

Focus on . . . human resources

Assessing the value of international workers

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Introduction

The use of international assignments represents a key strategic management issue for multinational enterprises (MNEs). International workers in multinational organizations are key players in the management of global and local business performance. However, despite the importance of international assignments, multinational organizations are not yet able to fully evaluate the benefits associated with their use. MNEs seem to have a clear understanding of the costs of international assignments, but a vague or unclear picture of their benefits. However, an international assignment is an investment for a multinational whose returns are related to the value generated by the assignment. This means that international assignments should no longer be considered just as a human resource management process for solely personal development, rather they represent value generating opportunities which contribute to company's business performance. In order to assess the value of an international worker it is assumed that an international assignment corresponds to a value generating process.

This paper proposes a framework for the assessment and management of an international assignment. It is structured in four main sections. First, the methodology is presented. In the second section, the expatriate management model (EMAM) is described. This model addresses the fundamental phases for planning and implementing an international assignment. The success of an international worker is affected by the management practices adopted by the organization at the outset of the assignment. The approaches put in place by an MNE to plan and develop an assignment constrain the value that can be generated by an international worker. In order to drive human resource managers to design, create and implement international assignments, it is important to address the question: 'what are the management practices constraining the value generation process of an international assignment?'. The EMAM provides a possible answer to this question, addressing the phases an international assignment should follow to create value. In the third section, an analysis of the value drivers of an international assignment as well as international worker profiles, are addressed. A fundamental part of the implementation process of an international assignment is a deep understanding of the strategic reasons driving the value of the use of international workers. These strategic reasons correspond to the value drivers of an international assignment. Five main categories of value drivers have been identified: professional development, knowledge transfer, fulfillment of scarce skills, control and coordination. These categories define the potential value domain that a MNE can capture by the use of an international assignment. They allow us to justify why an organization needs to put in place international workers to perform specific corporate and businesses tasks. However, even if the value drivers allow us to identify the value targets addressed by an assignment, they do not provide managers with guidelines to evaluate the value generated by an international worker. For this reason it is necessary to understand how and where the development of an assignment can create value for an organization. Therefore the expatriate value-added map (EVAM) is proposed (section four). The EVAM is integrated with a further framework, the expatriate value monitor, in order to drive managers

towards the definition of indicators and metrics for measuring the value outcomes generated by an international worker. Finally some managerial implications are discussed.

Methodology

This paper is based both on a desk research and on an empirical investigation. Firstly, a literature review has been carried out in order to identify the main approaches and insights regarding the assessment of international assignments. The analysis of the literature has been integrated with a set of interviews with a representative sample of European multinational organizations. The latter has been based on the design of an exploratory qualitative study to ascertain how international assignments are assessed in European multinational organizations. Semi-structured interviews were held on site by a research team with human resource managers and those responsible for international assignment strategies. Nine organizations were included in the sample. The empirical investigation explored how international assignments are managed, the link with corporate strategy, and the measurement of expatriate performance. Interview schedules were sent ahead of the meetings, so that respondents had time to prepare with colleagues within the organization. Notes were made during interviews, which were taped, transcribed, then analyzed by section and theme.

Following our review of the literature and the analysis of the semi-structured interviews, we have constructed the expatriate management model (EMAM), the expatriate value-added map (EVAM) and the expatriate value monitor (EVAM), which are further developed and described in the rest of the paper. In undertaking this work, we have adopted the constructive methodology suggested by Kaplan and Norton (1996). Kaplan suggested that academic debate, real industrial problems and case examples should be synthesized to create new models and frameworks, such as the balanced scorecard (Kaplan and Norton, 1992). We have followed this approach and tested the concepts through receiving feedback by presenting and debating the frameworks with experienced practitioners in the field.

The expatriate management model

The success of an international assignment is influenced by the management practices adopted by organizations for implementing the assignment. Therefore it is of great relevance to identify and understand the different phases of the design and implementation of an international assignment, and the value that can be generated by an international worker. The expatriate management model (EMAM) (Figure 1) presents international assignments as a value creation process and identifies the phases an international assignment should follow to create the greatest chances of value generation. Its definition is a prerequisite to understanding, investigating and assessing the value generated by an international worker.

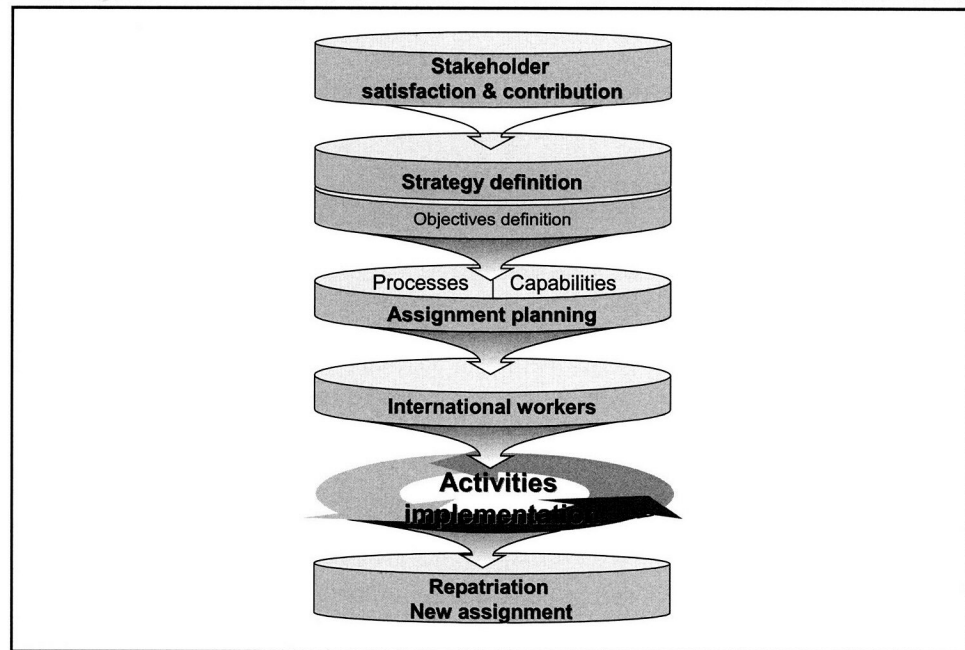
The EMAM identifies six fundamental managerial practices that characterize the design and implementation of an international assignment:

1. Stakeholder satisfaction and contribution identification.
2. Strategy definition: targets and objectives definition.
3. Assignment planning: process analysis and capabilities identification.
4. International worker profile definition.
5. Assignment implementation.
6. Repatriation or new assignment.

Stakeholder satisfaction and contribution identification

The EMAM, adopts the approach of the performance prism (Neely *et al.*, 2002a, b) taking a stakeholder centric view. It assumes that the definition of a corporate strategy has to start with a clear identification and definition of the stakeholders' needs/wants as well as contributions. At this stage of the international assignment an organization has to deal with two fundamental questions:

Figure 1 The expatriate management model



1. What are the stakeholders' needs/wants that the organization aims to address?
2. Which are the contributions that the organization can capture from its stakeholders in order to support and/or improve the business performance?

Five main categories of stakeholders can be identified: shareholders; customers; suppliers; regulators and governments; and employees. Each category is characterized by its own specific needs/wants. Shareholders are mainly interested in the financial value of a company such as share price or rates of return. Other important shareholders' wants can be the operational performance, e.g. quality, productivity, standardization, innovation that an organization is able to generate. Customers are mainly looking for these features embedded in products or services. Suppliers are mainly interested in the suitability and stability of the relationships with their customer. Regulators and governments look to assess the behavior of a company against the local law, socio-cultural, ethical and environmental norms. Finally employees look for their development and satisfaction.

The identification of the needs/wants as well as contributions of company's stakeholders represents a key process for the definition of international assignments aligned with the value targets of corporate strategy.

Strategy definition: targets and objectives definition

The use and role of an international assignment within an organization depends on the company's international strategy. A strategy should explain both the goals of the organization and a plan of action to achieve these goals. Therefore the definition of a strategy corresponds to the targets and objectives to be reached both at corporate level and at business level. Once the company's stakeholders' wants and needs have been defined, the management needs to understand the strategic targets addressed by an international assignment. This corresponds to finding answers to the questions: why do we need to send people on an international assignment to perform the strategic tasks? In fact the use of international workers represents a significant investment for the organization. It has been estimated that the average cost of an expatriate for an organization is four times more than a local employee at the same level (Brewster, 1988; Hiltrop and Janssens, 1990). This has been corroborated by our interviews from which it emerged that, at present, the cost of an

international assignment is around half million pounds. The costs depend on the nature of the assignment as well as on the country in which the assignment is performed. They involve not only the salary but the administrative expenses to manage an assignment, such as the taxes and the facilities for the assignees. Therefore, as stressed by the interviewed managers, since international workers are very expensive people, an organization needs to clarify why it is sending them on an assignment; does it really need them? The cost should be justified against the benefits. These benefits can be evaluated in terms of value generated by an international worker.

The analysis of the strategic objectives addressed by international assignment has identified a number of targets. The following have been considered some of the most important:

- improvement of business performance;
- fostering the parent corporate culture in the subsidiary;
- breaking down barriers between the parent company and subsidiaries;
- solving technical problems;
- developing top talent and future leaders of the company;
- opening new international markets;
- handling politically sensitive business;
- controlling the improvement;
- improving the trust/commitment of subsidiaries;
- reducing risks;
- training host national employees in order to improve individual skills;
- improving team skills; and
- controlling financial results.

Assignment planning: process analysis and capabilities identification

Once the business objectives have been defined and the management has decided to put in place international workers, the assignment has to be planned in detail in order to guarantee its success. For this reason an analysis of the processes to be performed in the subsidiary has to be developed. This requires that the main features of the activities to be performed are identified as well as the main characteristics of the context in which the international workers will operate. The latter can be sub-divided into external and internal context characteristics. The first category involves the information about the country and its institutions (such as geographic, demographic, historical, religious, political, legal, economic, social, technical, climate, and culture). The second category refers to the features of a subsidiary and takes into account the organizational aspects (e.g. structure, leadership, internal culture, technology, and human resources).

The definition of the processes has to be followed by an analysis of the capabilities required for a successful execution of the processes. For this reason three facets of an international worker appear relevant: the aptitude, the motivation and the competence of the international worker (Hannigan, 1990). The aptitude refers to physical and psychological characteristics. The motivation involves the components that can prompt an individual to deliver the best performance, such as organizational values, norms, and reward practices. Competence includes personal skills. These can be analyzed by job description and task inventory. At this stage, we also need to define:

- the objectives, e.g. "how much" and "by when";
- the responsibilities and contributions (e.g. in which specific department and context the assignee will be dealt with); and finally
- the definition of operative targets against which to measure the performance on the assignment.

International worker profile definition

The results of the international assignment planning allow us to identify the best worker profile for the assignment. From our interviews, four main forms of assignment were identified:

- Expatriate assignment refers to a long-term assignment where the employee and his/her spouse/family move to the host country for a specified period of time, over one year.
- Short-term assignment is an assignment with a specified duration, usually less than one year. Family may accompany employee.
- International commuter is an employee who commutes from their home country to a place of work in another country, usually on a weekly or bi-weekly basis, while the family remains at home.
- Frequent flyer is an employee who undertakes frequent international business trips but does not relocate.

Assignment implementation

This typically involves four main stages, which are the selection, the preparation, the transfer and adjustment, and the development process. Each stage has been analyzed in human resource management literature (Medich, 1995; Wright *et al.*, 1994). Here the main content of each stage are highlighted.

Selection. This is the process of screening the candidates for the assignment. The features of the candidates are compared with the assignment's needs. The selection process has to be based on a set of criteria. Four main categories of criteria emerge from the analysis of the literature. These are the aptitude, the motivation, the competence of the individual, and the environment (Mendenhall *et al.*, 1987; Medich, 1995; Tung, 1981; Wright *et al.*, 1994). A meaningful case example of personal selection practices is provided by Eli Lilly. The organization has a very robust assessment management process which combines, on one hand, the history of every employee (the personal competence profile), e.g. the area of the business he/she has been involved in and, on the other hand, the key company job (job profile system) to be performed in a subsidiary with a detailed job description and also with the specification of some particular skills or personal attitude (cultural sensitivity) that are necessary for that particular assignment. The above information is integrated into a global electronic database containing the employees' details, including their competences and preferences. Thus if an individual is interested in a move to an international assignment, the job profile says if he/she is suitable for that position. In the same way, if the company is looking for someone to put into an assignment, the database can give the location of an individual with the right competencies and characteristics for the job. Once the individual has been identified he/she is contacted and the job features and opportunities are discussed with him/her.

Preparation. The preparation is the training process that aims to prepare the international worker and his or her spouse/family to move into the assignment. It involves both cultural issues and competencies.

Transfer and adjustment. The transfer is the process of moving the international worker into the assignment. It involves an adjustment process during which the international worker and his/her spouse/family adapt to the new country. In this phase the assignee has to be assisted in order to overcome as quickly as possible the impact with a new work and cultural environment. The level of psychological comfort of the assignee with living abroad (Black, 1990; Black and Gregersen, 1991) is related to the individual ability or willingness to accept the host country's behaviors, norms and roles. The cross-cultural adjustment has a deep influence on the effectiveness of the international assignment, since only a well-adjusted international worker can operate in a completely integrated way within the host country.

Development. The development is the process in which the international worker assumes full job responsibilities and performs his/her activities. In this phase the assignee should be



encouraged to achieve high levels of cultural assimilation, to cultivate interpersonal relationships, and to improve technical competencies (Wright *et al.*, 1994).

Repatriation or new assignment

Many of the interviewed organizations have declared that a lot of attention has to be paid to successful repatriation. It is considered a key process, and organizations are placing great attention on the alignment of international assignments with the leadership creative planning programs. In this way organizations can better understand how a person who has been sent to an international assignment can use his/her development experience in his/her next role within the organization. The repatriation represents a critical process, not just to capitalize the knowledge developed during the assignment, but also to avoid a negative impact of the repatriation on the international worker and his/her spouse/family. In fact, as one of our interviewees stated, one problem is that if assignees were one of the "top dogs" during the assignment, when repatriated suddenly, they find they are no longer the "top dog", but just another "body". Another important issue of the repatriation is the completion of the assignments. This represents a basic criteria for evaluating the outcomes of an international assignment. According to this criteria the success of international assignments occurs when the international worker remains in the host country for the entire scheduled duration of the assignment (Black, 1990; Black and Gregersen, 1991; Harzing, 1995). This is important for the repatriation and/or new assignment organization policy as well as for assessing the effectiveness of the international worker.

Value drivers of an international assignment

The assessment of the value of an international assignment requires a deep understanding of the value drivers underpinning the use of international workers. They correspond to any managerial target process or action that affects the value of a company. From the literature review and field investigation, five main categories of value drivers have been identified:

1. Professional development.
2. Knowledge transfer.
3. Fulfillment of scarce skills.
4. Control.
5. Coordination.

These categories define the potential value domain that a multinational organization can capture by the use of an international assignment. They allow us to justify why an organization needs to put in place international workers to perform specific corporate and businesses strategies. The main characteristics of each value driver category are presented below.

International assignment as professional development

For many organizations an international assignment is consistent with their overall strategic human resource plans and it is aimed to develop general managers with global competence. Many of the interviewed organizations stated that they have discovered that the most successful chief officers and managing directors have international experience. Therefore, since these are the people that fundamentally make the difference within an organization, managing the overall business performance, those individuals that aspire to be general managers must have international experience. It is of fundamental importance for MNEs to retain global competent managers with the ability to create cultural synergy by integrating business practices of the parent company with those of the subsidiaries (Adler and Bartholomew, 1992; Adler and Ghadar, 1990; Black *et al.*, 1992). The role and positive impact of the international assignments on the global competence of individuals have been empirically demonstrated by Oddou and Mendenhall (1991). The authors' survey research showed that expatriates find the international assignment increases their global

perspectives and improves their communication capabilities as well as their ability to better comprehend business trends.

The competitiveness of a company is strictly related to the continuous development of their leaders and to their preparation for dealing with future international business challenges (Caligiuri, 1997). Therefore, the use of international assignments can be specifically addressed to the development of global leadership competencies through cross-cultural assignments definition. Many multinational organizations have instituted global leadership development programs to develop future leaders.

International assignment as knowledge transfer

The international assignment can be used as a way to transfer know-how from the parent company to local subsidiaries or vice-versa (Becker and Huselid, 1988; Dowling *et al.*, 1999; Forster, 1999). The knowledge transfer by an international assignment can be to understand particular operations in specific locations (Gregerson *et al.*, 1996; Harvey, 1997), to share knowledge about how to use special equipment, machinery and tools, or how to manufacture certain products (Torbiorn, 1994; Huselid, 1995; Schuler *et al.*, 1991). Furthermore, the international assignment allows us to transfer corporate culture, process technology, and management skills (Mendenhall *et al.*, 1987; Grosse, 1996; Solomon, 1995). Another important area of knowledge transfer for MNEs is the knowledge transfer within the marketing area. Marketing is often considered as a key competence that multinational organizations need to develop on a global basis. For this reason the knowledge transfer represents a key critical value driver, and as a result, MNEs tend to have people moving around different markets sharing and acquiring marketing expertise.

The use of international workers as a means of knowledge transfer has a critical role also in the R&D area. This is particularly important in the pharmaceutical industry, where the knowledge transfer process is critical for competitiveness. Very often, competitors in the research area are represented by small microbiological extremely dynamic start-ups. Thus one of the principles adopted by pharmaceutical multinationals is to try to combine big with small. They aim to have small integrated units that drive the innovation processes, but at the same time the scale that allows economies for screening, scanning and all the other activities surrounding the process of discovering new drugs. With the aim of combining the small dimension with the global scale, Glaxo SmithKline, for example, has set up what is called a Centre of Excellence of Drugs Discovery. It has six bases across the world. Each of them represents a satellite in a research development area. They have a center of excellence with satellites around the world. This particular organizational structure demonstrates the great importance of the use of international workers moving between the satellite and the center in order to exchange knowledge and expertise. The implementation of international assignment supports both the codification of knowledge to be stored and shared by information and communication technologies, and the socialization of tacit know-how as well as the sharing and creation of cultural values.

International assignment as fulfillment of scarce skills

An international assignment can be used as a way to fill skill gaps in the subsidiary. In this case, a skilful international worker is sent on an assignment to cover a well-defined job profile target. However, MNEs tend to limit the use of international workers for fulfillment of scarce skills, since the costs involved in this practice are in general too high to justify the use of an assignee rather than a local employee. Therefore, MNEs tend to opt for international workers when the jobs to be carried out require highly specialized competence not available on a local basis, or for particular situations, e.g. of political or cultural risk.

International assignment as control

The international assignment can be used as a way of controlling an organization in various countries. The use of international workers as a control mechanism is strictly related both to the industry strategic orientation of MNEs, i.e. global vs multi-domestic industry, and to the level of formalization within the company. MNEs following a multi-domestic strategy tend to

use international workers as a way of controlling subsidiaries. In particular, the international worker is considered to play a fundamental role in performing informal face-to-face control based on direct supervision and socialization processes. Whilst MNEs that integrate their operation globally rely on formalized practices of control (e.g. reporting structure and standards) they have less need of international workers (Bartlett and Ghoshal, 1989). This is the case, for example, in many pharmaceutical multinationals operating on a global basis; everything is organized at central level, and reporting structures are put in place so that the control is mainly performed by using metrics rather than international workers.

International assignment as coordination

The international assignment can be used for coordination reasons, for example to integrate operations of different units. In this case the international assignment is mainly interpreted as a way to increase the knowledge of international workers about the company's networks. Through assignments the international workers develop awareness of the impact of their decisions on the effectiveness and efficiency of the integration of organization processes on a global basis. Furthermore, they develop multiple contacts that allow them to act as links between interdependent units. On this point the HR manager of GlaxoSmithKline states:

Networking is formed very often through people knowing each other. If you don't have people operating on a global basis you will lose the opportunity to create the interactions that set up a network. Knowing people in different countries allows further and more efficient use of the information and communication technology to share information on a global basis.

In the same way, the HR manager of Unilever pointed out that:

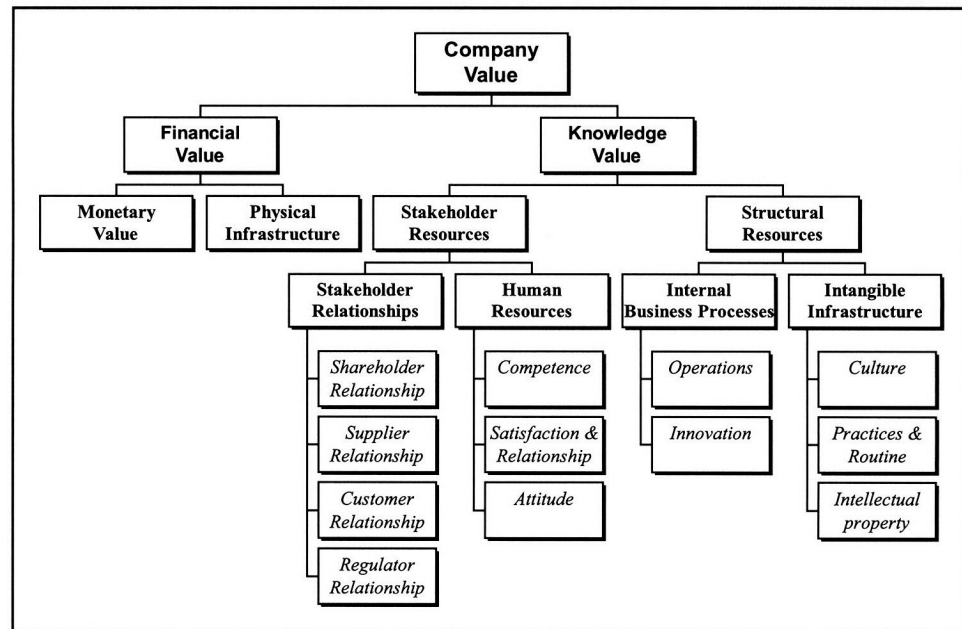
People who during their career have moved across, for example, six countries, have created a lot of contacts with other people. These networks allow them to resolve problems very rapidly because it is possible just to call a person and say that something has happened, or to get the right information provided.

Assessing the value generated by an international assignment

The value drivers enable us to understand the strategic reasons for the use of an international worker. They allow us to identify the value delivered by an international assignment, but do not provide managers with guidelines to evaluate the value generated. For this reason, it is necessary to understand how and where the development of an assignment can create value for the organization. To do this, we present the expatriate value-added map (EVAM). It provides managers with a broader framework to identify and define the organizational value dimensions that an international worker can impact.

The expatriate value-added map identifies two main value domains: financial value and knowledge value (Edvinsson and Malone, 1997; Marr and Schiuma, 2001; Roos *et al.*, 1997; Sveiby, 1997). The financial value refers to the overall organization's assets which can easily be expressed in monetary terms. The knowledge value is considered to equate all the company's intangible assets. This knowledge value is further subdivided into stakeholder resources and structural resources. This distinction reflects the two main components of an enterprise, its actors, who can be either internal or external to the organization, and its constituent parts, i.e. the elements at the basis of the organization's processes. Financial value, stakeholder resources and structural resources can be further split; Figure 2 illustrates the hierarchy of each value area with its sub-classifications. The financial value can be split into two value categories that are the monetary value and physical infrastructure of a company. The former involves all financial values generated by the company. The latter corresponds to the value related to the overall tangible assets of an organization. Stakeholder resources are divided into stakeholder relationships and human resources. The first category identifies all external actors of a company. It is further subdivided into shareholder, customer, supplier and regulator relationships. The second category represents the internal actors of a company, i.e. the employees and the assignees. Structural resources are split into internal business processes and intangible infrastructure. The former refers to all values generated within the company in the form of performance improvements of the operations and of the innovation processes, related for example to the

Figure 2 Expatriate value-added map

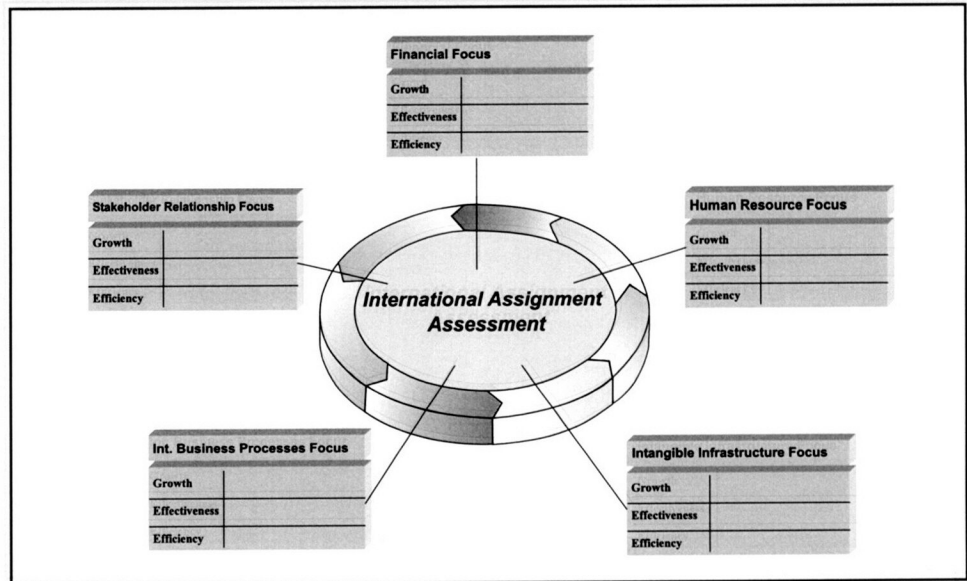


product development and to the research and development. The latter represents the value related to the overall organizational intangible structure components of an organization. It is further sub-divided into culture, routines and practices and intellectual property. Culture embraces corporate culture and management philosophies. Some important components are the organization's values, the networking practices of employees as well as the set of mission goals. Practices and routines include internal practices, virtual networks and routines, i.e. tacit rules and procedures. Some key components are process manuals providing codified procedures and rules, databases, tacit rules of behavior as well as management style. Intellectual property is the sum of patents, copyrights, trademarks, brands, registered design, trade secrets and processes whose ownership is granted to the company by law.

The EVAM allows identification and understanding of the value dimensions by which an international worker can generate value. However, in order to measure the generated value it is necessary to define a set of indicators and metrics. For this reason, the EVAM can be integrated with a further framework named the expatriate value monitor. Sharing the methodology approach of other performance measurement frameworks proposed in the management literature, such as the balance scorecard (Kaplan and Norton, 1992, 1996, 2000), the performance prism (Neely *et al.*, 2002a, b), the Skandia navigator (Edvinsson and Malone, 1997) and the intangible asset monitor (Svieby, 1997), it provides managers with a structured approach to assess the value generated by an international worker. The expatriate value monitor identifies five measurement facets: the financial value focus, the human resource focus, the intangible infrastructure focus, the internal business processes focus, and the stakeholder relationship focus (see Figure 3).

In each of the measurement facets three critical measurement areas are defined: growth, effectiveness and efficiency. These different areas are going to provide managers with diverse information about the quality of the value generated by the international worker. Growth allows the development of a specific value item over time to be followed. It is expressed by indicators that depict development trends, e.g. increasing or reduction of a percentage. The effectiveness metrics look at whether an expected value defined at the beginning of an international assignment has been reached. It involves indicators providing information in the form of ratios, e.g. the ratio between an actual value output and the expected value output. Finally, the efficiency allows us to understand how well the resources

Figure 3 Expatriate value monitor



have been managed and optimized to produce a specific value item. The efficiency can be measured by ratios that compare the use of an amount of resource and the results produced by the assignment.

For each measurement facet of the expatriate value monitor it is possible to provide a wide range of metrics. The management team has the task of identifying the most meaningful indicators that help to assess the value generated by an international worker. Therefore, it is important to warn managers not merely to adopt the metrics proposed in the literature, since most of them are general and do not necessarily address the types of value item that have a critical role in the specific organization's value-added processes (Liebowitz and Suen, 2000). Managers need to start from the recognition that an international assignment provides specific value to each company and that they have to design metrics that really address and measure their key organizational value drivers.

Final remarks

The issue of the assessment of international assignments represents a topic of great importance for multinational enterprises (MNEs). They use international workers to manage global and local business performance. The relevance of international assignments and the high costs related to their implementation means that we need approaches to better understand and assess the benefits associated with their use. This paper has investigated possible approaches to assess the organizational value associated with the deployment of an international worker. Starting from the assumption that an international assignment is an investment for a MNE, the expatriate management model, the expatriate value-added map and the expatriate value monitor have been suggested as frameworks for designing, implementing and assessing an international assignment. In particular, the expatriate value-added map guides managers in identifying the critical value items for an international assignment. Once the value items have been identified, managers have the task of designing a set of metrics. The definition of the metrics can be performed adopting a structured approach, such as the performance measure record sheet (Neely *et al.*, 2002a, b; Neely, 1998). This allows us to design key value metrics in each facet of the expatriate value monitor.

The frameworks developed have been created to reflect good practice from both the perspective of the academic literature and the study of international companies. The presentation and debate of the frameworks with practitioners suggests that they have merit

in that they broaden the understanding of the potential benefits of international assignments and structure thinking around how these assignments should be measured and assessed.

Further research should focus on the application of the proposed models by collecting case studies as well as by developing a survey aimed to define a broader picture of the value dimensions captured by MNEs by the use of international assignments.

References

- Adler, N.J. and Bartholomew, S. (1992), "Managing globally competent people", *Academy of Management Executive*, Vol. 6, pp. 52-65.
- Adler, N.J. and Ghadar, F. (1990), "Strategic human resource management: a global perspective", in Pieper, R. (Ed.), *Human Resource Management in International Comparison*, Walter de Gruyter & Co., Berlin, pp. 235-60.
- Bartlett, C.A. and Ghoshal, S. (1989), *Managing across Borders: The Transnational Solution*, Harvard Business School Press, Boston, MA.
- Becker, B.E. and Huselid, M.A. (1998), "High performance work systems and work performance: a synthesis of research and managerial implications", *Research in Personnel and Human Resources Management*, Vol. 16, pp. 53-101.
- Black, J.S. (1990), "The relationship of personal characteristics with adjustments of Japanese expatriate managers", *Management International Review*, Vol. 30, pp. 119-34.
- Black, J.S. and Gregersen, H.B. (1991), "Antecedents to cross-cultural adjustments for expatriates in Pacific Rim assignments", *Human Relations*, Vol. 44, pp. 497-515.
- Black, J.S., Gregersen, H.B. and Mendenhall, M.E. (1992), *Global Assignments: Successfully Expatriating and Repatriating International Managers*, Jossey-Bass, San Francisco, CA.
- Brewster, C. (1988), "Managing expatriates", *International Journal of Manpower*, Vol. 9 No. 2, pp. 17-20.
- Caligiuri, P.M. (1997), "Assessing expatriate success: beyond just 'being there'", *New Approaches to Employee Management*, Vol. 4, pp. 117-40.
- Dowling, P.J., Welch, D.E. and Schuler, R.S. (1999), *International Human Resource Management: Managing People in an International Context*, South Western College, Cincinnati, OH.
- Edvinsson, L. and Malone, M.S. (1997), *Intellectual Capital: Realizing Your Company's True Value by Finding its Hidden Brainpower*, HarperBusiness, New York, NY.
- Forster, N. (1999), *Managing Expatriate Staff for Strategic Advantage: Getting the Best Out of Staff on International Assignments*, Pearson Education/Financial Times, London.
- Gregerson, H.B., Hite, J.M. and Black, J.S. (1996), "Expatriate performance and appraisal in US multinationals", *Journal of International Business Studies*, Vol. 27 No. 4, pp. 711-38.
- Grosse, R. (1996), "International technology transfer in services", *Journal of International Business Studies*, Vol. 27 No. 4, pp. 781-800.
- Hannigan, T.P. (1990), "Traits, attitudes, and skills that are related to intercultural effectiveness and their implications for cross-cultural training: a review of the literature", *International Journal of Intercultural Relations*, Vol. 14 No. 1, pp. 49-53.
- Harvey, M. (1997), "Focusing the international personnel appraisal process", *Human Resource Development Quarterly*, Vol. 8, pp. 41-62.
- Harzing, A. (1995), "The persistent myth of high expatriate failure rates", *International Journal of Human Resource Management*, Vol. 6, pp. 457-74.
- Hiltrop, J.M. and Janssens, M. (1990), "Expatriation: challenges and recommendations", *European Management Journal*, March, pp. 19-27.
- Huselid, M.A. (1995), "The impact of human resource management practices on turnover, productivity and corporate financial performance", *Academy of Management Journal*, Vol. 38, pp. 635-70.
- Kaplan, R.S. and Norton, D.P. (1992), "The balanced scorecard: measures that drive performance", *Harvard Business Review*, Vol. 70 No. 1, pp. 71-9.

- Kaplan, R.S. and Norton, D.P. (1996), *The Balanced Scorecard: Translating Strategy into Action*, Harvard Business School Press, Boston, MA.
- Kaplan, R.S. and Norton, D.P. (2000), "Having trouble with your strategy? Then map it", *Harvard Business Review*, Vol. 78 No. 5, pp. 167-76.
- Liebowitz, J. and Suen, C.Y. (2000), "Developing knowledge management metrics for measuring intellectual capital", *Journal of Intellectual Capital*, Vol. 1 No. 1, pp. 54-67.
- Marr, B. and Schiuma, G. (2001), "Measuring and managing intellectual capital and knowledge assets in new economy organisations", in Bourne, M. (Ed.), *Performance Measurement Handbook*, GEE Publishing, London.
- Medich, F.H. (1995), "The management of expatriates", *Agribusiness*, Vol. 11 No. 4, pp. 383-9.
- Mendenhall, M.E., Dunbar, E. and Oddou, G.R. (1987), "Expatriate selection, training and career-pathing: a review and critique", *Human Resource Management*, Vol. 26 No. 3, pp. 331-45.
- Neely, A. (1998), *Measuring Business Performance*, The Economist Books, London.
- Neely, A., Adams, C. and Kennerley, M. (2002a), *The Performance Prism*, Prentice-Hall, London.
- Neely, A., Bourne, M., Mills, J., Platts, K. and Richards, H. (2002b), *Getting the Measure of Your Business*, University of Cambridge, Cambridge.
- Oddou, G. and Mendenhall, M.E. (1991), "Succession planning for the 21st century: how well are we grooming our future business leaders?", *Business Horizons*, Vol. 34, pp. 26-34.
- Roos, J., Roos, G., Dragonetti, N.C. and Edvinsson, L. (1997), *Intellectual Capital: Navigating in the New Business Landscape*, Macmillan, London.
- Schuler, R.S., Fulkerson, J.R. and Dowling, P.J. (1991), "Strategic performance measurement and management in multinational corporations", *Human Resource Management*, Vol. 30, pp. 365-92.
- Solomon, C. (1995), "Repatriation, up, down, or out?", *Personnel Journal*, Vol. 74 No. 1, pp. 28-30.
- Svieby, K.E. (1997), *The New Organizational Wealth: Managing and Measuring Knowledge-based Assets*, Barrett-Kohler Publishers, San Francisco, CA.
- Torbiorn, I. (1994), "Operative and strategic use of expatriates in new organisations and market structures", *International Studies of Management and Organisations*, Vol. 24 No. 3, pp. 48-63.
- Tung, R.L. (1981), "Selection and training of personnel for overseas assignments", *Columbia Journal of World Business*, Vol. 16 No. 1, pp. 68-78.
- Wright, P.M., McMahan, G.C. and McWilliams, A. (1994), "Human resources and sustained competitive advantage: a resource-based perspective", *International Journal of Human Resource Management*, Vol. 5 No. 2, pp. 301-26.

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