University of Groningen

Expatriates as influencers in global work arrangements

Ahrens, Carolin; Oehmichen, Jana; Wolff, Michael

Published in:
Journal of World Business

DOI:
[10.1016/j.jwb.2018.01.002](https://doi.org/10.1016/j.jwb.2018.01.002)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2018

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Ahrens, C., Oehmichen, J., & Wolff, M. (2018). Expatriates as influencers in global work arrangements: Their impact on foreign-subsidary employees' ESOP participation. *Journal of World Business*, 53(4), 452-462. <https://doi.org/10.1016/j.jwb.2018.01.002>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Expatriates as influencers in global work arrangements: Their impact on foreign-subsidary employees' ESOP participation

Carolyn Ahrens^{a,*}, Jana Oehmichen^b, Michael Wolff^a

^a Chair of Management and Control, Georg-August-University Goettingen, Platz der Goettinger Sieben 3, 37073 Goettingen, Germany

^b Department of Innovation Management & Strategy, University of Groningen, Nettelbosje 2, 9747 AE Groningen, Netherlands

ARTICLE INFO

Keywords:

Employee stock-ownership plans
Expatriates
Distance
Subsidiaries
Knowledge-based view

ABSTRACT

Employee stock-ownership plans (ESOPs) offered by multinational enterprises (MNEs) present an attractive investment for employees. Puzzlingly, participation rates are often low, raising the question what drives ESOP participation on a global scale. Grounded in the knowledge-based view of expatriate research, we build on the notion of expatriates as implicit knowledge transferors within MNEs. We hypothesize a positive effect of expatriate ESOP participation on subsidiary-employee ESOP participation, which is even higher when a subsidiary-employee's distance toward the program and the firm is greater. Empirical results confirm our hypotheses suggesting that expatriates can be a mechanism to bridge the distance within MNEs.

1. Introduction

During the last few decades, employee stock-ownership plans (ESOPs) have become a relevant international human resource management (HRM) practice for multinational enterprises (MNEs). The European Federation of Employee Share Ownership (EFES) reports that 86% of European firms had some form of employee share plan in 2016 compared to 65% in 2006 (the survey covers 2,636 firms consisting of 25% of all European listed firms and majority-employee-owned non-listed firms) (EFES, 2016; see also Richter & Schrader, 2017 for further report details). Poutsma, Kalmi, and Pendleton (2006) confirm this notion in their survey among 209 publicly traded firms in four European countries; they reveal that over 60% of firms offer stock options to their employees. Moreover, prior empirical studies reveal that ESOPs can reduce employee turnover (e.g., Sengupta, Whitfield, & McNabb, 2007), can have positive effects on employee commitment (e.g., Jones & Kato, 1995; Rhodes & Steers, 1981), and can increase firm performance and productivity (e.g., O'Boyle, Patel, & Gonzalez-Mulé, 2016; Pendleton & Robinson, 2010; Sesil & Lin, 2011). These desirable effects of ESOPs are especially relevant for MNEs. Since employee fluctuation is high in MNEs and especially in their foreign subsidiaries (Zheng & Lamond, 2010), these firms are particularly interested in embedding employees within their subsidiaries to create a workforce that pulls together. However, the unfolding of these positive effects of ESOPs requires the participation of employees in such programs.

Generally, participation in ESOPs offers employees substantial benefits: On the one hand, the investment comes with financial benefits

such as dividends or additional free shares after a particular vesting period. On the other hand, the investment includes psychological benefits. Employees feel that the target of ownership belongs to them and they appreciate being a part of the whole. Paradoxically, former empirical studies show that participation rates are often low (Babenko & Sen, 2014; Engelhardt & Madrian, 2004; Jackson & Morgan, 2011) and there are still open questions regarding what influences an employee's decision to participate in an offered ESOP (Pendleton, 2010a). Taken together, this calls for a deeper understanding of the determinants of individual ESOP participation on a global scale.

We build on previous research about (1) expatriates (the term "expatriate" in our study refers to parent-country national expatriates; the exclusion of third-country national expatriates is in line with previous research (Ando & Paik, 2013; Belderbos & Heijltjes, 2005; Colakoglu & Caligiuri, 2008)) as knowledge transferors (e.g., Au & Fukuda, 2002; Bonache & Zarraga-Oberty, 2008; Chang, Gong, & Peng, 2012; Choi & Johanson, 2012; Harzing, Pudelko, & Reiche, 2016), and their influence on HRM practices (Ahlvik, Smale, & Sumelius, 2016; Björkman, Fey, & Park, 2007), and (2) the impact of distance (e.g., Ambos & Ambos, 2009; Kostova & Roth, 2002). Specifically, we raise the question regarding (1) how expatriates can influence foreign-subsidary employee ESOP participation, and (2) what role thematic and institutional distance play within this context.

To understand employees ESOP participation, we follow the idea that employees base their investment decision on an evaluation of both, the financial value and the value of psychological ownership that result from the ESOP investment. An increase of this evaluation also means an

* Corresponding author.

E-mail addresses: carolin.ahrens@wiwi.uni-goettingen.de (C. Ahrens), j.d.r.oehmichen@rug.nl (J. Oehmichen), michael.wolff@wiwi.uni-goettingen.de (M. Wolff).

increase in the likelihood of the employee's ESOP participation. Building on prior research that reveals the importance of peer effects regarding investment decisions (Duflo & Saez, 2002; Oehmichen, Wolff, & Zschoche, 2017), we assume that expatriates in an employee workgroup can influence both evaluation aspects: the financial value as well as the value of psychological ownership. Thus, we expect that expatriate ESOP participation will affect foreign-subsidary employee ESOP participation.

The empirical setting of this study is comprised of one large European MNE with subsidiaries worldwide that offers a global ESOP to almost all its employees. The examination of this European MNE presents us with a great opportunity to link to the “growing interest in the theme of financial participation of employees in Europe” (Poutsma & de Nijs, 2003: 863). In this study, we understand ESOPs as plans, where “workers can purchase, under favorable terms, common shares of the firm within a given time frame and at a given price, to be paid immediately or in installments” (Renaud, St-Onge, & Magnan, 2004: 121). In the studied MNE, the main idea behind the offered ESOP is that for every three shares held, participating employees will receive one additional matching share after a three-year vesting period. The ESOP and its communication is homogenous throughout the entire MNE, which allows for the assumption that subsidiary employees are familiar with the program.

Our key contributions are twofold. First, we adapt the knowledge-based view of expatriate research. Whereas previous research in this field has mainly focused on the transfer of explicit knowledge, which is often initiated by headquarters (e.g., Fang, Jiang, Makino, & Beamish, 2010; Minbaeva & Michailova, 2004; Rijsala & Suutari, 2004), we model the expatriate as a facilitator for channeling and adapting implicit knowledge – in our case the value of the ESOP. Through expatriate ESOP participation, subsidiary employees not only gain knowledge about the potential value, they also adapt this knowledge and participate in the ESOP themselves. By this, we aim to respond to (1) the request for a deeper understanding of the knowledge transfer within MNEs relating to individual behavior (Foss & Pedersen, 2004), and (2) expatriation literature that is “still nascent and requires higher order content” (Dabic, González-Loureiro, & Harvey, 2015: 316). Furthermore, we introduce moderating effects that shape the relationship between expatriates and subsidiary-employee ESOP participation and, thus, address the need to investigate contextual factors that might affect knowledge flows (Gonzalez & Chakraborty, 2014). Second, we add to the ESOP literature by providing evidence of additional ESOP participation determinants, which are of great relevance for the MNE context. To date, researchers have mainly focused on determinants of ESOP participation on individual (e.g., Babenko & Sen, 2014; Pendleton, 2010a), firm and program level (e.g., Caramelli & Carberry, 2014; Oehmichen et al., 2017). Hence, the influence of expatriates in the decision-making process of employees when it comes to ESOP participation has remained unconsidered. As our results indicate, the ESOP participation of expatriates affects the willingness of foreign-subsidary employees to participate in an offered ESOP. Thereby, we extend the ESOP participation literature by showing that expatriates can be a mechanism to foster the success of ESOP implementation.

2. Theory and hypotheses

ESOPs are plans that enable employees to hold shares in the firm in which they are working (Poutsma, de Nijs, & Poole, 2003). Usually, in these plans “a proportion of company shares is reserved for employees and offered at privileged terms” (Poutsma & de Nijs, 2003: 866). We will follow this definition in our study. Moreover, we focus on broad-based schemes, where most of the employees are eligible to participate and not just those employees from higher up in the hierarchy (Poutsma & de Nijs, 2003; Sesil, Kroumova, Blasi, & Kruse, 2002).

One major past research stream focuses on the potential outcomes of ESOPs (Kim & Patel, 2017; Ogonnaya, Daniels, & Nielsen, 2017;

Schrader, 2016, 2017;). These studies reveal that ESOPs can indeed increase job satisfaction (Buchko, 1993), motivation (Kalmi, Pendleton, & Poutsma, 2005), commitment (Buchko, 1992; Jones & Kato 1995; Long, 1978; Rhodes & Steers, 1981), firm performance and/or productivity (Blasi, Conte, & Kruse, 1996; Jones & Kato, 1993; O'Boyle et al., 2016; Pendleton & Robinson, 2010; Sesil & Lin, 2011), company survival (Blasi, Kruse, & Weltmann, 2013), and can reduce workplace turnover (Blasi, Freeman, & Kruse, 2016; Buchko, 1992; Sengupta et al., 2007). These findings show that ESOPs can be an important HRM practice in MNEs as they can embed foreign employees in distant subsidiaries, which makes high participation rates desirable for firms. However, past studies show that high participation rates are not very common in reality (Babenko & Sen, 2014; Engelhardt & Madrian, 2004; Jackson & Morgan, 2011), although such programs can present an attractive investment opportunity for employees. Thus, researchers reflected upon the determinants that motivate employees to participate in ESOPs by examining individual-level characteristics such as age, gender, education, tenure, and income (Babenko & Sen 2014; Munnell, Sundén, & Taylor, 2001; Pendleton, 2010a, 2010b), as well as firm- and program-level attributes (Caramelli & Carberry, 2014; Klein, 1987; Klein & Hall, 1988; Oehmichen et al., 2017).

Specifically, previous research has shown that the observed behavior of the employee workgroup can affect employee evaluation of the financial value as well as the value of psychological ownership associated with an ESOP investment. Both evaluations finally influence employee investment decisions (Oehmichen et al., 2017). In this study, we want to look deeper into the composition of the employee workgroup members and its effect on the participation decision by looking at the influence of expatriates in foreign subsidiaries. We argue that expatriates can affect an employee's ESOP evaluation positively, which in turn influences an employee's willingness to participate.

Previous studies have highlighted the importance of expatriates in MNEs (Edström & Galbraith, 1977; Harzing, 2001a) and their role when it comes to managing headquarters' subsidiary relations (Chang et al., 2012; Harzing, 2001b; Kostova, Marano, & Tallman, 2016; Wang, Tong, & Koh, 2004; Wang, Tong, Chen, & Kim, 2009). According to the knowledge-based view MNEs are able to transfer and exploit knowledge across boundaries to achieve superior firm goals (Almeida, Song, & Grant, 2002; Grant, 1996). Research highlights that expatriates can be seen as carriers and transferors of knowledge (e.g., Fang et al., 2010; Harzing et al., 2016), who are expected to align the interests of subsidiaries with those of the headquarters (Edström & Galbraith, 1977). We conceptualize expatriates as implicit knowledge facilitators and assume that their ESOP participation positively influences foreign-subsidary ESOP participation. We expect this expatriate effect to be higher in subsidiaries that are more distant. Thus, they might be a possible mechanism to bridge the distance within MNEs in order to facilitate ESOP participation in foreign subsidiaries.

2.1. Expatriate ESOP participation

Peer effects can play an important role when it comes to participation and investment decisions (Duflo & Saez, 2002; Oehmichen et al., 2017). Therefore, to assess the financial value and the value of psychological ownership associated with an ESOP investment, we propose that employees refer to the behavior of their workgroup (here: participating expatriates). Commonly, expatriates have worked within the firm over a longer period and are considered as socialized before they leave to work abroad (Naumann, 1992; Tan & Mahoney, 2006). Therefore, they are expected to identify with the parent's global strategic goals (Kobrin, 1988) and to understand the corporate policy of the headquarters (Kuemmerle, 1997). For example, in our sample, expatriates work on average three years longer within our studied MNE.

General expatriation research highlighted the role of expatriates when looking at knowledge flows from headquarters to the subsidiary (i.e., corporate philosophy, policies, and procedures) (Downes &

Thomas, 2000; Gonzalez & Chakraborty, 2014) and their ability to act as boundary spanners within firms (Au & Fukuda, 2002). Furthermore, research has already shown that individuals sent from headquarters are treated as “knowledge carriers” who offer direct personal experience and individual knowledge to the subsidiary (Delios & Björkman, 2000; Minbaeva & Michailova, 2004). As “interpersonal-level knowledge exchanges [take] place within ongoing social interaction [...], and may or may not be planned or even intentional” (Mäkelä, 2007: 111) and implicit knowledge is embedded in people’s experience and is rooted in action and commitment (Nonaka, Toyama, & Konno, 2000), we conceptualize expatriate ESOP participation as one form of implicit knowledge transfer.

Further, we follow Bonache and Zarraga-Oberty’s (2008) perspective that the kind of influence that expatriates have especially depends on the individual characteristics of the assignee instead of on organizational-level assignment characteristics. We assume that when subsidiary employees get aware of expatriate ESOP participation, their own ESOP participation is triggered, because both human interaction and the observation of behavior present ideal ways in which to transfer knowledge (Riusala & Smale, 2007). Due to the central position of expatriates within the knowledge-transfer process (Riusala & Suutari, 2004) and their perceived trustworthiness (Björkman, Barner-Rasmussen, & Li, 2004), we expect that, in fact, expatriate ESOP participation will trigger two mechanisms that influence a subsidiary employee’s ESOP evaluation. First, expatriates positively influence subsidiary-employee evaluation of the ESOP’s financial value. Subsidiary employees might link the expatriate’s personal network within headquarters (Farh, Bartol, Shapiro, & Shin, 2010; Gupta & Govindarajan, 2000; Reiche, Harzing, & Kraimer, 2009) to an information advantage regarding an in-depth look at the MNE. Employees in host countries are probably less likely to be familiar with the program. Through personal interaction between expatriates and subsidiary employees (Choi & Johanson, 2012), access is gained to more detailed information, for example, about the past advantageousness of the program. Consequently, we claim that the observation of expatriate ESOP participation increases information, decreases perceived uncertainty and risk surrounding the potential investment, and signals that the purchase of firm stock is a good investment with considerable benefits.

Second, expatriates affect the evaluation of the psychological value positively. Summarized by Pierce, Kostova, and Dirks (2003), psychological ownership fulfills three human motives: “efficacy and effectiveness, self-identity, and having a place (home)” (Pierce et al., 2003: 91). One way to achieve psychological ownership is to invest in the target (Pierce, Rubinfeld, & Morgan, 1991). Building on research that emphasizes collective psychological ownership (Pierce & Jussila, 2010), we assume that expatriates within a subsidiary-employee’s workgroup make the MNE appear to be closer: The headquarters’ abstractness diminishes—which also leads to a greater awareness of headquarters’ practices—employees start to occupy themselves with the firm’s values, and the need for belonging increases. Consequently, the enhanced feeling of belonging results in a higher evaluation of the psychological value.

Taken together, both evaluation aspects are conditions for a subsidiary-employee’s willingness to participate and they increase the demand for such investment products. In summary, we conceptualize expatriates as implicit knowledge transferors whose ESOP participation enhances the financial and psychological evaluation of the investment, which leads to an increased likelihood of subsidiary-employee ESOP participation.

Hypothesis 1. The participation of expatriates in ESOPs has positive effects on ESOP participation by foreign-subsidiary employees.

2.2. Workgroup contingencies

Research on individual ESOP participation indicates that (1)

differences in investment decisions exist (Sundén & Surette, 1998) and (2) certain individual-level characteristics determine participation (e.g., Babenko & Sen, 2014; Huberman, Iyengar, & Jiang, 2007). We expect that these characteristics can result in a distance toward the program (we label this as *Thematic Distance*), which in turn influences the effect of expatriate ESOP participation on subsidiary-employee ESOP participation. More precisely, we assume that expatriates influence organizational workgroups to different degrees of intensity according to the composition of the workgroups. We see thematic distance as an expression of an employee’s distance toward the topic (here: ESOPs, and more generally, stocks) and we derive thematic distance from past research that has already shown that blue-collar workers are less involved in financial participation (Sundén & Surette, 1998) and that manual workers are less likely to participate than managers are (Welz & Fernández-Macías, 2008).

One potential reason for non-participation might be the worker’s level of education and financial literacy. For example, Lusardi and Mitchell (2007) developed a module on financial literacy and found that financial illiteracy was especially present in groups with a low educational background. Additionally, individuals who lack financial literacy are less likely to participate in the stock market (van Rooij, Lusardi, & Alessie, 2011). These findings are in line with empirical research on ESOP participation that shows a decreased propensity for participation in those with a lower level of education (Babenko & Sen, 2014; Bassett, Fleming, & Rodrigues, 1998). As workers in production have, on average, lower levels of education, we assume that these employees are less familiar with stocks and have a reduced understanding of the program, which can be labeled as an “imperfect knowledge of the plan” (Engelhardt & Madrian, 2004). In our sample, 27% of workers in production have a bachelor’s or master’s degree compared to 60% of non-production workers. Especially less educated people might be confronted with greater “setup” and transaction costs regarding their decision as to whether to join or not (Bassett et al., 1998; Huberman et al., 2007).

Another reason might be the working environment. Daily work tasks for employees in production do not normally include stock dealing and production workers might have less information about firm numbers as they are more involved in operating the business. Findings from French and Rosenstein (1984) suggest that information deficiencies are more likely to hinder the participation of blue-collar workers. Therefore, we assume that workers in production perceive that there is a greater distance to the program than, for example, employees in the finance department do, and thus the likelihood of ESOP participation is generally smaller. Observed by Hammer and Stern (1980), the second main reason for blue-collar workers buying stock in their firms was to follow the example of other participants (compared to other organizational groups). Thus, they are probably more open to outside influences coming from their direct workgroup.

These points lead us to the conclusion that workgroup-level characteristics can result in a weaker connection to the program and that the participation of expatriates plays a more important role. Observed expatriate ESOP participation increases the understanding of the program and therefore reduces distance, which leads to a more positive evaluation of the program’s outcomes.

In summary, we argue that thematic distance moderates the effect of expatriate ESOP participation on subsidiary-employee participation, that is, the expatriate effect is stronger in subsidiaries that are more distant.

Hypothesis 2. The positive effect of expatriate ESOP participation on the ESOP participation of foreign-subsidiary employees is stronger when the thematic distance is greater.

2.3. Institutional contingencies

In the context of MNEs, formal and informal institutions shape

“socially acceptable patterns of organizational structures and practices” (Li, Jiang, & Shen, 2015: 2), leading to differences in institutional environments between the home and host countries (Pache & Santos, 2010). In line with previous studies that have shown that institutions can influence the behavior of individuals (Jackson, 2010; North, 1990), we expect that different institutions between headquarters and the host countries create additional distances to the program and the firm. For example, employees in countries with unstable stock markets might often perceive that there is a greater distance to the program. Alternatively, employees in countries with less well-protected labor rights might feel generally less devoted to their employers, leading to a greater distance toward the firm. We assume that both distance aspects can influence the ESOP participation of employees insofar as they will evaluate the ESOP investment as less valuable and thus their willingness to participate will decrease.

As proposed by Kostova (1999), greater institutional distance leads to a more difficult transfer of strategic routines to foreign subsidiaries, and Kostova and Roth's (2002) study showed that the adoption of an organizational practice by foreign subsidiaries is affected by institutional distance. A great distance between headquarters and host countries can lead to different individual behavior (Kostova & Zaheer, 1999) and the transfer of practices becomes more difficult, which may result in a greater reluctance by employees to take part in ownership programs since distance decreases the likelihood of practice adoption (Almeida & Phene, 2004; Kostova, 1999).

The institutional environment can create distance to the program and the firm, leading to a worse evaluation of the ESOP. Hence, we assume that institutional distance moderates the effect of expatriate ESOP participation on foreign-subsidiary employee ESOP participation. We presume that expatriates might be a mechanism to bridge the distance. Employees in countries that are more distant to the home country may feel less connected to the MNE. However, the observation of expatriate ESOP participation reduces distance and employees evaluate the outcomes of the program as more valuable. More specifically, we assume that this effect is stronger when the distance is greater, whereas employees in less distant countries may not be that dependent on expatriate ESOP participation to evaluate the program's outcomes, and thus the impact is smaller.

Hence, we argue that institutional distance moderates the effect of expatriate ESOP participation on individual ESOP participation. More precisely, we expect that expatriates who participate in the ESOP exert a stronger influence on subsidiary-employee ESOP participation when the distance is greater.

Hypothesis 3. The positive effect of expatriate ESOP participation on the ESOP participation of foreign-subsidiary employees is stronger when the institutional distance is greater.

3. Data and the definition of variables

3.1. Sample construction

We tested our hypotheses with internal firm data from a large industrial MNE located in Europe and with subsidiaries worldwide. The MNE is highly diversified with independent operating organizational units in heterogeneous business areas. We used employee data from 2012 regarding ESOP participation and individual-level demographic information. The firm offers every employee the opportunity to participate in the same ESOP on a voluntarily basis, given that headquarters owns more than 50% of the subsidiary and the subsidiary has more than 50 employees. Our sample presents us with a great opportunity to examine our hypotheses. First, the main idea of the ESOP is to buy three shares and get one additional share after a vesting period of three years, which makes it, from an economic point of view, very attractive for participants. The solid share-price development of the firm during the last few years underlines the economic attractiveness. Additionally,

employees can decide what amount they would like to invest and the program design allows for very small investments, which might be crucial for production workers in low-wage countries. Second, the MNE rolled out a global communication project to promote the ESOP in all its subsidiaries after its rollout. Therefore, all employees are likely to have some basic and identical knowledge about the existence of the ESOP. Third, the idea of making employees co-owners of the firm is deeply rooted in the firm's tradition. Employees working in the firm's home country have been able to buy shares for decades. However, the global rollout of the program only took place in 2008. This means that expatriates coming from the headquarters are likely to be more familiar with the program than their foreign colleagues are. As the headquarters introduced and centrally manages the ESOP, we see expatriates as a good mechanism that further facilitates ESOP diffusion from headquarters to the subsidiaries.

The single-case design provides a controlled environment that eliminates potential firm effects on participation. On the one hand, the design of the ESOP is the same throughout the MNE. Every eligible employee can participate in the same plan. Additionally, the program is not tax optimized, which means that the general setup is similar and the program itself is homogenous. On the other hand, we have a high degree of internal heterogeneity, as the MNE operates in many different industries and countries. Taken together, our model neither suffers from the effects of plan heterogeneity nor from any nonresponse bias, because employees in our dataset are eligible for the same plan and the ESOP attributes are constant. Additionally, the analysis of subsidiaries located within one single MNE enables us to take a more nuanced view of the influence of expatriates sent from headquarters to subsidiaries.

As we find a high degree of heterogeneity between all subsidiaries and due to the relatively small number of subsidiaries with expatriates, we decided to use a matched-sample approach to concentrate on the effect of expatriates. This sampling approach minimizes the probability that other differences between subsidiaries with and without expatriates cause our findings. We used a matched-pair analysis and defined a set of characteristics to form the pairs. To develop the sample, we first identified organizational groups with at least one participating expatriate in the ESOP, generating a sample of 293 organizational units. We then applied propensity score matching using Stata's *psmatch2* command to identify the matched pair (control group). We used a one-to-one match (nearest-neighbor matching) to identify, for each of the 293 organizational units, another organizational unit with no expatriates. The propensity score was a function of organizational unit attributes, including country, size, and the proportion of employees working in production. After excluding very small organizational units (< 2 employees), our final sample consists of 3974 employees in 442 organizational groups across 21 countries. The countries are Australia, Austria, Belgium, Brazil, China, the Czech Republic, Denmark, France, India, Italy, Malaysia, Mexico, the Netherlands, Norway, Portugal, Singapore, Spain, Switzerland, Turkey, the United Kingdom, and the United States.

3.2. Variables

We used *ESOP Participation* as the dependent variable that takes a value of 1 if the employee took part in the offered ESOP in 2012, and 0 otherwise.

To depict the influence of expatriates, we identified in a first step those employees who were citizens in the country of the headquarters and had been sent on a foreign assignment. To do this, we used information on the nationality and the working country of each employee from the MNE's internal human resource (HR) database. We compared an employee's nationality with the country where the headquarters was located. If this was equal and the country of employment was different from the headquarters' country, then the employee was considered as an expatriate and the dummy variable was coded as 1, and as 0 otherwise. In order to refine the definition of expatriates, we included

in a second step only those who had been on assignment for a minimum of at least two years. We did this for two reasons. First, the minimum stay of two years is considered to be relevant, because the expatriate should have overcome the initial problems with adjustment and cultural shock (Holopainen & Björkman, 2005). As role models evolve over time (Schaubroeck, Peng, & Hannah, 2012), employees from subsidiaries need time to orientate their ESOP participation decision toward the expatriate's ESOP participation. Second, interaction with local nationals increases with the time spent on assignment (Janssens, 1995). Therefore, we argue that the expatriate's influence becomes more apparent after a while. To measure our final independent variable *Expatriate ESOP Participation*, we calculated the percentage of participating expatriates per organizational unit for each employee. We did this by summing up the participating expatriates per organizational unit and dividing it by the total number of employees per organizational unit.

We used two distance measures to test our second and third hypotheses. First, we employed *Thematic Distance* to test the moderating effect of workgroup-level contingencies. We assumed that production workers would have lower levels of education and, therefore, that they would experience greater financial illiteracy (Lusardi & Mitchell, 2007). We used information from the internal firm HR database to identify employees working in production. Afterwards, we constructed a dummy variable, which took a value of 1 when the organizational unit consisted of only production workers, and 0 otherwise.

Second, we used *Administrative Distance* to capture the moderating effect of institutional contingencies. The institutional literature has already highlighted differences in bureaucratic patterns (Ghemawat, 2001; Henisz, 2000; La Porta, Lopez-De-Silanes, Shleifer, & Vishny, 1998). Our institutional distance measure comes from Berry, Guillén, and Zhou (2010), and includes “differences in colonial ties, language, religion, and legal systems” (Berry et al., 2010: 1464). Berry et al. (2010: 1467) point out that “administrative distance [...] goes beyond national political systems to include both formal and informal institutional arrangements.”

Additionally, we included in our analyses a number of control variables on the individual, workgroup, and institutional level to control for effects that might influence individual ESOP participation. On the individual level, we considered the following variables: *Gender* is a dummy variable taking a value of 1 for a male, and 0 for a female. We measured *Life Experience* as the logarithm of age and *Work Experience* as the logarithm of tenure, both in years. We coded *Education* as 1 if the employee had a master's degree as his/her highest educational level, and 0 otherwise. We also controlled for the employee's position level by coding *Superior* as 1 if the employee was a senior manager, and 0 otherwise. Additionally, we used the variable *Temporary* that refers to the type of subsidiary-employee working contract, which can be temporary or permanent. We coded *Temporary* as 1 when the employee had a temporary contract, and as 0 when the employee had a permanent contract.

On the organizational level, we considered *Superior Behavior*, which equals 1 if a superior within the organizational group participates in the ESOP, and *Group Behavior* as the proportion of participating employees within the organizational unit. We controlled for *Group Size* measured as the logarithm of the number of employees in each workgroup. Furthermore, we included an aggregated *Blau Index* of the heterogeneity of the individual determinants (Miller & Triana, 2009; Yamin & Otto, 2004), because a high homogeneity of employees toward a close workgroup could bias the participation behavior of employees.

On the institutional level, we follow previous research (Oehmichen et al., 2017) to control for the impact of local institutional features as an explanation for the differential ESOP take-up. We used a *Void Index* drawn from the 2013 Worldwide Governance Indicators (Kaufmann, Kraay, & Mastruzzi, 2013), which includes the following four institutional variables: political stability, government effectiveness, regulatory quality, and role of law. The *Void Index* reflects upon individual

property rights and contract enforcement that can lead to transaction costs associated with an ESOP investment. We used a reverse scale and standardized the scale on the 0 to 1 interval. Furthermore, we included *Stocks Traded* (Winsorized at the 1% level) based on the World Development Indicators (World Bank, 2013) and calculated this as the total value of stocks traded as a percent of GDP in 2012. The assumption behind this control variable is to account for the relevance of capital markets and the likelihood of general investments in stocks within each country.

3.3. Empirical design

Our interest lies in a binary variable—the employee's choice of whether to participate (or not) in the offered ESOP—and, therefore, we decided to specify a logit model. We used Model 1 to test H1 (the effect of expatriate ESOP participation) and Model 2 (H2) and Model 3 (H3) to test our distance measures as moderators for the relationship between expatriate ESOP participation and subsidiary-employee ESOP participation. The variables in the interaction terms were mean-centered to reduce issues of multicollinearity (Aiken & West, 1991).

4. Results

Our final sample included 3974 individuals nested in 442 organizational workgroups across 21 countries. Table 1 depicts the descriptive statistics for our variables as well as a correlation matrix. As our variance inflation factors are smaller than 3.49, we do not expect multicollinearity to seriously affect our results.

Table 2 reports our results of the regression analyses and the tests of our three hypotheses. H1 predicts that expatriate ESOP participation increases the ESOP participation of foreign-subsidary employees. Our findings in Model 1 support H1 and show a significant positive effect of *Expatriate ESOP Participation*.

The analysis of the interaction effects shows the following: The interaction terms of *Expatriate ESOP Participation* with *Thematic Distance* and *Administrative Distance* are significant in Model 2 and Model 3. We expected that the workgroup level as well as institutional contingencies would moderate the impact of expatriate ESOP participation on subsidiary-employee participation and expected an enhanced influence on individual ESOP participation. In nonlinear models (here: logit), the interpretation of interaction effects cannot be solely derived from the sign, magnitude, and significance of the coefficient (Hoetker, 2007), because they can vary across different observations (Huang & Shields, 2000). Hoetker (2007) recommends the use of a graphical presentation to gain a better understanding of the effect, which is also demanded and applied by other researchers (Maekelburger, Schwens, & Kabst, 2012; Zelner, 2009). Therefore, we plotted our interaction effects. Fig. 1 shows the probability of *ESOP Participation* at different *Expatriate ESOP Participation* levels for low and high values of our first interaction variable *Thematic Distance*. Fig. 2 shows the probability of *ESOP Participation* at different *Expatriate ESOP Participation* levels for low and high values of our second interaction variable *Administrative Distance*.

In Fig. 1, we see a steeper positive increase of the line for high values of *Thematic Distance*, which supports H2 and shows that *Expatriate ESOP Participation* has a stronger effect when the distance is greater. Fig. 2 also shows a steeper increase of the line for high values of *Administrative Distance*. The graphical presentation suggests that expatriates exert a stronger influence on a subsidiary-employee's willingness to participate in the ESOP if the distance is greater. This provides evidence for H3.

In summary, our empirical results confirm that expatriates are a factor that can shape a subsidiary-employee's willingness to participate in ESOPs and that thematic and institutional distance moderates the mentioned relationship. Generally, our results suggest that distance is an intensifying moderator for the expatriate effect underlying the importance of expatriates in more distant subsidiaries.

Table 1
Descriptive Statistics Means, Standard Deviations, and Correlations Among Variables.

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 ESOP Participation	0.21	0.41	1.00															
2 Expatriate ESOP Participation	0.06	0.09	0.22**	1.00														
3 Thematic Distance	0.33	0.47	-0.09**	-0.21**	1.00													
4 Administrative Distance	11.19	10.09	-0.12**	-0.13**	0.21**	1.00												
5 Gender	0.77	0.42	0.10**	-0.05**	0.13**	0.01	1.00											
6 Life Experience (log)	3.70	0.25	0.09**	0.08**	0.05**	-0.20**	0.13**	1.00										
7 Work Experience (log)	2.91	0.99	0.14**	0.11**	-0.05**	-0.28**	0.08**	0.59**	1.00									
8 Education	0.18	0.39	0.10**	0.08**	-0.20**	-0.17**	0.03**	-0.01**	0.06**	1.00								
9 Superior	0.02	0.14	0.13**	0.14**	-0.10**	-0.02**	0.04**	0.10**	0.06**	0.07**	1.00							
10 Temporary	0.13	0.34	-0.03**	-0.06**	-0.25**	-0.07**	-0.06**	-0.29**	-0.35**	0.04**	0.04**	1.00						
11 Superior Behavior	0.07	0.26	0.07**	0.24**	-0.19**	0.04**	-0.08**	0.03**	-0.01**	0.03**	0.33**	0.08**	1.00					
12 Group Behavior	0.21	0.18	0.44**	0.51**	-0.19**	-0.28**	0.05**	0.12**	0.16**	0.18**	0.07**	-0.05**	0.15**	1.00				
13 Group Size (log)	2.60	0.95	-0.15**	-0.47**	0.34**	0.33**	0.09**	-0.18**	-0.15**	-0.15**	-0.15**	0.12**	-0.16**	-0.33**	1.00			
14 Blau Index	2.65	2.68	0.08**	0.36**	-0.65**	-0.21**	-0.35**	0.08**	0.15**	0.04**	0.20**	-0.05**	0.33**	0.19**	-0.60**	1.00		
15 Stocks Traded	75.06	35.09	0.08**	0.12**	-0.10**	-0.57**	-0.02**	0.18**	0.19**	0.09**	0.04**	-0.09**	0.04**	0.18**	-0.29**	0.23**	1.00	
16 Void Index	1.22	0.99	-0.07**	-0.09**	-0.25**	0.21**	-0.10**	-0.33**	-0.28**	0.00	0.05**	0.64**	0.14**	-0.16**	0.24**	-0.04**	-0.38**	1.00

N (individual level) = 3,974; n (workgroup level) = 442; n (country level) = 21.

** p < 0.05.

5. Conclusion

The objective of our study was to shed further light on the determinants that influence individual ESOP participation and the impact of distance. We build on the paradox that despite attractive programs, participation rates are often low. We argue that ESOP participation depends on an employee's financial and psychological evaluation of the program's outcomes. Within our multinational context, we identified expatriates as an appropriate research object to examine foreign-sub-sidiary employee ESOP participation. We draw on the knowledge-based view to conceptualize expatriates as individual knowledge transferors and hypothesize that expatriate ESOP participation shapes the subsidiary-employees' financial and psychological evaluation of the offered ESOP. The enhanced evaluation leads to an increased likelihood of participation and we assumed thematic and institutional distance to function as moderators. Our empirical results indicate that expatriate ESOP participation positively influences foreign-sub-sidiary employees' willingness to participate in ESOPs and findings for our distance moderator variables revealed that expatriate effects are stronger in subsidiaries that are more distant from the MNE's headquarters. Summarized, our findings confirm our developed hypotheses and provide an indication that expatriates might foster ESOP participation and might function as a mechanism to bridge the distance within an MNE.

These findings lead us to our key contributions. First, we adapt the knowledge-based view of expatriate research. Noted by Foss and Pedersen (2004) research on knowledge transfer in MNEs needs to address the underlying micro-foundations to ponder the relation between individual behavior and knowledge transfer. Adapting the knowledge-based view of expatriate research, our study enables us to take a more nuanced view of expatriates as knowledge facilitators that can transfer implicit knowledge and make it adaptable. These findings extend the expatriate literature where the focus has often been on knowledge transfer, which is initiated and facilitated by headquarters (e.g., Fang et al., 2010; Minbaeva & Michailova, 2004; Riusala & Suutari, 2004). Thereby we respond to the proposed research agenda in the field of expatriate outcomes (Dabic et al., 2015), more precisely to the call "to assess the impact of expatriates on several performance indicators, most of them related to any type of intangible outcomes (e.g. [...] knowledge transfer [...])" (Dabic et al., 2015: 332). The role of expatriates as implicit knowledge transferors represents a valuable link that connects headquarters and subsidiaries not only in terms of knowledge transfer, but also in terms of improved knowledge adoption. Prior research shows that expatriates do not necessarily improve the local adaption of knowledge (Fang et al., 2010; Mezias, 2002), but our findings suggest that expatriate ESOP participation increases subsidiary-employee ESOP participation indicating that subsidiary-employees adapt the implicit knowledge. Additionally, our study directly speaks to Gonzalez & Chakraborty's (2014) call to "include contextual factors that could indirectly affect knowledge need and flow as moderators" (Gonzalez & Chakraborty, 2014: 309). Our study pinpoints the specific mechanism by which thematic and institutional distance affect the role of expatriates in the implicit knowledge transfer within MNEs. Whereas prior research mainly focused on the direct effect of expatriates on the transferred knowledge, our results advance scholarly understanding by showing that the expatriate effect depends, at least to some degree, on the distance between headquarters and subsidiaries. The transfer of implicit knowledge via expatriates is more important when distance is high.

Second, we add another determinant to current ESOP research for individual ESOP participation. Thus, we follow a recent trend whereby the individual decision to participate is in focus and the reasons why firms offer ESOPs recede (Jackson & Morgan, 2011). Drawing on an employee's evaluation of the program, we add empirical evidence that expatriate ESOP participation might be a source for subsidiary employees to assess the financial value of the investment and the value of psychological ownership. Furthermore, we argued that the willingness

Table 2
Regression Results.

Dependent variable: ESOP Participation	Model 1			Model 2			Model 3		
Variables	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.	Coef.	Std. Err.	Sig.
Expatriate ESOP Participation	0.67	0.22	***	1.24	0.31	***	0.75	0.23	***
Thematic Distance	–			0.00	0.12		–		
Administrative Distance	–			–			0.00	0.00	
Expatriate ESOP Participation x Thematic Distance	–			1.24	0.55	**	–		
Expatriate ESOP Participation x Administrative Distance	–			–			0.06	0.03	**
<i>Individual-level controls</i>									
Gender	0.61	0.14	***	0.62	0.15	***	0.61	0.14	***
Life Experience	–0.41	0.22	*	–0.40	0.22	*	–0.40	0.22	*
Work Experience	0.25	0.06	***	0.26	0.06	***	0.27	0.06	***
Education	0.15	0.10		0.16	0.10		0.17	0.10	*
Superior	1.57	0.29	***	1.56	0.29	***	1.58	0.29	***
Temporary	0.15	0.22		0.16	0.23		0.20	0.23	
<i>Workgroup-level controls</i>									
Superior Behavior	–0.24	0.09	***	–0.24	0.09	***	–0.31	0.09	***
Group Behavior	6.21	0.19	***	6.21	0.18	***	6.29	0.18	***
Group Size	0.17	0.04	***	0.19	0.04	***	0.17	0.04	***
Blau Index	0.03	0.01	*	0.04	0.02	*	0.03	0.01	*
<i>Institutional-level controls</i>									
Stocks Traded	0.00	0.00		0.00	0.00		0.00	0.00	**
Void Index	–0.02	0.07		–0.01	0.07		–0.02	0.07	
Constant	–3.35	0.79	***	–3.46	0.79	***	–3.50	0.79	***
N	3.974			3.974			3.974		
Model	Logit			Logit			Logit		

N (individual level) = 3.974; n (workgroup level) = 442; n (country level) = 21.

* $p < 0.10$.

** $p < 0.05$.

*** $p < 0.01$.

Fig. 1. Predicted Probabilities and Confidence Intervals for Low vs. High Thematic Distance.

Fig. 2. Predicted Probabilities and Confidence Intervals for Low vs. High Administrative Distance.

to participate in ESOPs depends on the distance to the program and the distance to the firm itself. Our empirical findings suggest that expatriates in a subsidiary-employee workgroup can reduce these distances. Additionally, our results provide further evidence that a workgroup-level focus is an appropriate and important approach for understanding individual ESOP participation, which is also in line with recent psychological ownership literature that underscores psychological ownership as a collective construct (Pierce & Jussila, 2010).

In a broader context our results are also of interest for the current debate on differences in HRM practice adoption in international business research (Brewster & Farndale, 2017; Le, Brewster, Demirbag, & Wood, 2013). Our findings about country-level contingencies (such as institutional distance) underline the importance of considering the institutional setting of each MNE subsidiary when implementing HRM practices. Additionally, within the discussion about HRM practices the role of temporary workers could be of particular interest. Whereas our

study does not show any significant effect of temporary contracts on ESOP participation, we would expect that temporary contracts would have an effect on the effectiveness of HRM practices in general (and especially ESOP participation). Future research could build on previous studies that indicate a reduction of identification and loyalty with the firm and higher turnover rates of temporary workers (Koene & Van Riemsdijk, 2005; Ward, Grimshaw, Rubery, & Beynon, 2001) and challenge whether HRM practices such as ESOPs would be able to, at least partly, substitute these effects and consequently reduce the turnover among temporary workers.

From a more practical point of view, our findings suggest that MNEs should take a strong interest in the expatriation process. Expatriates can function as multipliers, not only in terms of their professional expertise, but also, and at least equally importantly, in terms of their expertise with organizational practices. This is in line with previous research showing that expatriates not only transfer technical and managerial

skills, but also facilitate the transfer of organizational knowledge (Hocking, Brown, & Harzing, 2004). Which conclusions should MNEs now draw from our results with respect to the successful implementation of ESOPs in subsidiaries? As the use of expatriates often creates considerable costs (Collings, Scullion, & Morley, 2007; Wang et al., 2009) and the use of inpatriates might be an alternative beneficial assignment strategy (Reiche, 2007; Sarabi, Froese, & Hamori, 2017), we do not suggest increasing the number of expatriates in MNEs, but rather we suggest that more attention should be paid to pre-assignment preparation. Generally, expatriates should be loaded with implicit knowledge (here: participation in the offered ESOP). Hence, providing expatriates with specific training that raises their awareness of the ESOP could achieve positive effects. Ideally, expatriates should be convinced of the value of the ESOP before they start their assignments abroad. Especially when the distance is substantial, the relevant IHRM team should keep in mind that this “knowledge loading” is even more important, because expatriate ESOP participation shapes subsidiary-employee willingness to participate even more positively.

Despite the implications and contributions, our study is not without limitations. Nevertheless, these limitations might represent interesting opportunities for future research. First, due to reasons of data availability, we used a single-firm research design. The design gives us the opportunity to control for potential firm-level and program-level effects. However, the single-firm approach might also limit the generalizability of our results. Furthermore, our single-firm research design does not allow us to investigate the potential effects of the headquarters. As the headquarters' characteristics might also create distance within MNEs, future research could use a multi-firm study to examine (1) if the influence of expatriates is stronger when these headquarters' distances are greater, and (2) if expatriates might be able to bridge this form of distance, too. Furthermore, our single-firm research design does not allow us to identify firm characteristics that might influence firm-level decisions to adopt an ESOP. Future research could provide more insights into factors predicting the introduction of ESOPs, thus complementing and extending results from Kruse (1996), Poutsma et al. (2003), Jones and Kato (1993), and Useem and Gager (1996), who have identified, among others, firm size, employment growth, and the threat of hostile takeovers as significant ESOP determinants. Researchers could investigate whether firms that operate in a variety of countries are more likely to adopt an ESOP, because ESOP outcomes might be even more valuable. As an MNE's workforce is very diverse (Hinds, Liu, & Lyon, 2011) and the retention of subsidiary employees is a key challenge to MNEs (Hitotsuyanagi-Hansel, Froese, & Pak, 2016), MNEs are especially interested in embedding employees in all their subsidiaries. In line with the perspective that HRM shifts from “a support function to a strategic dimension” (Teagarden & von Glinow, 1997: 8), the likelihood of ESOP adoption might be higher for firms with subsidiaries worldwide. Additionally, in times of increased social responsibility and the presence of institutional environments that do not always provide secure investment opportunities or old-age provisions, firms might see their responsibility of offering profitable investment

opportunities to their employees as helping to achieve a guaranteed living. Thus, future studies could examine if firms pursue the approach of making employees shareholders due to social reasons.

Second, we want to mention a challenge in relation to a limitation in the methodological setup. Our method is not able to shed light on the “black box” of employee behavior when it comes to ESOP participation. Unfortunately, most researchers face this weakness when their analyses are based on secondary data. Our study is only able to include demographic attributes regarding individuals, whereas certain attitudes or preferences of each employee remain unconsidered. To challenge the underlying behavioral mechanisms of our reported findings, we suggest complementing the results with other research methods (see e.g., Ahlvik et al., 2016; Chang et al., 2012; ul Haq, Drogendijk, & Blankenburg Holm, 2017). To gain a deeper understanding of the so-called black box, researchers could adopt a qualitative research approach consisting of interviews and comparative case studies. This research approach could be used to examine if expatriates do discuss issues related to ESOP participation and if subsidiary employees indeed orient their ESOP participation to the ESOP participation of expatriates.

Third, another limitation of our study is linked to our assumption of expatriates being exogenous. We recognize that the use of international assignments within MNEs can be the result of reorganization to overcome institutional difficulties. Firms might even align their strategy of sending expatriates with the introduction of an ESOP. In our case, we know from our specific firm that the ESOP and the sending strategy are independent, but we see the potential for future studies in this regard. The examination of an MNE's reaction to this effect of expatriates on the participation in ESOPs via a change in its sending strategies (and when considering interdependencies with the institutional context) could be an interesting research question, extending our understanding of the reasons behind international assignments. In particular, future research could examine factors that drive a change in the sending strategy of MNEs such as unsuccessful implementations of HRM practices and institutional difficulties that can even intensify these constraints.

Finally, our results might be a first indication for potential expatriate role-model effects in such a way that subsidiary employees imitate expatriate behavior. Unfortunately, our data do not allow us to systematically explore this aspect as we do not measure specific role-model effects. Consequently, we leave this discussion for future studies and hope that other researchers will go deeper into the examination of the potential role-model effects of expatriates.

To sum up, our study adds to the understanding of the determinants of individual ESOP participation, and the moderating role of thematic and institutional distance. As one central element of the knowledge transfer within MNEs, we identified expatriates as a possible source of influence for foreign-subsidiary employee decisions to invest in an offered ESOP and we shed light on the role of distance. We hope our study inspires future researchers to identify further sources of influence for foreign-subsidiary employee ESOP participation as well as to go deeper into the complexity of expatriates as a mechanism to bridge the distance within MNEs and the potential role-model effects.

Appendix A

Variables' Overview, Description, and Data Sources

Variable	Description	Source
Dependent variable		
ESOP Participation	Dummy variable that takes a value of 1 if the employee participated in the offered ESOP in 2012 and 0 otherwise.	Internal firm ESOP database
Independent variables		
Expatriate ESOP Participation	Proportion of participating expatriates within each organizational unit, calculated by the sum of participating expatriates divided by the total number of employees per organizational unit.	Own calculation based on internal firm HR database

Thematic Distance	Dummy variable that takes a value of 1 if the organizational unit consists of production workers only.	Own calculation based on internal firm HR database
Administrative Distance	Variable to measure institutional distance, including “differences in colonial ties, language, religion, and legal system” (Berry et al., 2010: 1494).	Berry et al. (2010).
Control variables		
Gender	Dummy variable that takes the value of 1 if the employee is male and 0 otherwise.	Internal firm HR database
Life Experience (log)	Logarithm of the age in years of the employee.	Internal firm HR database
Work Experience (log)	Logarithm of the tenure in years of the employee.	Internal firm HR database
Education	Dummy variable that takes the value of 1 if the employee has a master's degree as his/her highest level of education and 0 otherwise.	Internal firm HR database
Superior	Dummy variable that takes the value of 1 if the employee is a senior manager and 0 otherwise.	Internal firm HR database
Temporary	Dummy variable that takes the value of 1 when the employee has a temporary contract and 0 when the employee has a permanent contract.	Internal firm HR database
Superior Behavior	Dummy variable that takes the value of 1 if a superior in the organizational unit participates in the ESOP and 0 otherwise.	Own calculation based on internal firm HR database
Group Behavior	Proportion of participating employees within the organizational unit, calculated by the sum of ESOP participants divided by the total number of employees per organizational unit.	Own calculation based on internal firm HR database
Group Size (log)	Logarithm of the number of employees in each organizational unit.	Own calculation based on internal firm HR database
Blau Index	Aggregated Blau Index of the individual determinants (Gender, Life Experience, Work Experience, Education, Superior, Temporary, and Production)	Own calculation based on internal firm HR database
Stocks Traded	The variable measures the total value of stocks traded as a percent of GDP in 2012. Winsorized at the 1% level.	World Development Indicators (World Bank, 2013)
Void Index	The variable consists of four institutional variables: political stability, government effectiveness, regulatory quality, and rule of law. We used a reversed scale of the variables and standardized each variable between 0 and 1.	Worldwide Governance Indicators (Kaufmann et al., 2013)

References

- Ahlvik, C., Smale, A., & Sumelius, J. (2016). Aligning corporate transfer intentions and subsidiary HRM practice implementation in multinational corporations. *Journal of World Business*, 51(3), 343–355.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage Publications.
- Almeida, P., & Phene, A. (2004). Subsidiaries and knowledge creation: The influence of the MNC and host country on innovation. *Strategic Management Journal*, 25(8/9), 847–864.
- Almeida, P., Song, J., & Grant, R. M. (2002). Are firms superior to alliances and markets? An empirical test of cross-border knowledge building. *Organization Science*, 13(2), 147–161.
- Ambos, T. C., & Ambos, B. (2009). The impact of distance on knowledge transfer effectiveness in multinational corporations. *Journal of International Management*, 15(1), 1–14.
- Ando, N., & Paik, Y. (2013). Institutional distance, host country and international business experience, and the use of parent country nationals. *Human Resource Management Journal*, 23(1), 52–71.
- Au, K. Y., & Fukuda, J. (2002). Boundary spanning behaviors of expatriates. *Journal of World Business*, 37(4), 285–296.
- Babenko, I., & Sen, R. (2014). The money left on the table: An analysis of the participation in employee stock purchase plans. *Review of Financial Studies*, 27(12), 3658–3698.
- Bassett, W. F., Fleming, M. J., & Rodrigues, A. P. (1998). How workers use 401(k) plans: The participation, contribution, and withdrawal decisions. *National Tax Journal*, 51(2), 263–269.
- Belderbos, R. A., & Heijltjes, M. G. (2005). The determinants of expatriate staffing by Japanese multinationals in Asia: Control, learning and vertical business groups. *Journal of International Business Studies*, 36(3), 341–354.
- Berry, H., Guillén, M. F., & Zhou, N. (2010). An institutional approach to cross-national distance. *Journal of International Business Studies*, 41(9), 1460–1480.
- Björkman, I., Barner-Rasmussen, W., & Li, L. (2004). Managing knowledge transfer in MNCs: The impact of headquarters control mechanisms. *Journal of International Business Studies*, 35(5), 443–455.
- Björkman, I., Fey, C. F., & Park, H. J. (2007). Institutional theory and MNC subsidiary HRM practices: Evidence from a three-country study. *Journal of International Business Studies*, 38(3), 430–446.
- Blasi, J. R., Conte, M., & Kruse, D. L. (1996). Employee stock ownership and corporate performance among public companies. *Industrial and Labor Relations Review*, 50(1), 60–79.
- Blasi, J. R., Kruse, D. L., & Weltmann, D. (2013). Firm survival and performance in privately held ESOP companies. In D. L. Kruse (Ed.), *Sharing ownership, profits, and decision-making in the 21st century (Advances in the economic analysis of participatory & labor-managed firms)* (pp. 109–124). Emerald Group Publishing Limited.
- Blasi, J. R., Freeman, R., & Kruse, D. L. (2016). Do broad-based employee ownership, profit sharing and stock options help the best firms do even better? *British Journal of Industrial Relations*, 54(1), 55–82.
- Bonache, J., & Zarraga-Oberly, C. (2008). Determinants of the success of international assignees as knowledge transferors: A theoretical framework. *International Journal of Human Resource Management*, 19(1), 1–18.
- Brewster, C., & Farndale, E. (2017). The effects of market economy type and foreign MNE subsidiaries on the convergence and divergence of HRM. *Journal of International Business Studies*, 48(9), 1065–1086.
- Buchko, A. A. (1992). Employee ownership, attitudes, and turnover: An empirical assessment. *Human Relations*, 45(7), 711–733.
- Buchko, A. A. (1993). The effects of employee ownership on employee attitudes: An integrated causal model and path analysis. *Journal of Management Studies*, 30(4), 633–657.
- Caramelli, M., & Carberry, E. J. (2014). Understanding employee preferences for investing in employer stock: Evidence from France. *Human Resource Management Journal*, 24(4), 548–566.
- Chang, Y.-Y., Gong, Y., & Peng, M. W. (2012). Expatriate knowledge transfer, subsidiary absorptive capacity, and subsidiary performance. *Academy of Management Journal*, 55(4), 927–948.
- Choi, S.-G., & Johanson, J. (2012). Knowledge translation through expatriates in international knowledge transfer. *International Business Review*, 21(6), 1148–1157.
- Colakoglu, S., & Caligiuri, P. (2008). Cultural distance, expatriate staffing and subsidiary performance: The case of US subsidiaries of multinational corporations. *International Journal of Human Resource Management*, 19(2), 223–239.
- Collings, D. G., Scullion, H., & Morley, M. J. (2007). Changing patterns of global staffing in the multinational enterprise: Challenges to the conventional expatriate assignment and emerging alternatives. *Journal of World Business*, 42(2), 198–213.
- Dabic, M., González-Loureiro, M., & Harvey, M. (2015). Evolving research on expatriates: What is known after four decades (1970–2012). *International Journal of Human Resource Management*, 26(3), 316–337.
- Delios, A., & Björkman, I. (2000). Expatriate staffing in foreign subsidiaries of Japanese multinational corporations in the PRC and the United States. *International Journal of Human Resource Management*, 11(2), 278–293.
- Downes, M., & Thomas, A. S. (2000). Knowledge transfer through expatriation: The U-curve approach to overseas staffing. *Journal of Managerial Issues*, 12(2), 131–149.
- Dufo, E., & Saez, E. (2002). Participation and investment decisions in a retirement plan: The influence of colleagues' choices. *Journal of Public Economics*, 85(1), 121–148.
- EFES (2016). *Annual economic survey of employee share ownership in European countries*.

- Edström, A., & Galbraith, J. R. (1977). Transfer of managers as a coordination and control strategy in multinational organizations. *Administrative Science Quarterly*, 22(2), 248–263.
- Engelhardt, G. V., & Madrian, B. C. (2004). Employee stock purchase plans. *National Tax Journal*, 57(2), 385–406.
- Fang, Y., Jiang, G. L. F., Makino, S., & Beamish, P. W. (2010). Multinational firm knowledge, use of expatriates, and foreign subsidiary performance. *Journal of Management Studies*, 47(1), 27–54.
- Farh, C. I. C., Bartol, K. M., Shapiro, D. L., & Shin, J. (2010). Networking abroad: A process model of how expatriates form support ties to facilitate adjustment. *Academy of Management Review*, 35(3), 434–454.
- Foss, N. J., & Pedersen, T. (2004). Organizing knowledge processes in the multinational corporation: An introduction. *Journal of International Business Studies*, 35(5), 340–349.
- French, J. L., & Rosenstein, J. (1984). Employee ownership work attitudes, and power relationships. *Academy of Management Journal*, 27(4), 861–869.
- Ghemawat, P. (2001). Distance still matters. *Harvard Business Review*, 79(8), 137–147.
- Gonzalez, J. A., & Chakraborty, S. (2014). Expatriate knowledge utilization and MNE performance: A multilevel framework. *Human Resource Management Review*, 24(4), 299–312.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(52), 109–122.
- Gupta, A. K., & Govindarajan, V. (2000). Knowledge flows within multinational corporations. *Strategic Management Journal*, 21(4), 473–496.
- Hammer, T. H., & Stern, R. N. (1980). Employee ownership: Implications for the organizational distribution of power. *Academy of Management Journal*, 23(1), 78–100.
- Harzing, A.-W., Pudelko, M., & Reiche, B. S. (2016). The bridging role of expatriates and inpatriates in knowledge transfer in multinational corporations. *Human Resource Management*, 55(4), 679–695.
- Harzing, A.-W. (2001a). An analysis of the functions of international transfer of managers in MNCs. *Employee Relations*, 23(6), 581–598.
- Harzing, A.-W. (2001b). Of bears, bumble-bees, and spiders: The role of expatriates in controlling foreign subsidiaries. *Journal of World Business*, 36(4), 366–379.
- Henisz, W. J. (2000). The institutional environment for economic growth. *Economics and Politics*, 12(1), 1–31.
- Hinds, P., Liu, L., & Lyon, J. (2011). Putting the global in global work: An intercultural lens on the practice of cross-national collaboration. *Academy of Management Annals*, 5(1), 135–188.
- Hitotsuyanagi-Hansel, A., Froese, F. J., & Pak, Y. S. (2016). Lessening the divide in foreign subsidiaries: The influence of localization on the organizational commitment and turnover intention of host country nationals. *International Business Review*, 25(2), 569–578.
- Hocking, J. B., Brown, M., & Harzing, A.-W. (2004). A knowledge transfer perspective of strategic assignment purposes and their path-dependent outcomes. *International Journal of Human Resource Management*, 15(3), 565–586.
- Hoetker, G. (2007). The use of logit and probit models in strategic management research: Critical issues. *Strategic Management Journal*, 28(4), 331–343.
- Holopainen, J., & Björkman, I. (2005). The personal characteristics of the successful expatriate: A critical review of the literature and an empirical investigation. *Personnel Review*, 34(1), 37–50.
- Huang, C., & Shields, T. G. (2000). Interpretation of interaction effects in logit and probit analyses: Reconsidering the relationship between registration laws, education, and voter turnout. *American Politics Quarterly*, 28(1), 80–95.
- Huberman, G., Iyengar, S. S., & Jiang, W. (2007). Defined contribution pension plans: Determinants of participation and contributions rates. *Journal of Financial Services Research*, 31, 1–32.
- Jackson, C., & Morgan, G. (2011). Employee participation in UK Sharesave schemes: A firm-level analysis. *International Journal of Human Resource Management*, 22(8), 1788–1802.
- Jackson, G. (2010). Actors and institutions. In G. Morgan, J. Campbell, C. Crouch, O. Pedersen, P. H. Christensen, & R. Whitley (Eds.). *Oxford handbook of comparative institutional analysis*. Oxford: Oxford University Press.
- Janssens, M. (1995). Intercultural interaction: A burden on international managers? *Journal of Organizational Behavior*, 16(2), 155–167.
- Jones, D. C., & Kato, T. (1993). The scope, nature, and effects of employee stock ownership plans in Japan. *Industrial and Labor Relations Review*, 46(2), 352–367.
- Jones, D. C., & Kato, T. (1995). The productivity effects of employee stock-ownership plans and bonuses: Evidence from Japanese panel data. *American Economic Review*, 85(3), 391–414.
- Kalmi, P., Pendleton, A., & Poutsma, E. (2005). Financial participation and performance in Europe. *Human Resource Management Journal*, 15(4), 54–67.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2013). *The worldwide governance indicators*. [2013 update].
- Kim, K. Y., & Patel, P. C. (2017). Employee ownership and firm performance: A variance decomposition analysis of European firms. *Journal of Business Research*, 70, 248–254.
- Klein, K. J., & Hall, R. J. (1988). Correlates of employee satisfaction with stock ownership: Who likes an ESOP most? *Journal of Applied Psychology*, 73(4), 630–638.
- Klein, K. J. (1987). Employee stock ownership and employee attitudes: A test of three models. *Journal of Applied Psychology*, 72(2), 319–332.
- Kobrin, S. J. (1988). Expatriate reduction and strategic control in American multinational corporations. *Human Resource Management*, 27(1), 63–75.
- Koene, B., & Van Riemsdijk, M. (2005). Managing temporary workers: Work identity, diversity and operational HR choices. *Human Resource Management Journal*, 15(1), 76–92.
- Kostova, T., & Roth, K. (2002). Adoption of an organizational practice by subsidiaries of multinational corporations: Institutional and relational effects. *Academy of Management Journal*, 45(1), 215–233.
- Kostova, T., & Zaheer, S. (1999). Organizational legitimacy under conditions of complexity: The case of the multinational enterprise. *Academy of Management Review*, 24(1), 64–81.
- Kostova, T., Marano, V., & Tallman, S. (2016). Headquarters-subsidiary relationships in MNCs: Fifty years of evolving research. *Journal of World Business*, 51(1), 176–184.
- Kostova, T. (1999). Transnational transfer of strategic organizational practices: A contextual perspective. *Academy of Management Review*, 24(2), 308–324.
- Kruse, D. L. (1996). Why do firms adopt profit-sharing and employee ownership plans? *British Journal of Industrial Relations*, 34(4), 515–538.
- Kuemmerle, W. (1997). Building effective R&D capabilities abroad. *Harvard Business Review*, 75, 61–72.
- La Porta, R., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, 106(6), 1113–1155.
- Le, H., Brewster, C., Demirbag, M., & Wood, G. (2013). Management compensation systems in MNCs and domestic firms: Cross-national empirical evidence. *Management International Review*, 53(5), 741–762.
- Li, J., Jiang, F., & Shen, J. (2016). Institutional distance and the quality of the headquarters-subsidiary relationship: The moderating role of the institutionalization of headquarters' practices in subsidiaries. *International Business Review*, 25(2), 589–603.
- Long, R. J. (1978). The relative effects of share ownership vs. control on job attitudes in an employee-owned company. *Human Relations*, 31(9), 753–763.
- Lusardi, A., & Mitchell, O. S. (2007). Baby boomer retirement security: The roles of planning, financial literacy, and housing wealth. *Journal of Monetary Economics*, 54(1), 205–224.
- Mäkelä, K. (2007). Knowledge sharing through expatriate relationships: A social capital perspective. *International Studies of Management and Organization*, 37(3), 108–125.
- Maelkelburger, B., Schwens, C., & Kabst, R. (2012). Asset specificity and foreign market entry mode choice of small and medium-sized enterprises: The moderating influence of knowledge safeguards and institutional safeguards. *Journal of International Business Studies*, 43(5), 458–476.
- Mezias, J. M. (2002). Identifying liabilities of foreignness and strategies to minimize their effects: The case of labor lawsuit judgments in the United States. *Strategic Management Journal*, 23(3), 229–244.
- Miller, T., & Triana, M. del C. (2009). Demographic diversity in the boardroom: Mediators of the board diversity – firm performance relationship. *Journal of Management Studies*, 46(5), 755–786.
- Minbaeva, D. B., & Michailova, S. (2004). Knowledge transfer and expatriation in multinational corporations. *Employee Relations*, 26(6), 663–679.
- Munnell, A. H., Sundén, A. E., & Taylor, C. (2001). What determines 401(k) participation and contributions? *Social Security Bulletin*, 64(3), 64–75.
- Naumann, E. (1992). A conceptual model of expatriate turnover. *Journal of International Business Studies*, 23(3), 499–531.
- Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, ba and leadership: A unified model of dynamic knowledge creation. *Long Range Planning*, 33(1), 5–34.
- North, D. C. (1990). *Institutions, institutional change and economic performance*. New York, NY: Cambridge University Press.
- O'Boyle, E. H., Patel, P. C., & Gonzalez-Mulé, E. (2016). Employee ownership and firm performance: A meta-analysis. *Human Resource Management Journal*, 26(4), 425–448.
- Oehmichen, J., Wolff, M., & Zschoche, U. (2017). Employee participation in employee stock ownership plans: Cross-level interaction effects of institutions and workgroup behavior. *International Human Resource Management*, 1–15. <http://dx.doi.org/10.1002/hrm.21885> (forthcoming).
- Ogbonnaya, C., Daniels, K., & Nielsen, K. (2017). Does contingent pay encourage positive employee attitudes and intensify work? *Human Resource Management Journal*, 27(1), 94–112.
- Pache, A.-C., & Santos, F. M. (2010). When worlds collide: The internal dynamics of organizational responses to conflicting institutional demands. *Academy of Management Review*, 35(3), 455–476.
- Pendleton, A., & Robinson, A. (2010). Employee stock ownership, involvement, and productivity: An interaction-based approach. *Industrial and Labor Relations Review*, 64(1), 3–29.
- Pendleton, A. (2010a). Employee participation in employee share ownership: An evaluation of the factors associated with participation and contributions in Save As You Earn Plans. *British Journal of Management*, 21, 555–570.
- Pendleton, A. (2010b). Employee share ownership and investment concentration: Which employee shareholders fail to diversify? *Human Resource Management Journal*, 20(2), 157–174.
- Pierce, J. L., & Jussila, I. (2010). Collective psychological ownership within the work and organizational context: Construct introduction and elaboration. *Journal of Organizational Behavior*, 31(6), 810–834.
- Pierce, J. L., Rubenfeld, S. A., & Morgan, S. (1991). Employee ownership: A conceptual model of process and effects. *Academy of Management Review*, 16(1), 121–144.
- Pierce, J. L., Kostova, T., & Dirks, K. T. (2003). The state of psychological ownership: Integrating and extending a century of research. *Review of General Psychology*, 7(1), 84–107.
- Poutsma, E., & de Nijs, W. (2003). Broad-based employee financial participation in the European Union. *International Journal of Human Resource Management*, 14(6), 863–892.
- Poutsma, E., de Nijs, W., & Poole, M. (2003). The global phenomenon of employee financial participation. *International Journal of Human Resource Management*, 14(6), 855–862.
- Poutsma, E., Kalmi, P., & Pendleton, A. (2006). The relationship between financial participation and other forms of employee participation: New survey evidence from Europe. *Economic and Industrial Democracy*, 27(4), 637–667.
- Reiche, B. S., Harzing, A.-W., & Kraimer, M. L. (2009). The role of international assignees'.

- social capital in creating inter-unit intellectual capital: A cross-level model. *Journal of International Business Studies*, 40(3), 509–526.
- Reiche, B. S. (2007). The effect of international staffing practices on subsidiary staff retention in multinational corporations. *International Journal of Human Resource Management*, 18(4), 523–536.
- Renaud, S., St-Onge, S., & Magnan, M. (2004). The impact of stock purchase plan participation on workers' individual cash compensation. *Industrial Relations*, 43(1), 120–147.
- Rhodes, S. R., & Steers, R. M. (1981). Conventional vs. worker-owned organizations. *Human Relations*, 34(12), 1013–1035.
- Richter, A., & Schrader, S. (2016). Financial participation and recruitment and retention: Causes and consequences. *International Journal of Human Resource Management*, 1–28.
- Richter, A., & Schrader, S. (2017). Levels of employee share ownership and the performance of listed companies in Europe. *British Journal of Industrial Relations*, 55(2), 396–420.
- Riusala, K., & Smale, A. (2007). Predicting stickiness factors in the international transfer of knowledge through expatriates. *International Studies of Management and Organization*, 37(3), 16–43.
- Riusala, K., & Suutari, V. (2004). International knowledge transfers through expatriates. *Thunderbird International Business Review*, 46(6), 743–770.
- Sarabi, A., Froese, F. J., & Hamori, M. (2017). Is inpatriate assignment experience a ticket to the top of a foreign subsidiary? The moderating effect of subsidiary context. *Journal of World Business*, 52(5), 680–690.
- Schaubroeck, J. M., Peng, A. C., & Hannah, S. T. (2012). Developing trust with peers and leaders: Impacts on organizational identification and performance during entry. *Academy of Management Journal*, 56(4), 1148–1168.
- Sengupta, S., Whitfield, K., & McNabb, B. (2007). Employee share ownership and performance: Golden path or golden handcuffs? *International Journal of Human Resource Management*, 18(8), 1507–1538.
- Sesil, J. C., & Lin, Y. P. (2011). The impact of employee stock option adoption and incidence on productivity: Evidence from US panel data. *Industrial Relations: A Journal of Economy and Society*, 50(3), 514–534.
- Sesil, J. C., Kroumova, M. K., Blasi, J. R., & Kruse, D. L. (2002). Broad-based employee stock options in US new economy firms. *British Journal of Industrial Relations*, 40(2), 273–294.
- Sundén, A. E., & Surette, B. J. (1998). Gender differences in the allocation of assets in retirement savings plans. *American Economic Review*, 88(2), 207–211.
- Tan, D., & Mahoney, J. T. (2006). Why a multinational firm chooses expatriates: Integrating resource-based, agency and transaction costs perspectives. *Journal of Management Studies*, 43(3), 457–484.
- Teagarden, M. B., & von Glinow, M. A. (1997). Human resource management in cross-cultural contexts: Etic practices versus etic philosophies. *Management International Review*, 1, 7–20.
- ul Haq, H., Drogendijk, R., & Blankenburg Holm, D. (2017). Attention in words, not in deeds: Effects of attention dissonance on headquarters-subsidiary communication in multinational corporations. *Journal of World Business*, 52(1), 111–123.
- Useem, M., & Gager, C. (1996). Employee shareholders or institutional investors? When corporate managers replace their stockholders. *Journal of Management Studies*, 33(5), 613–631.
- van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101, 449–472.
- Wang, P., Tong, T. W., & Koh, C. P. (2004). An integrated model of knowledge transfer from MNC parent to China subsidiary. *Journal of World Business*, 39(2), 168–182.
- Wang, S., Tong, T. W., Chen, G., & Kim, H. (2009). Expatriate utilization and foreign direct investment performance: The mediating role of knowledge transfer. *Journal of Management*, 35(5), 1181–1206.
- Ward, K., Grimshaw, D., Rubery, J., & Beynon, H. (2001). Dilemmas in the management of temporary work agency staff. *Human Resource Management Journal*, 11(4), 3–21.
- Welz, C., & Fernández-Macías, E. (2008). Financial participation of employees in the European Union: Much ado about nothing? *European Journal of Industrial Relations*, 14(4), 479–497.
- World Bank (2013). *World development indicators*.
- Yamin, M., & Otto, J. (2004). Patterns of knowledge flows and MNE innovative performance. *Journal of International Management*, 10(2), 239–258.
- Zelner, B. A. (2009). Using simulation to interpret results from logit, probit, and other nonlinear models. *Strategic Management Journal*, 30(12), 1335–1348.
- Zheng, C., & Lamond, D. (2010). Organisational determinants of employee turnover for multinational companies in Asia. *Asia Pacific Journal of Management*, 27(3), 423–443.