ROLE OF INTERNATIONAL ASSIGNMENTS IN KNOWLEDGE FLOW IN SMALL AND MEDIUM COMPANIES WITH FOREIGN OWNERSHIP

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Summary: In the era of emerging knowledge economy, many companies strive to constantly update/develop intangible resources by participating in knowledge networks. An MNC is an example of a network which provides access to a large knowledge base. Within such a network inter-unit knowledge flows are facilitated by multiple mechanisms, including international assignments (IAs). An increasing variety and availability of less expensive IA forms can encourage small entities to adopt practices applied by larger organizations. This study endeavours to find out how small-, medium-sized subsidiaries use IAs in knowledge flow within corporate networks, identify emerging patterns, and compare these to large companies on empirical results obtained from companies with 100% foreign ownership. Four clusters representing different patterns of IA usage in cross-border knowledge flow by small- and medium-sized organizations were revealed.

Keywords: international assignments, cross-border knowledge flow

1. Introduction

In a globalized world, companies often strive to gain or sustain a competitive advantage by using knowledge available within networks comprising numerous entities from over the world. Access to advanced know-how is a tempting opportunity to develop activity, in particular for smaller entities, whose own capabilities are usually poorer compared with large competitors (Perechuda 2013). MNCs intending to utilize their know-how in multiple contexts for international expansion develop mechanisms facilitating knowledge flows between dispersed entities. One is a cross-border employee transfer by means of international assignments (IAs), recommended as a solution supporting diffusion of more tacit, contextual/complex know-how which requires interpersonal interaction (Bonache & Dickmann 2008). Furthermore, know-how flow based on personal relationships corresponds with a specificity of smaller companies which rely on informal, and flexible methods when managing knowledge (Stosik 2005). Due to IA's potential as an interactive mechanism facilitating flow, and a variety forms, including cheaper alternatives for long-term stay, one expects that even smaller entities involved in corporate networks can make use of them as with larger companies. This study aims to (1) find out how small- and medium-sized subsidiaries use IAs in knowledge flow within corporate networks, (2) identify emerging patterns of said practices, and additionally to compare these patterns to large companies' practices, and analyse them with respect to selected subsidiaries' characteristics.

2. Theoretical background and concept of research

Contemporary theories of MNC link the issue of multidirectional knowledge flow (KF) with transformation of MNCs into transnational organizations, diverse mandates and roles of subsidiaries in MNCs, and their dual embeddedness in corporate/local networks (Bartlett & Ghoshal 1998; Gupta & Govindarajan 2000, ed. Lundan 2002, Fonfara et al. 2009). From a

subsidiary perspective, its involvement in cross-border KF should be considered as an aspect interrelated with the scope of relationships established by this entity with other units of the MNC (by cooperation, communication, and direct personal contacts), and availability of mechanisms enabling/supporting such flow (e.g. mobile employees, ready and capable to share knowledge/teach others) (ed. Lundan 2002, eds. Harzing & Pinnington 2011).

Smaller companies (10-249 employees) with foreign ownership, which operate as foreign subsidiaries represent a specific type of small- and medium-sized enterprise, since they do not meet all criteria describing SMEs (Daszkiewicz & Wach 2013). Although they have separate legal status, and usually a simpler structure, one decisive center and are managed in a less formal manner, their autonomy is limited by the parent company, to a different degree[2]. Their specific needs concerning know-how transfer stems from the nature of knowledge in-use, characterized as "hot", "intuitive", experience-based, and relying on informal, spontaneous flow within teams/close interpersonal relationships (Stosik 2005; Perechuda 2013).

According to expatriate literature, knowledge transfer is an important goal of delegating, and one of the key assignee's roles (Dowling et. al 2008, eds. Harzing & Pinnington 2011). Yet, flow can also occur spontaneously, regardless of the official purpose of IA. Bonache and Zárraga-Oberty (2008) suggest that its usefulness can increase if the choice of IA arrangements corresponds with the nature of knowledge (being transferred), which implies usage of practices ranging from formally-assigned knowledge transfer to spontaneous (uncontrolled) KF during IAs, from one-to-one interaction to collective exchanges of experience, and from asymmetric knowledge transmission to blurred configuration of flows.

Summing up, to make conclusions concerning companies' approaches to IA usage in KF, two aspects are considered, (1) the extent to which knowledge transfer is an officially assigned goal/task (regarding the following directions of delegating: from subsidiary to headquarters (HQ); HQ to subsidiary; subsidiary to other foreign affiliates; foreign affiliates to subsidiary), and (2) the degree of using specific IA arrangements facilitating KF:

- individual, developmental assignments within which mentor/coach and trainee are from different locations, (named cross-border coaching/mentoring);
- developmental assignments within which employees from different units participate in group trainings in foreign locations (international group trainings);
- task/project-related assignments undertaken individually by subsidiary employees and performed in other foreign units (individual foreign project);
- group assignments comprising people from different locations working on common international projects (cross-border teamwork located abroad).

To measure these 8 variables (four per each aspect), a five-point Likert-type scale (from 1= very small extent to 5=very high extent) was applied, within which informants were asked to estimate the extent to which each of these items refer to in the companies they work for.

3. Data and Method

Data stem from structured interviews (CAPI) with senior managers responsible for managing IAs in 171 companies with 100% foreign ownership, and who acted as single informants[3]. Data was collected in 2014, within project No. UMO‑2012/07/D/HS4/00741 financed by the National Science Center. The sample was drawn by random sampling from a pool of subsidiaries established in Poland before 01.01.2012. It consisted of entities operating in all

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[2] Many authors have pointed at semi-autonomous processes in subsidiaries, including making decisions, and developing policies within decentralized /polycentric MNCs (e.g. Bartlett & Ghoshal 1998; ed. Lundan 2002; Dowling et al. 2008; Fonfara et al. 2009).

[3] In practical terms, they were either managing directors, especially in small and some medium-sized entities, or HR senior managers – in large organizations.

fields of business, representing industry (48%), 24% were small firms (10-49 employees), 42% medium (50 – 249), and 34% large entities, mostly belonging to European MNCs (82%, with Germany accounting for 29% and the USA for 9%), and usually carrying out own production activities or providing services (other than sale/customer service). Of these, 63% were greenfield investments, while the rest were acquired by foreign investors. Regarding these characteristics, no significant variation was found in the proportion of companies within groups, between large and smaller entities (jointly small and medium-sized). Yet, there were significant differences in terms of subsidiary age, (X^2 =12.382, df: 4, p=0.01; coef. C = 0.265). In particular, over 65% of the former had at least 15 years "tenure", while almost 60% of the latter had no longer than 14. Furthermore, significant differences (p=0.03) occurred in case of subsidiary's network size, i.e. number of direct relationships with other affiliates maintained for at least 2 years, which was greater for large companies.

To compare smaller and large companies, as well as particular clusters, contingency tables, Pearson's Chi-Square (for categorical variables), Mann-Whitney U-test (for ordinal variables), or t-test (for continuous variables) were used. In order to identify patterns of IA usage in knowledge flow, clusters analyses were applied. Prior to analyses, Ward's minimum variance method, and v-fold cross-validation techniques were used to determine optimal number of clusters. Results of analyses are discussed below.

4. Usage of IAs in knowledge flow in the light of smaller companies' practices

In smaller companies both, modal and median values illustrating the importance of knowledge transfer (KT) as an assigned task/goal reached 3 points (1-5 scale), regardless of the direction of delegating employees, which suggests a moderate level of this practice. Furthermore, no significant difference between smaller and large companies was found in case of all considered cross-border employee flows.

As for usage of specifics forms of IAs, the lowest level was reported for cross-border coaching/mentoring (modal and median value reached 2 points). It seems, however, that large companies also do not use such solution frequently, since no significant difference between both categories was noted. Nevertheless, average usage of the other three IA forms observed in smaller companies attained moderate level (modal and median values in all cases were 3). Yet, in large companies it was significantly higher, at p=0.03 for international group trainings, and at p=0.002 for individual foreign projects and cross-border teams located abroad.

5. Patterns of IA usage within corporate knowledge flow in smaller companies

Identifying patterns of IA usage within flow required three-steps proceeding based on cluster analyses. This choice was based on two main reasons. First, the study aimed to grasp two equally important, though different aspects: (1) the extent to which KT is assigned to delegated employees as their key task/goal, and (2) the extent to which the company uses specific forms of IAs creating different context for knowledge flow. This entails the possibility of several configurations within both these areas. Second, such analyses allow to recognize common configurations of organizational practices occurring in the real world.

The starting point was to find the number of clusters within the sample characterized by these two separate aspects. In both cases the optimal number was three.

Subsidiaries were submitted to clusters analyses using the k-Means algorithm. (See Table 1). The F values show that in case of KT importance, all variables strongly and significantly discriminate between clusters. As for IA usage, both developmental forms of assignments (coaching/mentoring and group training) discriminate between clusters most strongly, while using individual foreign projects is weak, though still significantly.

Table 1: Mean scores and ANOVA results for distinguished subsidiary clusters

VARIABLES	Mean scores in clusters			Between groups SS	df	Within groups SS	df	F	P - value
KT importan.	*Low*	*Moderate*	*High*						
delegating to HQ	1.370	3.214	4.625	171.000	2	66.743	106	135.790	0.00000
delegating to other units	1.667	3.024	4.725	156.443	2	72.951	106	113.658	0.00000
sending from HQ	1.444	3.476	4.425	144.843	2	70.918	106	108.248	0.00000
sending from other units	1.518	2.738	4.550	157.130	2	58.760	106	141.728	0.00000
VARIABLES	Mean scores in clusters			Between groups SS	df	Within groups SS	df	F	P - value
Usage of:	*R. high*	*R. low*	*Low*						
cross-border coach/mentoring	3.816	2.029	1.639	100.205	2	84.987	106	62.490	0.00000
international group trainings	3.395	3.343	1.250	108.395	2	91.715	106	62.639	0.00000
individual foreign project	4.026	3.000	2.333	53.962	2	104.974	106	27.245	0.00000
cross-border teamwork abroad	3.921	2.343	1.722	95.523	2	87.871	106	57.615	0.00000

Source: own results

The third step aimed to find out the patterns emerging from companies' practice by combining both considered aspects. Pertaining to each aspect, distinguished categories represented three 'levels" ('low', 'moderate', and 'high' importance of KT in IAs, as well as 'low', 'rather low', and 'rather high' usage of specific IA forms), which generally could result in no more than nine configurations. Identification of the real configurations required a procedure analogous to that used previously. Thus, the optimal number of clusters was four. Due to analyses based on *k*-means clustering (adapted to non-quantitative variable and based on X^2 statistics, at p<0.01 for both aspects, with df: 6, and X^2 = 108.600 for 'importance of KT', 92.390 for 'IA usage') the following patterns of smaller subsidiaries' practices emerged: (1) 'Transfer-orientated' with high KT importance/rather low IA usage (39% of all smaller entities), (2) 'Inactive', in which both aspects were at the low level (37%), (3) 'Usage-orientated' with moderate importance if KT and rather high extent of IA usage (13%), and (4)'Bipolar' with high KT importance, and low IA usage (9%).

When comparing these patterns to large companies, most similar practices characterise entities belong to the 'usage-orientated' cluster and large companies. There was no significant difference between them with respect to all considered variables. 'Transfer-orientated' cluster and large companies significantly varied in terms of KT importance, which was clearly higher in smaller companies when sending employees to headquarters (p=0.001), and the opposite direction (p=0.001). This difference suggests that the former entities treat IAs as a crucial transfer method especially in relationships with the MNC's hub. There were significant differences between large companies and 'inactive' (p=0.01), as well as 'bipolar' cluster (p<0.05) for all specific IA forms.

6. Final comments

Due to the explorative nature of this study, it does not explain why these specific patterns were used in particular groups. However, an initial step towards such an explanation might consist of comparisons between these four clusters in terms of their (1) scope of direct relationships with other affiliates within the MNC (an ordinal variable based on unequal intervals), (2) intensity of employee cross-border flow within the last 2 years (as a ratio of the average annual number of IAs per 100 employees), (3) availability of suitable candidates for IAs (in the five-point Likert type scale), and 'structural characteristics' (i.e. age, profile and

sector of activity, mode of establishment, country of parent company's origin) as 'controls'. The first variable refers to the concept of corporate embeddedness of the subsidiary, according to network perspective, is an important factor associated with its involvement in corporate knowledge flow. The second variable reflects the occurrence of direct, interpersonal contacts within the corporate network, that plays a crucial role in building mutual trust and understanding, and thus tacit knowledge sharing. Additionally, high intensity might be an impetus to advance expatriation policies aimed at support assignees performance as knowledge transferors. The third variable informs about existence of constraints affecting the usage of IAs (including their usefulness in facilitating flow). Comparisons (in-pairs) of all clusters with respect to these three variables revealed significant differences between them. However, no significant difference was found with respect to 'structural characteristics'. Thus, initial exploration suggests, that future research devoted to usage of IAs in smaller companies aimed to facilitate knowledge flow, will benefit from combining the network perspective with expatriation-related aspects, such as policies and their outcomes.

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