Abstract

A qualitative study of a research and development network of major global mining companies is reported in this article. In this international inter-organizational network, emergent global human resource development and, particularly, career development challenges for participating individuals and organizations are analyzed. These challenges arise from two important dimensions of present and future network effectiveness, the boundary activities of network centrality, and building and maintaining optimal trust. Implications for future research and practice are identified.
INTER-ORGANIZATIONAL NETWORK PARTICIPATION: IMPLICATIONS FOR GLOBAL HUMAN RESOURCE DEVELOPMENT

INTRODUCTION

Globalization of business has led to the proliferation of organizational forms that transcend the traditionally-recognized borders of organizations and nations (Doz and Hamel, 1998). International inter-organizational networks (IIONs) are an increasingly prevalent organizational form, a type of strategic alliance, with an array of concomitant challenges (Doz and Hamel, 1998; Jarillo, 1995; Thorelli, 1986). These developments in international business, together with increasing awareness of the need to develop human resources as a source of sustainable global success (cf. for example, Stroh and Caligiuri, 1998) prompted our broad research question, ‘what are the challenges and implications of participation in an IION for global human resource development?’

We address this question in relation to human resource development (HRD) as a part of the strategic human resource management (SHRM) approach in a global form of organization. Further, the term ‘global HRD’ (GHRD) is adopted for this specific context, while the term ‘HRD’ is used to discuss the general area. In so doing, we are not suggesting that there exists a universal ‘theory’ of HRD, but that this research is intended to make explicit the effects of working in an emerging global organizational context for this particular aspect of SHRM, as a precursor to examining these effects from particular theoretical stances. We examine an active IION through narratives gathered during in-depth interviews with those involved in the governance of the network. This article comprises three major sections. First, we précis the emergence of IIONs and HRD in multinational enterprises (MNEs) from the academic literature. Second, we outline our research methodology and findings. Finally, we analyze these findings and focus on their implications for career development as a particular dimension of GHRD.

THE EMERGENCE OF INTERNATIONAL INTER-ORGANIZATIONAL NETWORKS

Several researchers have investigated the concept of inter-organizational collaboration. However, much of this research has not been explicitly related to international networks (see, for example, Gulati, Nohria and Zaheer, 2000). We adopt the term ‘inter-organizational networks’ as used by Alter and Hage (1993) and several other authors (e.g., Burns and Wholey, 1993; Osborn and Hagedoorn, 1997). Our focus is on inter-organizational networks in an international context, and we extend the work of Alter and Hage (1993) and Jones, Hesterly and Borgatti (1997), to define an IION as:

a select, persistent, and structured cluster of autonomous multinational organizations (or partners), regardless of size, engaged in creating products or services based on implicit and open-ended contracts which are socially – not necessarily legally – binding. At least one of the network partners will have their home base in a country other than that of the networking activities or the home base of other network partners.

Sydow and Windeler (1998) identify three characteristics which differentiate interorganizational networks from any other organizational form. First, creation of interorganizational networks involves building relationships between organizations with legally separate identities and economic interrelatedness. Second, as managers reflexively refer to the network in their organizational practices, networks become “theory-in-use” (Argyris & Schön, 1978, cited in Sydow & Windeler, 1998), rather than an analytical concept used only by academics. This double-framing of action, both organization- and network-related, puts considerable additional demands on the degree of reflexivity, and offers significant benefits for network management. Third, and arguably of greatest significance, interorganizational networks operate on a “logic of exchange” (Sydow & Windeler, 1998: 267) that differs considerably from both the logic of hierarchies and markets. This logic is referred to as social embeddedness (Granovetter, 1985). Thus, IIONs appear to have been formed
as a means by which MNEs, regardless of size and level of international experience, might enhance their international competitiveness.

As an IION is likely to cover only some of the activities of each partner, each partner maintains its own identity and may engage in other activities, separate from the network. The extant literature and research indicate that: "[t]he international economy is increasingly characterized by diverse, complex, multiple network relationships...large multinationals increasingly make use of alliances as an extension of their international operations" (Hendry, 1994: 66). Networking is not restricted to a particular industry or to large firms. Researchers have shown that many small- and medium-sized firms internationalize by entering into strategic alliances or networks (Braunerhjelm, 1993; Glaister and Buckley, 1996; Jarillo, 1995). Thus, IIONs appear to have been formed as a means by which MNEs, regardless of industry, size and level of international experience, might enhance their international competitiveness.

Despite the growth and increasing importance of IIONS, there has been scant research to date on this organizational form, and little analysis, if any, of the related GHRD issues and challenges. Our research seeks to address this gap in the literature. IIONs operate at interpersonal and organizational levels (cf. Oliver and Liebeskind, 1997/1998). Our research is focused on the interpersonal networking relations in an IION, recognizing that MNE strategy, of which organizational participation in an IION may be a part, is implemented by individuals.

THE EMERGENCE OF GLOBAL HUMAN RESOURCE DEVELOPMENT

Leading scholars in SHRM have raised their attention to SHRM in a global context (see, for example, McWilliams, Van Fleet and Wright, 2001). In particular, researchers and practitioners have paid increasing attention to the implications of SHRM for organizational performance in MNEs (Wright and McMahan, 1992). As an element of SHRM, HRD is integral to MNE performance. It has been defined as “a set of systematic and planned activities designed by an organization to provide its members with the necessary skills to meet current and future job requirements” (DeSimone and Harris, 1998: 2).

The concept of ‘human capital’ generally refers to the education, experience, values, attitudes and competencies that individuals acquire, in part from HRD (Garavan, Morley, Gunnigle and Collins, 2001). HRD is instrumental in the process of accumulating human capital (Huselid, 1995). In their review of the conceptualization of HRD “as the new capital for both individuals and organisations”, Garavan et al. (2001:49), note that human capital accumulation for individual employability is a common theme in the SHRM and HRD literature. ‘Individual competency’ is a concept also emphasized in this literature. Garavan et al. (2001) suggest individual competency is a state of functional adequacy in a work role arising from innate abilities such as emotion, attitude and cognition, from willingness and ability to perform the role, and from knowledge and expertise acquired through training.

By implication, HRD involves, at the very least, the training and development function, and most likely, several other SHRM activities such as human resource planning, recruitment and selection, performance appraisal and reward management. The purposes of HRD include career development and management.

‘Career development’ is that HRD activity defined as a continual process enabling individuals to progress through “a series of stages, each of which is characterized by a relatively unique set of issues, themes, and tasks” (Greenhaus, 1987, cited in DeSimone and Harris, 1998: 10). This process involves career planning and career management. According to DeSimone and Harris (1998: 10), career planning involves activities by an individual, assisted by counselors and others, to assess his or her skills and abilities and to formulate a realistic career plan based on this assessment. They define ‘career management’ as those activities taken to realize the career plan. Until recently, HRD in MNEs has been principally concerned with expatriate training, usually
delivered in the pre-departure phase [Rahim’s (1983) model for expatriate development throughout the international assignment is one early exception] and focusing on cross-cultural awareness training (Brewster and Pickard, 1994; Mendenhall and Oddou, 1985; Tung, 1981). Again with a focus on expatriation, others have considered the implications of expatriation experiences on career management (see for example, the work by Feldman and colleagues in 1992 and 1999). Other aspects receiving recent attention have included training host country nationals (Harvey, 1997) and the extent to which HRD in MNEs is localized and convergent with HRD in domestic enterprises in particular countries (Tregaskis, Heraty and Morley, 2001). However, an intra-organizational focus has dominated this research field and HRD strategies and practices have been developed with large, ‘stand-alone’ MNEs in mind, not IIONs.

Recent discussions of HRD and particularly career development in the context of the aspatial or “boundaryless career” (see for example, Arthur and Rousseau, 1996; and Garavan et al., 2001) claim a shift in perspective, reflecting an increasingly held view that career development is independent of the organization, and occurs across organizational, national and geographic boundaries. We note that this view is not without its critics. For example, Hirsch and Shanley (1996: 231) challenge “the rhetoric about the boundaryless career [that] has almost euphorically predicted a better world for all”. They suggest that not all employees are able to pursue such careers, or flourish in them. Pang (2003) notes that a boundaryless career might be voluntary or involuntary according to the extent to which circumstances reflect opportunity, flexibility, uncertainty and insecurity.

Further, “claims of a weakening of traditional boundaries have also encountered some conceptual, theoretical and empirical problems” (Dany, Mallon and Arthur, 2003: 706). Four particular problems have been identified. First, there is a lack of data on changing careers from outside the US, prompting the question of “whether new, boundaryless careers are a US phenomenon”. Second, there is perhaps an over-correction of focus too far to the individual, potentially weakening the ontological-duality strength of the career concept. Third, there exists the potential that the development of new norms about career will stigmatize and constrain those operating outside them as much as those who in the past eschewed or were denied the “traditional ‘onward and upward’ model” (Dany et al., 2003: 706). The fourth problem reflects the critique that the shift of risk and responsibility to the individual in the new career rhetoric, and the resultant institutionalized discourse about this shift, will conceptually and politically reconstruct employment relationships.

There is, however, evidence that, for employees at many levels within multinational enterprises, careers are becoming global (McCall and Hollenbeck, 2002). For example, where in the past international assignments were only available to senior managers and technical experts, recent evidence suggests that international assignments, particularly the non-standard types, are increasingly being undertaken by all management levels (Fenwick, 2003, in press). Further, many employees are on ‘virtual assignments’, crossing organizational, national and geographic boundaries without ever leaving their home country offices. Such assignments afford employees international responsibilities for parts of the organisation in other countries, which they manage from their home countries (Welch and Fenwick, 2003). Individual participation in IIONs, entities that exemplify organizational boundarylessness, affords opportunities for some employees to develop and demonstrate competencies essential for effective IION performance and global career development. Fundamental to these outcomes is the ability of participants at organizational and individual levels to capitalize on the perceived benefits of IION participation.

Two critical challenges to the achievement of maximum benefit have been identified in the extant literature. The first concern refers to network centrality, or the occupation of a central position with regard to IION activities. The second concern relates to trust: being able to trust and to be trusted. For instance, MNEs participating in IIONs are more likely to achieve desired goals and objectives of participation if they occupy a central position in network exchanges and when they can trust and be trusted by each other (Das and Teng, 1998; Tsai, 2001). At the individual level, excellent performance in these areas is likely to increase employability as an important aspect of contemporary career development and management strategy (Garavan et al., 2001). Therefore,
we suggest that network centrality and trust are particularly important to consider with regard to interpersonal networking competencies, GHRD and career development.

NETWORK CENTRALITY AND TRUST: CHALLENGES FOR INTERPERSONAL NETWORKING IN IIONS

Network Centrality

Network relationships are “the structure of ties among economic actors [or parties] in a social system” (Nohria and Eccles, 1992: 288). Actors/parties may refer to individuals, groups or organizations, and ties may include conversation, affection, friendship, kinship, economic exchange and information exchange (Nohria and Eccles, 1992). These actors/parties will most likely vary in their ‘network centrality’, or position with regard to network activities.

Network centrality refers to an actor/party’s position in relation to involvement in network activities; the more central the actor/party, the more involvement it has with all other network members and activities. The concept can also be applied at the individual level, referring to the embeddedness of individuals in social networks (Granovetter, 1985; Sparrowe, Liden, Wayne and Kraimer, 2001). An individual’s central position in network exchanges is the “structural property most often associated with instrumental outcomes, including power [Brass, 1984], influence in decision making [Friedkin, 1993], and innovation [Ibarra, 1993]” (Sparrowe et al., 2001: 316). Tsai (2001: 997) noted that, at the organizational level, different network positions within an intra-organizational network present “different opportunities for a unit to access new knowledge that is critical to developing new products or innovative ideas...By occupying a central position in the inter-unit network structure, a unit is likely to access desired strategic resources”. Network centrality can be measured by investigating which members provide each other member with new knowledge, expertise or advice when it is sought from within the network (Sparrowe et al., 2001; Tsai, 2001).

Trust

Several researchers have identified ‘trust’ as another important construct for interpersonal relationships and performance in strategic alliances (Das and Teng, 1998) or inter-organizational networks (Bouty, 2000), as trust refers to the expectations about positive motives that the network partners hold. At organizational and individual levels, trust increases confidence and cooperation in combination with control. Trust is important because the likely alternative would involve monitoring of network participants through more extensive use of bureaucratic or other control mechanisms, the costs of which may be prohibitive in terms of financial, time and human capital resources (Das and Teng, 1998).

Network centrality of participants might facilitate the development of trust when frequency of interactions results in the parties to an exchange having: first, strong confidence in each other’s values and trustworthiness; second, favourable attitudes toward each other; and third, experiencing positive affect in the context of the relationship (Jones and George, 1998). The role of GHRD and career development in effective IION performance is evident in two ways: first, via the development of the requisite individual competencies such as the ability to develop and sustain network centrality and trust in IIONS; and second, via the provision of positive career outcomes to motivate and reward individual network participants for excellent performance.

Method

In order to address our exploratory research question, ‘what are the challenges and implications of participation in an IION for global human resource development?’, we conducted a qualitative case study of an IION, collecting data over several months in 2002 and 2003. Qualitative research has been described as:
... an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting (Creswell, 1998: 15).

We have endeavored to follow Lincoln and Guba’s (1985) case study structure: the problem, the context, the issues, and the “lessons learned”. The focus is on understanding the dynamics “present within single settings” (Eisenhardt, 1989: 534). Through the inductive and deductive processes followed, our case study methodology sought to facilitate both exploration and explanations of phenomena as part of theory building. Guided by Denzin and Lincoln (2000a) and Eisenhardt (1989), we chose not to ignore relevant extant literature. While case study research does not begin with hypotheses, entering organizations with a well-defined focus is important in building theory from case studies (Eisenhardt, 1989). Case study research investigates a contemporary phenomenon within its real-life context (Creswell, 2003; Stake, 1995; Yin, 2003). The in-depth analysis of a single case study can produce creative insights which may be generalized into theoretical propositions (Yin, 2003). The same case study research may involve more than one unit of analysis, such as occurs when attention is also paid to one or more sub-units. In this research, the unit of analysis is the dyadic relationship comprised of the network participant (individual-as-network-participant) and the IION (the organization). We were interested in the individual’s perceptions of the IION and the issues related to GHRD. Our interpretive paradigm might be best described as fitting in the category of constructivist-interpretive identified by Denzin and Lincoln (2000b: 21), as it

... assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and respondent cocreate understandings), and a naturalistic (in the natural world) set of methodological procedures. … terms such as credibility, transferability, dependability and confirmability replace the usual positivist criteria of internal and external validity, reliability, and objectivity.

Semi-structured interviews were conducted with the IION Board (2 members), the operating committee (OpCom) (9 members including the IION Company Secretary), the Technical Manager and the current and former Administrators. These last two are the only interviewees employed directly by the IION; the others participate in it as part of their positions with their mining companies. None of those interviewed were designated human resource managers, and, save for the Company Secretary, the IION Technical Manager and the current Administrator, all held senior to middle-level management positions with most qualified as technical specialists in the mining field.

The open-ended questions in the semi-structured interview schedule (see Appendix A) reflected the extant literature on IIONs and SHRM, including the challenges of occupying a central position (after Tsai, 2001) and managing trust (after Das and Teng, 1998). Interviews were conducted face-to-face or by telephone, depending on the location of the interviewees. The governance structure spans Australia, Canada, Chile and the U.S. The interviewees were all Australians, North Americans or Canadians. All interviews were tape recorded and transcribed within 24 hours. Interview duration ranged from 45 minutes to 90 minutes. Where necessary, follow-up contact was made with individuals to verify information. Manual content analysis was performed, using a pattern-matching approach described by Miles and Huberman (1994).

THE CASE: INTERNATIONAL NETWORK FOR ACID PREVENTION (INAP)

INAP brings together nine mining companies to focus on collaborative efforts to reduce the impact of acid rock drainage, a significant environmental issue in the global mining and minerals industry. This industry worldwide is a major economic sector, as mineral products are essential resources for social and economic development (Breaking New Ground, 2002). The large mining MNEs, for example BHP-Billiton, Rio Tinto, Barrick Gold, Placer Dome, or Phelps Dodge “explore, mine,
smelt, refine, and sell metal concentrates and metals on world markets" (Breaking New Ground, 2002: 61).

The industry faces extremely difficult challenges, particularly with regard to a high level of distrust amongst many constituents and stakeholders with regard to environmental and social issues (Breaking New Ground, 2002). There is a general consensus that the key players in the industry need to engage more actively with others, in order to understand issues better, work out priorities and address the criticism its performance sometimes attracts. Against this background, the world’s largest mining companies have developed several networking relationships, of which INAP is one, focused on sustainable development and environmental management.

At the time of data collection, INAP membership included the Research and Development divisions of BHP Billiton, Barrick Gold Homestake, INCO, Falconbridge Noranda, Phelps Dodge, Placer Dome, PT Freeport Indonesia, Rio Tinto and Teck Cominco (see Table 1).

Table 1: Company Information for INAP Members

<table>
<thead>
<tr>
<th>Company</th>
<th>Revenue¹ (US$) 2001</th>
<th>Total employees worldwide²</th>
<th>Market capitalization (US$ billion)³ (estimated at 28 September 2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHP Billiton</td>
<td>19,079,000,000</td>
<td>38,000 in 20 countries</td>
<td>25</td>
</tr>
<tr>
<td>Rio Tinto</td>
<td>10,438,000,000</td>
<td>36,000</td>
<td>24</td>
</tr>
<tr>
<td>Barrick Gold Homestake</td>
<td>1,898,000,000</td>
<td>No information</td>
<td>7</td>
</tr>
<tr>
<td>Falconbridge Noranda</td>
<td>CDN$2.14 billion</td>
<td>6,400 in 16 countries</td>
<td>5</td>
</tr>
<tr>
<td>PT Freeport Indonesia</td>
<td>1,838,866,000</td>
<td>No information</td>
<td>2</td>
</tr>
<tr>
<td>INCO</td>
<td>2,066,000,000</td>
<td>&gt;10,000 world wide</td>
<td>2.5</td>
</tr>
<tr>
<td>Phelps Dodge</td>
<td>4,002,400,000</td>
<td>10,000 world wide</td>
<td>2</td>
</tr>
<tr>
<td>Placer Dome</td>
<td>1,223,000,000</td>
<td>11,100</td>
<td>4.5</td>
</tr>
<tr>
<td>Teck Cominco</td>
<td>2,379,000,000</td>
<td>No information</td>
<td>1.5</td>
</tr>
</tbody>
</table>

In terms of our definition of an IION, INAP comprises a select, persistent, and structured cluster of autonomous MNEs of different sizes, that are engaged in creating products – in this case, technological solutions and services – based on implicit and open-ended contracts which are socially – and in this case, legally – binding. INAP is structured as a proprietary limited company under Australian company regulations and as such it has three formal structural elements. First, there is a Board, made up of senior managers elected by the member companies. Second, the main activities of INAP are being directed by the Operating Committee (OpCom), appointed by the Board. The committee comprises several senior technical representatives from some, but not all the member companies. The main responsibilities of the OpCom are to:

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¹ Source: Company websites. Most companies did not refer to turnover but to "sales" or "revenue". If turnover mentioned it is noted in the table, all other totals are sales/revenue.
² Source: Company websites.
⁴ Revenue across total Phelps Dodge organisation (i.e., PD Mining Corp and PD Industries)
• ensure the technical and communication needs of the Members are identified and prioritized;
• establish panels and networks for specific technical issues in keeping with Member interest;
• develop programs and projects to meet the technical and strategic communications objectives of INAP;
• foster the development of research ideas and proposals; and
• facilitate the approval and conduct of brokered research projects.

Third, an administrator and a company secretary support the Board and OpCom by maintaining information transfer systems, company reporting and administrative services. The Board and OpCom aim to meet two to three times a year, face-to-face, and teleconference monthly, in addition to ad hoc intra- and internet contact. Company membership of INAP is open to mining companies only. The membership fee is US$10 000 pa. In addition to this, each INAP member company is expected to contribute a minimum of US$10 000 p.a. to INAP research projects of their choice. Most of the member companies contribute well beyond these fees. According to the Chair of the Board, performance outcomes since the inception of INAP in 1998 include cost savings in millions of dollars.

With regard to our research question, our findings identified several challenges for GHRD and career development in INAP, as discussed in the following section.

CHALLENGES FOR GLOBAL HRD AND CAREER DEVELOPMENT IN INAP

Participants were asked whether there were human resource management policies and practices specific to INAP. It was apparent from the interviews that INAP typifies a concern identified in the SHRM literature. A lag has occurred between the initiation and implementation of INAP as a new business operation and its attendant SHRM policies and practices (cf. Fisher, 1989; Wright, Dunford and Snell, 2001). Interviewees indicated there has been no formal strategization within INAP member companies about development of SHRM at the network level. Strategic attention has focused on the business initiative of forming and managing the network, a typical pattern in international business development. However, one reason we were able to gain access to this network for our research was that ‘people management’ problems were surfacing and informal discussion about them was occurring. To date, some problems and issues have been identified and some formal initiatives taken, such as the introduction of position descriptions for OpCom and Board members, and the inclusion of INAP activities in some of these members’ key performance indicators in some member companies’ performance management systems. However, there has been no coordinated effort to reflect participation in INAP activities in SHRM. A recent hiring activity was provided as an example:

I would say that our HR practices have been chaotic. We went through a stage with hiring a [technical] manager… because it’s the actual operating committee who does all the work and needs the resources of the manager, it ended up being a total disaster for over a year before the operating committee took on the responsibility of finding the technical manager, and the board finding someone for the secretariat role. So things have been inherently loose in terms of how HR works… (OpCom member).

There were similar accounts by the Administrators and the Technical Manager, who related a lack of a coherent approach to their selection and induction practices for new network participants. Perceptions that SHRM was “chaotic” or deficient are reflections of a boundary issue concerning SHRM. While several participants agreed that some HR activities and policies were necessary; in particular policies for selection of suitable network representatives, performance and rewards management and induction of new network representatives, all participants indicated there was no need for an HRM function within INAP.
Several similarities amongst INAP members were apparent. At the business unit level, INAP was homogenous as it involved the technical services areas of the member companies, dominated by individuals with scientific professional qualifications. In other words, membership of broader, occupational and industry community networks was also evident (DeFelippi and Arthur, 1996). This meant that in spite of cross-cultural differences, by virtue of their similar frames of reference gained through working in the mining industry, they spoke the same language about acid rock drainage:

Technologists find that they’re best understood by other technologists, not to put too fine a point on it, and that’s the kindest way you can say they love talking to each other about what they’re doing (INAP Board member).

I think it’s an amazing organization actually to be able to bring together companies on a worldwide basis together and be tackling one key area that needs to be dealt with. It is effective in that it has developed really good relationships within big mining companies. Being able to just provide information to each other is such a fantastic opportunity that I don’t think any other company relationship I can think of would have. So just building those relationships and learning from each other and not redoing old mistakes that other companies have done, I think that that makes it a really effective group. And it is effective simply because the companies that are at the table are really committed (INAP Administrator).

Consequently, a shared strategic understanding and a shared map of cooperation (cf. Das and Teng, 1998), conducive to building trust, were also reflected in participant comments:

[F]rom my perspective we’ve been very open and sharing of the information with anyone, it’s sort of a typical thing with the industry anyway. Because a small breakthrough for us may help others and may help take the breakthrough even further. So we kind of feel we’re all in the same, share the same common problems, and anything that benefits the industry in resolving the issues is better for the industry as a whole (OpCom member).

Such shared understandings may also operate as an interpersonal control system as indicated by current research on informal and less tangible social networks, also referred to as a “mind matrix” (Bartlett and Ghoshal, 1993; Boudreau, Ramstad and Dowling, 2003 in press; Engle, Mendenhall, Powers and Stedham 2001). Bartlett and Ghoshal (1993) proposed the concept of a “mind matrix”, which when applied to IIONs would involve the internalization of control by the network managers, to replace the rigidity and expense of structural controls. In addition to their shared professional language, knowledge and understanding, our network participants reflected informal self-control (Boudreau, et al., 2003 in press), as suggested in the following quote:

[P]eople are actually using some excuse like a conference …, to tack on a workshop or a half day or a day meeting or what have you on acid prevention. So that gets quite a body of people involved which is good. Then you keep them involved by getting them involved in specific projects or working groups and the like (INAP Board member).

This shared collaborative intent is also supportive of developing and maintaining trust (Das and Teng, 1998).

In addition to numerous positive comments about trust in this IION, some concerns about limitations placed on one’s degree of trust emerged in our data. These concerns related to a company’s need to protect and perhaps withhold information or technology that may have competitive implications, as represented in the following quotes:

[U]p until recently I guess environmental technologies were not giving a competitive advantage. But that is changing …, so if you think that this particular technology is giving
you a competitive advantage you won't put it on the table, there's just no question about that (OpCom member).

... therein lies a natural tension because technology is the driver of innovation and the provision of cost competitive positions ... or sustainable positions ... The tension there is that if you're going to have the technologists blabbing to each other, you've lost your competitive position because it's immediately copied (INAP Board member).

These data suggest that not simply trust but optimal trust must be developed and maintained in an IION. We support the notion of trust as a conditional good, as “it is possible to both over and underinvest in trust, and neither is desirable from either a moral or strategic point of view” (Wicks, Berman and Jones, 1999: 99). Optimal trust has been interpreted in the following way:

“Optimal trust exists when one creates (and maintains) prudent economic relationships biased by a willingness to trust. That is, agents need to have stable and ongoing commitments to trust so that they share affect-based belief in moral character sufficient to make a leap of faith, but they should also exercise care in determining whom to trust, and in what capacity. Optimal trust is an embedded construct, suggesting that it is determined in context and shaped by a variety of factors, such as trustworthiness of the agent, local and broader social norms regarding trust, and other features of the relevant social structure(s)” (Wicks et al., 1999: 103).

Following Wicks et al. (1999), we suggest that trust levels will be influenced by the IIONs context for trust; that is, optimal trust will be dependent upon factors such as the network members involved and the specific events that may arise.

With regard to network centrality, it seemed that the position of a particular organization in INAP was an interplay of the company and the individual(s) representing it within INAP. In terms of network information and other exchanges, two OpCom representatives, and the former INAP Administrator, employed by a central member company commented:

...we are much closer to Placer Dome than BHP because of the current personalities involved in the network and we are not as close to the others because they don’t engage as much, but if they were to engage as much, we would probably be as close to them. So it depends on the amount of effort that individuals are prepared to put in, basically (OpCom member).

Because Rio Tinto has such a strong, I guess, passion to see INAP succeed, because we actually see results from INAP, we make sure that we have it staffed all the time so that the information is being diffused to all of our operations (former Administrator).

I think at a company level you could probably say [network relationships are] close to arm’s length but at the actual individuals who are in the network and taking part in the network it’s close ... The amount of sweat equity [our italics] and the willingness to come to meetings and engage like in any association of people determines closeness (OpCom member).

The term ‘sweat equity’ is a term used by several INAP participants, to indicate their ‘voluntary’ or ‘extra-role’ efforts for the network. INAP OpCom and Board members appeared to consider working for INAP as additional to their other work-related roles. As any direct link between activities in INAP and rewards was lacking, most did not perceive any tangible reward for their INAP work. There might, however, be rewards related to global career development. Volunteering for extra-role activities has been found to enhance the impression of excellent performance, essential for employability, at least within the individual’s current organization (Garavan et al., 2001). Further, enacting an extra role such as representing his or her organization in the governance of an IION provides opportunities for continuous learning and investing in new competencies consistent with current technological and labour market trends (DeFelippi and
Arthur, 1996); also enhancing employability. INAP as an IION provides the context in which individual participants might develop new and existing competencies. For example, aside from the three INAP administrative positions, there are no lines of authority within the network. Therefore, the ability to influence and motivate other INAP participants to act and equitably distribute network tasks requires that interpersonal communication and relations skills be applied to a non-hierarchical environment:

I guess you would say it would probably follow that if you did have … a close, good working relationship between the people who are representing the companies, it all goes well for the companies to cooperate, provided those people have influence in their companies. So that puts the onus on the cooperation and the effort at the right level in the network. The … influential person from the company being in the network matters. (OpCom member).

Participation in INAP also enables individual participants to maintain technical excellence, and therefore, employability in the mining and minerals industry (cf. Garavan et al., 2001).

It’s hard work and it’s almost always out of work time, on your own time, but certainly … the people that I’ve met through INAP and the networks I have been able to develop and the amount that I’ve learnt being on the operating committee for just over 12 months has certainly helped me to really take a leadership role in our ARD [acid rock drainage] issues …and to a lesser extent within the company, around the place, as well. I suppose to be recognized within a very short space of time as somebody who knows a fair bit more than the average, about environmental engineering or anything else about ARD issues. So, certainly from that perspective, it’s helped me to, I suppose, accelerate my learning in that area (OpCom member).

We anticipate that GHRD has an important role to play in ensuring that potential IION participants are identified and their interpersonal networking competencies, including awareness and behaviours conducive to securing and maintaining a central network position and trust, are developed. In SHRM terms, such an approach should recognize the particular nature of INAP as an IION spanning organizational, geographical and national boundaries, and INAP objectives (cf. De Cieri and Dowling, 1999). Interviewees discounted the need to establish an intra-INAP SHRM function. However, all indicated a need for specific HRM activities designed for INAP as a means of staffing and maintaining network participation. Therefore, addressing the question of whether this ‘fit’ ought to be achieved by the creation of GHRD and career development policies and practices within INAP itself, or whether the member companies can agree to extend their own policies and practices to INAP as a network resource, and agree on how this might be achieved, is an important challenge for SHRM in this IION.

IMPLICATIONS FOR FUTURE RESEARCH AND PRACTICE

In this exploratory study of one IION, we have sought to expose a relatively new organizational context for career development. Overall, the structure and operation of this IION resemble a trade association, in Hudson & Bielefeld’s (1997) and Provan’s (1983) terms, in that the member organizations are fully autonomous and may choose to utilise or ignore the network’s services. However, the intensity of the exchange relationships, the nature of the services provided and the resource commitments of the participating companies appear to be quite different from those trade associations. There are various challenges and implications for GHRD that may provide fruitful areas for future research.

In this research, we have not pursued the implications of this type of organization on the concept of ‘career’. Rather, we have considered ‘career’ to be implicit within HRD and career development (after Giddens, 1984). This would be a logical aspect to extend in future research. As Arthur, Hall and Lawrence (1989:11) note: “In our view a career theory – in contrast to basic psychological theories of individual differences – needs to attend to the institutional dimension”. In terms of the
characteristics that guide it, they suggest career theory encourages research at both individual and organizational levels. The other guiding characteristic for future research applying career theory is that of “emergence and relativity”, or the examination of time and space (Arthur et. al., 1989: 13). The first pertains to research into how work experiences in an IION emerge over time. The second concerns how social space, as a dimension of social significance, might explain differences in the way particular individuals behave in IIONs. For example, are more senior managers more likely to exhibit behaviours resulting in network centrality? Of course, career theory is multidisciplinary and there are many perspectives through which these guiding characteristics could be examined. For example, management theory, economics, sociology and developmental psychology have all contributed to the concept of career. Therefore, “multi- and interdisciplinary research seems … essential for a comprehensive view on careers” (Iellatchitch, Mayrhofer and Meyer, 2003: 728).

Another potentially informative direction for future research on IION participation related to the above and emerging from the challenges identified in this study lies in the area of boundary activities, drawn from systems theory. Boundary activities include buffering, spanning and bringing up boundaries (Cross, Yan and Louis, 2000). Network centrality and trust, or perhaps more appropriately optimal trust (Wicks et al., 1999), are issues in interpersonal networking that suggest a role for each of these boundary activities. Buffering refers to the self-protective strategy taken to close off a system from disruptive disturbances in its environment. Examples of buffering activities undertaken at the work unit level include the implementation of policies and procedures, such as in this case, the INAP proprietary limited company and governance structures and constitution, and or informal codes like the participants’ mind matrix to protect against external demands, pressures or interference.

Boundary spanning refers to the activity of reaching out beyond the organizational boundary to the external environment, as a proactive stance in managing system interdependencies. IIONs can be regarded as an outcome of the more boundary-permeable contemporary MNE. Indeed INAP is an inter-MNE boundary spanning activity (cf. Cross et al., 2000). It was established as a means to access and interact with critical constituencies, in this case, the occupational and industry communities knowledgeable about acid rock drainage, in the external environment of each participating MNE. At the individual level, INAP participants may be considered boundary role persons, those who enable their organizations to transact with other organizations (Adams, 1976, cited in Buckles and Ronchetto, 1996). Boundary spanning has been recognized in management theory and practice, mostly from an intra-organizational perspective, and with senior management, sales and marketing staff cited as examples of boundary spanners (Buckles and Ronchetto, 1996; Manev and Stevenson, 2001). “Bringing up boundaries” is an internal boundary activity to develop and maintain “a compelling image of a common task… and a shared sense of the climate of the group” (Cross et al., 2000: 843). It can be likened to the idea of the mind matrix evident within INAP. Testing for relationships between boundary activities and the development and maintenance of network centrality and optimal trust is one potentially useful research direction. Competencies required for boundary activities and their potential contribution to human capital accumulation for individual employability in IIONs could also be explored. Researching IIONs from the perspective of boundary activities allows access to measures, constructs and methods that are along the path to validation through empirical testing (cf. Cross et al., 2000; Yan and Louis, 1999).

We also note that there are important implications for the practice of GHRD emerging from our study. On some issues related to GHRD, it is evident that a research-practice gap exists, with research lagging behind the current needs of managers in IIONs. While the gap may not be easy to close, as there are complex issues to define, measure and address, boundary activity within IIONs is one means by which these issues might be defined and measured, with a view to implementing effective GHRD practices. For example, it seems possible to define effective behaviours for each of the boundary activities outlined above, and to develop a competency framework for GHRD policy formulation and implementation (Cross et al., 2000). In INAP, individual competencies such as managing time and role conflict, developing and maintaining interpersonal relationships with each other in an often virtual organization, and motivating their peers to contribute equal effort appear to be important competencies. Developing and maintaining
network centrality and optimal trust, important success factors for IIONs, might be influenced by
the ability to perform boundary activities effectively at the interpersonal level. Further, although the
cultural distances between the participants in this study are relatively small, as Tregaskis et al.
(2001: 39) note, “career development is an aspect of a company’s HRD system that is highly
influenced by the career traditions and business system in the host country”. Therefore, it seems
future research and practice will need to consider such aspects of the internal and external
environments of IIONs. Also, GHRD in IIONs might incorporate several related/aligned HRM
activities in addition to that of training and development. These include recruitment and selection,
and succession planning linked to an individual’s internal career development model.

FUTURE DIRECTIONS AND CONCLUSION

Our case study has raised issues for future research on GHRD and career development in IIONS.
We have made several important steps forward. For example, we have used multiple informants
inside the governance structure of an IION, in contrast to a large proportion of quantitative
research on SHRM in MNEs, which uses HR managers as the sole respondent for each MNE
represented in their sample. We have contributed to the relatively small body of HRD research
involving employees other than those on traditional international assignments in MNEs. Our case
study also broadens the study of inter-organizational networks beyond an organization-level
domestic focus to the international context. However, much remains to be done in future research.
More qualitative case studies of IIONs are required in order to confirm or disconfirm the findings
within INAP and to explore other dimensions of IIONs. For instance, extending the line of sight to
explore the nature of relationships and activities within each organization participating in an IION
and between an IION and its environment might reveal implications for GHRD and career
development related to inter-organizational boundaries. Exploring how IIONs differ from and
resemble domestic inter-organizational networks, and from other forms of strategic alliance such
as international joint ventures, as organizational contexts for GHRD and career development, from
both employer and employee perspectives is another direction for future case studies.

Such case studies may form part of mixed-method research designs, incorporating qualitative and
quantitative methods, that have been advocated for theory-building in SHRM (Creswell, 2003;
Wright, Gardner, Moynihan, and Park, 2001). One key requirement for research on SHRM in
IIONs is to develop psychometrically sound measures for relevant constructs and methods for
testing research propositions or hypotheses (Schuler and Florkowski, 1996). We have suggested
that drawing on the body of research into boundary management activities might provide one
source of relevant constructs for considering interpersonal networking in IIONs. Focusing our
exploration on interpersonal networking relationships within INAP in the context of developing and
maintaining network centrality and optimal trust, two challenges to achieving maximum benefit from
IION participation, has enabled us to begin an agenda for GHRD research and practice.
REFERENCES


APPENDIX A. KEY INTERVIEW QUESTIONS

Note: Given the length of interviews, it is not feasible to include all questions here. We have selected the key questions representative of each area relevant to this article.

Background

1. Please describe your job/position, tenure, and involvement in INAP.

INAP Formation

2. Why and how was INAP formed?
3. Are all network partners of equal standing with regard to: e.g., Status? Authority? Commitment of resources in INAP?

INAP Conduct

4. What are the objectives of INAP? To what extent do these objectives match your company’s objectives?
5. What resources does your company commit to INAP: e.g., Staff? Capital? Equipment? IT? Other?
6. Please describe the intensity of the relationship your company has with other INAP members: Close, partner-like…………………………………..Distant, arms length;
7. Varies according to the particular member?
8. How does the participation in INAP impact on day–to-day activities: For yourself? For your company?
9. How much autonomy is enjoyed by INAP network members?

Ongoing Management of INAP

10. What formal management processes dedicated to INAP are in place? What informal management processes dedicated to INAP are in place?
11. As an INAP member, how important is it that your company retains control over: Technology? Expertise? Knowledge? Other?
12. Which member companies provide yours with new knowledge or expertise when your company is seeking technical advice from within INAP?
13. Which INAP member companies seek new knowledge or expertise from your company?

HRM and HRD in INAP Have members of your company been recruited to become involved in INAP activities? If so, how was this done?

14. What kinds of skills, knowledge, and abilities are required of those involved in INAP activities, within your company?
15. Does involvement in INAP, either at the individual or organisational level, require any training & development? If so, what kind?
   a. How are HRD needs determined?
   b. How does this HRD compare with other HRD in your company?
   c. How does it compare with that provided to individuals from other member companies participating in INAP?
16. Are there rewards attached to individual contributions to INAP? If so, what are they?
   a. How are they determined and administered?
   b. How do they compare with other reward packages in your company?
   c. How do they compare with those available to individuals from other member companies participating in INAP?
17. Are there performance criteria specific to INAP activities? If so, what are they?
   a. How are they determined and administered?
   b. How do they compare with other performance criteria at in your company?
   c. How do they compare with those for individuals from other member companies participating in INAP?
18. How does HRM policy and practice for INAP activities relate to your company’s HRM strategy over all?
19. Has INAP devised its own HRM systems or has it adopted HRM systems from elsewhere? If the latter, what was the source of these systems? (INAP member companies? Other organizations?)
20. Is the HRM system in use (in INAP) effective?

INAP Outcomes

21. To what extent has INAP added value to your company? To what extent do you anticipate it will add value in the future?
22. In what ways is INAP an effective network? How could its effectiveness be improved?
23. Is there anything else you would like to say about INAP?