Integration and responsiveness in subsidiaries in emerging economies

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ABSTRACT

The integration-responsiveness (IR) framework with the typology of international, multi-domestic, global and transnational MNE strategies has become a standard in international management textbooks. In particular, the ‘transnational strategy’ is advocated by some gurus, but considered unworkable by other scholars. Yet, despite the popularity of the framework, and the concept of ‘transnational strategy’ in particular, surprisingly little evidence exists for under which conditions this strategy is most appropriate. This paper revisits the typology using a contingency approach suggesting that the transnational strategy works well if it “fits” with other elements of a subsidiary’s strategy. We test hypotheses derived from this perspective on a sample of subsidiaries in two emerging economies. We find that transnational strategy enhances subsidiary performance in particular if the subsidiary is wholly owned, if it was not established by acquisition, and if it is highly export oriented.

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1. Introduction

The merits of standardization and localization of products and processes have been a pivotal theme in international strategic management research. A leading framework is the integration-responsiveness (IR) framework. Following Prahalad and Doz (1987), Bartlett and Ghoshal (1989) argue that local responsiveness and global integration can indeed be achieved simultaneously, and develop a typology based on a matrix of four strategies: international, multi-domestic, global and transnational. This typology has become a standard analytical tool in strategic management (e.g., Hill & Jones, 2013) and international business textbooks (e.g., Peng, 2014; Peng & Meyer, 2011).

Bartlett and Ghoshal recommend that multinational enterprises (MNEs) pursue a transnational strategy combining both global integration and local adaptation. Yet even companies they highlight as role models have since struggled, and have reverted to more ‘global’ organizational structures. Recent textbooks thus suggest that the ‘transnational’ strategy is rather simplistic and most firms have to make critical choices between global integration and local adaptation (e.g., Peng, 2014; Verbeke, 2013). However, solid empirical evidence regarding the merits of alternative types of strategy is surprisingly scarce. Few studies actually present solid evidence if and for whom either strategy would actually enhance subsidiary performance, as acknowledged by Ghoshal (1987) himself.

Our starting point for revisiting the Bartlett and Ghoshal typology is that the quest for generally applicable rules or performance effects may be futile because different strategies are effective for different types of subsidiaries. In particular, a transnational strategy combining global integration advantages with local responsiveness put high demands on the organization itself, such that it is not beneficial for every subsidiary. Therefore, a contingency framework is required to assess the merits of alternative strategies, and to identify under which conditions respectively global, multi-domestic and transnational strategies enhance subsidiary performance (Grewal, Chandrashekaran, & Dwyer, 2008; Katsikeas, Samiee, & Theodosiou, 2006; Roth, 1995). Hence, our research question is: For which subsidiaries does a transnational strategy enhance subsidiary performance?

Recent advances on knowledge management in MNEs emphasize the importance of knowledge exchanges and control mechanisms for different MNE strategies (Andersson, Forsgren, & Holm, 2002; Meyer, Mudambi, & Narula, 2011; Monteiro, Arvidsson, & Birkinshaw, 2008). The four types of strategy vary in the complexity of internal coordination and knowledge flows (Harzing, 2000; Pla-Barber, 2002; Wolf & Egelhoff, 2002). International strategies involve little explicit exploitation of either global integrating advantages or local adaptation advantages, and
thus limited ongoing exchange of knowledge. Global strategies integrate strategic decisions and centralize core operations; knowledge flows thus are primarily top down, and control is tight. Multi-domestic strategies assign subsidiaries a specific scope with respect to local markets, but allow more local adaptation.

Transnational strategies create the most complex coordination challenges. They involve extensive intra-organizational trade, strategic coordination and knowledge exchange not only between headquarters and subsidiaries, but across subsidiaries in different countries. The different subsidiaries of the MNEs thus are highly interdependent both strategically and operationally (Harzing, 2000). To enable such complex coordination, the MNE needs not only formal structures but informal mechanisms (Foss, Husted, & Michaïlova, 2010; Tallman & Chacar, 2011). Bartlett and Ghoshal (1987, 1989) thus advocated the need for distinct organizational capabilities and a shared organizational culture that encourages cooperation and knowledge sharing. Extending this line of thought, we argue that a transnational strategy can have a positive effect on subsidiary performance if it 'fits' with other aspects of the subsidiary strategy.

The trade-offs between integration and responsiveness are particularly pertinent in countries with a distinct local business environment that inhibits the smooth transfer of business models. Especially in emerging economies, institutional frameworks often require idiosyncratic adaptations, while the local resource endowment is typically rich in labor but short of specialist human capital (Luo, 2003; Meyer & Peng, 2005; Xu & Meyer, 2013). In consequence, we expect a larger variation of strategies adopted by MNEs operating in such countries, and have thus chosen as our empirical field two emerging economies, Poland and Hungary. Our data are drawn from a questionnaire survey and include 345 observations of subsidiaries of MNEs. The dataset thus provides a rich variation of corporate strategy in a rapidly evolving context. Our results support our theoretical expectations that transnational strategies outperform other strategies if they fit with other aspects of the subsidiary strategy, specifically full ownership, establishment not by acquisition, and a high degree of export orientation.

This paper contributes to the literature in several ways. First, we develop a contingency perspective and offer empirical evidence on one of the most popular sets of concepts in the international strategy literature, transnational strategy, and the underlying the integration-responsiveness framework (Bartlett & Ghoshal, 1989), which to date suffers from a lack of empirical verification of its performance implications. Second, we offer new insights into subsidiary performance extending work on parent–subsidiary relationships (Birkinshaw & Morrison, 1995; Fang, Wade, Delios, & Beamish, 2013; Nell & Ambos, 2013; Tang & Rowe, 2012; Tian & Slocum, 2014) to show how strategy affects performance at the subsidiary level.

2. Conceptual Foundations

2.1. The integration responsiveness (IR) framework

In the 1980s and early 1990s, scholars began to systematically investigate the strategies of MNEs along the dimensions of local adaptation and global integration. Early studies tend to treat these dimensions as opposite poles of the same scale, or at as two highly correlated scales (Dow, 2006; Luo, 2001; Roth & Morrison, 1990; Venaik, Midgley, & Devlinney, 2005). Prahalad and Doz (1987) challenge this approach suggesting that the two dimensions are not exclusive but can be combined if suitable organizational structures are created and implemented. They thus introduce the notion of a ‘multi-focal’ corporation that simultaneously is locally responsive and globally integrated.

These ideas are further developed by Bartlett and Ghoshal (1987, 1989), who develop the now famous $2 \times 2$ strategy matrix with the dimensions local responsiveness and globally integration, and identified four types of strategy. A global strategy focuses on global integration at the expense of local responsiveness, thus integrating organizational processes to a high degree and benefitting from economies of scale and scope as well as from integrated learning across a global organization. A multi-domestic strategy focuses on local responsiveness, for instance by offering locally adapted products in each market, yet foregoes potential economies of scale. An international strategy, also known as home-replication strategy (Peng, 2014), is low on both global integration and local responsiveness. It thus benefits from neither economies of scale nor fit to local consumers, and thus is largely treated as an inferior strategy chosen only by MNEs with little international experience.

Bartlett and Ghoshal (1987, 1989) focus on the transnational strategy, which combines the benefits of global scale and learning with the benefits of locally adapted products and processes. It is associated with high levels of intra-MNE trade in goods and services, as well as extensive lateral knowledge flows. A transnational strategy also allows selected subsidiaries to become strategic centers for a particular product or technology (Harzing, 2000). It is thus associated with extensive knowledge flows not only vertically between headquarters and subsidiaries, but horizontally between different subsidiaries (Ghoshal & Bartlett, 1990; Gupta & Govindarajan, 2000; Kostova & Roth, 2003). In fact, every subsidiary is embedded in a different local community of practice, and the competitive advantage of the transnational MNE is to a large extent created by organizational learning that connect, integrates and exploits this geographically dispersed knowledge (Andersson et al., 2002; Chang, Gong, & Peng, 2012; Johnson, Arya, & Mirchandani, 2013; Meyer et al., 2011; Monteiro et al., 2008; Tallman & Chacar, 2011). Hence, subsidiaries are not only recipients of knowledge from the parent, but an important source of knowledge that contributes to the resource-base and the competitiveness of the MNE (Mahnke et al., 2005; Yang et al., 2008).

How do companies achieve integration and responsiveness simultaneously? Bartlett and Ghoshal (1987, 1989, 1993) suggest a combination of organizational capability, collaborative organizational culture and a matrix structure that facilitates intensive horizontal knowledge exchange within the organization. They present for example the cases of Ericsson (of Sweden) ABB (of Sweden and Switzerland) and Acer (of Taiwan), who at the time had adopted respectively a matrix-structure and a network structure of strategic and regional business units to achieve both high degrees of global coordination and responsiveness to local markets.

However, the transnational strategy – and especially the matrix organization needed to implement it – has been criticized as being overly ambitious, creating complex intra-organizational processes that create conflicts of interest, generate counterproductive organizational politics, and weaken incentives for individual business units (Midgley & Venaik, 2000; Chen, Chen, & Ku, 2012; Devinney et al., 2000; Foss, Husted, & Michaïlova, 2010; Mudambi, Pedersen, & Andersson, 2014). In fact, Ericsson, ABB and Acer went through periods of major strategic change when their strong organizational culture hit its limits in an organization of growing scope and complexity. We take this discussion forward by focusing on the interdependence of different elements of business strategy. Transnational strategy enhances subsidiary performance only if the complex coordination and knowledge management

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2 Bartlett and Ghoshal (1989) use the term ‘multinational’ for this strategy, but later authors adopted the term multi-domestic to avoid confusion with the concept of MNE, which encompasses firms pursuing any of these strategies.
challenges it creates are consistent with other aspects of the subsidiary strategy.3

2.2. Antecedents and consequences

Earlier empirical studies find different types of strategy to be associated with different types of MNEs of either strategy in terms of organizational (Harzing, 2000; Johnson et al., 2013; Luo, 2001; Roth & Morrison, 1990; Rugman & Verbeke, 1992) or environmental characteristics (Ghoshal & Nohria, 1993; Meyer & Estrin, 2014). In particular, companies with non-location bound advantages created centrally and exploited throughout the organization are more likely to pursue a global strategy. On the other hand, MNEs competing to a large extend on the basis of location bound advantages that they combine at each location with the global, non-location bound advantages can do so with a multi-domestic strategy (Harzing, 2002; Rugman & Verbeke, 1992). For example, Kobrin (1991) finds that technology intensity and advertising intensity favor global integration, while Harzing (2000) reports high intensity of global competition and low intensity of local competition to be associated with transnational strategy.

The merits of alternative strategies have been extensively discussed in the marketing literature, which focuses specifically on the standardization or adaptation of products and of marketing processes (Birnin & Bowman, 2007; Cavusgil, Zou, & Naidu, 1993; Grewal et al., 2008; Katsikeas et al., 2006; Larochelle, Kiplani, Pons, & Zhou, 2001; Roth, 1995; Schuh, 2001; Solberg, 2000) and the impact on marketing innovation in the MNE (Venkatesh & Ghorash, 1989). However, Bartlett and Ghoshal (1989) strategy types are broader than just marketing; they concern all aspects of the headquartersubsidiary relationship, and thus have implications for example for human resources practices (Dickmann & Müller-Camen, 2006; Fenton-O’Creevy, Gooderham, & Northaug, 2008; Kim & Gray, 2005) and configurations of information technology (Manwani & O’Keefe, 2003). At the level of subsidiaries, the MNE’s strategy influences, among other effects, a subsidiary’s engagement with its local environment in terms of political activity (Blumentritt & Nigh, 2002) and corporate social responsibility (Bondy & Starkey, 2014; Husted & Allen, 2006). It also impacts on the individuals working in the subsidiary, notably the use of expatriates in leadership roles (Chang et al., 2012; Gaur, Delios, & Singh, 2007) and the career paths of both global and local employees (Newburry, 2001). In our hypothesis development, we explore how the implemented strategy at the subsidiary level fits with other aspects of subsidiary strategy, and hence influences subsidiary performance.

3. Hypothesis development

3.1. A contingency perspective on subsidiary performance

The performance of subsidiaries is contingent on a wide range of organizational and contextual variables at both the subsidiary and parent level. For example, Chai, Makino and Isobe (2010) in a variance decomposition analysis find that about 19% of subsidiary performance is explained by parent level variables, and 14–17% by subsidiary level variables. Hence, both parent and subsidiary level strategy variables are critical for subsidiary performance. Specific influences on subsidiary performance identified in the literature include marketing standardization/adaptation (Grewal et al., 2008; Katsikeas et al., 2006; Tian & Slocum, 2014), cultural distance (Gaur et al., 2007), local density (Miller & Eden, 2006), subsidiary isolation (Monteiro et al., 2008), subsidiary independence (Subramanian & Watson, 2006), the use of expatriate managers (Fang, Jiang, Makino, & Beamish, 2010) and external networks (Andersson et al., 2002). Relatedly, subsidiary performance benefits from knowledge received from other entities of the MNE, a key feature of global and transnational strategies (Chang et al., 2012; Fang et al., 2013; Tang & Rowe, 2012; Tian & Slocum, 2014).

An important implication of this contingency perspective is that studies of the performance implications of integration/responsiveness strategies at the subsidiary level need to incorporate its fit with other aspects of subsidiary strategy. In other words, performance is contingent on the contextual factors that led to the choice of strategy in the first place (Katsikeas et al., 2006; Oladotiti, Hodbani, Papanastassiou, Pearce, & Sinani, 2012; Roth, 1995). For example, Grewal et al. (2008) find the effectiveness of global strategies to be contingent on the munificence of the local environment, that is its market potential relative to other markets. This contingency arises because different strategies fit different purposes. What is best for one firm is not necessarily good for another firm.

In consequence, our baseline argument is that it is not possible to predict performance effects of alternative forms for an aggregate sample. Our analysis investigates under which circumstances subsidiaries perform better when managed under a transnational, global, multi-domestic or international strategy.

3.2. Establishment mode

A key aspect of organizational context the form of establishment: acquired firms tend to carry the heritage of a previously existing organization whereas greenfield projects are created to the design of the MNE (Kogut & Singh, 1988). A cooperative organizational culture is difficult to transfer to new organizational units that already have a different inherited structure, or a strong identity of their own. This applies in particular when a subsidiary joins the MNE by way of acquisition of a formerly independent firm. Each firm has its own organizational structures and cultures, which acquirers find hard to change, especially when this culture is embedded in a different national culture. Hence, post-acquisition restructuring is a major challenge for international acquisitions (Birkihaw, Bresman, & Hakanson, 2000; Capron & Guillen, 2009; Zollo & Singh, 2004), especially in emerging economies where many firms carry inheritances of state-ownership and central planning (Estrin & Meyer, 2011; Filatotchev, Stephon, & Jindra, 2008).

Foreign investors that intend to implement a transnational strategy will find these obstacles to integration particularly hard to overcome. Their strategy is highly dependent on a shared organizational culture, which requires creating appropriate internal coordination processes between existing and acquired business units. Hence, a new subsidiary needs to be tightly integrated in the MNE’s organization, including coordination mechanisms and organizational culture. Likewise, a global strategy requires tight integration into an existing hierarchy. Hence, MNEs pursuing a transnational or global strategy would face particularly high costs of post-acquisition restructuring, and a high chance that this restructuring fails to ‘fit’ the acquired business units into the structures of the MNE. They may thus use greenfield project to create new operations that optimally fits with their global organization (Hennart & Park, 1993; Kogut & Singh, 1988).

MNEs with an international or multi-domestic strategy may pursue acquisitions as a mode of entry because they may need local resources that enable a high degree of local responsiveness (Harzing, 2002). Moreover, they need less coordination and knowledge exchange with the subsidiary, and thus can provide
the acquired subsidiary with a high degree of independence. Therefore, we expect that firms growing by acquisition would face more problems when trying to implement a transnational or global strategy compared to a multi-domestic or international strategy (note that we abstain from a prediction on transnational versus global strategy):  

**Hypothesis 1.** In acquired subsidiaries, multi-domestic and international strategies are more positively associated with subsidiary performance than transnational strategy.

### 3.3. Ownership

The organizational context of a subsidiary also varies with the equity control of the MNE over the subsidiary, with higher equity control in wholly owned subsidiaries (WOSs), compared to joint ventures (JVs). Such control is important in particular when a subsidiary needs to coordinate complex actions in great details with other units within the MNE. Moreover, exploring and exploiting resources and capabilities across operations is greatly facilitated by full control over the strategy of the subsidiary (Filatotchev et al., 2008; Mudambi, 1999). In a transnational strategy, it is also important that knowledge flows not only between HQ and subsidiary but between different subsidiaries within the network of the MNE (Kostova & Roth, 2003; Michailova & Mustafa, 2012; Monteiro et al., 2008). Such complex interactions need an appropriate balance of normative and formal control mechanisms (Foss et al., 2011). These mechanisms are however hard to implement in JVs because shared control slows down strategic decision making and implementation processes. In fact, many JVs require consensus of the main shareholders before implementing substantive strategic change (Gulati, 1998; Harrigan, 1988). Foreign investors with full control over their subsidiaries thus are better able to reduce their coordination costs and to implement strategic change rapidly (Filatotchev et al., 2008; Johnson et al., 2013). Moreover, a shared organizational culture is important for the efficiency of internal markets and networks. Thus, we expect that a transnational strategy would be more successful when the subsidiary is in full MNE ownership.

Multi-domestic strategies are designed to enable a high degree of local adaptation, while utilizing the core competences of the organization, though not through tight integration. However, the coordination also requires multi-directional exchange of knowledge to design products or services that optimally exploit the resources of the parent to meet preferences of local consumers. This coordination can be achieved more effectively if the MNE maintains full ownership control over key aspects of the operations, though this might be less critical than in a transnational strategy.

Global strategies also require a high degree of coordination, though less so than transnational strategies. To implement a global strategy, headquarters need to be able to shape the actions by the subsidiary, for instance to react flexibly to opportunities that extend beyond a particular national market, or to strategically compete with global competitors (Harzing, 2000; Luo, 2001). Compared to transnational strategies, however, global strategies are less complex and knowledge flows tend to be top-down rather than multi-directional. Therefore, a high level of control is likely to be less critical in global compared to transnational strategies. Moreover, international strategies require no integration and coordination as they compete with their subsidiary-specific resources and capabilities, and largely left to their own devices. Putting these arguments together, we predict:

**Hypothesis 2.** In wholly owned subsidiaries, global and international strategies have a weaker association with subsidiary performance than transnational strategy.

### 3.4. Export orientation

Subsidiaries of MNEs operate not only in the local market, but they engage in international trade themselves (Estrin, Bagdasyan, & Meyer 2009). Exporting however increases the complexity of subsidiary strategy. Authors like Rugman, Verbeke, & Yuan (2011) even argue that the IR matrix ought to incorporate the supply chain position of the subsidiary because the Bartlett and Ghoshal typology implicitly assumes a singular bundling of subsidiary’s entire value chain. However, in the modern economy subsidiaries themselves access a broader set of local advantages in the region and across a broader geographical space by bundling their internal resource base with these external resources. This bundling enables them to develop export strategies targeted at other units of the MNE, at markets within the same region (say, within Central and Eastern Europe), and in some case of highly specialized units even to distant markets.

Exporting enables the exploitation of knowledge bases, financial resources and scale economies by reaching larger markets, and thereby enhances performance compared to domestic firms (e.g., Kaleka, 2012; Salomon & Jin, 2010; Shaver, 2011). However, an exporting operation becomes more complex if the business unit is a subsidiary of an MNE. First, the servicing of third country markets needs to be coordinated with other units of the MNE, considering for example the division of market responsibility and management of the shared corporate brands. When a subsidiary operates beyond its host country, the MNEs will be more concerned, for example, that the MNEs livens up the MNE’s quality standards and brand values. This increases the complexity of internal knowledge flows.

Second, subsidiaries that export need combinations of competences that the best of their kind within the MNE in order to be given the mandate to provide a particular product to a particular market. Such subsidiary level competences are likely to be grounded in the subsidiary’s combination and integration of the MNE’s local competence and resources or capabilities accessed locally (Rugman & Verbeke, 2001; Tallman & Chacar, 2011). The development of such distinct competences, however, depends to a large extent on the subsidiary’s own initiative, and hence its autonomy to take initiatives (Ambos, Andersson, & Birkinshaw, 2010; Birkinshaw & Morrison, 1995; Bouquet & Birkinshaw, 2008). Moreover, the development of an export strategy requires subsidiaries to be responsive to the demands in the third country to which they are exporting. In the case of subsidiaries that serve as regional hubs, such market knowledge is likely to be stronger in the subsidiary than in distant headquarters.

Taking these two considerations together – the need for more coordination and the need for responsiveness – a transnational strategy appears to fit best for a subsidiary that export extensively to third-country markets. In other words, the advantages of “transnational” are most important when the subsidiary itself exports significantly to international markets, which requires both responsiveness its own markets and coordination with headquarters. Hence, we predict:

**Hypothesis 3.** The more a subsidiary is export oriented, the lower the performance of international, global and multi-domestic strategies, relative to a transnational strategy.

### 4. Methodology

#### 4.1. Sample and survey

To test our propositions, we need detailed information on the strategies of MNEs and their subsidiary in a context that likely exhibits considerable differences to the MNEs headquarters. Thus, we use a dataset developed through a questionnaire survey in two
Central European emerging economies: Poland and Hungary. The two economies experience idiosyncratic local pressures for adaptation, while at the same time offering opportunities for global product strategies due to the rapidly evolving nature of the context (Kozminska & Yip, 2000; Schuh, 2001). Critically for our study, they have attracted a large number of foreign investors originating from a wide range of countries of origin and employing a rich variation of corporate strategy. FDI in these two countries has grown from negligible levels in 1990. These countries thus provide the opportunity to analyze a wide range of recently established subsidiaries by both large and small MNEs in an emerging economy (Filatotchev et al., 2008; Meyer & Peng, 2005).

We utilize a dataset from a questionnaire survey of subsidiaries of foreign MNEs that (a) have been established within ten years before the survey, (b) have at least ten employees, and (c) have at least 10% foreign equity. The questionnaire had been designed jointly with the local teams that managed in the data collection. It was translated into local languages and sent in both languages to the chief executive of each MNE subsidiary for which contact information was available in the database. In most cases, this was followed up with telephone calls and personal interviews. Responses were obtained from 345 MNE subsidiaries, a response rate of over 13 percent. Of these 345 observations with no missing values were used in the empirical analysis. Most of the subsidiaries are affiliated to West European MNEs (80%) with most of the remainder belonging to North American MNEs (12%). This corresponds to patterns described in earlier research on the pattern of FDI in this region (Meyer & Peng, 2005).

4.2. Measurements

**Subsidiary performance:** The measurement of subsidiary performance is a major challenge in international business research because MNEs rarely publish subsidiary level financial data, and where they do, these data are affected by accounting practices motivated by tax minimization strategies such as 'transfer pricing' (Eden, 2001). Therefore, studies of subsidiaries mostly use perceptual performance measures based on key informants’ assessment of the subsidiary performance against a relevant benchmark such as industry average or the company’s own targets (Grewal et al., 2008; Monteiro et al., 2008; Subramaniam & Watson, 2006). In our survey, respondents were asked to assess their subsidiary relative to pre-establishment expectations using 5-point Likert scales on five performance criteria: (1) productivity (2) profitability (3) revenue growth (4) domestic market share (5) new product development. The index ‘performance’ is the average of these five items; its Cronbach's alpha is 0.81.

**Explanatory variables:** Our focal explanatory variable is a categorical variable for the four types of strategy defined by Bartlett and Ghoshal (1989). They were constructed as follows. Respondents were asked to rate the degree of respectively local responsiveness and global integration on two seven-point Likert scale items: (1) The foreign parent has centralized many functions such as R&D, finance and procurement. (2) Your firm conducts many major functions locally. (3) The foreign parent has to a high extent standardized products and services worldwide. (4) Your firm has adopted its products and services to a high degree to the local context. We took the average of items 1 and 3 and reduced this measure to a dummy ‘integrated’ distinguishing high (≥ 4.0) and low (≤ 4.0). Likewise, we constructed ‘local’ as a dummy from item 2 and 4. We then defined the dummies for organizational strategy as follows: Transnational = 1 if local = high and integrated = high, Multi-domestic = 1 if local = high and integration = low, Global = 1 if local = low and integrated = high. International strategy represents the case of local = low and integrated = low, and forms the omitted case in our empirical analysis.

**Moderating variables:** We measure export orientation with a variable obtained from the questionnaire. The variable Exports is measured as the percentage of the firms’ selling its good or service in foreign markets. We expect that exporting subsidiaries need more tight integration with the parent MNE. Our next two hypotheses suggest that aspects of entry mode moderate the effects of alternative strategies on subsidiary performance. Hence, we define a dummy variable Wholly owned that takes the value 1 if the subsidiary is fully owned by the foreign MNE, and 0 otherwise. Moreover, we define Acquisition as taking the value of 1 if the subsidiary was originally established by partial or full acquisition, and 0 otherwise. The classification is based on information provided in the questionnaire.

**Control variables:** We employ a three level hierarchical linear model (HLM) to control for higher level variables, as detailed below. This allows us to control for both two host countries and eleven industries. For parent and subsidiary-level characteristics, we introduce a number of control variables. At the parent level, we control for country of origin with the GDP of that country (GDP Source), which captures the level of development and resource munificence that the MNE can draw upon in developing its global operations. At the subsidiary level, we include Subsidiary Age, which represents the year of the legal establishment of the subsidiary and thus captures the acquisition age. We expect older subsidiaries to be more tightly integrated, which makes global and transnational strategies more effective. Moreover, we control for the relative size of the subsidiary relative to the parent, which is based on a 6-point scale in which 1 stands for less than 0.1% and 6 stands for over 20%. We control for the direct effect associated with our three moderating variables, Acquisition, Wholly owned and Export by also including them as control variables. Table 1 reports the descriptive statistics for the variables and correlation matrix.

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**Table 1** Descriptive statistics and correlation matrix.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidiary age</td>
<td>7.043</td>
<td>3.018</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholly owned</td>
<td>.656</td>
<td>.476</td>
<td>−.058</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquisition</td>
<td>.120</td>
<td>.325</td>
<td>−.014</td>
<td>−.519*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Export</td>
<td>31.64</td>
<td>37.70</td>
<td>−.125</td>
<td>.074</td>
<td>−.094</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource transfers</td>
<td>4.39</td>
<td>1.380</td>
<td>.019</td>
<td>.159*</td>
<td>−.091</td>
<td>.063</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative size</td>
<td>3.34</td>
<td>1.684</td>
<td>.102</td>
<td>−.113</td>
<td>−.003</td>
<td>.152*</td>
<td>−.118</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global</td>
<td>.238</td>
<td>.426</td>
<td>−.012</td>
<td>.149 *</td>
<td>−.086</td>
<td>.220*</td>
<td>.162</td>
<td>−.116</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>.132</td>
<td>.339</td>
<td>.067</td>
<td>−.092</td>
<td>.098</td>
<td>.050</td>
<td>−.200</td>
<td>.118</td>
<td>−.220</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Multidomestic</td>
<td>.311</td>
<td>.464</td>
<td>−.055</td>
<td>−.145</td>
<td>.053</td>
<td>−.164</td>
<td>−.220</td>
<td>.031</td>
<td>−.376</td>
<td>−.265*</td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary performance</td>
<td>5.104</td>
<td>1.170</td>
<td>−.160</td>
<td>−.016</td>
<td>−.044</td>
<td>−.057</td>
<td>−.224</td>
<td>−.003</td>
<td>−.004</td>
<td>−.061</td>
<td>−.081</td>
</tr>
</tbody>
</table>

* Significant at 0.05 level.
** Significant at 0.01 level.
for the variables in our analysis the correlations. We note that none of the correlations is so high as to become cause of concern.

A common concern when using perceptual measures created through questionnaire data is common method variance (CMV). In our study, most variables have been collected through a common questionnaire, and the dependent variable, subsidiary performance, is a perceptual measure. Since our hypotheses concern not direct but moderating effects, it is unlikely that they are affected by CMV. However, to further eliminate the possibility of CMV affecting the results, we have undertaken a number of other measures. First, our focal explanatory variable is either factual information collected in form of dummies (Acquisition, Wholly owned, Exports), or they have been transformed in a complex manner (the strategy types).

Second, we reduced the chance of respondents own mental models affecting their responses by firstly placing the pertinent questions in different parts of the questionnaire (which also served to collect data for other studies), using reverse scales for some items, and by focusing our tests on complex relationships that are unlikely to exit in the respondents own mental models.

Third, we have ex post conducted a Harman single factor test, which shows that the single most important factor extracted from the data accounts for only 20.9% of the variation, suggesting that common method bias is unlikely. Finally, the fact that the direct effects of the strategy type variable do not have a direct effect on subsidiary performance further enhances our confidence that CMV is not present in our data.

4.3. Analytic strategies

Our data cover MNE subsidiaries located in two different host countries, and they operate in eleven different industries. To control for possible variations of any of our explanatory variables across these three levels of analysis, we use used a hierarchical linear model (HLM) to estimate our equations (Raudenbush et al., 2004; also see Gong, Kim, Lee, & Zhu, 2013 for a similar application). Since our study is concerned with firm level influences, we use intercept only models at levels 2 (industry) and level 3 (country). This approach allows us to eliminate the possibility that the regression picks up spurious effects caused by cross-country or cross-industry level effects.

We have run our regression in a step-wise style (Table 2). Model 1 only includes the control variables, Model 2 adds the direct effects of the strategy types, and Model 3–5 add sets of interaction effects with the moderating variables that are the focus of our hypotheses. With respect to strategy types, in all models, transnational strategy serves as a base case. Hence, a negative coefficient indicates that the pertinent strategy (global, multi-domestic, international) has a less favorable effect on subsidiary performance than a transnational strategy.

5. Results

Model 1 only includes the control variables, and confirms that most of them are highly significant and signed as expected. The overall model statistics are satisfactory, with $R^2$ for within-country of 0.90 pointing to the high contribution of firm specific rather than country-level effects. In line with our expectations, this model suggests that greenfield subsidiaries and joint ventures perform better than acquisitions (base case), older subsidiaries perform better, as do subsidiaries receiving extensive resources from the parent.

Model 2 adds the direct effects of Bartlett and Ghoshal’s strategy types, global, international and multi-domestic (transnational being the base case). Of these, only the coefficient for multi-domestic is statistically significant, suggesting that a combination of local responsiveness and low integration works well for an average firm. However, different strategies fit different types of businesses and thus we next explore which strategies fits which type of subsidiary.

Model 3 adds the moderating effects with Acquisition and finds that the interaction with International and multi-domestic is large

<table>
<thead>
<tr>
<th>Table 2</th>
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<tr>
<td>Regression: strategy and subsidiary performance.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>SE</td>
<td>$\beta$</td>
<td>SE</td>
<td>$\beta$</td>
</tr>
<tr>
<td>Constant</td>
<td>−0.000</td>
<td>0.002</td>
<td>−0.000</td>
<td>0.002</td>
<td>−0.002</td>
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<tr>
<td>Exports</td>
<td>−0.001</td>
<td>0.003</td>
<td>−0.001</td>
<td>0.003</td>
<td>−0.003</td>
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<tr>
<td>Wholly owned</td>
<td>−0.843</td>
<td>0.114</td>
<td>−0.902</td>
<td>0.123</td>
<td>−0.969</td>
</tr>
<tr>
<td>Acquisition</td>
<td>0.854</td>
<td>0.102</td>
<td>0.700</td>
<td>0.117</td>
<td>−0.544</td>
</tr>
<tr>
<td>Subsidiary age</td>
<td>0.091</td>
<td>0.013</td>
<td>0.108</td>
<td>0.020</td>
<td>0.120</td>
</tr>
<tr>
<td>Resource transfers</td>
<td>0.231</td>
<td>0.049</td>
<td>0.223</td>
<td>0.055</td>
<td>0.403</td>
</tr>
<tr>
<td>GDP pc (parent)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Relative size</td>
<td>−0.023</td>
<td>0.030</td>
<td>−0.053</td>
<td>0.041</td>
<td>−0.021</td>
</tr>
<tr>
<td>Global</td>
<td>0.202</td>
<td>0.182</td>
<td>3.334</td>
<td>0.846</td>
<td>1.258</td>
</tr>
<tr>
<td>International</td>
<td>0.231</td>
<td>0.243</td>
<td>−0.370</td>
<td>0.168</td>
<td>2.652</td>
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<td>Multidomestic</td>
<td>0.636</td>
<td>0.197</td>
<td>0.466</td>
<td>0.133</td>
<td>1.124</td>
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<td>Acquisition × global</td>
<td>0.198</td>
<td>0.152</td>
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<tr>
<td>Acquisition × international</td>
<td>3.409</td>
<td>0.365</td>
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<tr>
<td>Acquisition × multidomestic</td>
<td>1.167</td>
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<tr>
<td>Wholly owned × global</td>
<td>−0.834</td>
<td>0.431</td>
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<tr>
<td>Wholly owned × international</td>
<td>−3.567</td>
<td>0.431</td>
<td></td>
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<tr>
<td>Wholly owned × multidomestic</td>
<td>−0.187</td>
<td>0.494</td>
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<tr>
<td>Export × Global</td>
<td>−0.019</td>
<td>0.007</td>
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<td>Export × International</td>
<td>−0.015</td>
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<tr>
<td>Export × multidomestic</td>
<td>−0.027</td>
<td>0.007</td>
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<td>Industry dummies (10)</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Level 1 (country) intercept (1)</td>
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<td>Yes</td>
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<td>Yes</td>
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<td>$\Delta R^2$ between-country</td>
<td>0.10</td>
<td>0.10</td>
<td>0.09</td>
<td>0.11</td>
<td>0.11</td>
</tr>
<tr>
<td>$\Delta R^2$ within-Country</td>
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<td>0.90</td>
<td>0.89</td>
<td>0.89</td>
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<tr>
<td>Deviance</td>
<td>1047.66</td>
<td>1053.94</td>
<td>1053.46</td>
<td>1044.64</td>
<td>1071.28</td>
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</tbody>
</table>

* Significant at 0.05 level.
** Significant at 0.01 level.
and positive (3.409; p < 0.01 and 1.167; p < 0.01). This suggests provides support for hypothesis H1, which predicted positive moderating effects for international and multidomestic strategies relative to transnational strategies (the base case in the regression). Specifically, this result suggests that acquisitions are easier to implement when the MNE pursues a strategy of low levels of integration and coordination. In such cases, post-acquisition integration is relatively easy and less likely to affect performance negatively than with global or transnational strategies.

Hence, acquisitions serve some purposes but not others. They provide access to local resources that are of interest in particular to firms pursing a high degree of local adaptation in a multi-domestic strategy. They can also be better accommodated by such firms because they do not require a highly integrated organizational culture. In contrast, transnational and global strategies aim to tap into local knowledge pools, but knowledge thus accessed is to be shared within the global corporation. This is difficult to achieve if the subsidiary has a succinct identity of its own. Therefore acquisitions are not a mode suitable to grow a transnational strategy.

In Model 4, we add the interaction effects with Wholly owned, and we find that both international (−3.567; p < 0.01) and global strategies (−0.834; p < 0.05) perform inferior to transnational strategies, while the difference between transnational and multidomestic strategies is insignificant (−0.187). This provides support to hypothesis H2. As argued above, this difference arises from the fact that transnational strategies require more complex internal coordination and knowledge flows. However, a multidomestic strategy also requires extensive coordination even though it is likely to be less complex than with a transnational strategy.

In Model 5, the moderating effects of exports are added, showing that relative to transnational strategy, all other strategies are less successful the higher the export orientation of the subsidiary, including global (−0.019; p < 0.01), international (−0.015; p < 0.05) and multi-domestic strategies (−0.027; p < 0.01) This in line with hypothesis H3. Compared to export-oriented subsidiary under a global strategy, those under a transnational strategy are more able to respond to both the resources they can access locally and hence utilize to develop subsidiary-specific advantages, and also with respect to local demand in export markets. Compared to export-oriented subsidiaries under a multi-domestic strategy, those under transnational strategies benefit from better coordination and resource sharing with other affiliates of the MNE. Relative to international strategies, both negative effects are combined.

We conducted a number of robustness tests on our results. First, we ran our regressions as simple OLS regressions not controlling for hierarchical effects. The results were broadly consistent but generally showed weaker levels of significance than the HLM results that we present here, presumably because industry level effects interfere with our focal relationships. Second, we tested for the possibility that the effects were caused by a small number of very large firms in the sample. Thus we ran the regressions by excluding subsidiaries with more than 10,000 employees, and we ran the regression with and without the size control variable. Both tests led to substantially identical results. Third, we used the individual items of the performance measurement construct. The results again were substantially identical but had lower explanatory power, as one would expect given the reduced variation of the dependent variable. Fourth, we considered the possibility that the empirical support for our hypothesized moderating effects is actually caused by undetected mediation effects. To test for this possibility, we ran a structural equation model in which our moderating variables were entered as mediating variables between the focal variables and subsidiary performance. These models did not generate satisfactory results, and models with moderating effects showed a better fit with the data.

6. Contributions and future research

While Bartlett and Ghoshal’s framework remains popular in strategy and international business textbook and is a commonly used framework among practitioners, there clearly is a need to tie this framework better to contemporary research and in that way enhance its usefulness, or to revise it where necessary (Meyer & Estrin, 2014; Rugman et al., 2011). We have proposed to advance this agenda by developing a contingency perspective where different types of strategy are related to other characteristics of the subsidiary, including its heritage, control and export orientation. We believe such a contingency framework, perhaps extended by additional aspects of subsidiary strategy, may enhance our understanding not only as to when respectively integration and responsiveness are effective, but under which conditions MNEs are able to pursue the two apparently contradictory dimensions of strategy simultaneously, a dream of management gurus ever since Bartlett and Ghoshal (1987, 1989).

Future research may extend this line of work by digging deeper into the differences between global and transnational strategies as both aim to exploit the opportunities of globalization, yet in different ways. In our study, we found them to differ with respect to wholly owned and export-oriented subsidiaries. Future research may further explore how and why full ownership is not facilitating a global strategy, any why global strategies are not effective when it comes to exporting.

As all empirical studies our analysis has limitations that may be addressed in future research. First, the Bartlett and Ghoshal typology itself has been criticized in view of the growing complexity of the strategies of MNEs; and the disaggregation of value chains in particular (Devlinney, Midgley, & Venaik, 2000; Rugman et al., 2011). This critique extends to our analysis and suggests that future research may test more complex models that take into account of subsidiary’s position in the MNE’s value chain.

Moreover, it may be that what subsidiaries actually implement varies from the strategy as it has been conceptualized at the level of the parent MNE. Our empirical measure captures the realized strategy at the subsidiary level. An interesting avenue for future research may be to explore how parents and subsidiaries respectively interpret the strategy of the MNE, and this subsidiary’s strategy within this strategy. Anecdotal evidence from our own field research indicates that at least in some subsidiaries, the parent is perceived to be highly integrated even though statement from headquarters emphasize the decentralized nature of the organization.

Other limitations arise from the structure of the dataset itself. We limit our empirical investigation to two emerging economics Poland and Hungary. They both are in Central Europe, which helps us control for region-specific heterogeneity, and the HLM model helps to control for host country-specific effects. However, it would be interesting in further research to see whether our findings also hold in different emerging economies. Moreover, we have focused only on the subsidiaries’ performance. Future research can collect data from the parent side to analyze performance at both the subsidiary and the MNE level.

Finally, as with all cross-sectional studies, and those using survey data in particular, we have to consider the possibility of reverse causality. In such studies the direction of causality has to be derived from theory and can be by definition not be inferred from the empirical data alone. In the present case, our theory suggests that performance follows the type of strategy, which is consistent with the general presumption the strategic management literature
that performance follows structure. It is possible to argue that performance in the long run would have implications for structure, but this would then only arise from past performance not same-period performance, as in our study. Therefore, we believe that we have a compelling case to argue that the direction of causality is more likely to run in the way we suggest rather than the reverse. However, future studies using longitudinal data may test our assertion.

7. Managerial implications

Our results provide insights into a question of substantive concern to international managers, namely when and where to use either of the four types of strategy identified by Bartlett and Ghoshal (1989). We proposed that the performance of subsidiaries is contingent on the fit of the MNE strategy with other aspects of strategy at the subsidiary level; our results demonstrate this contingent nature of the performance impact of strategy types.

First, we have found few significant direct effects when not simultaneously considering moderating effects capturing the fits of the strategy with other aspect of subsidiary strategy (Model 2). This suggests that ‘fit’ between MNE and subsidiary strategy is key to subsidiary performance. In other words, there is no single best strategy for all firms, rather each MNE needs to design its own strategy around its resources and aims. The ‘transnational solution’ (Bartlett & Ghoshal, 1989), which aims to capture the benefits of both global integration and local responsiveness, may be good for some subsidiaries but not for all subsidiaries.

The transnational solution performs best in subsidiaries that were originally established by acquisition are wholly owned by the MNE and in export-oriented subsidiaries. Acquired subsidiaries have stronger external links with the local environment than internal links with headquarters, while the reverse is true for greenfield projects (Harzing, 2002). That means subsidiaries that were established by acquisitions are more likely to develop distinct organizational structures, cultures and identities that can become obstacles to smooth integration in a transnational organization.

Multi-domestic strategy works best when operating with shared ownership, low export orientation and in acquired subsidiaries. Subsidiaries of multi-domestic companies are relatively autonomous and are allowed to be very responsive to the local market. This sort of arrangement is most consistent with subsidiaries where extensive involvement of the parent organization is either not required (i.e., low export orientation), not feasible (i.e., low equity control) or inhibited by organizational heritage (as in acquired subsidiaries).

Global strategy works best in subsidiaries established as greenfield operations which have a low degree of export orientation, though high ownership control appears not necessary. Global companies tend to focus on low cost advantages and non-location bound advantages, such as knowledge based assets. The absence of post-acquisition integration challenges, enable global MNE to establish more effective coordination of their international operations and to produce standardized products in a very cost-efficient manner.

Finally, international strategies appear to work best in acquired subsidiaries, under low equity control, and with low export orientation. The literature has paid scant attention to international strategy, noting mainly that it would normally be inferior because it neither exploits advantages of responsiveness to local markets, nor advantages of integration and hence knowledge sharing and scale economies. However, our results point to a type of subsidiary that may flourish under an international strategy; partially controlled acquired subsidiaries. Because of their pre-acquisition history, these subsidiaries would have a distinct identity, and a subsidiary-specific competitive advantage that is not dependent on extensive interactions with other parts of the MNE. The acquisition may have been undertaken as financial investment, or in view of long-term strategic objectives that are not dependent on full integration of the subsidiary.

8. Conclusions

Our paper reexamines one of the key textbook models of international business – the Bartlett and Ghoshal typology – by providing some empirical evidence when which strategy is appropriate. Despite its popularity, the IR model lacked empirical validation (apart from specific applications in the field of marketing (Grewal et al., 2008; Roth, 1995). We find support for a contingency model emphasizing strategic fit of the strategy with the context (especially cultural distance) and the mode of establishment of the subsidiary. In particular, we find that a transnational strategy performs best in subsidiaries that are wholly owned by the MNE and highly export-oriented; it even does better than global strategies in acquired subsidiaries. On the other hand, we find that the often-neglected international strategy does well in acquired and partially owned subsidiaries, presumably because such operations have inherited subsidiary-specific advantages. These insights suggest that MNEs need to align their subsidiary strategies with their integration responsiveness strategy type.

Acknowledgements

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References


