining whether and how HR practices impact on knowledge flows. A review of the literature identified only a small number of quantitative (Youndt & Snell, 2004; Minbaeva, 2005; Collins & Smith, 2006) and qualitative studies (Hunter et al., 2002; Currie & Kerrin, 2003; Swart & Kinnie, 2003; Willem & Scarbrough, 2006) that have focused explicitly on this area. The first group, which comprises mainly large-scale, survey-based studies (e.g., Youndt & Snell, 2004), examines the relationship between systems of HR practices, social relations and knowledge sharing by seeking to identify 'strong situations' (Mischel, 1977), such as social capital, that

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both influence and are influenced by the impact of HR systems on knowledge exchange and, consequently, on organisational performance. This body of work seeks to explain variation in knowledge sharing effectiveness and performance success as a function of the systemic effects of HR practices on the firm's internal social structure. The second group comprises mainly in-depth, case-based empirical work (e.g., Currie & Kerrin, 2003). While placing equal emphasis on the role of strong situations, it seeks to go a step further by examining the underlying layer of HR processes and how these intertwine with the social context of knowledge sharing. Although the two perspectives are theoretically and analytically different, we believe that they are and should be treated as complementary.

The Systemic Perspective

Based on top managers' views of 208 public, single business-unit organisations in the USA, the results of a study by Youndt & Snell (2004) showed that a collaborative-based bundle of HR practices were particularly important for enhancing social capital which, in turn, was significantly associated with organisational performance. A closer look at this study indicates, however, three important limitations. First, social capital is operationalised in a rather abstract manner, which makes it impossible to distinguish between its structural, relational, and cognitive dimensions (Nahapiet & Ghoshal, 1998). In fact, Youndt & Snell (2004) succumb to equating social capital with knowledge sharing. This simplification not only hinders understanding of how the distinct dimensions of social capital are shaped differently by HR practices but it also downplays the possibility that, in some cases, knowledge sharing could be a positive spill-over from power and influence relations (Portes, 1998; Willem & Scarbrough, 2006). A second limitation concerns the poor operationalisation of the HR bundles. The collaborative HR configuration, for example, comprises eight items. This raises questions about the extent to which HR bundles capture adequately the large and diverse array of HR practices required for managing complex social relations. Finally, the study is based on CEOs' views and, therefore, leaves unanswered knowledge workers' perceptions of HR practices and social capital.

Based on a sample of 136 high-technology US firms, Collins & Smith (2006) study corrects most of the limitations identified in Youndt & Snell's (2004) research by developing and testing a more refined model. This model suggests how commitment-based HR practices affect knowledge exchange and organisational performance through social relations. First, commitment-based HR practices are defined here more comprehensively Second, Collins & Smith (2006) identify organisational social climate as a key mechanism through which commitment-based HR practices affect employee-based capabilities to exchange knowledge. Social climate is operationalised along three dimensions (i.e., cooperation, trust, shared language and codes). In this sense, it resembles the relational and cognitive dimensions of social capital (Nahapiet & Ghoshal, 1998). Commitment-based HR practices were found to be a strong predictor of all dimensions of social climate. In

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turn, social climate mediated partially the effect of HR practices on knowledge exchange. In addition, the effect of HR practices on firm performance was mediated not only by knowledge exchange, but also by social climate. Probably the most important contribution of Collins & Smith's (2006) study is that it highlights the crucial role of 'relational social climates' as key mediating mechanisms through which HR systems affect employees' motivation and ability to share knowledge by emphasising that HRM systems are transmitters of core cultural values (Peters, 1978).

Notwithstanding its advantages, this study has a number of limitations. First, the composition of commitment-based HR practices does not take into consideration aspects of job design (i.e., reciprocal interdependence, autonomy, and variety), which are considered as the defining attributes of knowledge work (Benson & Brown, 2007). In this sense, the study leaves unanswered how the design of work may condition not only employees' interaction opportunities with others but also their perceptions of social climate and, ultimately, their knowledge sharing attitudes and behaviour. Second, the study takes an additive approach to testing complementarities between the three sub-facets that comprise the HRM system. In so doing, the possible differential as well as interaction effects (Ichniowski, Shaw & Prennushi, 1997) of individual HR practices on social climate are sidestepped. Third, the study focuses only on the HR implications of 'bonding' social capital but provides no guidance on the HR implications for the 'bridging' (Adler & Kwon, 2002) qualities of social relations. Although Collins & Smith (2006) appear to have consciously decided to test their model in firms in rapidly changing industries, the dynamic character of this setting is to a large extent consistent with the entrepreneurial requirements of pursuing exploratory learning. A final and significant limitation of the study is that it downplays the key role that line managers play in influencing employees' experience of HRM.

The Contextual Perspective

Several studies have highlighted the important role of front line management's support in influencing employee knowledge sharing attitudes and behaviour (Hunter et al., 2002; Connelly & Kelloway, 2003; Zárraga & Bonache, 2005; Cabrera et al., 2006). For example, in Cabrera et al's (2006) study of 372 Spanish employees of a large multinational company, management support emerged as the most important factor affecting knowledge seeking and proving behaviours. Related, a study conducted in five Scottish law firms examining the issue of strategic coordination between HRM and KM showed that the extent to which partners and senior staff were actively involved in knowledge-sharing practice, such as participating systematically in debriefing at the end of projects, sent a strong signal to non-partner staff as to whether knowledge sharing was part of the organisational culture (Hunter et al., 2002). Hunter et al. (2002) conclude that more attention needs to be paid to the management of process upon which informal knowledge sharing depends. Yet, they argue that, while much of the delivery of HR practices depends on line management,

Contact: angelos.alexopoulos@dcu.ie

the HR function does have an important role to play as well. This role, though, is 'less in the actual delivery than in guiding the professionals, developing consistency of approach and contributing to design' (ibid: 18). Achieving balance between the involvement of the HR department and that of line managers in KM practice echoes an important distinction made in the literature between human capital and human process advantage. These are considered as the building blocks of HR advantage (Boxall, 1998). The notion of human process advantage is depicted in Swart & Kinnie's (2003) study of the relationship between HR practices and knowledge sharing in a small software development company in the south-west of England. The key operational processes were distributed across three flat sub-structures (i.e., the committee structure, the mentoring structure, and the project structure) providing the company with a unique operational quality which reflected and sustained the organisational routines.

Extending the Relational Approach: Towards Social Resources Management

Consistent with a relational view of competitive advantage (Dyer & Singh, 1998), Kang et al. (2007) have recently introduced a theoretical framework of relational archetypes, namely cooperative and entrepreneurial. These provide the basis for extending the original HR architecture (Lepak & Snell, 1999) by identifying two distinct HR configurations pertinent to the management of knowledge flows between core employees and their internal and external partners, respectively. The classic ability-motivation-opportunity (A-M-O) framework, which has guided much 'best practice' research on the HRM-performance relationship (Becker & Huselid, 1998), provides the basis on which Kang et al. (2007) cluster a number of HR practices within each of the two alternative HR configurations. The key difference, however, is that the scope of HR practices expands beyond managing human capital to managing social capital. Essentially, the design of HR configurations is informed by three enabling conditions of knowledge sharing: structural opportunity, cognitive ability, and relational motivation. These conditions are, in turn, reflected in three HR practice areas: (i) work design structures (e.g., job variety, autonomy, interdependence), (ii) incentive structures (e.g., pay, performance appraisal, employment security), and (iii) skill development (e.g., staffing, training, mentoring). By identifying two relational archetypes and the ways through which they are supported by two distinct configurations of HR practices, Kang et al. (2007) contribute significantly to a better understanding of the HRM-knowledge-performance linkage by placing explicit focus on the mediating role of value-creating social relations. Their model reframes the problem the modern HR function faces as it strives to balance between efficiency and flexibility (Rousseau & Arthur, 1999).The two relational archetypes and their associated HR configurations are, however, only theoretically derived and, therefore, deserve empirical investigation. There are still a number of important issues that remain unresolved.

Contact: angelos.alexopoulos@dcu.ie

The relational archetypes, as the term implies, are ideal types. However, in practice it may be difficult to draw a clear line between cooperative and entrepreneurial social relations. As Evans & Davis (2005: 772) note: 'dynamic environments appear to be more the norm than the exception for organizations, limiting the applicability of the boundary condition'. Empirical evidence also suggests that organisations are likely to implement hybrid HR systems, particularly with respect to their core knowledge employees (Lepak & Snell, 2002). A key question, therefore, concerns the extent to which HR practices comprising seemingly coherent HR bundles send contradictory messages to core knowledge employees as to which types of social relations are most valued. As Kang et al. (2007) suggest, knowledge employees may differ from organisational strategists in their views of which type of social relations are most valued and rewarded. This brings to the forefront not only the complicated issue of demarcating employment modes and specifying which employee relations constitute the core competence of the firm, but also the importance of focusing on how employees experience HR practices. In addition, while recent empirical evidence demonstrates the additive effects of commitment-based HR practices on cooperative social climate (Collins & Smith, 2006), the literature lacks a systematic study of the individual effects of HR practices on employee perceptions of that climate. It is, therefore, important to disaggregate the HR bundles and examine the influence of each HR practice on employee perceptions of organisational social climates favourable to knowledge sharing.

Social Climate Considerations

A closer look at Kang et al's (2007) model suggests that the two relational archetypes reflect two different kinds of organisational climate. Specifically, in the cooperative archetype, which is underpinned by a collectivist culture, social relations are based on strong norms of cooperation and reciprocity, mutual trust and identification. On the other hand, in the entrepreneurial archetype, which reflects a somewhat more individualistic or ego-centric culture, social relations can be viewed more as an asset that 'inheres in a focal actor's external network that give the actor advantages in his or her competitive rivalries' (Xiao & Tsui, 2007: 3). What is therefore missing from Kang et al's (2007) conceptual framework is an explicit emphasis on the social context by which HR systems are shaped.

The term social context 'embodies the very essence of organizational science and, as such, serves as an effective mechanism through which to more precisely articulate how HR systems relate to organization effectiveness' (Ferris et al., 1998: 237, 239). A social context approach to HRM encompasses culture, climate and, more broadly, social and political processes as essential features of work environments that contribute to organisational effectiveness. Accordingly, the core values, assumptions, beliefs, and political issues that comprise the culture of the organisation shape the design and implementation of HR policies and practices. For example, HR systems can be characterised by a stronger concern for employee welfare and a weaker focus

Contact: angelos.alexopoulos@dcu.ie

on task performance expectations (Von Glinow, 1985). Performance evaluations in 'caring' HR systems focus less on criteria such as in-role performance, and more on criteria of contextual performance such as teamwork, cooperation and cultural fit (Von Krogh, 1998; Zárraga & Bonache, 2005).

According to social context theory, HR practices shape employee attitudes and behaviour mainly through their impact on employees' interpretations of the organisational climate. This refers to the 'more temporary and changeable interpretation of an environment by participants operating within that context' (Ferris et al., 1998: 243). A core premise of the social context approach is that the extent to which HR practices affect one or more of the dimensions of the organisational climate depends on the extent to which these practices are internally consistent and reflective of the wider organisational culture. While the HRM-culture linkage is usually present in the formulation of HR policies, the strength of that linkage may be weakened during the implementation of HR practices as this is reflected in the impact of HR practices on organizational climate. This can result from 'errors of commission' whereby multiple stakeholders, particularly line managers, may use the HR system politically to satisfy agendas other than operational effectiveness (ibid.).

Research Questions and Proposed Model

Underpinned by a social context approach to the HRM-knowledge-performance linkage, the aim of our study is to understand the effects of HR practices, as experienced by employees, on their perceptions of organisational social climate of teamwork and cooperation and, by extension, on knowledge sharing attitudes and behaviour. While recent empirical studies suggest that commitment-based HR systems have a positive impact on teamwork and cooperation climate (Collins & Smith, 2006), the possibility that each of the HR practices comprising the HR system may exert differential influence on that climate remains largely unexplored. Furthermore, despite theoretical and empirical support for the catalytic role that line managers play in the successful delivery of HR practices (Arthur & Boyles, 2007; Purcell & Hutchinson, 2007), very few studies have examined the possibility that the effect of immediate management support for knowledge sharing on employee perceptions of a social climate of teamwork and cooperation may be similar to or even more important than the effect of HR practices (e.g., Cabrera et al., 2006).

This article focuses on two key questions that remain unanswered: (1) what are the individual effects of employee perceptions of HR practices on their perceptions of a cooperative social climate conducive to knowledge sharing attitudes and behaviour? (2) What is the relative importance of employee perceptions of line management support for knowledge sharing on that climate? Based on these questions, we developed a model which is illustrated in figure 1.

[Insert Figure 1 about here]

Contact: angelos.alexopoulos@dcu.ie

Taken together, the aforementioned questions address: (i) the issue of differential effects of HR practices on employee perceptions of a cooperative social climate, (ii) the issue of expanding the scope of HR systems to include the role of job design and line management support as key antecedents of that climate, and (iii) the issue of conflicting messages that hybrid HR systems may send to knowledge workers with regard to which behaviours are encouraged and valued. Answers to these issues will help shed valuable light on the HRM-knowledge-performance link by identifying: (i) the possibility that various HR practices may impact to varying degrees on the creation of a cooperative social climate conducive to knowledge sharing, (ii) the potentially significant role that line managers play not only in fostering such a climate but also in mediating the effect of HR practices on that climate, and (iii) the possibility that employees ascribe the role of 'relationship builder' mainly to line management (Lengnick-Hall & Lengnick Hall, 2003).

METHODS

Setting and Sample

The study was conducted in units of three organisations located in Ireland: the management consultancy unit of a professional services firm (hereafter, ConsultCo); the network engineering unit of a telecommunications company (hereafter, TeleCo); and the headquarter offices of a semi-state business development agency (hereafter, StateCo). An online questionnaire survey was conducted with employees from the three organisations between February and July 2005. A total of 563 surveys were sent to the three organisations, 135 of which were completed successfully and submitted on-line – 43 from ConsultCo, 58 from TeleCo and 37 from StateCo. The overall response rate was 24.5% ranging from 17% for StateCo, to 23% and 48% for TeleCo and ConsultCo, respectively. In addition, qualitative data were collected by conducting six semi-structured interviews with the senior HR managers and KM project managers within the three organisations.

The final sample consisted of full-time, core employees engaged in knowledge-intensive work (i.e., management consulting, IT engineering, strategic planning) organised in a project-based fashion. Project-based work is viewed as increasingly important for the successful coordination of the complex, interdependent and non-routine tasks, which are characteristic of knowledge-intensive work activities (Turner 1999; Benson & Brown, 2007). The sample was gender balanced (49.5% women) with an average age of 35 years (range 23-60 years). The majority of the sample (95%) had a third-level educational qualification either at postgraduate level (52%), undergraduate level (34%) or diploma level (9%). Almost half of the respondents were employed in management-level positions (51%), while 49% described their jobs as professional (31%), technical (10%), and support (8%). The average organisational and positional tenure of the sample was 8.5 and 2.5 years respectively, with an average industry experience of 12 years.

Contact: angelos.alexopoulos@dcu.ie

Measures

Perceptual measures were used to gauge employee-level experiences of job design, HR practices, management support for knowledge sharing and organisational social climate using multi-item constructs, rated on seven-point Likert-type scales. With the exception of HR practices, all constructs were adopted from pre-existing scales found in the literature. All items were factor-analysed using maximum likelihood with promax rotation to examine the psychometric properties of the measures, focusing on dimensionality and reliability. The derived measures achieved satisfactory internal consistency levels (Cronbach alphas $\geq .70$).

Job design

Measures for autonomy, skill variety, and feedback from others were adapted from Idaszak & Drasgow's (1987) revised version of Hackman & Oldham's (1975, 1980) job diagnostic survey (JDS). The revised version corrects the weaknesses of the original JDS by replacing reverse coded items with positively worded ones. Pearce & Gregersnen's (1991) scale was used to measure reciprocal task interdependence[1].

HR Practices

Conceptual and empirical studies examining the links between HRM, social relations/ social climate, and KM provided the basis for developing measures of employee perceptions of relational HR practices (e.g., Leana & Van Buren, 1999; Zárraga & Bonache, 2005; Kang et al., 2007). 18 original items were devised around four HR practice clusters: selection and socialisation, training and development, performance appraisal, and rewards. Each item asked respondents to indicate on a seven-point Likert-type scale the extent to which they had experienced a specific HR practice[2].

Management support for knowledge sharing

Connelly & Kelloway's (2003) six-item measure was used to assess employee perceptions of management support for knowledge sharing. Three items focus on immediate manager's support for eliciting employees' knowledge sharing behaviours, while the remaining three items focus on more formal, systemic aspects of organisational support for knowledge sharing. All items loaded on a single factor providing support for the discriminant validity of the measure.

[1] The results of factor analysis, which are available upon request, produced three instead of four factors as it would normally be expected. While the 3 items making up the 'feedback from others' scale, and the 5 items comprising the 'task interdependence' scale loaded strongly into the right constructs, the 3 items corresponding to the job autonomy scale loaded into the same factor as the 3 items comprising the skill variety scale. Given the lack of a clear factor structure with regard to job autonomy and skill variety, it was decided to exclude both measures from further statistical analysis.

[2] The results of factor analysis indicated a clear structure for all items with the exception of performance appraisal (two items), which, as a result, was excluded from further statistical analysis. The 18 items and their wording are provided in the Appendix.

Contact: angelos.alexopoulos@dcu.ie

Teamwork and cooperation climate

Valle & Vitte's (2001) three-item construct was used to assess individual perceptions of the importance of cooperation and team orientation within the organisation. This measure exhibited good discriminant validity as all items loaded on a single factor. Finally, based on the results of one-way between groups analysis of variance (ANOVA), there were no significant differences found across the three organisations.

Control variables

A set of demographic variables were also included in the survey. Respondents were asked to indicate their age, gender, educational qualification, job type, organisational as well as positional tenure and industry work experience.

RESULTS

Table 1 presents descriptive and skewness statistics, internal reliabilities and inter-correlations among the variables of interest. All skewness statistics were found to be less than 1.0, which suggests that the variables were relatively normally distributed (Miles & Shelvin, 2001).

[Insert Table 1 about here]

Table 2 provides a summary of the results of regression analyses regarding the partial and overall effects of independent variables on employee perceptions of teamwork and cooperation climate.

[Insert Table 2 about here]

As shown in table 2, the job design variables explained almost a quarter of the variance in the outcome variable[3], with both reciprocal task interdependence and feedback from others emerging as significantly positive predictors of teamwork and cooperation climate. The HR practices explained 34% of the variance in the outcome variable. However, only selection and socialisation, and type of training and development were significantly associated with teamwork and cooperation climate. Finally, management support for knowledge sharing accounted for 29% of the variance in the outcome variable. Furthermore, it not only remained a significant and positive predictor of teamwork and cooperation climate when controlling for the rest of the variables, but it also suppressed the prior positive effect of job design and type of training and development, yet not of selection and socialisation. Overall, job design, HR practices, and management support for knowledge sharing explained 42% of the variance in teamwork and cooperation climate, which is indicative of the strong explanatory power of our proposed model.

[3] The sole effect of control variables on the outcome variable was found to be negligible.

Contact: angelos.alexopoulos@dcu.ie

DISCUSSION AND CONCLUSION

In general, the findings are consistent with social context theory (Ferris et al., 1998) as they provide support for the claim that people management practices, as perceived by core knowledge employees, are associated strongly with shared perceptions of an organisational social climate that favours cooperative relations and teamwork orientation. The findings corroborate these reported in Collins & Smith's (2006) research and go a step further in highlighting the relative importance of each of the practices that comprise people management. The key findings are discussed below in light of previous research and theory.

People Management Practices and Climate for Cooperation

The Influence of Job Design

Both job design variables were found to be positive predictors of employee perceptions of teamwork and cooperation climate. In the case of reciprocal task interdependence, the findings concur with previous empirical work which shows that engagement in highly interdependent work tasks elicits high levels of cooperation between co-workers (Wageman & Baker, 1997) as well as team loyalty and pro-social behaviour (Ramamoorthy & Flood, 2004). In the case of feedback from others, the findings echo Hackman's (1987) model of team work design, in which multirater feedback systems are proposed to affect foremost the amount of effort expended by members to group tasks. Accordingly, when job feedback systems are in place, they can improve team member effort by increasing employees' motivation to engage less in social loafing and free-riding (ibid.), and also by strengthening the sense of contextual performance and collective achievement (Conway, 1999). In this regard, multirater job feedback is compatible with the cooperative archetype which stresses generalised trust, associability and norms of cooperation (Leana & Van Buren, 1999; Kang et al., 2007).

The Relative Importance of HR Practices

The findings indicate that selection practices are particularly important in shaping employee perceptions of teamwork and cooperation climate, and confirm the literature that suggests that employee selection based on cultural fit is advantageous for inculcating common organisational values (Hargadon & Sutton, 1997). In our study, teamwork and cooperation featured among the core values in TeleCo's 'competency framework', in ConsultCo's 'solutions competency macro model', and in StateCo's organisational mission statement.

Relational-oriented training and development, such as mentoring, on-the-job training, cross-functional training and team-building, also emerged as positively linked to employee perceptions of teamwork and cooperative climate. This finding, which is consistent with the results reported in Collins & Smith's (2006) study, provides support for the claim that relational-oriented training and development

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practices can serve as mechanisms for building social connections among employees as well as for helping employees from different functions internalise common organisational values and goals (Nonaka & Takeuchi, 1995).

Although rewards emphasising team/organisational performance and knowledge sharing were positively and significantly correlated with employee perceptions of teamwork and cooperation climate, the results of regression analysis indicated that their effect on that climate is negligible. This is an interesting finding in light of the emphasis placed in the literature on rewards as the basis for team atmosphere (e.g., Freeman & Weitzman, 1987), generalised trust and mutual contribution to team outcomes (Vroom, 1964). However, consistent with recent empirical work on the role of rewards in eliciting knowledge sharing behaviour (Cabrera et al., 2006) and perceptions of a team atmosphere (Zárraga & Bonache, 2005), the findings suggest that, although rewards, per se, are positively related to teamwork and cooperation, their relative importance tends to be marginal.

The Key Role of Line Managers

Our study extends current understanding of the HRM-knowledge sharing link by pointing to the catalytic role of line managers in fostering the creation of an organisational climate that values collaborative social relations conducive to knowledge sharing attitudes and behaviour. In particular, the findings indicate that the effect of management support for knowledge sharing on teamwork and cooperation climate surpassed the positive effect of job feedback and training and development. Taken together, the results complement and expand upon prior research (Zárraga & Bonache, 2005; Cabrera et al., 2006; Zupan & Kase, 2007) by showing that managers' commitment to KM may be at least equal to, if not more important than, job feedback and training and development in its influence on the perceived value of cooperation and teamwork orientation suggesting, therefore, that line managers need to be viewed as key players in the implementation of knowledge-related HR practices.

Theoretical Implications

Recent theoretical developments in the HRM field suggest an alternative approach to the role of HR systems in a knowledge-intensive context; a role that acknowledges not only the value of individual employees' knowledge, skills and abilities, but also the value of their social relations (e.g., Wright et al., 2001; Kang et al., 2007). These developments speak to the need for understanding the pathways through which HR practices enable employees to exchange and combine knowledge, thereby contributing to the firm's intellectual capital advantage. While some initial empirical research suggests that social relations affect employee knowledge-sharing attitudes and behaviour, there is little known about the exact role of HR practices in this relationship.

Our study extends research on the HRM-knowledge sharing link by showing that HR practices contribute to this direction mainly through their impact on organisational

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social climates. Importantly, it highlights that not all of the HR practices that comprise an HR system are equally important in terms of their effects on employee perceptions of teamwork and cooperative climate. The results indicate that, on the one hand, selective hiring and intensive socialisation, and relational-oriented training and development send strong signals to employees regarding the importance of teamwork and cooperative spirit for governing work interactions. However, on the other hand, the relative weight of these practices on employee perceptions of teamwork and cooperation weakened, and in the case of training and development disappeared, in the presence of high reciprocal task interdependence and of an effective multirater job feedback system. Taken together, the findings suggest that, in essence, job and team design structures can be seen as alternative methods for evoking prosocial behaviours, such as knowledge-sharing, through producing strong perceptions of a social climate that values and encourages a cooperative spirit among employees.

While several scholars suggest that the best means to support knowledge sharing in organisations is to hire smart people and let them talk to one another (Davenport & Prusak, 1998), we go a step further and add to the above suggestion by concluding that line managers play a vital role in encouraging employees to "talk to one another". Our findings confirm the need for extending the notion of the HR system to include the catalytic role of line managers in 'influencing perceptions not only of HR practices but of work climate' (Purcell & Hutchinson, 2007: 5). In this regard, our research is one of the first efforts to add to this extra dimension to the HRM-knowledge-performance link, thereby providing substantive support for the claim that 'people management is the combination of leadership behaviour, HR practices and organisational climate' (ibid: 17).

Limitations and Directions for Future Research

The results presented in this article are however limited, in that they shed light only on the role of employee perceptions of HR practices on teamwork and cooperation climate, but without observing how that climate is associated with knowledge sharing attitudes and behaviour. Additional research is required to establish further that link. A second limitation is related to the operationalisation of HR practices. While these were loosely clustered around ability, motivation and opportunity, specific measures for ability, motivation, and opportunity are required in order to determine the exact pathways through which HR practices affect teamwork and cooperation climate and knowledge sharing. (Siemsen, Roth, & Balasubrananian, 2008). The employment of measures for purposeful, actionable knowledge sharing (Cross & Sproull, 2004) would add significantly to a deeper understanding of the HRM-knowledge flows linkage. Moreover, while our focus was placed on the role of HR practices on developing social relations, further work is required to shed light on the complementarities as well potential conflicts with respect to the management of human and social capital. For example, future studies could examine the issue of complexity of knowledge governance mechanisms and its implications for the design

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of HR systems congruent with the management of cooperative as well as entrepreneurial social relations (Truss, 2001; Foss, 2007; Kang et al., 2007).

Finally, from a methodological standpoint, the results are limited in their generalisability because of the small sample size. An additional limitation is related to common method bias due to the use of self-report measures of both independent and dependent variables obtained from a single source. Although the results of Hartman's one-factor test indicated the absence of a single-factor, common method bias may not have been completely removed in the study

Conclusion

This study contributes to a better understanding of the breadth and depth of HR systems in a knowledge-intensive organisational context. In terms of breadth, it suggests that the role of line managers lies at the heart of the HRM-KM relationship since it is mainly line managers' behaviour that serves as a core basis on which employees develop shared understandings of a social climate where teamwork and cooperation are desired and valued by the organisation. In addition, it shifts attention to the fundamental role of the design of knowledge work as a building block of employee perceptions of that climate. Finally, in terms of depth, the study suggests that the effective management of social relations may require a process-based HR approach that goes beyond explicit motivation mechanisms, such as pay incentives for sharing knowledge, and directs attention to core structural aspects of knowledge work as well as to softer incentives for supporting prosocial behaviours and value-creating social relations.

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APPENDIX

HR Practices (18 items)

Selection and socialization (3 items, α=.70)
New employees are typically hired based on their fit with the company's culture.
My company selects highly skilled and competent individuals to new posts.
As a new employee, I was encouraged to take part in company-sponsored social activities.

Quantity of training and development (2 items, α=.84)
My company provides me with a well organised training and development programme.
My company allocates a generous amount of time and resources for my training and development needs.

Type of training and development (4 items, α=.68)
My training involves cross-functional group training and team building.
My training involves developing work-related social relationships with other employees across different areas of my company.
Mentoring is an important development tool in my company.
Much of my training is on the job.

Performance Appraisal (2 items)[4]
My work performance is evaluated based on the results of my team or work unit.
My work performance targets are jointly determined by my manager and my team or work unit members.

Rewards Mix (3 items, α=.82)
Rewards are closely linked to my individual performance
Rewards are closely linked to my team's/group's performance
My company rewards me for sharing information and/or advice with my colleagues

Rewards competitiveness (2 items, α=.89)
The pay levels in my company are relatively high compared to other firms in the industry
The pay levels in my work unit are relatively high compared to other firms in the industry

Rewards equity (2 items, α=.81)
There are small pay differences among the people in my work unit
There are small pay differences across the various work units in my company

[4] The two items were excluded from further analysis as they did not pass the factorial test. In addition, the reliability of the composite scale was unacceptably low (i.e., α=.48).

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TABLES AND FIGURES

Table 1: HR and Associated Variables: Means, Standard Deviations, Skewness, Correlations, and Internal Reliabilities

Variables	Mean (SD)	Skew	1	2	3	4	5	6	7	8	9	10
1. Task Interdependence	6.01 (.81)	.95	(.82)									
2. Job Feedback	4.56 (1.30)	-.45	.12	(.81)								
3. Selection and Socialisation	4.46 (1.17)	.34	.21*	.37**	(.70)							
4. Quantity of Training and Development	3.91 (1.58)	.06	.08	.22*	.20*	(.84)						
5. Type of Training and Development	4.15 (1.05)	-.33	.24**	36**	.40*	.43**	(.68)					
6. Rewards Mix	3.33 (1.32)	.01	-.05	50**	.38**	.25**	.40**	(.82)				
7. Rewards Competitiveness	3.48 (1.31)	.10	-.06	.08	.32**	.27**	.28**	.35**	(.89)			
8. Rewards Equity	4.01 (1.49)	.03	-.05	-.04	-.06	-.11	.09	.04	.12	(.81)		
9. Support for Knowledge Sharing	4.23 (1.09)	-.13	.19*	.40**	.33**	.22**	.48**	.25**	.13	-.02	(.75)	
10. Teamwork and Cooperation Climate	4.64 (1.25)	-.55	.27**	.41**	.46**	.25**	.39**	.30**	.19*	-.12	.48**	(.82)

N=135; Two-tailed tests; **p<.01; *p<.05; Internal reliabilities are shown along the diagonal in parentheses.

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Table 2: Regression Results

Independent Variables	Teamwork & Cooperation Climate			
	B[a]	B[b]	R[c]	R[d]
				.42***
Demographics (not shown)				
Job Design			.26**	
Task Interdependence	.34**	.21		
Feedback from Others	.35***	.14		
HR Practices			.34***	
Selection and Socialisation	.47***	.29*		
Training and Development (Quantity)	.05	.04		
Training and Development (Type)	.22*	.03		
Rewards (Mix)	.06	.03		
Rewards (Competitiveness)	-.04	.04		
Rewards (Equity)	-.10	-.09		
KM Practices			.29***	
Management Support for Knowledge Sharing	.58***	.33**		

Notes:
[a] Standardised beta weights controlling for demographic variables and/or other variables within the same set.
[b] Standardised beta weights controlling for demographic variables and all other variables.
[c] R square for all variables within a set controlling for demographic variables.
[d] R square for all variables within a set controlling for demographic variables and all other sets.
***p<.001; **p<.01; *p<.05.

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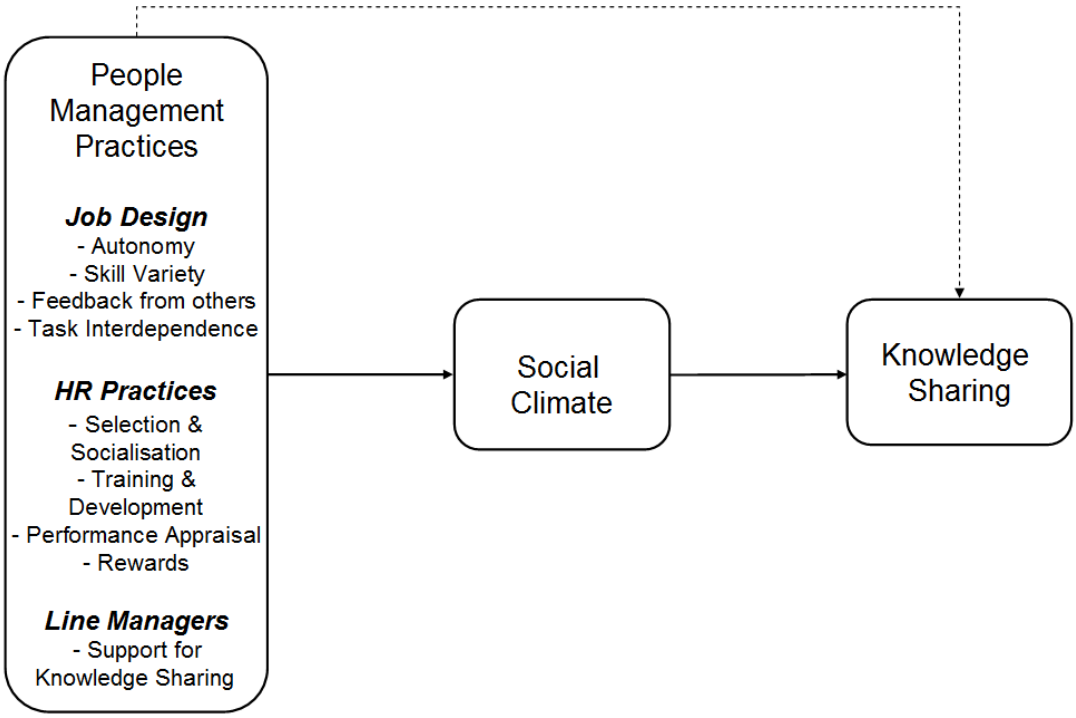
Figure 1: Proposed Model



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