INTERNATIONAL STRATEGY

When do firms pursue brownfield over greenfield investments?
A comparison of wholly owned entry modes in the international market place.

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Abstract
Firms have multiple possibilities to reach a target market beyond national borders, the most direct of which include foreign acquisition (brownfield investment) and foreign start-up (greenfield investment). This article attempts to provide insight into when firms are most likely to opt for the first entry mode. Influential factors are among others competition intensity, level of foreign experience, and technological level. Furthermore, firm-specific advantages and a phenomenon termed isomorphism are two important determinants of the international strategy, which on its turn seems to be one of the most defining factors of entry mode decision-making. Finally, the conclusion annunciates that further research is a pre-requisite for building a more detailed and sound framework.

1. Introduction
The current move towards globalisation brings firms opportunities for expansion of their market share and consolidation of their position on the national and international economic playing field. The globalisation seems to be caused by two major factors. Firstly, barriers to the free flow of goods, services, and capital have become fewer since World War II. Secondly, the technological advancements of the last years have facilitated better communication, information processing, and transportation technologies (Hill, 2006). There exists a multitude of approaches towards extra national expansion, among others through non-equity entry modes, such as exporting, licensing, franchising, subcontracting, and non-equity alliances. Furthermore firms can enter foreign markets through foreign direct investments (FDIs) (Barkema and Vermeulen, 1998), with either a wholly or partially owned local enterprise.
A large scholarship has allocated research resources to the investigation of the influencing factors that are considered by multinational enterprises (MNEs) (i.e. Barkema and Vermeulen, 1998; Mudambi et al., 2002; Harzing, 2002; Brouthers et al., 2003) when opting for a particular entry mode. These entry modes can be of many forms, although here the main focus will be on brownfield investments (a foreign acquisition) vs. greenfield investments (a foreign start-up). What factors drive the management of a firm to go in either one direction?
To gain a more in-depth insight into the subject at hand, a thorough investigation of the separate elements is desirable. The used definitions of brownfield investments, greenfield investments, and wholly owned entry modes will be explained respectively. Furthermore several views held by scholars in the field of entry modes are put forward. The paper will be concluded with a proposed answer to the initial question: When do firms pursue brownfield over greenfield investments?

2. Wholly or partially owned
In general literature the terms brownfield and greenfield investments are often also labelled as foreign acquisitions and foreign start-ups, respectively. As stated here-above, entering the international market MNEs not only have to deal with the choice between
acquisition of an existing company or starting up something new. Another strategic decision is to make about opting for full ownership (the wholly owned entry mode) or a joint-venture, in which only part of the venture is owned by the prospective MNE. The main difference lies in the level of control over the local engagement in the foreign operation (Müller, 2007).

Aside from these ownership entry modes firms aspiring to enter the or expand their international market can also decide to export to or license its product to a party in these markets. An agent in the country itself can take care of the distribution of the firm’s product using his own infrastructure and there is little obstruction for the firm to walk out if expectations are not met. The downside of this approach lies in the fact that the firm does not have or build its own market knowledge, and the agent might not put his undivided focus on the firm’s product. Next to that, in the case of exporting, there is a transaction cost involved in the form of a commission to be paid.

The aforementioned gives way to the general assumption that the level of local engagement influences whether a firm merely exports or licenses its products as opposed to acquiring or setting up its own, local operation. The former often requires only monitoring and relatively low involvement, the latter is often more binding and is a high-involvement activity. These two classes of foreign market approach – FDIIs and non-FDIIs – and more specifically the choice between them, have been the key subject area of many studies (i.e. Motta, 1992; Ethier and Markusen, 1996; Saggi, 1996).

According to Brouthers et al. (2003) several studies indicate that the different types of entry modes show significant differences in their respective performance levels. More particularly, Nitsch et al. (1996) argue that there is little doubt that greenfield investments perform best, joint ventures are second in line and that brownfield investments show mixed performance. Because of the large number of factors involved, successful internationalisation requires well-planned, diligent decision-making at more than one level (Mudambi and Mudambi, 2002).

### 3. Greenfield or brownfield investment

When firms have already made the decision to go for a wholly owned venture, there are several factors that influence the choice between brownfield and greenfield investments. This non-exhaustive list of factors includes among others competition intensity and market structure of the host country (Buckley and Casson, 1998), technologically advanced position (Müller, 2007), organisational culture (Hill, 2006), cultural distance (Kogut and Singh, 1988; Barkema et al., 1996), transaction cost (Brouthers et al., 2003), R&D intensity (Harzing, 2002; Hennart and Park, 1993), the degree of diversification (Mudambi and Mudambi, 2001), the level of foreign experience (Barkema and Vermeulen, 1998), the time of entry, and a firm’s international strategy (Harzing, 2002). These factors will be discussed in the following paragraphs.

#### 3.1. Market structure and competition intensity

The first mentioned factor of competition intensity and market structure can be of great influence. An analysis performed by Buckley and Casson (1998) confirms that “entry through greenfield investment increases local capacity and intensifies competition, whereas entry through acquisition does not” (p. 556). This could be one of the drivers for a firm not to invest in a start-up, but rather allocate its money to an acquisition. Market structure, and choice of entry mode subsequently, can furthermore be influenced by government policies and “[t]his explains why governments so often compete to attract inward greenfield investment, whilst taking a restrictive attitude to acquisitions at the same time” (Buckley and Casson, 1998, p. 556). Görg (2000) also analysed the effect of market structure on the choice between brownfield and greenfield investment. His conclusions point in a more definite direction: According to his research in general a brownfield investment may be the optimal mode of entry. Conversely, a greenfield investment often is the preferred choice only when there is a high cost of adaptation to the local environment.

#### 3.2. Technological level and R&D intensity

Several scholars (i.e. Müller, 2007; Hennart and Park, 1993) assert that the level of technological advancement of the firm over the competitors in the foreign market is key in finding the optimal mode of entry. When the technological gap is too small, it subsequently is too little of a differentiator in the market and greenfield investment becomes equally less attractive. On the other hand, firms that have strong technological abilities are more likely to enter foreign markets through start-ups. They are less dependent on technological capabilities embodied by existing firms (Hennart and Park, 1993).

Barkema and Vermeulen (1998) put forward that acquiring a technologically less advanced
foreign firm may be less attractive, because bringing the superior technological capabilities to them often is too much of an organisational burden. Hill (2006) suggests that “it is much easier to establish a set of operating routines in a new subsidiary than it is to convert the operating routines of an acquired unit” (p. 498). Setting up a new operation with a clean slate might prove itself to be a more thankful endeavour. Or as Hennart and Park (1993) summarise it “[technological – CdR] advantages will be so tightly bound to the foreign investors organization that they cannot be combined with an acquired nit and must instead be exploited by recreating on foreign soil a clone of the foreign parent” (p. 1056).

Closely linked to the level of technological advancement is the R&D intensity of a firm, which Harzing (2002) defines as the R&D expenses of an MNE divided by its total level of sales. Her study shows that an inventory of related literature suggests that R&D intensity also in itself increases the probability of choosing for a greenfield investment. Hennart and Park’s (1993) research also supports this view in the case of R&D intensive Japanese investors who “find greenfield investment a more effective way to transfer their advantages to the U.S., as greenfield entry makes it possible to ‘mold’ virgin management and labor force into the parent’s culture” (p. 1065).

3.3. Product diversification

According to Mudambi and Mudambi (2001) previous research mainly treated the product diversification decision and the foreign mode of entry decision as separate areas of investigation. Product diversification, as generally agreed, refers to the process of being active in multiple product markets, rather than concentrating on just one product line. The authors’ research provides the insight that the choice to expand product diversification into a foreign market should be taken into account when opting for an entry mode. The study furthermore puts forward indicators when the choice for a greenfield investment is more likely: “[H]igher rates of industry growth in the entered industry; younger age of the parent firm; lower degree of multinational experience of the parent firm; and narrower scope of the subsidiary’s output mandate; higher relative level of home country risk” (p. 51). Knowledge about the general landscape of a particular industry can assist a firm to judge and scrutinise central tendencies underlying the decision in another environment (Mudambi and Mudambi, 2001). The above feeds the assumption that the choice of a entry mode influences the choice of product diversification, however, the effect might well be bi-directional.

3.4. Organisational culture

In case of a brownfield investment in particular, much the same as with the aforementioned transferring superior technological capabilities, transferring organisational culture and incentives from the parent company into the foreign subsidiary, can prove to be a challenge. Hill (2006) points out the example of Lincoln Electric, an U.S. manufacturer of arc welding equipment, that learnt in practice that transferring organisational culture and incentives to the foreign firms it acquired proved to be virtually impossible. The strategy switch to greenfield investment showed that building operations from scrap takes more time, but it also provides greater opportunity for “(...) transferring products, competencies, skills, and know-how from the established operations of the firm to the new subsidiary” (Hill, 2006, p. 498). The ‘unlearning’ of beliefs, codes, culture, and old knowledge that is often required before the new paradigms can be learnt is inherently challenging (Barkema and Vermeulen, 1998). This is of specific importance when these routines are key to creating value.

3.5. Country specific cultural distance

Aside from the organisational culture, there is also the country-specific culture to be considered. This host-country culture might significantly differ from that of the headquarters’ country of the MNE. Barkema et al. (1996) assert that a firm engaged in brownfield investments has to deal with two levels of acculturation: To the local firm’s organisational culture as well as its national culture. The greater the cultural distance, as proposed by Hofstede (1980), the more likely divestment will occur. Barkema et al. (1996) furthermore posit the assumption that firms considering expansion into more culturally remote countries may benefit from previous experiences in less culturally remote areas. This premise could motivate the reasoning that with regards to national culture acquisition is more attractive, because the firm then has the culture knowledge ‘in-house’. Taking into account the organisational culture, however, opting for a start-up might take away transfer problems in the earliest phase, as mentioned in the previous paragraph. This view is also supported by Kogut and Singh (1988), who found that in case of greater cultural distance between the firm and the host-country greenfield investments or joint-ventures are more likely.
3.6. Transaction cost

Another factor influencing the choice of entry mode is transaction cost (TC) theory, which has its basic premise, as Brouthers et al. (2003) state “that firms select the mode of entry that provides the least cost solution” (p. 1239). Their research covers the subject of the extent to which TC-enhanced international entry mode choices do or do not secure above average firm performance. This is particularly relevant for the mere fact that transaction theory drives many of today’s business decisions and, as Chiles and McMackin (1996) argue, economising on TCs can be viewed as the key objective of any economic institution.

Transaction cost variables include asset specificity, behavioural uncertainty of partners or other stakeholders, and economic uncertainty. This last variable may stem from political instability, economic conjuncture, currency changes and other aspects in the firm’s environment. Firms with international entry modes chosen using transaction cost theory seem to be more satisfied with firm performance (Brouthers et al., 2003). The aforementioned gives way to the assumption that use of the transaction cost theory helps decide which entry mode fits best. Nevertheless, it does not a priori prescribe a particular preference for either a brownfield or greenfield investment.

3.7. Level of foreign experience and time of entry

The level of foreign experience can be an important factor in the influence the time of entry into a host country has on the position a firm attains after market entry. Harzing (2003) defines the time of entry as the year of foundation of the subsidiary or the year of acquisition. Hill (2006) mentions first-mover advantages such as the ability to build a certain sales volume ahead of competitor MNEs. He also notes that there are first-mover disadvantages, such as pioneering costs that arise when a firm “has to devote considerable effort, time, and expense to learning the rules of the game” (p. 482).

Barkema and Vermeulen (1998) believe that a firm’s multinational diversity is a source for further developing its technological capabilities. This logically follows from the fact that a multinational firm is confronted with a vast amount of different environments and the demands that coincide with that. In accordance with this line of thinking, they also suggest that these technological capabilities push the firm towards setting up a new operation abroad instead of a mere acquisition of an existing venture.

3.8. International strategy

Harzing (2000) provides an overview of international management literature that discusses different types of typologies of international strategy. The most commonly accepted and clearly defined are two types of international strategies, namely global and multidomestic / multinational. Harzing (2002) asserts that the global strategies face competition that is active on the highest global level, where national markets are strongly interconnected and economies of scale and scope are instrumentalised to achieve cost-efficiency. Subsidiaries are not required to be locally responsive and their focus needs to be on what headquarters prescribe. The same study suggests that multidomestic firms operate and focus primarily on a domestic level, and experience a lower level of global competition. The subsidiaries often are part of a decentralised network and relative autonomy gives them leeway for responsiveness to the local market.

Harzing (2002) furthermore argues that the MNE’s international strategy’s influence on the choice between brownfield and greenfield investments can be explained from two different angles. First, there are different firm-specific advantages (FSA) that come with either one international strategy. Rugman and Verbeke (1992) distinguish on the one hand location-bound FSAs, that are not easily transferable to other locations without significant adaptation to the new environment. On the other hand, they identify non-location-bound FSAs, whose benefits do not rely solely on their being used in one particular location. These can be transferred to other locations without much hassle and can be applied on a global scale more easily. The authors discuss two sources of location advantages, namely home and host country. Firms with a global strategy more often capitalize on the exploitation of non-location-bound FSAs stemming from the home country and then a greenfield investment is more likely. As Barkema and Vermeulen (1998) point out, foreign start-ups require building a completely new organization in a foreign country from the ground up. Often, expatriates are sent over to scrupulously monitor or execute the selection and hiring of employees from the local market to gradually expand the business operation in the host country. Multidomestic firms, however, tend to have their core capabilities linked to the exploitation of location-bound FSAs using advantages specific to the host country. Acquisition of “an existing company with a knowledgeable workforce and good connections in the local market” (Harzing, 2002,
p. 213) can prove to be easier than starting up a new operation from the ground.

The second major influence an MNE’s international strategy can have, comes from a phenomenon termed isomorphism. This refers to the process of homogenization that occurs when firms enter a market (Harzing, 2002): Will the local operation mirror the parent-internal form or will it adapt to the host country institutional environment? Prahalad and Doz (1987) developed an integration / responsiveness framework and in terms of isomorphism, global strategies using this framework are more likely to focus on parent-internal isomorphism sporting a high level of integration and a comparatively low level of local responsiveness. Similarly, the reverse can be argued for multidomestic strategies, which through external isomorphism of the host country benefit of an acquisition.

Harzing (2002) concludes that the aforementioned is a strong indication that global strategies are better aligned with greenfield investments, whereas firms following a multidomestic strategy are usually drawn towards brownfield investments.

4. Conclusion

The author set out to answer the question when firms pursue brownfield or greenfield investments. The two entry modes were explained in more detail and alternative approaches to serving a foreign market were put forward, to give a balanced overview of what other possibilities exist.

Next, a short discussion on the essential differences between wholly and partially owned foreign subsidiaries followed. This paragraph preceded the central paragraph about brownfield or greenfield investments. A non-exhaustive array of factors that previous research has shown to have an effect on the choice of entry modes gave an overview. These subparagraphs lead to an interesting insight in when brownfield investments are preferred, the results of which will be presented hereafter.

As shown, with an open market structure and high competition intensity, brownfield investment proves to be preferable. Furthermore, acquisition of a foreign subsidiary is more attractive when its technological level exceeds that of the MNE’s. Another variable in entry mode choice is that of product diversification, which make firms tend to opt for brownfield investments only when they have very little knowledge of the foreign local market. The organisational culture as well as the country-specific culture push a firm towards brownfield investment only when there is very little difference between the firm and the host country. This seems closely related to the level of foreign experience a firm has, where specifically at low levels the preferred choice is acquisition. The transaction cost variable is case specific, and gives no a priori indication about which entry mode is most desirable other than whichever is most economically cost-efficient at a particular point in time.

The last factor discussed is also one with arguably the most impact, namely the type of international strategy. Brownfield investments are suggested to be most archetypical for multidomestic firms, since acquisition provides them with the local knowledge driving the domestic market.

In sum, there are several reasons for firms to pursue a brownfield investment over a greenfield investment, although the reviewed literature more often indicated a reverse tendency. As noted in the introduction, globalisation is reaching new levels each day. This feeds the thought that MNEs would rather align themselves with a global international strategy than they would with a multidomestic international strategy. The first leans more to the preference of greenfield investments as optimal entry mode. From that perspective, the central question would have been easier to answer, had it asked the reader: When do firms pursue greenfield over brownfield investments?

Admittedly, the author agrees that the original structure of the question inspires more to scrutinize general assumptions. Nevertheless, as diligent the literature review might have been, there is still a vast amount of research to be done. Although several attempts have been made in the past (i.e. Harzing, 2002), as of yet there exists no integrated, exhaustive framework that fully captures the interdependencies and intricacies of all factors involved in entry mode decision-making. The lack of inclusion of such a framework may well make this conclusion less finished.

5. References


