THE IMPACT OF GLOBAL LEADERSHIP DEVELOPMENT PROGRAMS ON SOCIAL NETWORKS AND KNOWLEDGE SHARING IN MULTINATIONAL ENTERPRISES

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Abstract

Taking as its starting point the significance of social networks for knowledge sharing in multinational enterprises, this paper has a particular focus on the role global leadership development programs may have on both social networks and knowledge sharing in multinational enterprises. The concept of social networks is developed using social capital theory. Our data is derived from Norfert, a Scandinavian multinational enterprise, which in 2007 introduced its first such program, "LEAD". In order to examine the impact of LEAD we deploy a mixed-methods approach. Contrary to our theoretically driven assumption the longitudinal quantitative data suggest that participation in LEAD had a no positive effect on knowledge sharing. We therefore employed qualitative data in order to explain this finding which we did in terms of the particular cultural and organizational context in which LEAD was created.

Key words: global leadership development, social networks, knowledge sharing, programs.

Classification JEL: M12 – Personnel Management

1. Introduction

Social networks can be broadly defined as a web of personal ties and connections that enable individuals to secure favors such as access to novel information (*Granovetter, 1985; Burt, 1992).* In organizational settings the central foundation of social network theories is the transmission of knowledge or useful information through interpersonal ties *(Weimann, 1989).* Noorderhaven and Harzing *(2009, p. 719)* observe that recent studies of the multinational enterprise (MNE) commonly conceptualize this type of firm as a social network: "The hierarchical relationship between the center (headquarters or parent firm) and the periphery (subsidiaries or business units at various locations) is de-emphasized. Instead, the network MNE is seen as a "social community" *(Kogut & Zander, 1993)* or a 'heterarchy' *(Hedlund, 1986)."* Indeed it is argued that the prime reason for forming MNEs lies in their superior ability to transfer knowledge between cross-border units *(Gupta & Govindarajan, 1994).* However, it is equally recognized that cross-border social networks and resultant knowledge flows do not necessarily arise of themselves. Acknowledgement of the importance of social networks for knowledge-sharing within the MNE has led to a number of studies of the factors promoting the development of social networks *(Gooderham, 2007; Noorderhaven & Harzing, 2009).* At the core of these studies is the importance of creating the conditions for social interaction that facilitates knowledge sharing.

While social network theory represents a promising perspective for analyzing variations in knowledge sharing in MNEs, it may be argued that there is a need to develop it beyond the mere existence of ties between actors *(Burt, 2000).* The qualitative aspects of networks, such as the degree to which there exists for example a common vision and trust between actors, are also of critical significance for knowledge sharing. By going beyond structural ties, social capital theory arguably complements social network theory by specifying the cognitive and relational features of social networks that enhance knowledge sharing *(Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998; Moran, 2005; Gooderham et al., 2010).*

A variety of human resource management (HRM) strategies for developing the qualitative aspects of social networks in order to enhance knowledge sharing across the MNE

have been proposed. Examples of these strategies include inter-unit trips and visits, international committees, teams and task forces, training involving cross-national teams *(see e.g. Subramaniam & Venkatraman, 2001; Björkman, Barner-Rasmussen & Li, 2004; Persson, 2006).* One particularly prevalent HRM strategy adopted by MNEs is that of global leadership development (GLD) programs *(Neary & O'Grady, 2000; Gooderham, 2007).* In broad terms GLD programs are aimed at developing new social networks across the multinational enterprise characterized by common understandings and norms among participants with diverse national backgrounds without undermining what Moosmüller et al. *(2001, p. 221)* refer to as "the potential gain through diversity". However, little attention has been paid to variations in the actual quality of the execution of this or any of the other HRM strategies that multinational enterprises employ.

As we commenced our study of the GLD program of a Scandinavian MNE our theoretically driven assumption was that this program would be successful in the sense that it would be possible, even the context of a small sample of participants and non-participants, to clearly observe positive effects of participation for social networks and knowledge sharing across the MNE. In order to measure these effects we collected questionnaire data first at an early stage of the program and second at its completion. The results were not in accordance with our assumption. Lacking any explanation as to why participation in the program in particular appeared to undermine knowledge sharing we were effectively compelled to embark on a qualitative phase of research involving in-depth interviews with participants, non-participants and senior managers. Thus we acknowledge that our adoption of a mixed-method research strategy was not planned from the outset. However, as we entered into the qualitative phase of our research we were able to move beyond hypothesis rejection and to generate an insight into factors that are critical for the successful design of GLD programs.

2.   Purpose and structure

In this paper we examine one particular HRM strategy – that of GLD programs – in regard to its impact on the relational aspect of social networks and knowledge sharing in the MNE. Our theoretical approach is informed by social capital theory and by an assumption that changes in knowledge sharing are indicative of broad changes in social networks. Our empirical approach is to select a single MNE, Norfert (pseudonym), that had previously not had a GLD program and to gauge the impact of its inaugural GLD program on its relational social capital and knowledge sharing. To do this we have collected both quantitative and qualitative data. The quantitative data were collected at two points in time: at the outset of the program and at its completion eight months later. In order to enhance our understanding of our findings based on the longitudinal quantitative data we subsequently conducted a series of interviews with key informants in Norfert including both participants and non-participants of the program. The qualitative data were also collected at two points in time: two months and two years after the completion of the program. The qualitative data significantly contribute to our understanding the unintended effects and impact of the program.

The paper is structured as follows. First we elaborate the concept of social capital and establish the argument for its significance for knowledge sharing in MNEs. In so doing we distinguish cognitive from relational social capital: while the former may be broadly conceived of as "shared vision" *(Tsai & Ghohsal, 1998)* the latter refers to the existence of norms of cooperation *(Nahapiet & Ghoshal, 1998).* We argue that the former impacts on the latter and that both contribute to knowledge sharing.

Second, we discuss two key contextual factors that respectively may promote or constrain relational social capital. The first of these is concerned with the type of fundamental governance mechanism employed by the MNE in relation to knowledge sharing; the second is

concerned with the differential local embeddedness of the business units within the MNE. In regard to choice of governance mechanism we focus on the use of intrinsic motivational rewards employed by the MNE to share knowledge as perceived by the individual. This is grounded in the work of Gooderham et al. *(2011)* who employed Osterloh and Frey's *(2000)* distinction between extrinsic and intrinsic motivation and found that non-market intrinsic rewards are significantly more conducive for the development of social capital than extrinsic motivational rewards.

In regard to the second key contextual factor, local embeddedness, we draw on the work of Forsgren et al. *(2005).* By local embeddedness, Forsgren et al. are referring to the degree to which a business unit is entrenched in business networks external to the MNE. In MNEs this can vary considerably and impacts on the network centrality of the business unit in relation to the rest of the MNE. In turn, we contend, this will impact on relational social capital.

Third, we discuss the impact of introducing global leadership development programs that aim at developing relational social capital and knowledge sharing.

A number of hypothesized associations are developed (for an overview see Figure 1), which are tested and analyzed using a longitudinal quantitative data set. Thereafter our findings are further explored on the basis of qualitative data. Finally, conclusions are drawn in regard to the design of effective GLD programs for the development of social capital and knowledge sharing.
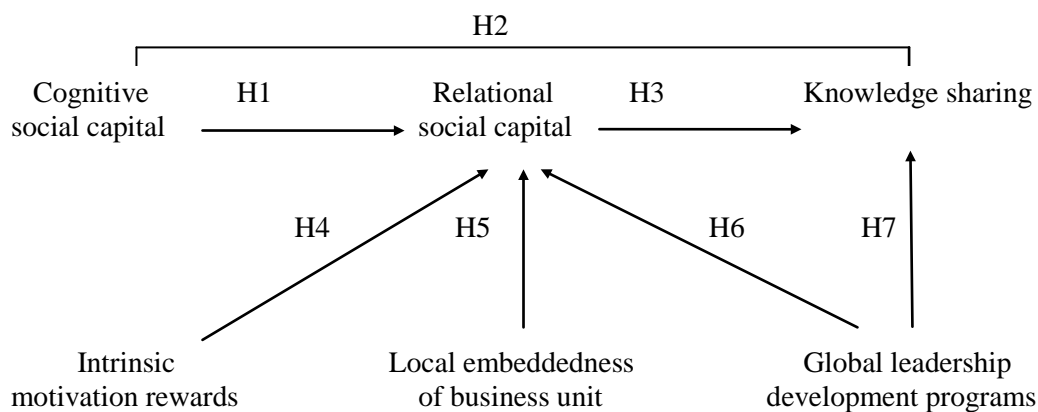

Figure 1. Determinants of knowledge sharing in MNEs at the completion of a global leadership program
Source: own study

3. The Social Capital Approach to Knowledge Sharing

During the latter part of the 1980s and early 1990s MNE scholars observed the pioneering attempts by MNEs to achieve the integration of their knowledge-intensive subsidiaries. It was not unusual that MNEs sought to develop formal structures as a means to minimize potential conflicts and enhance cooperation between global product managers and country heads. However, while formal structure matters it was concluded that it only constitutes at best a partial answer for MNEs seeking a closer integration *(Hedlund, 1986; Bartlett & Ghoshal, 1995).* For example at ABB in the late 1980s a matrix structure was introduced meaning that accountability was shared by country heads and product heads. However, the result was one of conflict and confusion, turf-wars and informational log-jams *(Bartlett & Ghoshal, 1990).* Thus while structure has a role to play it is argued that MNEs

have the potential to go beyond structure, and, using their "organizational advantage", develop social communities based on shared identity for knowledge sharing purposes *(Kogut & Zander, 1996).*

One recent approach to conceptualizing MNEs' organizational advantage in more precise terms is derived from social network theory. Social network theory emphasizes how social relationships across the MNE influences cross-business unit knowledge sharing *(Martin & Eisenhardt, 2010).* Thus managers who have ties with managers in other units are more likely to find opportunities for knowledge sharing than those who lack them. However, Tsai (2000) argues that the potential benefits of such ties can only be realized if they are characterized by trustworthiness which he views as a variant or form of social capital. Thus for Tsai *(2000, p. 927),* "Social capital describes the social context that facilitates or constrains individual actors' selection of exchange partners exists among organizational units." Furthermore, he regards social capital as a powerful concept for understanding the functioning of network linkages inside MNEs. Social capital not only shapes the patterns of inter business unit linkages but it allows the exchange of idiosyncratic resources and fine-grained information.

Although there is no unanimity as to precisely how social capital should be defined *(Nahapiet, 2008),* there is broad consensus in regard to its essential properties. Adler and Kwon *(2002, p. 17)* define it as "the good-will that is engendered by the fabric of social relations that can be mobilized to facilitate (knowledge-sharing)". Nahapiet and Ghoshal *(1998, p. 243)* employ a somewhat broader definition defining social capital as "the sum of the actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit." Social capital thus comprises both the network and the assets that may be mobilized through that network. What these definitions share is the notion that networks of social relations can engender resources that enable social individuals and social groupings to achieve performance outcomes they could not otherwise accomplish.

Social capital theory can be usefully divided into two approaches *(Inkpen & Tsang, 2005):* the brokerage view *(Lin, 2001; Burt, 1992)* and the closure view *(Coleman, 1988, 1990).* While the brokerage view operates at the level of the individual actor who spans structural holes and who thereby benefits by controlling the flow of resources between the separate clusters of the social network, the closure view operates at the level of the collective and argues that benefits from social capital such as commonly held values and mutual obligations derive from network ties. Our paper is located at the juncture of these two approaches. While participants in GLD programs are embedded in extant social networks which may be highly locally embedded the aim of such programs is to enable them to become brokers who bridge between extant networks thereby enhancing knowledge sharing.

Like Tsai and Ghoshal *(1998)* and Nahapiet and Ghoshal *(1998)* we regard social capital as primarily comprising a structural component "which manifests itself in attributes of an actor's network position" *(Tsai, 2000, p. 927),* and a "cognitive" and a "relational" component. Indicative of the cognitive component is that individual members of the MNE have a sense of sharing a vision that is common across the MNE *(Tsai & Ghoshal, 1998).* Indicative of the relational component is that individual members have a sense of trust in other members of the MNE *(Nahapiet & Ghoshal, 1998)* that would for example manifest itself in the belief that the sharing of knowledge across business units is the norm. This is similar to the notion of "benevolence-based trust" *(Levin and Cross, 2004)* in that it involves an assumption of the benevolence of knowledge sources.

The implication is that there is both a "network" and a "bonding" aspect to the social capital of a collective. The network aspect relates to "the centrality of a business unit in inter-

unit social interaction," *(Tsai & Ghoshal, 1998, p. 466),* and this will determine the availability of social interaction ties available to individuals. Tsai and Ghoshal find that it has an important effect on the relational dimension to social capital. This structural aspect to social capital will be subsumed under the discussion below of the local embeddedness of business units. The bonding aspect concerns the features of those structural linkages that give the collectivity cohesiveness in terms of common beliefs, trust and norms. Tsai and Ghoshal *(1998)* argue that the cognitive dimension is an important precursor or condition for the development of the relational dimension of social capital. In the context of an MNE this would mean that the greater the extent to which an individual both sees and shares a sense of mission with the MNE, the greater the propensity to perceive knowledge sharing as greatly valued across the MNE. Thus we will hypothesize that:

H1: Cognitive social capital has a positive impact on relational social capital.

Additionally Tsai and Ghoshal argue that both the cognitive and relational dimensions of social capital are determinants of knowledge sharing. Thus we hypothesize that:

H 2: Cognitive social capital has a positive impact on knowledge sharing.

H3: Relational social capital has a positive impact on knowledge sharing.

4.1. Intrinsic Motivational Rewards and Relational Social Capital

The Knowledge Governance Approach (KGA) starts from the premise that knowledge processes – including the sharing of knowledge – can be influenced and directed by management through the deployment of formal governance mechanisms such as reward systems *(Grandori, 2001; Foss, 2007).* Thus, the KGA asserts "that such governance mechanisms should be seen as critical antecedents of knowledge processes," *(Foss, 2007, p. 30).* Foss contends that the KGA represents a reaction to what it regards as the „methodological collectivism" of explanations of knowledge sharing that rely on explanations that take place solely on the collective level and which eschew high-powered performance incentives that operate at the micro-level. It is also a reaction to explanations that rely on „informal organization", such as networks, culture, communities of practice rather than formal governance mechanisms. As such it represents a reaction to macro-level social capital approaches to knowledge sharing. Foss argues that such explanations obscure the issue of how knowledge that ultimately resides on the level of individuals is somehow integrated through organizational means into organization-level capability. Thus the KGA asserts the need to build micro-foundations grounded in individual action and interaction for organizational knowledge-based phenomenon such as knowledge sharing *(Felin & Foss, 2005).* As such Foss *(2007)* argues that governance mechanisms influence the conditions of individual action that in turn will lead employees to take those decisions that, when aggregated lead to "favorable" organizational outcomes. Thus, "the attempt to better exploit certain knowledge assets through knowledge sharing (as an organizational outcome) may be implemented by setting up reward systems for knowledge sharing…" *(Foss, 2007, p. 36).*

The KGA asserts the need to specify governance mechanisms that have consequences at the level of individual action and interaction *(Felin & Foss, 2005).* From this perspective, KGA suggests that management can positively influence knowledge transfer by deploying non-market, intrinsic incentives *(Osterloh & Frey, 2000).* Osterloh and Frey *(2000)* examine how knowledge transfer is influenced by organizational design. As they make use of psychological theories of individual motivation they are regarded by Foss *(2007)* as representing a refinement of rather than a repudiation of the KGA. Osterloh and Frey argue that the use of extrinsic motivational devices to manage the transfer or sharing of tacit knowledge can crowd out intrinsic motivation and thus have a detrimental effect on the

transfer and sharing of knowledge. Thus to the extent an MNE is concerned with the sharing of tacit, as opposed to explicit, knowledge there is an inherent difficulty in deploying financial incentives in order to increase knowledge sharing.

It has been argued by Gooderham et al. *(2011)* that the use of intrinsic stimuli such as peer acknowledgement of knowledge contributions or professional and personal development does not influence knowledge sharing directly. Instead such practices "allow for establishing psychological contracts based on emotional loyalties" which in turn raise the motivation of individuals to share knowledge *(Foss, 2007, p. 38-39)*. Thus the significance of intrinsic rewards is that they create a context of identification, trust and commitment that is free of the "perfunctory compliance" associated with hierarchical control *(Ghoshal & Moran, 1996)*. That is, they serve to increase the sense of mutual goodwill at the individual level that in turn provides a positive foundation for knowledge transfer across the MNE. Empirical research by Gooderham et al. *(2011)* supports this view in that they find a significant positive impact of intrinsic rewards on social capital in MNEs. Therefore we hypothesize:

H4 Intrinsic rewards for knowledge sharing have a positive impact on relational social capital.

4.2. Local Embeddedness and Relational Social Capital

Anderssson et al. *(2007)* point to a dilemma faced by the headquarters of MNEs. On the one hand business units that are embedded in external unique, local business contexts can provide access to competencies from which the whole of the MNE can benefit. On the other hand business units that are highly embedded in local business contexts may equally be less interested in the overall performance of the MNE than those which are more embedded within the MNE. That is, when business units are largely involved in long-term business interactions in their local environment, "the possible result (is) that issues external to the MNE are prioritized" *(Anderssson et al., 2007, p. 816)*. To the extent locally embedded business units are interested in the MNE the tendency is to try and influence the strategy of the MNE on the basis of their own local business agendas. The implication is that MNEs should be viewed as organizations whose degree of inter-unit bonding will vary according to the strength of the business unit's linkages with its local environment. Rather than being primarily motivated to contributing to the MNE's overall performance, the externally or locally embedded business unit is characterized by a rent-seeking or self-interested attitude and a lack of commitment to the MNE as a whole that manifests itself in paying "lip-service" to the concerns of headquarters.

It is reasonable to suppose that individuals participating in GLD programs will be imbued with the rationales pertaining to their respective business-units. In other words participants who are members of business units that have strongly locally embedded business relations will be less likely to be closely bonded with the MNE as a whole. This will be reflected in a significantly weaker degree of belief in the reciprocity of knowledge sharing within the MNE. We therefore hypothesize that:

H5: Local embeddedness of business units has a negative impact on relational social capital.

5. The Impact of GLD Programs

We have argued that relational social capital is a major direct antecedent of knowledge sharing within the MNE. Although it is generally considered to be a by-product of activities engaged in for other purposes, it does not arise arbitrarily. Its incidence has its roots in existing mindsets, social relationships, and structural network linkages. Thus it is argued by social capital theorists that intentional, direct and purposeful investment in social capital is possible *(Nahapiet & Ghoshal, 1998)*. Although the concept of global leadership

competencies is not well-understood *(Suutari, 2002)* and therefore the process of and the tools for developing global leader competencies is lacking in clarification *(Morrison, 2000; Roberts et al., 1998)* arguably GLD programs constitute an attempt to develop social capital in that they generally have as their aim the development of cognitive commonalities in terms of codes, identities, objectives and values. The notion is that greater integration is possible through cross-cultural interaction *(Suutari, 2002).*

Suutari *(2002)* argues that GLD programs are generally designed to promote integration, cross-cultural interaction and networking in accordance with the MNE's specific strategic imperatives. Thus, GLD programs, by using a mix of training, socialization, and even inspiration may be viewed as a means to mold individuals with diverse backgrounds into a common corporate culture that creates the basis for common norms of cooperation. In other words, a GLD program may be regarded as an arena that facilitates integration and unity through developing norms of cooperation. Thus we propose that participation in GLD programs may be beneficial for developing the relational aspect of social capital. This implies the following hypothesis.

H6: GLD programs have a positive impact on relational social capital.

The discussion above also indicates that a GLD program may potentially constitute an organizational arena in which the participants are "allowed" to socially interact and collaborate in ways that are not possible in the formal organizational context of an MNE characterized by geographically dispersed units with varying degrees of local embeddedness. Thus we argue that participation in GLD programs may have a direct effect on knowledge sharing in that GLD programs may provide participants with opportunities to create new inter-unit business relationships for the exchange and combination of knowledge. This implies.

H7: GLD programs have a positive impact on knowledge sharing.

In the case of hypotheses 6 and 7 one would expect that the impact of GLD programs will increase with length of participation. In other words any impact on relational social capital or knowledge sharing will be more discernible at later stages of a GLD program than at its early stages.

We have advanced seven hypotheses which in the following will be tested using data from the initial GLD program of a Scandinavian MNE.

5.1. The LEAD Global Leadership Development Program

All of the data we deploy was collected within a single Scandinavian MNE, Norfert, which manufactures and supplies mineral fertilizer. It has 7,000 employees spread across operations in 40 countries. Until 2007 there was little in the way of internal discussion at Norfert corporate headquarters that top managers were primarily recruited within corporate headquarters. In the early part of 2007 Norfert's top leadership team concluded that this was unsatisfactory because considerable global leadership talent in its many non-Scandinavian business units was not being utilized. It was therefore decided to initiate, for the first time in Norfert's history, a GLD program, "LEAD", which would develop "high potentials" regardless of unity and nationality.

Selection of "high-potentials"

Our quantitative data set is derived from Norfert's pool of "high potentials", that is employees either selected for Norfert's initial LEAD program that commenced November 2007, or earmarked for future LEAD programs. Our qualitative data, which will be described

in more detail below, revealed that the selection process leading to "high potential" status was somewhat complex in that a number of different criteria were applied at various stages of the overall selection process. In the initial selection phase candidates for LEAD were identified on the basis of two processes. First, Norfert's management identified 400 candidates among junior managers who were viewed as having global leadership potential. Additionally, in order to ensure that all new potential leadership talent became visible, Norfert encouraged all junior managers with a strong motivation to excel in key leadership roles to nominate themselves. About 250 employees made use of this "democratic" opportunity.

The 650 nominated and self-nominated candidates were then subjected to an assessment process conducted by an external consultancy that was designed to evaluate their leadership potential. After this assessment, each participant and their manager received a report entitled "Talent View of Performance Feedback Report." This document included information about the participant's work performance and capabilities. Each participant also received verbal feedback from one of the external consultants. The intention was that the feedback should be helpful for the individual in identifying and understanding both their strengths and developmental needs and provide a platform for discussions with their respective managers.

Based on an evaluation of the reports, Norfert's management selected 100 individuals to participate in an extended assessment exercise. This was carried out at an assessment centre in Brussels by the same external consultancy. After each assessment activity participants received direct individual feedback from the consultants and from observers from within Norfert. Finally, based on observed actions and performance during the assessment activities, each participant received a report and personal feedback. The intention was that participants could use this information when discussing and creating developmental plans, and when making career decisions. A set of management reports was also created. The management reports consisted of information about each participant and this information was intended to give top management the opportunity to impartially compare individuals.

The assessment process resulted in a ranking of the 100 individuals. However, when the results were made available to the various business units in Norfert, senior subsidiary managers requested that the results from the assessment process should be supplemented by a further two criteria. First, they argued that recent performance appraisal data and line managers' recommendations should be taken into account. Second, they argued that Norfert's long-term leadership needs should also be a factor in determining selection for LEAD. Specifically it was argued that selection should ensure a future leadership profile characterized by diversity regarding national mind-sets, skills, education, experience, and age. Further, it was also argued that selection to LEAD should be balanced in terms of Norfert's business segments. These arguments were accepted and the ranking of the 100 "high potential" individuals was accordingly revised.

Thus, the final decision regarding the ranking of the high potentials was based on three types of criteria:
- Information from assessment tests and activities.
- Information from line managers concerning performance in the work situation.
- A consideration of Norfert's long-term need for top management diversity and the need to ensure that selection was not skewed in favour of any particular business segment.

On the basis of the final ranking of the 100 high potentials, 38 were selected for the inaugural LEAD program.

Our quantitative data are drawn from the pool of "high potentials" and therefore comprises both participants in the inaugural program and non-participants. Our qualitative data are also largely drawn from this pool. However, our qualitative data also includes

discussions with senior managers and archival data. We draw on these latter sources of data in order to describe the intentions underlying the LEAD program.

5.2. The LEAD program

LEAD was developed in collaboration with a leading international business school, and comprised three five-day events that were spread evenly over an eight month period. Each five-day event involved a series of intensive sessions starting at 9.00 am and lasting until 9.00 pm at dedicated sites in the UK, Brazil and Qatar. The input comprised a mix of formal lectures, informal discussions and interactive exercises. Between the events the participants worked in project groups analyzing business challenges deemed particularly critical by Norfert.

The main aim of LEAD was not confined to training and developing participants in accordance with Norfert's business challenges. On the basis of the individual participant's actions, interactions, and performance during the program, LEAD the aim was to make a concluding identification of outstanding leadership talent. This "gladiatorial" aim was not communicated directly to participants but as our qualitative interviews reported below indicate most participants became aware of this additional agenda.

In regard to business challenges, one of the company documents referred to the intention that LEAD was to "create a group of change agents who can drive Norfert forward to being an industry shaper by … acting as evangelists (on behalf of Norfert management)". In this regard specific values and norms were to be introduced and communicated in order to 'convert' participants to the Norfert corporate understanding.

Concerning individual skills, LEAD was intended by Norfert's top management to develop:
1. Capabilities related to global strategic thinking and acting.
2. Capabilities related to team working and integration: leadership was seen as central in fostering team and network success, and teams and networks were seen as essential to organizational success.

Concerning values and norms, LEAD was intended by Norfert's top management to develop: A collective and mutual understanding of what was referred to by one senior manager as "true, reasonable, and right" regarding ethics, accountability, and leadership action and interaction within Norfert and between Norfert and its various environments.

Thus, the LEAD program was intended both to develop the individual participant in terms of personal knowledge, skills, and competencies and to create an arena in which both cognitive and relational social capital potentially could be developed. That is by bringing potential leaders together in the program it was expected that this would generate a process that would augment and develop network ties, norms of cooperation, and a shared mindset. Further, it was expected that LEAD would create the conditions for enhanced knowledge sharing across Norfert.

Quantitative data

Our quantitative data were collected using a questionnaire which was distributed to all 38 participants at the start of the fifth and final day of the first session of the inaugural LEAD program in late November 2007. All 38 completed and returned the questionnaire. In addition, shortly afterwards, in January 2008, we acquired responses from 15 of the "high potentials" who had not been selected for participation in the inaugural LEAD program. These 15 were selected as being "representative candidates" of the 62 high potential candidates who had not been finally selected for the inaugural LEAD program. Thus, all 15 were regarded by Norfert

as likely candidates for future LEAD programs. Our screening of the characteristics of these 15 candidates, based on their completed surveys, showed a satisfactory degree of variation in terms of nationality, gender, age, and employment duration at Norfert. Thus our total sample at "Time 1" comprises 53 Norfert employees all of whom were considered by Norfert to be "high potentials".

In late June 2008 we distributed a second questionnaire to participants at their third and final session of the LEAD program. We received 30 completed questionnaires. Of the eight LEAD participants who did not complete the questionnaire these individuals had either left Norfert and therefore dropped out of the program, or, because of illness or other "legitimate" reasons, were not present at the final session. Shortly after this, in early September 2008, the second questionnaire was distributed to the control group of 15 "high potentials". All 15 returned their questionnaire. Thus at "Time 2" our total sample comprised a total of 45 "high potentials". The data derived from "Time 1" (November/January) was coupled to the data at "Time 2" (June/September).

Small samples suffer from "low power and poor approximation of test statistics" *(Allison, 1999, p. 57).* Thus because small samples do not readily produce statistically significant results we will take into account results that are significant at the 10 percent level. Another issue related to small data sets is that some caution should be taken in regard to employing regression analysis. Tabachnick and Fidell *(1989)* suggest that the minimum number of subjects for each predictor or independent variable (IV) in a regression analysis should be at 5 – to – 1. None of our four regression analyses is based on a ratio of less than 9 – to – 1.

Operationalizations

The variables are operationalized as follows:

Knowledge sharing is a composite variable comprising three items each of which was measured on a Likert-type scale ranging from "1-strongly disagree" to "5 strongly agree". Two of the items are derived from Davenport and Prusak *(1998)* who argue that knowledge sharing involves two actions: the transmission of knowledge and the absorption/use of the knowledge by the recipient. Similarly Minbaeva et al. *(2003)* have argued that the key element in knowledge transfer is not the underlying (original) knowledge but "the extent to which the receiver *acquires* potentially useful knowledge and *utilizes* this knowledge in its own operations" *(Minbaeva et al, 2003, p. 587; emphasis added).* Thus individual respondents were asked to indicate the extent to which they had acquired knowledge from other units in Norfert and the extent to which they had utilized knowledge from other units. Additionally we included a third item that measured their perception of their own contribution of knowledge to other units in Norfert. The range of values of the composite variable is 3 to 15. Cronbach alpha is .891 at both Time 1 and Time 2.

Relational social capital is a single item measured on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). It aims at capturing Nahapiet and Ghoshal's *(1998, p. 255)* view of relational social capital as embodying "generalized norms of cooperation". Respondents responded to the statement "Knowledge sharing with other units in the MNE is greatly valued in Norfert".

Cognitive Social Capital is a composite variable comprising two variables. Both variables are aimed at operationalizing Tsai and Ghosal's *(1998)* notion of cognitive social capital as constituting "shared vision". The variables we developed are: "I see a well-defined overall mission in Norfert" and "I share the company-wide understanding of Norfert's overall mission". Both variables are measured on a 1 – 5 scale, thereby producing an index that ranges from 2 to 10. Cronbach alpha is 0.706 at Time 1 and 0.919 at Time 2.

Local embeddedness of the business unit draws on the work of Forsgren et al. *(2005).* Using a scale ranging from 1 (strongly disagree) to 5 (strongly agree) it is measured as the *Degree of interaction with external suppliers* ("My unit has more interaction with external suppliers than with other units of Norfert".)

Intrinsic rewards for knowledge sharing are non-pecuniary incentives *(Osterloh & Frey, 2000)* that "allow for establishing psychological contracts based on emotional loyalties", which in turn raise the motivation of individuals to share knowledge *(Foss, 2007, p. 38-39).* In order to capture this we have employed a modified version of a composite variable employed by Gooderham et al. *(2011)* to measure what they refer to as 'social governance mechanisms'. Our composite variable comprises two variables both of which are measured on a scale from 1 (little or no extent) to 5 (very large extent) with respondents responding to "Reward for knowledge sharing: Acknowledgement of my contribution" and "Reward for knowledge sharing: Professional and personal development". Cronbach alpha is 0.687 at Time 1 and 0.699 at Time 2.

GLD participation refers to participation contra non-participation in the inaugural LEAD program. It is therefore a single dichotomous item (yes = 1; no = 0).

Control variables

Our regression analysis comprises two models at Time 1 and two at Time 2 (see Table 3). In models 1 and 3 *Relational Social Capital* is the dependent variable and in models 2 and 4 *Knowledge Sharing* is the dependent variable. *Cognitive Social Capital* and *Relational Social Capital* are the only hypothesized independent variables in regard to *Knowledge Sharing*. However, all other variables involved in testing the hypotheses relating to *Relational Social Capital* are also included in models 2 and 4 thereby functioning as control variables.

5.3. Results of quantitative analysis

Tables 1 and 2 contain means for each of the factors at Time 1 and Time 2. It may be noted that there are no statistically significant changes to the means between Time 1 and Time 2. Tables 1 and 2 also contain correlation analyses for Time 1 and Time 2 respectively.

The regression analyses for Time 1 and Time 2 are displayed in Table 3.

Table 1. Means, Standard Deviations and Correlations: Time 1

Variables	**Mean**	**S.D.**	**1**	**2**	**3**	**4**	**5**	**6**
Cognitive social capital	7.98	1.11	1.00					
Unit external suppliers	2.89	1.32	0.25*	1.00				
Intrinsic rewards for knowledge sharing	6.67	1.85	0.15	0.11	1.00			
LEAD participating	0.67	0.48	-0.15	0.24	0.22	1.00		
Relational social capital	3.45	1.07	0.17	-0.38***	0.34**	-0.12	1.00	
Knowledge sharing	10.3	3.39	0.32**	0.02	0.28*	-0.04	0.39****	1.00

N = 45*; p < 0.1**; p < 0.05***; p < 0.01****; p < 0.001 (two-tailed tests)

Source: own study

Table 2. Means, Standard Deviations and Correlations: Time 2

Variables	Mean	S.D.	1	2	3	4	5	6
Cognitive social capital	7.64	1.75	1.00					
Unit external suppliers	2.89	1.32	0.18	1.00				
Intrinsic rewards for knowledge sharing	6.67	1.85	0.23	0.11	1.00			
LEAD participating	0.67	0.48	0.10	0.24	0.17	1.00		
Relational social capital	3.53	0.92	-0.05****	-0.05	0.01***	0.00	1.00	
Knowledge sharing	10.36	2.60	0.05	0.05	0.08	-0.23	-0.02	1.00

N = 45*; $p < 0.1$**; $p < 0.05$***; $p < 0.01$****; $p < 0.001$ (two-tailed tests)
Source: own study

Table 3. Regression analysis of impact of factors on relational social capital (Time 1, Model 1 and Time 2, Model 3) and knowledge sharing (Time 1, Model 2 and Time 2, Model 4)

Independent variables	Time 1		Time 2	
	Model 1	Model 2	Model 3	Model 4
Constant	1.563	-0.559	0.810****	9.901****
Cognitive social capital	0.208*	0.677	0.265****	0.218
Unit external suppliers	-0.379***	0.199	-0.105	0.223
Intrinsic rewards for knowledge sharing	0.222***	0.218	0.140**	0.212
LEAD participating	-0.198	-0.125	0.015	-1.816*
Relational social capital		1.047*		-0.558
Adj. R^2	0.291	0.125	0.296	0.014

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$; **** $p < 0.001$
Source: own study

At Time 1, Model 1 indicates that Cognitive Social Capital has a significant impact on relational social capital, thus supporting hypothesis 1. We find a similar, but more pronounced effect for Intrinsic Rewards. Thus at Time 1 hypothesis 4 is supported. We can also observe a strong negative effect of Local Embeddedness ("Unit external suppliers") on Relational Social Capital. Thus at Time 1 Hypothesis 5 is supported. At Time 1 it is noticeable that initial participation in LEAD has no discernible effect on either Relational Social Capital or, as indicated in Model 2, on Knowledge Sharing. That is at Time 1 neither hypothesis 6 nor hypothesis 7 is supported. Given the recentness of participation in LEAD at Time 1 these findings are arguably unsurprising. Finally, we may note that Model 2 at Time 1 indicates that in line with hypothesis 3 Relational Social Capital has a positive effect on Knowledge Sharing, but that there is no support for hypothesis 2, i.e. the role of Cognitive Social Capital on Knowledge Sharing.

When we examine Model 3 at Time 2 in Table 3 we note that both Cognitive Social Capital and Intrinsic Rewards impact significantly on Relational Social Capital. Thus both hypotheses 1 and 4 receive renewed support. However Local Embeddedness ("Unit external suppliers") has no significant effect, meaning that at Time 2 hypothesis 5 is not supported. However, we may note that the coefficient for Local Embeddedness is, as hypothesized,

negative. Once again we may observe that LEAD participation has no significant impact on Relational Social Capital, thus providing no support for hypothesis 6 at Time 2. However, in Model 4 we may observe that LEAD participation has, contrary to hypothesis 7, a significant, if somewhat weak, negative effect on Knowledge Sharing. Model 4 in Table 3 also fails to provide support for either hypothesis 2 or renewed support for hypothesis 3. That is, unlike at Time 1, at Time 2 Relational Social Capital has no impact on Knowledge Sharing. One final observation is the contrast between explained variance in Models 2 and 4 at Times 1 and Time 2 respectively. At Time 2 explained variance is greatly reduced.

The most striking finding of the above analysis is that LEAD does not have a positive effect on Knowledge Sharing. Indeed it appears that by its conclusion LEAD may actually have had a negative impact on Knowledge Sharing This negative effect of LEAD at Time 2 suggests that the impact of Relational Social Capital on Knowledge Sharing that existed at Time 1 had been nullified at Time 2 by participation in the LEAD program. In other words as participation in LEAD continued our findings suggest that LEAD participants have actually been excluded from knowledge-sharing social networks. However, we recognize that because we are operating with small samples such inferences are highly problematic. Nevertheless they did stimulate us to engage in a second phase of research using a qualitative approach.

5.4. Explaining the unintended negative effect of LEAD participation

In the theory section above we have argued that GLD programs have the potential to constitute a temporary organizational context in which local embeddedness is not salient. Such a context provides the opportunity for participants to interact with new colleagues and thereby to forge new knowledge sharing opportunities while preserving their established social networks across Norfert. Thus, for participants from locally embedded business units Lead constitutes an opportunity to come to perceive knowledge sharing across units as valued thereby bringing about behavioral changes in terms of their own knowledge sharing.

Our small sample based quantitative findings from Norfert not only failed to support these notions but actually suggested that participation in Norfert's LEAD program may have had a negative impact on knowledge sharing. As a consequence we decided to enter a second, explorative phase of enquiry in search of explanations for this finding *(Straus & Corbin, 1990; Numagami, 1998; Langley, 1999; Lee, 1999; Espedal, 2008)*. In the pursuit of explanations we focused on the question:

- Given that knowledge sharing reflects the quality of social networks across Norfert, why did participation in the LEAD program fail to result in an increase in knowledge sharing?

Qualitative data

The qualitative data were collected in two stages. The *first* stage took place shortly after the completion of the program (late fall 2008 to early spring 2009). The data were mapped through semi-structured (tape-recorded) interviews conducted with 22 informants from three groups:

1. Twelve randomly selected informants who participated in the LEAD program. These informants are referred to as "LEAD-participants"

2. Seven randomly selected informants who belonged to the "high potential" category but who did not participate in the LEAD program. These informants are labelled "non-participants".

3. Three other key informants. Two of these were Norfert senior corporate managers who had been involved in the development of the LEAD program. The third was from the

consulting company that executed the LEAD program. These participants are referred to as "Senior LEAD managers".

Each of the informant interviews took between 60 and 90 minutes and was carried out at the respective work-sites of the informants.

The *second* stage of the interview data was conducted two years after the completion of the program (May 2010). At this stage semi-structured interviews lasting approximately one hour were conducted solely with the 12 LEAD-participants (i.e. the same group of LEAD-participants interviewed at stage 1) at their respective work-sites.

The interviews with the informants at both stage 1 and 2 focused on: a) individual and organizational conditions for knowledge sharing, and b) effects of the LEAD program regarding knowledge sharing.

At both stages of the data collection analysis followed more or less directly. In analyzing the data the aim was to condense it to a more manageable size in order to identify generic mechanisms that subsumed the many details contained in the interviews and that enabled us to respond directly to our overall research question. As a result of this approach we were able to discriminate two explanatory mechanisms that were common to all of the interviews we conducted at both stages. The commonality of these mechanisms meant that we were confident of their reliability *(Straus & Corbin, 1990; Numagami, 1998; Langley, 1999).* Any other mechanisms that emerged from the interviews originated from only a few informants and were frequently challenged by the views of other informants. Because of space limitations we have chosen not to report these. The two main explanatory mechanisms we identified were therefore constant within and across each of the three groups of informants at stage 1 and within the participant group of informants at stage 2.

The two mechanisms are interrelated:
- The LEAD program produced a "prima donna" effect among participants.
- As a result the extant social networks of participants were undermined in relational terms causing them to erode to a significant extent, while new network ties were developed only to a limited extent.

These two unintended mechanisms resulted in a significant decline in participants' knowledge sharing.

In the following, these two unintended mechanisms are illustrated through generic statements that summarize the essence of the responses from multiple informants. Because these "quotations" are codified statements that can be attributed to shared views and meanings (within the three groups of informants), they are presented without a further source statement in the text.

The "prima donna" effect of the LEAD program

At both stage 1 and stage 2 of the interviews the LEAD-participants were asked to respond to the questions, "To what extent do you perceive yourselves as a group?" and, "To what extent do leaders and colleagues in Norfert perceive LEAD participants as a group?" At *stage 1* the LEAD-participants considered themselves a "future" or latent elite and therefore as a group of coming leaders who would succeed individually and who would generate success for the organization:

"We are evaluated as 'high potentials', and we are expected to become leaders who make a difference."
"We are 'high potentials' who have already tasted success."
"Participation in LEAD creates hope of favorable consequences."

"Right from the start of LEAD, I looked forward to becoming and to being recognized as a top-leader. I saw the LEAD program as a vehicle for achieving this goal."

However, although LEAD participants looked upon themselves as the coming elite they were aware that colleagues not only did not share this view but were antagonistic to it. Furthermore they were conscious that this antagonism was based on an established notion of how leadership development ought to be conducted in Norfert:

"Many of our leaders and colleagues in Norfert argue that leadership development is about 'learning by doing' rather than participating in a formal development program. In their view, becoming a good leader is an outcome of a social process in which potential leaders are evaluated and in which the reputation as a leader is shaped."

The non-participants confirmed this view. These informants reported that they viewed the LEAD participants as "prima donnas" rather than as a coming-elite:

"They (LEAD participants) tended to see their 'success' as an outcome of their competencies, qualities, and efforts… As a consequence, they developed a rather high opinion of themselves in the sense of 'We are selected as the best, or we are the coming or latent elite'."

"They developed an inflated view of themselves, their talent, and their importance. They became 'prima donnas'. In our (Norfert) culture, however, which emphasizes equality and low power distance, prima donnas have low legitimacy. As a result: their social relationships with old colleagues were weakened and their open communication with colleagues decreased."

The non-participants also reported that Norfert's organizational practice was not conducive to the notion LEAD participants had developed of themselves as the elite:

"Over time, Norfert practice has shown that participation in the LEAD program is not a necessary condition for leadership advancement in our company."

"The 'bottom line' of leadership in Norfert is about having a reputation for having done well and an expectation that you will do well in the future. This is a judgment made by both leaders and co-workers in Norfert."

The Senior LEAD-management also reported that they had observed that the LEAD-participants could behave as prima donnas. In their view:

"The LEAD-participants were ambitious and aspired to leadership roles, but they did not invite collaboration and knowledge sharing… There is an expectation regarding collaboration and knowledge sharing in our culture… We need leaders who have a sense of obligation to Norfert's cultural values and norms rather than leaders who have sense of identity whose foundations are predominantly egocentric… Egocentric leaders do not engage in knowledge sharing."

At stage 2, two years after the completion of the program, only half of the LEAD-participants had actually advanced to more senior leadership positions. Thus the notion of LEAD as a competitive arena that would generate "winners" and "losers" had been confirmed. The informants at stage 2 observed that LEAD-participants who had not advanced had expressed disappointment and frustration. Some of these had even chosen to exit Norfert.

Although LEAD was intended to facilitate global leadership development associated with Norfert's values and norms, our findings suggest that it came to be perceived as a corporately driven individualized career development opportunity for the few rather than as a means to enhancing social networks and knowledge sharing across Norfert. At stage 1 the participants admitted that during LEAD they had gradually developed expectations of significant personal career benefits as a result of their participation. They had started to view themselves as Norfert's 'chosen few' who could expect a corporate leadership career. By

LEAD-non-participants this elitist attitude was regarded as provocative. The attitude challenged internalized beliefs in flat structures, local, autonomy, egalitarian, collaboration as a norm of appropriateness, and strong organizational identification. Thus, LEAD had an unintended "prima donna" that affected collaboration and knowledge sharing negatively.

Both non-participants and participants were aware of the tension between an individualistic elitist attitude and equality as a norm of appropriateness. As a consequence of this tension, they did not talk about LEAD in formal or informal settings. LEAD-participation became a virtual taboo in the organization. Thus:

"LEAD was not on the agenda in meetings or social gatherings in Norfert, and I did not talk about my experiences from the LEAD program."

"I did not ask LEAD participants about their experiences."

Effects on social networks and knowledge sharing

At stages 1 and 2 the participants were asked the questions: 1) To what extent did your pre-LEAD primary network for knowledge sharing remain your primary network by the end of LEAD? 2) To what extent did you develop new networks for knowledge sharing in Norfert?

Concerning the first question, at both stages 1 and 2 the participants reported that the social ties they had had before they commenced LEAD had changed significantly by the time they had completed LEAD. Indeed they reported that their pre-LEAD network ties largely evaporated during the course of LEAD. As a consequence, the knowledge sharing associated with their pre-LEAD networks had markedly declined. The participants had gradually distanced themselves from the knowledge sharing associated with their extant social ties:

"The point to LEAD was that it was intended to promote a development that would take me out of my old context into a new leadership context. This simply did not support networks associated with the old context."

The stage 1 interviews with the non-participants confirmed this process. They reported that as LEAD progressed, knowledge sharing between participants and non-participants gradually decreased and isolating the LEAD participants:

"I gradually began to view the LEAD-participants as no longer 'one of us'."

In regard to the second question concerning the development of new networks as a consequence of participating in LEAD, at stage 1 the participants reported:

"Co-operation is a key feature of working at Norfert, but in the LEAD program we ended up competing instead. We became focused on individual success."

"Within the program …we were never more than just a bunch of individuals who really did not have common interests in the sense of common everyday tasks that would have facilitated the development of a team. In fact a lot of our interactions were distinctly competitive rather than collaborative."

"The selection and development process became a 'game' in which we competed with other strategic actors."

Thus, our qualitative findings not only confirm the quantitative analysis that the impact of LEAD regarding knowledge sharing was negative, but it does so in terms of changing social networks, identities and motivations.

6.   Conclusions

We have argued that, from a knowledge-based view of the firm, social networks are a core concept in the conceptualization of MNEs and that MNEs are frequently best conceived

of as relatively loosely-coupled, federative organizations *(Ghoshal & Bartlett, 1990)*. Consequently MNEs have to purposefully engage in fostering social networks if knowledge is to successfully flow internally *(Hedlund & Rolander, 1990; Hansen et al. 1999; Newell et al., 2002; Nahapiet et al., 2005; Haas and Hansen, 2007)*. Furthermore, on the basis of social capital theory, we have argued that the cognitive and relational aspects of these networks are particularly significant. However, developing social capital is a challenge for MNEs. Not only are they usually relatively large, geographically dispersed and culturally diverse, but their business units may be substantially locally embedded *(Newburry, 2001; Forsgren et al., 2005)*. In relation to these challenges one HRM strategy is to deploy global leadership development programs.

A particular feature of this paper is that we have used a mixed methods strategy in the context of a single MNE *(Birkinshaw, 1999; Onwuegbuzie, 2007; Birkinshaw et al, 2010)*. This approach allowed us to provide richness and detail to the study of LEAD. In particular this approach provided a more complete view of the processes LEAD triggered over time. This enabled us to generate new insights into the conditions that determine the outcomes of GLD programs. However, we recognize that future quantitative research must be based on larger samples than we were able to generate.

Our initial approach was to employ our quantitative data to calculate the impact one particular global leadership development program, LEAD, had on both relational social capital and knowledge sharing in one MNE. Although the literature assumes that GLD programs have a positive impact on the development of relational social capital and knowledge sharing, our findings suggest that participation in the LEAD program had no impact on knowledge sharing. There was even a suggestion that it may have had a negative impact in regard to knowledge sharing. Although, the limitations of our sample size meant that we had to treat that possibility with great caution it did serve to trigger a second, qualitative, phase of research aimed at exploring what had happened to the social networks of LEAD participants and non-participants. Our qualitative findings indicated that the LEAD program had undermined the Norfert norm of leadership as a non-egocentric activity. As a result the extant social networks of participants dissolved not least in that old ties were undermined without new ties forming. This finding is in line with Pfeffer *(2001, p. 248)* who argues that GLD programs that aim at creating an exclusive corporate path for a select few may be "hazardous to your organization's health." This is because they over emphasize individual performance at the expense of teamwork thereby creating destructive internal competition through engendering an elitist, egotistical attitude among participants. This is precisely what we observed in the case of the LEAD program. Interestingly we also observed that among non-participants the LEAD program strengthened their sense of shared identity which would explain why knowledge sharing actually increased within this group.

Global leadership development programs may be viewed as constituting a temporary organizational context that provides the opportunity for participants to interact with new colleagues and thereby to forge new knowledge sharing opportunities while preserving their established networks. However, in the case of LEAD it came to be perceived as only relating to the selection and development of high potential individuals for key positions underpinned by a top management belief that this would significantly contribute to the multinational enterprise's sustainable competitive advantage *(Mellahi and Collings, 2010)*. On the basis of our analysis of LEAD we argue that such an individualistic conceptualization of leadership undermines social capital and, as a consequence, knowledge sharing suffers. By implication we argue that GLD programs should be based on the notion that leadership is a function of the social resources and capabilities that are embedded in heedful and trusting relationships in organizations.

We acknowledge two obvious limitations to our study. First, we explore only the relatively short-term effects of Norfert's global leadership development program. Second, we focus on a single, Scandinavian, multinational enterprise, thus arguably limiting generalizability. However, despite these limitations we argue that our study indicates that GLD programs aiming at enhancing relational social capital and knowledge sharing cannot be implemented without great care being paid to the organizational setting. Indeed poorly conceived global leadership development programs can undermine the effect of extant "stocks" of relational social capital on knowledge sharing and marginalize those who participate in them. As such our study indicates that such programs not only may fail to promote new social networks but can also erode established social networks. These lessons should be heeded by multinational enterprise HRM managers.

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