IS COMPETITIVE ADVANTAGE A NECESSARY CONDITION FOR THE EMERGENCE OF THE MULTINATIONAL ENTERPRISE?

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This article challenges the view that competitive advantage is a necessary condition for the emergence of the multinational enterprise. It formally derives the conditions under which multinational enterprises may emerge without possessing a competitive advantage vis-a-vis their rivals. This counterintuitive argument is based on three insights: (1) the ability of a larger number of disadvantaged home country entrepreneurs to enroll workers in the host country more efficiently than a smaller number of advantaged host country entrepreneurs; (2) asymmetric liability of foreignness for home and host country entrepreneurs; and (3) the ability of location and internalization advantages to substitute for ownership advantage. Copyright © 2014 Strategic Management Society.
INTRODUCTION

The view that the possession of a competitive advantage is a necessary condition for the emergence of the multinational enterprise (MNE) is a cornerstone of the international business and international strategy literatures. This dates back to Hymer's (1976) ‘liability of foreignness’ (LOF) concept and to Dunning’s eclectic paradigm (Dunning, 1977). It makes the claim that foreign entrants must possess competitive advantages (denoted by Dunning as ‘ownership advantages’)—manifested by technological advantages, well recognized brands, or superior organizational practices to coordinate and control transactions efficiently (Dunning, 1988, 1993)—to compensate for the extra costs of doing business abroad and to successfully compete with indigenous firms and other MNEs. This view has proved robust and, over time, has become an axiom for international business and international strategy scholars in many influential studies seeking to explain the emergence of the MNE (e.g., Kogut and Zander, 1993; Martin and Salomon, 2003; Nachum and Zaheer, 2005; Tallman, 1991; Rugman, 1981).

Yet, the recent rise of emerging country-based MNEs challenges this view. Many emerging country-based MNEs lack firm-specific competitive advantages (Amsden and Chu, 2003; Goldstein, 2007; Mathews, 2006; Ramamurti, 2009a, 2009b; Rugman, 2009), but are apparently still able to establish operations in developed countries. While some scholars have tried to reconcile this contradiction to extant wisdom by pointing to alternative competitive advantages possessed by emerging country-based firms, the debate on the existence or nonexistence of competitive advantages for these types of firms, raises a more fundamental question—*is competitive advantage a necessary condition for firms to become MNEs?* (i.e., to own subsidiaries in two or more countries (Buckley and Casson, 1976; Caves, 1996)).
The current article questions the extant wisdom that competitive advantage is *required* for MNEs to exist. Indeed, at a first glance, the association of MNEs with the possession of valuable and rare firm-specific resources and capabilities is highly plausible and consistent with resource-based arguments for competitive advantage, familiar from the strategy literature (e.g., Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). Yet, if a long-term general equilibrium approach, rather than a short-term single-firm point of view, is taken, this reasoning does not necessarily hold. The long-term general equilibrium approach aims to maximize the overall utility created by *all* players in the global system, rather than taking the partial view of maximizing the utility created by a single firm when operating abroad. It, therefore, implies a steady state where, as long as there is no exogenous change in the baseline parameters, no change in the preference of a given foreign operation mode over others is expected.

As we will show, the general equilibrium approach captures both domestic and foreign utility and accounts for the utility derived both from inward and outward international transactions of both entrepreneurs and workers. This point is critical because in the long run, firms and individuals that can increase their utility are bound to do so (Buckley and Hashai, 2004; Casson, 2000). Ignoring their utility when making predictions regarding the dominancy of a given foreign market operation mode over others is, therefore, likely to be faulty or, at best, yield unsustainable results. Taking a short-term approach further assumes away the likely outcome of depletion of competitive advantages and is subject to the danger of making additional unsustainable predictions. A long-term general equilibrium approach, therefore, offers a more complete account of the considerations for the emergence of MNEs.

The current article builds on the recent work of Buckley and Hashai (2009), who offer a general equilibrium model that formalizes *internationalization* within Dunning's eclectic paradigm. Since this model formulates the specific mathematical relationships that need to be
satisfied in order to allow for the emergence of the MNE\(^1\) vis-a-vis alternative operation modes, it is fairly straightforward to test—in a transparent and rigorous manner—whether these conditions hold for firms that do not possess competitive advantages.

The main conclusions from this exercise are that four major conditions increase the probability of firms that possess no competitive advantages to operate abroad through wholly owned foreign subsidiaries. These conditions are: (1) a greater number of entrepreneurs in the home country relative to the host country, which allows the former to enroll host country workers more efficiently; (2) low liability of foreignness for the home country entrepreneurs operating in the host country, both in absolute terms and relative to the liability of foreignness of the host country entrepreneurs operating in the home country; (3) high transaction costs in the international markets for knowledge, stemming, for instance, from greater tacitness of knowledge; and (4) a relatively larger quantity of labor and greater labor productivity in the home country than in the host country, which allow greater utility generation for home country entrepreneurs since they are not subject to the liabilities of foreignness and international transaction costs when employing domestic workers.

To exemplify this point of view, we have implied that, for instance, a single U.S.-based firm may have some short-term competitive advantages relative to Chinese competitors, yet the Chinese firms, as a group, may still be able to successfully establish foreign operations in the U.S. because: (1) they can enroll U.S. employees more efficiently due to diminishing economies of scale of the U.S. firm; and (2) the managers of the Chinese firms had some background in the U.S. (as students or expatriates) that reduces their liability of foreignness in the U.S., while the U.S. firm managers face high liability of foreignness, which limits the overall outputs of their firm. These two factors are sufficient to allow the Chinese firms to

\(^1\) I.e., the establishment of one or more foreign subsidiaries (Buckley and Casson, 1976; Caves, 1996; Dunning, 1977).
create a greater quantity of products than their U.S. counterpart and also produce such
products more cheaply; and, therefore, outcompete the U.S. firm even with no apparent
competitive advantage. Hence, while competitive advantage may increase the probability for
the emergence of MNEs, this not a necessary condition for it to occur. In other words, as
much as firms do not need a competitive advantage to exist (they just need to be more
efficient than arm's-length market transaction), they do not need a competitive advantage to
become MNEs.

In the next section, we briefly survey the literature on the emergence of MNEs while
focusing on the recent phenomenon of emerging country-based MNEs. Then we summarize
the features of Buckley and Hashai’s (2009) model that compares the utilities of entrepreneurs
and workers (who represent ‘firms’ when bundled together) in various possible foreign
market operation modes, namely: domestic production, outward and inward international
licensing, and outward and inward foreign direct investment (FDI). We then test under what
conditions outgoing FDI is still superior to other operation modes given the existent of
competitive disadvantages of internationalizing firms. Finally, we discuss the implications of
our results on the theory of the MNE and the role of competitive advantage within it, while
highlighting the theoretical and empirical challenges for future research.

LITERATURE REVIEW

The emergence of the MNE

Dunning's eclectic paradigm (Dunning, 1977, 1981, 1988, 1993, 1998) is the most
straightforward articulation of the firm's strategic motivation to become an MNE. It relies on
the combined impact of ownership, location, and internalization advantages. Ownership
advantage is a firm characteristic parallel to competitive advantage.² It is manifested by firm-

² Another popular term for this type of advantage is ‘firm-specific advantage’ (Rugman, 1981; Rugman and
Verbeke, 2001).
specific ownership of intangible assets such as technological, marketing or managerial knowledge as well as by superior managerial capabilities (in comparison to those of competitors) to control and coordinate international transactions. The factors constituting ownership advantages are viewed as an 'intrafirm public good,' transferable between different units of an MNE around the world. In that respect, such factors constitute scale free capabilities (Levinthal and Wu, 2010) that are a source of competitive advantage. Ownership advantage compensates for the liabilities of foreignness (Hymer, 1976; Salomon and Martin, 2008; Zaheer, 1995), reflecting the extra costs of foreign firms doing business abroad and, hence, allows firms to successfully compete with indigenous firms and other MNEs. Location advantage is a country-specific characteristic. Location advantage is represented by the comparative cost of country-specific inputs (e.g., materials, labor, and natural resources) accessible by enterprises operating within that country’s borders or by the cost of trade barriers between countries. The factors that constitute location advantage are country specific and are location bound—they are internationally immobile. Internalization advantage is a transaction attribute. It stems from the fact that the factors constituting ownership advantage become private goods once transferred outside the boundaries of the firm. Internalization advantage applies to the case where the firm prefers to exploit its ownership advantage internally, rather than by licensing or any other collaborative mode, in order to minimize the transaction costs associated with the interfirm transfer of proprietary knowledge and capabilities (Buckley and Casson, 1976; Rugman, 1981). This implies that the existence of ownership advantages (or competitive advantages), foreign location advantages, and internalization advantages are three necessary conditions complementing each other to justify the emergence of the MNE.³

³ It is noteworthy that the separation between ownership and internalization advantages has been criticized by several scholars viewing the two advantages as inseparable (see, for instance, Buckley, 1985: 18; Casson, 1986:}
In a more recent elaboration of this line of thinking greater attention was given to the role of knowledge asset seeking motivation for FDI (Almeida, 1996; Fosfuri and Motta, 1999; Kogut and Chang, 1991; Rugman and Verbeke, 2001). Knowledge asset seeking implies that the MNE’s competitive advantage does not necessarily originate in a firm's home country but may be acquired and augmented abroad. Regardless of its origin, the mere existence of competitive advantages has remained an integral part of explanations for the existence of the MNE where the possession of firm-specific advantages in technological advances, brands, or managerial practices are taken to be a necessary condition for the emergence of the MNE.

Thus, the existence of a competitive advantage has become an integral part of explanations for the existence of the MNE. This view echoes resource-based arguments (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984) in its perception that a firm must possess a competitive advantage in order to outcompete indigenous and other foreign competitors. This stance has not only dominated the international business and international strategy literatures (e.g., Kogut and Zander, 1993; Martin and Salomon, 2003; Nachum and Zaheer, 2005; Tallman, 1991; Rugman, 1981), but has also gained popularity in recent international economics literature (e.g., Carr, Markusen, and Maskus, 2001; Helpman, Melitz, and Yeaple, 2004; Markusen, 2001).

The centrality of competitive advantages in explaining the emergence of the MNE has rarely been challenged. However, Casson (1987) states that a firm's competitive advantage: ‘does not belong within the subdivision of theory that deals with choice [i.e., firm boundaries], but within the subdivision that deals with success’. Yet, this view separating firm boundaries

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45; Eden, 2003; and Rugman, Verbeke, and Nguyen, 2011). Some of this criticism was addressed in Dunning's later work (1988, 1993) and the work of Rugman (1981) by referring to different types of ‘ownership’ or ‘firm-specific’ advantages—those that result from the exploitation of proprietary assets and those that result from the superior capability to coordinate and control transactions. Yet, it is important to note that this line of criticism still views competitive advantage as a prerequisite for the emergence of the MNE.
and firm competitiveness has gained limited attention and has been mostly dismissed (for instance, see Kogut and Zander, 1993).

**The rise of emerging country-based MNEs**

The increased salience of emerging country-based MNEs has led many scholars to wonder how one can explain the ability of these firms to establish wholly owned subsidiaries in advanced countries, given that many emerging country-based firms lack firm-specific competitive advantages (Amsden and Chu, 2003; Goldstein, 2007; Mathews, 2006; Ramamurti, 2009a, b; Rugman, 2009). Multiple pieces of anecdotal evidence, where allegedly more advanced firms from developed countries have been acquired by less advanced firms from emerging ones, has exacerbated the confusion regarding the role of competitive advantage in explaining the emergence of emerging country-based MNEs. This evidence includes Lenovo's takeover of IBM's PC business; the successful operations of Hyundai in the U.S. and Europe; the acquisition of Arcelor by Mittal; Tata group's takeover of the Anglo-Dutch Corus Steel; Jaguar, Land Rover; and Tetley Tea and Cemex's takeover of large cement companies in Australia, the U.K., and the U.S. The absence of competitive advantages for emerging country-based MNEs, therefore, seems to contradict extant explanations for the existence of many MNEs.

Some scholars argue that emerging country-based MNEs enjoy alternative advantages such as: privileged access to country-specific advantages such as natural resources and cheap labor (Rugman, 2009) or access to cheap capital because of imperfections in domestic capital markets (Buckley et al., 2007). Other explanations regarding the increased activity of emerging country-based MNEs in advanced countries are based on their desire to access superior knowledge resources in such countries (Dunning, 2006; Dunning, Kim, and Park, 2008; Goldstein, 2007; Luo and Tang, 2007; Mathews, 2002). While this is a possible motivation for emerging country-based MNEs to engage in FDI in advanced countries, it
remains unclear whether firms that are less advanced can outcompete more advanced firms in their own home markets and whether less advanced firms are really able to successfully acquire and absorb the knowledge of more advanced ones.

The debate regarding the existence or nonexistence of competitive advantages for emerging country-based MNEs, therefore, raises a more general question: is the extant literature correct in assuming that competitive advantages are indeed a necessary condition for the emergence of MNEs? In theoretical terms, it is interesting to ask whether a Country A firm that is competitively disadvantaged relative to a Country B firm (and does not possess alternative firm-specific advantages to compensate for its disadvantages) may establish wholly owned subsidiaries in Country B without acquiring Country B firm’s sources of competitive advantage.

To answer the question in a transparent and rigorous manner, the current article builds on the recent formalization of internationalization within the eclectic paradigm as presented by Buckley and Hashai (2009). Buckley and Hashai offer a simple general equilibrium model that specifies in mathematical terms the relationships that need to be satisfied in order to allow for the emergence of the MNE vis-a-vis alternative operation modes, such as domestic production (for local consumption and/or exports) and international licensing. Given the specific mathematical relationships, it is fairly straightforward to test whether the conditions for outward FDI through the establishment of wholly owned subsidiaries hold for firms that do not possess competitive advantages.

COMPETITIVE ADVANTAGE WITHIN THE ECLECTIC PARADIGM

Buckley and Hashai (2009) consider a world comprised of two countries: A and B, representing a home and a host country, respectively. A single good ($g$) can be produced in A and B, by using two intermediate goods: labor ($l$) and know-how ($k$). It is assumed that there
are two types of ‘consumer-producer’ individuals in A and B: ‘entrepreneurs’ and ‘workers.’ The entrepreneurs supply technological, marketing, or managerial know-how that is transformed by the workers into units of \( g \). It is further assumed that there are \( n_A \) identical entrepreneurs in A and \( n_B \) identical entrepreneurs in B. This assumption is consistent with our main interest in the competitive advantage of entrepreneurs from A relative to that of entrepreneurs from B.

The production function of \( g \) is assumed to be of a Cobb-Douglas type, in the following structure:

\[
G = a K^\alpha L^\beta
\]

where \( G \) is the output volume of \( g \), and \( K \) is the required level of \( k \) to produce \( g \). \( K \) can be thought of as the level of tacit and codified technological know-how, brands, and organizational practices to efficiently coordinate and control transactions obtained by entrepreneurs. \( K \) can, therefore, be thought of as a scale free, nondiminishable resource (Levinthal and Wu, 2010). \( L \) is the quantity of \( l \) required to produce \( g \) and \( \alpha \) and \( \beta \) are productivity constants. The costs of producing a given quantity of \( K \) are assumed to be sunk costs, while \( L \) is subject to a per unit wage cost of \( w_i \) (i=A,B). Constants \( a, \alpha, \) and \( \beta \) are positive, with \( a>1, 0<\alpha<1, \) and \( 0<\beta<1, \) reflecting the diminishing returns of \( K \) and \( L \). Know-how productivity (\( \alpha \)) is assumed to be equal in A and in B; however, labor productivity is assumed to be different—accordingly, workers’ productivity in A is denoted as \( \beta_A \) and workers’ productivity in B is denoted as \( \beta_B \).

Following classic trade theories (e.g., Heckscher, 1949; Ohlin, 1933) entrepreneurs and workers cannot permanently move between A and B, however the entrepreneurs’ \( k \) can be transferred across borders.\(^5\) Entrepreneurs may also sell know-how (\( k \)) to other entrepreneurs in the market. Since in each country entrepreneurs are assumed to be identical, the sale of \( k \) is

\[\text{It is noteworthy that in the original Cobb-Douglas formulation, } K \text{ denotes ‘capital,’ whereas in our model, it denoted ‘knowledge.’}\]

\[\text{Following Casson (1985), the fact that capital can be considered even more mobile across countries than knowledge indicates that it has little or no impact on competitive or comparative advantages. We, therefore, do not include capital in our model.}\]
relevant only between A and B. Thus, k is an intangible tradable intermediate good that is not freely available in the market, where entrepreneurs with higher K are said to have an ownership (or competitive) advantage. \( K' \) represents the level of k held by each entrepreneur in \( i (i=\text{A,B}). \) \( te_{k,i,j} \) is the transaction efficiency of the sale of know-how to other entrepreneurs, where \( 0<te_k<1, \ i,j=\text{A,B}, \ i\neq j. \) Thus, in the case where k is traded in the market, it is subject to a transaction cost coefficient of \( 1-te_k. \) For the sake of simplicity, intrafirm transaction costs are assumed to be zero (i.e., \( te_k=1) \) and, hence, reflect the internalization advantage.

Given that workers cannot move between A and B, l is a country-specific intermediate good representing an important component of location advantage. The overall quantity of labor available in A and B is denoted by \( L_A \) and \( L_B, \) respectively.

An additional major factor in the model is the efficiency of operating in a foreign country, denoted as \( te_{f,i,j} \) (i,j=\text{A,B, i}\neq j). Thus, \( 1-te_{f,i,j} \) may be regarded as a fixed learning cost that stems from the ‘liability of foreignness’ (Hymer, 1976; Salomon and Martin, 2008; Zaheer, 1995). Entrepreneurs from A are foreigners in B (and vice versa) and, thus, have to pay a certain ‘cost penalty’ over indigenous entrepreneurs who are more familiar with the local business, legal, and political environments.

Based on the these assumptions, Buckley and Hashai (2009) calculate the utility of all firms, represented by bundles of entrepreneurs and workers in Countries A (the ‘home’ country) and B (the ‘host’ country) in five alternative operations modes: (1) domestic production which serves for exports and/or local consumption (entrepreneurs from A (B) enrolling workers from the same country); (2) international licensing from A to B (entrepreneurs from A selling their k to entrepreneurs from B who enroll workers from B); (3) international licensing from B to A (entrepreneurs from B selling their k to entrepreneurs from A who enroll workers from A); (4) FDI in B (entrepreneurs from A enroll workers from B);
and (5) FDI in A (entrepreneurs from B enroll workers from A). In all cases, the general equilibrium approach dictates that the utility of A and B entrepreneurs and workers from domestic and foreign production is taken into account where both the markets for end products and production factors are cleared. The transactions involved in each operation mode, the resulting production characteristics, and the calculation of the overall utility derived for entrepreneurs and workers from each operation mode are described in detail in Buckley and Hashai (2009) and are not repeated here for the sake of brevity (a summarized description of all operation modes and their resulting overall utility appears in Table 1).

By comparing the overall utility obtained from the different operation modes, Buckley and Hashai (2009) are able to define the set of necessary and sufficient conditions for the emergence of the MNE. Entrepreneurs are expected to prefer the operation mode where they obtain the highest utility. Workers, however, are expected to prefer the operation mode that yields the highest wages for their level of productivity and, thus, would prefer to work for the entrepreneur with the highest utility level. Typically, each entrepreneur has his/her own production function that can then be aggregated for all entrepreneurs in a given country. Hence, the operation mode that yields the highest overall utility will be selected in equilibrium. This approach is consistent with the traditional view in the strategic management literature whereby higher utility creation is equivocal to potentially superior performance.6

It is noteworthy that the approach taken by Buckley and Hashai (2009) is broader than that of Dunning and his followers because it explicitly considers the domestic utility derived by A and B entrepreneurs and the utility that B entrepreneurs derive from international licensing or FDI in A, in addition to the utility derived by the A entrepreneurs in B. This view differs from the more limited analysis, focusing only on the utility derived by the home

6 We are in debt to an anonymous reviewer for this insight.
country entrepreneurs from possible operation modes relative to host country entrepreneurs’ utility from domestic production. The importance of taking this general equilibrium approach lies in the fact that, in the long run, entrepreneurs and workers who can increase their utility through alternative operation modes will do so (Buckley and Hashai, 2004; Casson, 2000). Ignoring the domestic utility of internationalizing entrepreneurs (and the resulting utility of their workers) as well as the utility from incoming licensing and incoming FDI is, therefore, likely to lead to unsustainable and erroneous conclusions regarding the dominancy of a given operation mode over others and does not offer a complete account of all possible operation modes that can emerge in the global system.

Taking the point of view of entrepreneurs in A (the ‘home’ country), the set of necessary and sufficient conditions for FDI in B (the ‘host’ country), reflecting the emergence of MNEs from A, is specified by inequalities 1a-1d, which represent the conditions under which the overall utility from FDI in B (i.e., outgoing FDI from A) is greater than the overall utility from domestic production, international licensing from A to B, international licensing from B to A, and FDI in A, respectively:

\[
\frac{(K'_{A})^{a} n_{A}^{1-\beta_{A}} (L_{A})^{\beta_{A}} + (K'_{A})^{a} n_{A}^{1-\beta_{A}} (te_{f,AB})^{a} (L_{B})^{\beta_{B}}}{(K'_{A})^{a} n_{A}^{1-\beta_{A}} (L_{A})^{\beta_{A}} + n_{B}^{1-\beta_{B}} (K'_{B})^{a} (L_{B})^{\beta_{B}}} > 1 \quad (1a)
\]

\[
\frac{n_{A}^{1-\beta_{A}} (L_{A})^{\beta_{A}} + n_{A}^{1-\beta_{B}} (te_{f,AB})^{a} (L_{B})^{\beta_{B}}}{n_{B}^{1-\beta_{B}} (te_{k,AB})^{a} (L_{B})^{\beta_{B}} + n_{A}^{1-\beta_{A}} (L_{A})^{\beta_{A}}} > 1 \quad (1b)
\]

\[
\frac{(K'_{A})^{a} n_{A}^{1-\beta_{A}} (L_{A})^{\beta_{A}} + n_{A}^{1-\beta_{B}} (te_{f,AB})^{a} (L_{B})^{\beta_{B}}}{(K'_{B})^{a} n_{A}^{1-\beta_{A}} (te_{k,BA})^{a} (L_{A})^{\beta_{A}} + n_{B}^{1-\beta_{B}} (L_{B})^{\beta_{B}}} > 1 \quad (1c)
\]

\[7\] Buckley and Hashai (2009) also relate to knowledge asset seeking driven FDI. We ignore this operation mode in the current article, since it is obvious that the utilization of superior knowledge in B by A’s entrepreneurs will always lead to higher utility. In contrast, our specific interest in the current article focuses on whether FDI is feasible without such superior knowledge.
THE ROLE OF COMPETITIVE DISADVANTAGE

Equations 1a-1d enable a straightforward analysis of the research question raised in the current article. Since $K'_i$ represents the level of $k$ held by each entrepreneur in $i$ ($i=A,B$), it follows that the ratio $\frac{K'_A}{K'_B}$ represents the level of knowledge held by A’s entrepreneurs relative to that of B’s entrepreneurs. Thus, if $\frac{K'_A}{K'_B} < 1$, it follows that B’s entrepreneurs enjoy a competitive advantage over A’s entrepreneurs. Assigning this inequality in equations, 1a-1d should, therefore, yield the conditions for the emergence of an MNE from A in the case where competitive advantages are absent, relative to each alternative operation mode, as will be detailed later.

Outward FDI versus domestic production

We first compare the utility from FDI in B relative to that of domestic production in both A and B (for exports and/or local consumption). An investigation of Equation 1a reveals that the equation holds if the right part of its numerator is larger than the right part of its denominator. This implies that we are interested in the relative utility created in Country B by either A’s or B’s entrepreneurs, while assuming constant the utility created by A's entrepreneurs in their home country. A simple mathematical manipulation of the term

$$\frac{(K'_A)^\alpha n_A^{1-\beta_A} (L_A)^{\beta_A} + n_A^{1-\beta_A} (te_{f,AB})^\alpha (L_B)^{\beta_B}}{n_B^{1-\beta_B} (K'_B)^\alpha (L_B)^{\beta_B} + n_B^{1-\beta_B} (te_{f,BA})^\alpha (L_A)^{\beta_A}} > 1$$

(1d)

under our baseline condition that $\frac{K'_A}{K'_B} < 1$, leads to Equation 2a:
Equation 2a spells out the condition for FDI in B to occur without having a competitive advantage of A’s entrepreneurs, rather than domestic production in A and B. Essentially it implies that the number of entrepreneurs in A should be sufficiently larger than the number of entrepreneurs in B to compensate for the liability of foreignness of A’s entrepreneurs when operating in B. Equation 2a brings to the forefront the importance of taking a general equilibrium approach rather than the single firm approach taken by Dunning and his followers when articulating the conditions for the emergence of the MNE. This approach highlights, in this specific case, the importance of scale and of taking both the utility from domestic and foreign operations into account. Country A’s entrepreneurs may be disadvantaged relative to those of Country B in terms of firm-specific competitive advantages and may be liable to the extra costs of operating in a foreign country; yet if there is a large enough number of entrepreneurs, the overall utility that these entrepreneurs create will be greater than that of a smaller number of more advantaged local entrepreneurs. This results from the diminishing returns to scale of the entrepreneurs’ production function, implying that, in this case, the relatively few entrepreneurs from Country B may be unable to efficiently employ all the workers in B, allowing A’s entrepreneurs to create greater utility when enrolling B’s workers.  

The prediction is that large countries, which are relatively abundant with entrepreneurs, may be able to use their relative scale advantage to engage in outward FDI even in the absence of competitive advantages. So, a large group of Indian or Chinese entrepreneurs may outcompete fewer but larger American or European entrepreneurs due to the lesser diminishing effects in

\[
\frac{n_B^{1-\beta_B}}{n_A^{1-\beta_B}} < (te_{f,AB})^\alpha
\]  

It can easily be shown that for the utility functions detailed in Table 1, for the same amount of workers employed, a higher number of entrepreneurs leads to greater overall utility.
enrolling labor. In practical terms, the many small car manufacturers from China may outcompete General Motors in the U.S. even if the latter is more technologically advanced.

Equation 2a further allows the introduction of empirically testable propositions regarding the likelihood of FDI in B relative to domestic production. As indicated before, the greater the number of entrepreneurs in A relative to that of entrepreneurs in B, the higher the probability of FDI in B. Furthermore, Equation 2a implies that the number of entrepreneurs in A must be larger than that in B in order to allow FDI in B, since the ratio of B's entrepreneurs to A's entrepreneurs must be smaller than \( te_{f,AB} \) (which is, by definition, smaller than 1). Likewise, the lower the liability of foreignness for A's entrepreneurs to operate in B (i.e., the higher the transaction efficiency of transferring knowledge from A to B), the higher the probability of FDI in B. The latter proposition is fairly intuitive and self-explanatory, yet it is different from the accepted interpretation of the liability of foreignness since here low liability of foreignness allows outward FDI in the case of a competitive disadvantage. Following our example regarding the group of Chinese car producers competing with General Motors, we expect Chinese firms headed by managers that have been educated or formerly posted in the U.S., to have an even greater probability of outcompeting General Motors.

**Outward FDI versus outward licensing**

When it comes to the relative utility of FDI in B and *international licensing from A to B*, Equation 1b indicates that the \( \frac{K'_A}{K'_B} \) ratio does not play any role in this case. A mathematical manipulation of Equation 1b indicates that the condition for greater utility for FDI in B than that of international licensing from A to B is:

\[
\frac{te_{f,AB}}{te_{k,AB}} < \frac{n_{B}^{1-\beta_B}}{n_{A}^{1-\beta_A}} \]  

(2b)
Equation 2b implies that in addition to the relative number of entrepreneurs in A and B and the extent of liability of foreignness for A’s entrepreneurs to operate in B, discussed above, the transaction efficiency of the international market for know-how is another factor affecting the probability of FDI in B. In fact, the main insight of Equation 2b is that the relative transaction efficiencies of the market for know-how and that of operating in a foreign market are dominant determinants of the emergence of MNEs from A (investing in B). The greater the transaction efficiency of operating in country B for A’s entrepreneurs (i.e., the lower their liability of foreignness) and the lower the transaction efficiency of the international market for know-how (i.e., the greater the international transaction costs), the greater the probability of FDI in B. This insight is perfectly consistent with the point of view of the internalization school (Buckley and Casson, 1976; Rugman, 1981) and shows that competitive advantage does not play a role in the decision whether to internalize or externalize foreign operations when compared to outward licensing.

**Outward FDI versus inward licensing**

When comparing the relative utility from FDI in B for MNEs with no competitive advantages and the utility from *international licensing from B to A*, mathematical manipulation of Equation 1c, under the base assumption that \( \frac{K_A'}{K_B'} < 1 \), leads to the following inequality:

\[
n_A^{1-\beta_1} (L_A)^{\beta_1} (1-(te_{k,BA})^\alpha) > (L_B)^{\beta_B} (n_B^{1-\beta_B} - n_A^{1-\beta_B} (te_{f,AB})^\alpha)
\]  

Equation 2c indicates that the probability of MNEs from A, with no competitive advantage, to engage in FDI in B increases in the following cases: (1) the transaction costs in the international market for technology (from B to A) are high; (2) the number of A’s entrepreneurs (relative to the number of B’s entrepreneurs) is high; (3) the liability of foreignness of A’s entrepreneurs operating in B is low; and (4) the relative labor contribution
to utility (as a function of the quantity of Labor, $L$, and labor productivity $\beta$, $\frac{(L_A)^{\beta_a}}{(L_B)^{\beta_b}}$, is high. Cases 1-3 were already discussed for Equations 2a and 2b. Case 4 seems counterintuitive at first sight. However, its reasoning can be explained when considering the differential effects of $te_{f,AB}$ and $te_{k,BA}$ on FDI in B and on international licensing from B to A.

A’s entrepreneurs are not ‘taxed’ on the domestic production part of the utility they gain from $(L_A)^{\beta_a}$ (as reflected by $K_A' n_A^{1-\beta_a} (L_A)^{\beta_a}$). They are taxed (in terms of the liability of foreignness), however, on the utility they gain from $(L_B)^{\beta_b}$ (see Equation 1c). But, B’s entrepreneurs are not ‘taxed’ on the domestic production part of the utility they gain from $(L_B)^{\beta_b}$ (as reflected by $K_B' n_B^{1-\beta_b} (L_B)^{\beta_b}$), but are taxed (in terms of transaction costs) on the utility they gain from $(L_A)^{\beta_a}$ (see Equation 1c). Since in both operation modes the domestic and foreign utilities are taken into account, it follows that the higher the wedge between $(L_A)^{\beta_a}$ and $(L_B)^{\beta_b}$, the higher the utility from FDI in B relative to the utility from international licensing from B to A. In other words, the greater domestic utility created by A’s entrepreneurs (who also engage in FDI in B), when $(L_A)^{\beta_a}$ is sufficiently larger than $(L_B)^{\beta_b}$, leads to the dominancy of outward FDI on inward licensing.

**Outward FDI versus inward FDI**

Finally, a comparison of the relative utility from FDI in B for MNEs with no competitive advantages and that of FDI in A (incoming FDI) allows the testing (of probably the most interesting case) of competing MNEs from two different nations. Equation 2d specifies the conditions for the former to exist under the base assumption that $\frac{K_A'}{K_B'} < 1$:

$$(L_A)^{\beta_a} (n_A^{1-\beta_a} - n_B^{1-\beta_b} (te_{f,BA})^a) > (L_B)^{\beta_b} (n_B^{1-\beta_b} - n_A^{1-\beta_a} (te_{f,AB})^a)$$

(2d)
Equation 2d indicates that the probability of MNEs from A, with no competitive advantages, to engage in FDI in B increases in the following cases: (1) the number of A’s entrepreneurs (relative to the number of B’s entrepreneurs) is high; (2) the liability of foreignness of A’s entrepreneurs operating in B is low, relative to the liability of foreignness of B’s entrepreneurs operating in A; and (3) the relative labor contribution to utility (as a function of the quantity of Labor, $L$, and labor productivity $\beta$), $\frac{(L_A)^{\beta_A}}{(L_B)^{\beta_B}}$, is high. The first case was already identified in Equations 2a-2c. The second case is intuitive and straightforward and demonstrates that it is not only the liability of foreignness of MNEs from a given country that matters, but actually the relative liability of foreignness of competing MNEs from different nations. This view is consistent with the literature on asymmetric cultural and psychic distances between countries (Shenkar, 2001; Hakanson and Ambos, 2010). Given that cultural distance is one of the major factors affecting the liability of foreignness, asymmetric cultural distance leads to differences in bidirectional liabilities of foreignness. It shows that even without the possession of a competitive advantage, a relatively lower liability of foreignness to that of competing MNEs originating from other countries may allow MNEs to engage in outgoing FDI at the expense of incoming FDI (from MNEs with a competitive advantage). Case 3 once again seems counterintuitive. However, its reasoning can be explained similarly to the approach taken for Equation 2c, while considering the effects of $te_{f,AB}$ and $te_{f,BA}$ on FDI in B and FDI in A. A’s entrepreneurs are not ‘taxed’ on the domestic production part of the utility they gain from $(L_A)^{\beta_A}$, but are taxed (in terms of the liability of foreignness from A to B) on the utility they gain from $(L_B)^{\beta_B}$ (see Equation 1d). B’s entrepreneurs are not ‘taxed’ on the domestic production part of the utility they gain from $(L_B)^{\beta_B}$, but are taxed (in terms of the liability of foreignness from B to A) on the utility they gain from $(L_A)^{\beta_A}$ (see Equation 1d).
Taken together, it once again follows that the higher the wedge between $(L_A)^{\beta_s}$ and $(L_B)^{\beta_s}$, the higher the overall utility from FDI in B relative to the overall utility from FDI in A.

Overall, when considered *jointly*, Equations 2a-2d represent the necessary and sufficient conditions for the emergence of MNEs with no competitive advantage. The equations demonstrate how internalization advantage (represented by $t_{k,ij} \ i,j=A,B$), the liability of foreignness (as a function of $t_{f,ij} \ i,j=A,B$), and relative location advantage (represented by $(L_A)^{\beta_s}$ and $(L_B)^{\beta_s}$) interact among themselves and with the relative number of entrepreneurs in each country (represented by $n_i \ i=A,B$) to allow outgoing FDI, even in cases where a competitive advantage does not exist. This insight supports the view of Buckley and Hashai (2009) that ownership (or competitive), location, and internalization advantages should be conceived as the product of continuous (nonzero) variables, with the magnitude of each variable affecting the probability of the emergence of MNEs. Thus, competitive disadvantage can be counterbalanced by other factors included in the model and, therefore, MNEs with no competitive advantage emerge. Ownership, location, and internalization advantages, hence, do not only complement, but also substitute, for each other.

**DISCUSSION**

The existence of a competitive advantage as a precondition for the emergence of MNEs is a cornerstone of international business theory. While acknowledging that in many cases MNEs possess competitive advantages when internationalizing, this article challenges the extant wisdom that assumes competitive advantage is a *necessary* condition for the emergence of the MNE. This view, pioneered by Hymer (1976) and Dunning (1977), takes a single firm point of view to determine that firms must have a competitive advantage to successfully compete with indigenous and other foreign firms in host foreign markets. In contrast, this article

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9 Individually, each equation represents a necessary but insufficient condition for the emergence of MNEs with no competitive advantage.
compares the overall utility from outward FDI relative to the overall utility from multiple alternative operation modes.

This approach, based on the formalization of internationalization in the eclectic paradigm, recently suggested by Buckley and Hashai (2009), differs from the traditional interpretation of the eclectic paradigm in several ways. First, while the original paradigm is mostly compared with domestic production in the host country and international licensing from the home to the host country, the current approach also contrasts the utility of outgoing FDI with the utility from international licensing from the host to the home country and with incoming FDI from the host to the home country. In this respect, the approach suggested by Buckley and Hashai (2009) offers a more complete account of the feasibility of FDI than the original paradigm and is more up-to-date in capturing recent developments in the global system. Second, a general equilibrium approach takes into account both the domestic and foreign utilities of all actors in the global system, namely the entrepreneurs and the workers in the home and host countries. In contrast, the original paradigm focuses only on the utility that entrepreneurs can gain when operating in a host country and, hence, provides only a partial and potentially misleading view on the utility consequences of the global system players. The current type of modeling is consistent with the general equilibrium approach taken by Coase (1937). In particular, the consideration of the utility of entrepreneurs from domestic production, in addition to foreign operations and the consideration of the utility from employing otherwise inefficiently employed host country workers, are important. This is because in general equilibrium terms we are interested in the overall utility created by entrepreneurs in their home and host countries and in the clearing of both the product and factor markets. Third, the general equilibrium approach takes a long-term view, whereas the partial equilibrium is short term in nature. Taking a short-term approach is subject to the danger of making unsustainable predictions. This flaw is, in fact, exacerbated, given the focus
of this article, because it assumes away the likely outcome of depletion of competitive advantages over time and, hence, cannot predict long run determinants of global configurations. Finally, the approach taken by Buckley and Hashai (2009) treats ownership advantage, location advantage, and internalization advantage as continuous variables that can compensate for each other. It thereby enables outgoing FDI to occur even without the possession of ownership (or competitive) advantages. In other words, it shows that the three types of advantages do not only complement, but also substitute for, each other. Hence, firms that do not possess ownership advantages may still be able to create greater utility than those with such advantages by better exploiting labor at home (due to absence of liabilities of foreignness) and at the host country (where a group of disadvantaged foreign entrepreneurs avoid the diminishing returns to scale of a smaller group of more advantaged local entrepreneurs). In addition, firms with no competitive advantages are in particular expected to outperform more advantaged firms in industries with high transaction costs, e.g., where there is a need to extensively transfer tacit knowledge, thereby making licensing a less viable option (Kogut and Zander, 1993; Martin and Salomon, 2003).

The current article specifically tests the conditions necessary for outward FDI to occur for entrepreneurs who lack competitive advantages vis-à-vis competing host country entrepreneurs. It does so by assuming that the knowledge stock of these entrepreneurs, in terms of proprietary assets and the capability to efficiently coordinate and control transactions, is lower than that of their foreign competing entrepreneurs. The analysis reveals that, contrary to conventional wisdom, outward FDI is indeed possible even without the possession of competitive advantages and that the conditions for this to occur, when the utility from outward FDI is compared to that of alternative operation modes, are consistent.

We have identified four complementary conditions that allow for outward FDI to occur, in the absence of competitive advantages. These conditions are: (1) a sufficiently larger
number of entrepreneurs in the home country relative to the host country, whose overall utility substitutes for the utility created by a smaller number of more advantaged entrepreneurs. This results stems from the diminishing returns to scale of the entrepreneurs' production function, implying that a larger number of disadvantaged entrepreneurs may more efficiently employ foreign workers than a smaller number of advantaged entrepreneurs from the host country. Thus, employing otherwise inefficiently employed foreign workers allows the former group of entrepreneurs to outcompete the latter; (2) low liability of foreignness for the home country entrepreneurs when operating in the host country, both in absolute terms and relative to the liability of foreignness of the host country entrepreneurs operating in the home country. This condition is straightforward, as it implies a smaller depreciation of the utility created by such entrepreneurs relative to that of advantaged host country entrepreneurs, thus acting as a neutralizer of the latters' advantages; (3) high transaction costs in the international markets for knowledge that indicates that the greater utility created by more advantaged entrepreneurs is compromised when externalized foreign market operation modes such as licensing are used; and (4) a higher home country labor contribution to utility (as a function of the quantity of Labor, $L$, and labor productivity $\beta$) than that of the host country, reflecting the importance of scale in allowing outward FDI in the absence of competitive advantages, this time with respect to labor abundance. This allows home country entrepreneurs to generate higher utility, as they are not subject to the liabilities of foreignness and international transaction costs when employing domestic workers, and this may lead to a greater overall utility (accounting for both domestic and foreign market-created utilities) of competitively disadvantaged entrepreneurs from large home countries.

It follows that scale in terms of the number of entrepreneurs and workers in the home country, low liability of foreignness, high transaction costs, and high domestic labor productivity may compensate for the lack of competitive advantages to allow for the
emergence of MNEs. This observation may further allow predicting in which countries and industries we are likely to witness the emergence of MNEs with no competitive advantages. In terms of scale, one may anticipate that the large emerging countries that are abundant with entrepreneurship and labor, but where entrepreneurs usually lack competitive advantages, may be a viable source of outward FDI. Hence, it is no surprise that firms from Brazil, Russia, India, and China (BRIC) have been internationalizing rapidly to advanced countries in the last decade. In fact, the stock of outward FDI from the BRIC countries to leading developed economies such as the United States, the United Kingdom, Japan, and Germany has increased tenfold in the last decade (OECD, 2012). In such countries, the relative abundance of entrepreneurs and workers may well be the main driver for the increasing levels of outward FDI directed toward advanced countries.

In terms of liability of foreignness, several factors are leading to the reduction in liability of foreignness for emerging countries’ entrepreneurs operating in advanced countries. These include: the increasing number of students from the BRIC (and other emerging) countries who are educated in Western higher education institutions (located either in advanced countries or in emerging countries); the experience gained by emerging countries’ entrepreneurs who have been working in the past for advanced countries’ MNEs; and the growing trend of repatriation from advanced countries to emerging countries as the standard of living in these countries rapidly increases (Peng, Wang, and Jiang, 2008). All these factors decrease the liability of foreignness for entrepreneurs from emerging countries when operating in advanced countries. However, this process is not symmetrical where the substantially different institutional and cultural environments in emerging countries seem to keep on heavily taxing advanced countries’ entrepreneurs in terms of the costs of doing business abroad (Henisz, 2005; Peng et al., 2008; Hakanson and Ambos, 2010).
It is further anticipated that in countries and industries where international transaction costs are high, the probability of the emergence of MNEs with no competitive advantages will increase. This implies that countries where bilateral treaties for intellectual property protection are not settled—as is often the case where emerging and advanced countries are concerned—are natural candidates for this phenomenon. In addition, industries with higher transaction costs, which are usually high technology industries such as automotive, electronics or software, are likely to be candidates for the emergence of FDI of the type analyzed in this article. Indeed, the international rise of firms such as TATA, Infosys, Haier, and so on falls well within this category. Finally, when referring to labor productivity, recent evidence shows that the gap in productivity between emerging and advanced countries is closing rapidly (Isaksson, Ng, and Robyn, 2005). As we have argued, the contribution of domestic production to the utility of internationalizing entrepreneurs plays an important role in allowing such entrepreneurs to successfully outcompete host country entrepreneurs who possess firm-specific advantages. In fact, our approach emphasizes the importance of the home country location advantages, rather than the host country location advantages, in promoting outward FDI in the absence of competitive advantages.

CONCLUSION

The research question posed in this study should not be taken to refute the view that MNEs often do possess firm-specific competitive advantages. The current article shows formally that the existence of such advantages is actually not a necessary condition for outward FDI. This is clearly an important twist to the theory of the MNE as articulated in both the international business and international economics literatures (e.g., Carr et al., 2001; Helpman et al., 2004; Markusen, 2001) and allows us to think more widely about the determinants of outward FDI. Furthermore, our arguments regarding the factors allowing the emergence of MNEs that do not necessarily possess competitive advantages can be tested empirically due to the fact that
we treat the different components of the eclectic paradigm separately. As discussed by Buckley and Hashai (2009), several easily accessible proxies can be found to test the validity of our view in different country and industrial settings.

It is noteworthy that the model presented in this article can be easily expanded into a multicountry model where entrepreneurs in some countries are less advantaged than entrepreneurs in others. While the current article sought to make a point by focusing on the simplest case of a two-country model, it would be interesting to test possible configurations of the global systems where multiple countries are taken into account. In addition, we chose to take the simplifying assumption that the entrepreneurs in each country are identical. Once again, this assumption has facilitated the main argument of this article. In reality, one can expect that this would not be the case. If this assumption is relaxed, one may expect an equilibrium where competitively advantaged entrepreneurs from the host country will operate domestic firms in addition to competitively disadvantaged entrepreneurs from the home country as long as the number of workers employed by the former entrepreneurs is not outweighed by the better labor utilization of the larger number of the latter entrepreneurs. Thus, extending the current article into a multicountry model as well as allowing for some heterogeneity of entrepreneurs within each country are two promising avenues to extend our understanding of the factors that allow the emergence of MNEs.

The conclusion of this article is that the centrality that competitive advantages have gained in explaining the emergence of MNEs has been overemphasized. We suggest that the combination of: (1) location advantages originating in the international trade and economics literatures (e.g., Heckscher, 1949; Ohlin, 1933); (2) internalization advantages as articulated by Buckley and Casson (1976) and Rugman (1981) among others; and (3) the liability of foreignness (Hymer, 1976, Zaheer, 1995) provides a sufficient explanation for the phenomenon of the MNE. Competitive advantages may play an important role in specific
instances but, as this article shows, MNEs may exist without their possession. Just as firms do not need a competitive advantage to exist, they do not need a competitive advantage to become MNEs.

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<table>
<thead>
<tr>
<th>Operation mode</th>
<th>Production characteristics in A</th>
<th>Production characteristics in B</th>
<th>Overall utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic production for exports and local consumption</td>
<td>A’s entrepreneurs use their $k$ to produce $g$ with $L_A$</td>
<td>B’s entrepreneurs use their $k$ to produce $g$ with $L_B$</td>
<td>$U_{domestic} = n_A a (K_A')^v (L_A / n_A)^{v'x} + n_B a (K_B')^v (L_B / n_B)^{v'}$</td>
</tr>
<tr>
<td>International licensing from A to B</td>
<td>A’s entrepreneurs use their $k$ to produce $g$ with $L_A$</td>
<td>B’s entrepreneurs use $k$ from A’s entrepreneurs to produce $g$ with $L_B$</td>
<td>$U_{licensing-ab} = a (K_A')^v (t_{ea,ab}) (L_A / n_A)^{v'} n_A + n_B (L_B / n_B)^{v''}$</td>
</tr>
<tr>
<td>International licensing from B to A</td>
<td>A’s entrepreneurs use $k$ from B’s entrepreneurs to produce $g$ with $L_A$</td>
<td>B’s entrepreneurs use their $k$ to produce $g$ with $L_B$</td>
<td>$U_{licensing-ba} = a (K_B')^v (t_{eb,ab}) (L_B / n_B)^{v'} n_B + n_A (L_A / n_A)^{v''}$</td>
</tr>
<tr>
<td>FDI in B</td>
<td>A’s entrepreneurs use their $k$ to produce $g$ with $L_A$</td>
<td>A’s entrepreneurs use their $k$ to produce $g$ with $L_B$</td>
<td>$U_{fdi-b} = n_A a (K_A')^v (L_A / n_A)^{v'} + (t_{ea,ab}) (L_B / n_B)^{v''}$</td>
</tr>
<tr>
<td>FDI in A</td>
<td>B’s entrepreneurs use their $k$ to produce $g$ with $L_A$</td>
<td>B’s entrepreneurs use their $k$ to produce $g$ with $L_B$</td>
<td>$U_{fdi-a} = n_B a (K_B')^v (L_B / n_B)^{v'} + (t_{eb,ab}) (L_A / n_A)^{v''}$</td>
</tr>
</tbody>
</table>

Adapted from Buckley and Hashai (2009).