Cognitive institutions and the choice between greenfield investment and acquisition in foreign countries

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Executive summary

This master thesis is an exploratory research which aims to illustrate the decision making process within firms that are dealing with the choice between greenfield investment (a start-up) and an acquisition in a foreign country. The initial idea for this thesis comes from a personal research interest of the author, having done course work on and having published an article related to the subject.

The move towards globalization brings firms opportunities for expansion of their market share and consolidation of their position on the national and international economic playing field through foreign direct investment. In previous studies about foreign direct investment decision making the dominant perspective has been transaction cost theory. Where the transaction cost approach concerns itself with minimizing the costs of doing business, from an institutional theory perspective it is gaining and retaining legitimacy for your actions that is the driving factor.

Institutions, in the following three dimensions, help to make sense of what is going on. In their own institutional environment people and organizations [1] know what the laws and regulations allow them to do (regulative institutions), [2] they know what they should do (normative institutions) and [3] they know what they can do (cognitive institutions). In particular, cognitive institutions encompass people’s and organizations’ behavior that is related to actions and routines that are taken for granted. They gain and retain legitimacy when their conduct fits within the bounds of these three different institutional dimensions.

The scarcity of academic work dealing with the cognitive domain of institutional theory in relation to the choice between a greenfield investment and an acquisition presents an interesting area for research. It is argued that only looking at formal rules (i.e. regulative institutions) is not sufficient and the informal rules (normative and cognitive institutions) need to be included as well. In addition to a richer view, the choice of cognitive institutions as a focal point has practical relevance as well. Firms dealing with such decision making will want to avoid a suboptimal decision making process and waste of resources if the 'taken-for-granted'-choice demonstrates itself ex post as the economically less appropriate one. This acknowledgement results in the following research question: “How do cognitive
institutions influence the decision making process of the management of a multinational enterprise that deals with the choice between a greenfield investment and an acquisition in a foreign country?"

When there is decision making uncertainty, mimicking your predecessors is an uncertainty reducing exercise. This is called mimetic isomorphism, which describes the concept of how actors (such as people and organizations) shape their behavior after others in order to gain cognitive legitimacy. Cognitive distance in this context represents the difference between the country-specific institutional profile of the country of origin and that of the host country. Greater cognitive distance necessitates greater effort to gain cognitive legitimacy, which links back to the research question at hand.

The dataset used to review the hypotheses is formed by a collection of entries sourced from the Netherlands Foreign Investment Agency and an M&A database. To measure mimetic entry it is filled with greenfield investments and acquisitions into the Netherlands in the period between January 1, 2001 and December 31, 2010. To measure cognitive distance, the dataset is complemented with data on education, technology exposure, and cosmopolitanism.

After reviewing the hypotheses, the results suggest that multinational enterprises undertaking an initial establishment in a country will – more likely – opt for an acquisition if that has been the dominant entry mode chosen by their home country predecessors in the same host country. However, there is no significant indication that the propensity to opt for acquisition becomes greater when acquisition has been the dominant choice more often: isomorphism here does not seem to become stronger with an increase of frequency. Likewise, the third hypothesis, supposing a positive correlation between greater cognitive distance and greater propensity to choose for acquisition, found no significant support from the data.

Taken together the findings provide insufficient indication that the decision making process is actually affected substantially by the cognitive institutions in the home (and host) country. While this conclusion certainly does not preclude the existence of such influence, it does imply that the current study fell short at either operationalizing the
different variables or in finding a large enough dataset to draw significant conclusions from. Fortunately, the study provides an avenue into future research to negate some of the limitations that were faced. One of the more important steps that can be made is differentiation on the level of industry-specific institutional environments, which can differ from the home country institutional profiles used here. As for building the dataset, one of the main obstacles in research involving greenfield investments, it would be advisable to develop and apply a method of data collection that fills a dataset through a unified system or survey, rather than separate ones.

**Keywords:** institutional theory, foreign direct investment, greenfield investments, acquisitions, international strategy, isomorphism, mimetic entry
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1. Introduction

1.1 Foreign direct investment opportunities

The current move towards globalization (the topic of many contemporary publications, cf. Easton, 2007; Legrain, 2002; Shapiro, 2008) brings firms opportunities for expansion of their market share and consolidation of their position on the national and international economic playing field. Globalization 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. This is a form of globalization in terms of liberalization, which refers to the removal of government-imposed restrictions (Scholte, 2000). Secondly, the technological advancements of the last years have facilitated better communication, information processing, and transportation technologies (Hill, 2005; Scholte, 2000), making extra national expansion into a more attractive endeavor.

There exists a multitude of approaches for firms aspiring to enlarge their market share into host country markets. These approaches are called entry modes. Root (1987) defines entry modes as institutional arrangements used to organize and conduct international business transactions. The new entrant is faced with a wide range of choices, such as a wholly owned subsidiary or a joint venture (involving actual establishment), but there also are non-equity entry modes, such as licensing consignments (Barkema and Vermeulen, 1998; Anderson and Gatignon, 1986 : p. 2; Fujita, 1995 : p. 200; cf. Table 1).

Table 1 - A schematic overview of types of foreign involvement

*strongly inspired by Fujita (1995 : p. 200)*

<table>
<thead>
<tr>
<th>non-equity entry mode</th>
<th>equity entry mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>• licensing consignment to foreign enterprises</td>
<td>• acquisition of equity</td>
</tr>
<tr>
<td>• co-production with foreign enterprises</td>
<td>• establishment of subsidiary</td>
</tr>
<tr>
<td>• other forms of cooperation without capital</td>
<td><em>wholly owned</em></td>
</tr>
<tr>
<td>involvement</td>
<td>- greenfield investment</td>
</tr>
<tr>
<td></td>
<td>- acquisition</td>
</tr>
<tr>
<td></td>
<td><em>partially owned</em></td>
</tr>
<tr>
<td></td>
<td>- joint (equity) venture</td>
</tr>
</tbody>
</table>


In the case of equity entry modes there is equity (capital) involved with the market entry. One option is acquisition of an equity share of an existing business. Another option is to establish a subsidiary that requires actual parent company involvement: by fully acquiring an existing business (acquisition), by starting up a new business (greenfield investment) or by setting up a joint venture with a local business. Herrmann and Datta (2006) describe acquisitions as entries that require the "purchase of an existing company in a foreign country". Hennart (1991) narrows down the scope of this definition by defining acquired ownership between 5 and 95 percent as joint ventures. According to Hermann and Datta (2006, p. 767) joint ventures are "new entities created by the pooling of assets of two or more firms". Finally, greenfield investments are entries that require setting up a new location "from scratch" (p. 767). These are all examples of foreign direct investment (FDI).

With greenfield investments and acquisitions the parent company fully owns the subsidiary (wholly owned), whereas with joint ventures it only partially owns it. All three are ownership-based entry modes. Each entry mode reflects varying levels of parent company control over the foreign activities, the resource commitment (Vernon, 1983) and the level of risk it exposes itself to (Hill et al., 1990). Ownership-based entry modes can be considered to be of particular importance to multinational enterprises (MNEs). This is because the required equity for partially or wholly owned entry modes puts a strain on available resources of the parent company, more so than with contractual, non-equity entry modes such as licensing, co-production, and exporting. Additionally, the choice of a fitting entry mode for a specific foreign market is defined as critical for firms involved in international expansion (Andersen, 1997: p. 28).

**Greenfield investments vs. acquisitions**

In extant entry mode literature many determinants of the choice between greenfield investments and acquisitions are put forward, all with different levels of influence depending on the respective circumstances. These determinants include upstream and downstream capabilities of the MNE (Anand and Delios, 2002), relative technological advantage (Anand and Delios, 2002, Müller, 2007), organizational culture (Hill, 2005), international experience (Barkema and Vermeulen, 1998; Herrmann and Datta, 2006), R&D-intensity (Harzing, 2002; Hennart and Park, 1993), market structure of the host
country (Buckley and Casson, 1998), language barriers (Slangen, 2011), and cultural distance (Kogut and Singh, 1988; Barkema et al., 1996).

Furthermore, there are several views or perspectives to approach the decision making process. These include evolutionary process logic (Johanson and Vahlne, 1990; Chang and Rosenzweig, 2001), the knowledge-based view (Kogut and Zander, 1993), the predominantly applied transaction cost theory (Agarwal, 1992; Hennart, 1988; Jones and Hill, 1988; Gatignon and Andersen, 1988; Brouthers, 2002), the more recent communication-based theory (Slangen, 2011), and institutional theory (Scott, 1995; Lu, 2002; Yiu and Makino, 2002) which cover one or more of the earlier mentioned determinants.

**Unbalanced research interest**

When the management of an MNE chooses to locate a wholly owned subsidiary in a foreign country, it can decide between either the acquisition of an existing local firm and the development of a new location (greenfield investment). Harzing (2002 : p. 211) alongside with Brouthers (2002 : p. 204) points out that a substantial number of studies has focused on this particular choice and often approached it from a transaction cost perspective or by using a list of factors derived from literature (cf. De Rooij, 2007). Transaction costs are comprised of the negotiating, monitoring and enforcement costs that are necessary to make an exchange between two parties possible. Transaction cost theory concerns itself with decreasing all factors that would increase those costs (Jones and Hill, 1988 : p. 160).

According to Hirsch et al. (1990 : p. 328) the economics-based perspectives, such as transaction cost theory, generally do not consider changes in the institutional environment, ranging from normative and historical to cultural shifts or forces.

Andersen (1997) put forward a selection of conceptual frameworks that each could be used to study foreign entry modes: entry mode as chain of establishment, the transaction cost approach, the eclectic framework, and the organizational capability perspective (p. 30, cf. Table 2). These four frameworks are in his perception those with the most important contributions towards the explanation of entry mode choice. One of the contentions of this thesis is that institutional theory – not included in Andersen’s selection – as a perspective
can also fulfill a role in better understanding the decision making process surrounding the salient topic of greenfield investments vs. acquisitions.

### Table 2 - Comparison of different frameworks for studying foreign entry mode

*Andersen (1997: p. 31)*

<table>
<thead>
<tr>
<th>Entry mode as chain of establishment</th>
<th>Transaction cost approach</th>
<th>The eclectic framework</th>
<th>The organizational capability perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic theory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource-based theory</td>
<td>Transaction cost theory</td>
<td>Transaction cost theory, international trade theory, resource-based theory</td>
<td>Resource-based theory</td>
</tr>
<tr>
<td>Unit of analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm</td>
<td>Transaction</td>
<td>Firm</td>
<td>Firm</td>
</tr>
<tr>
<td>Explanatory variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm’s knowledge (i.e., experiential knowledge)</td>
<td>Transaction characteristics (e.g., asset specificity, uncertainty)</td>
<td>Ownership, locational, and internalization advantages</td>
<td>Firm’s capabilities (in particular, know-how)</td>
</tr>
<tr>
<td>Behavioral assumptions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bounded rationality</td>
<td>Bounded rationality and opportunism</td>
<td>Bounded rationality (and opportunism)</td>
<td>Bounded rationality</td>
</tr>
<tr>
<td>Decision criteria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade-offs between growth and risk</td>
<td>Transaction cost minimization</td>
<td>Trade-offs between return, risk, control and resources</td>
<td>Trade-offs between value and cost</td>
</tr>
<tr>
<td>Modes of entry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entry mode according to an establishment chain: a) No export, b) Export via independent representative, c) Sales subsidiary, d) Manufacturing abroad</td>
<td>Several classifications; e.g., Contractual transfer, Joint Venture, Wholly owned operation</td>
<td>Several classifications; e.g., Independent mode, Co-operative mode, Integrated mode</td>
<td>Internalization vs. collaboration</td>
</tr>
</tbody>
</table>
Early work in the realm of institutional theory and entry modes often looked at host country risks or uncertainties (Brouthers and Hennart, 2007: p. 406). Emblematic is Brouthers et al.’s (2002) review of product, government policy, macroeconomic, competition, and materials as types of uncertainty. The new institutional theory direction can serve as a way to help address the limitations of this earlier work and give direction to further investigation. New institutional theory looks at each of the three dimensions of institutional theory (regulative, normative, and cognitive; Scott, 1995) separately (cf. Brouthers and Hennart, 2007: p. 406), as did Yiu and Makino (2002) in their research on the choice between joint ventures and wholly owned subsidiaries.

The regulative pillar of institutional theory has tangible rules, laws and regulations as formalized guidelines that shape (rule-abiding) behavior (Scott, 1995: p. 35). Differently, the normative pillar is the domain of values and norms: normative institutions steer (socially) acceptable behavior (Scott, 1995: p. 38). Lastly, the cognitive pillar, pertains to people’s and organizations’ behavior that is related to actions and routines that are taken for granted as “the way we do these things” (Scott, 2008a: p. 58). Actors gain and retain legitimacy when their conduct fits within the bounds of these different institutions, "whether by virtue of being legally sanctioned, morally authorized, or culturally supported" (Scott, 2008b: p. 429).

**Institutional theory as a framework**

These three pillars combined can serve as the foundation for a framework based on new institutional theory, see Table 3. The unit of analysis would be firms – with acknowledgment of their respective roles within the institutional context of the country they originate from (home country) and the country they enter (host country). Explanatory variables are formed by the existent institutional distance tied in with parent company international experience (Barkema and Vermeulen, 1998; Herrmann and Datta, 2006). International experience can play a role in mitigating the effect of institutional distance. Xu and Shenkar (2002) express institutional distance as the level of (dis)similarity between the three institutional pillars of two countries. The decision criteria are formed by a trade-off between achieving legitimacy for the explicitly outlined regulative institutions in place as well as for the normative and cognitive institutions.
Ideally, optimum legitimacy on all three dimensions is achieved, but uncertainty reduction for the latter two inherently is most difficult because of their tacit nature. Institutional theory as perspective in itself does not put restrictions on which types of entry modes can be looked at. Rather the level of legitimacy achieved through those entry modes is the focal point. Yiu and Makino (2002: p. 681) suggest that the institutional perspective is robust in explaining foreign entry mode decisions, which further supports its application as a framework.

**Table 3 - Framework for studying foreign entry mode**

<table>
<thead>
<tr>
<th>Institutional perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic theory</strong></td>
</tr>
<tr>
<td>(new) institutional theory</td>
</tr>
<tr>
<td><strong>Unit of analysis</strong></td>
</tr>
<tr>
<td>firm (with respect to country)</td>
</tr>
<tr>
<td><strong>Explanatory variables</strong></td>
</tr>
<tr>
<td>host and home country differences (e.g., institutional distance and parent company international experience)</td>
</tr>
<tr>
<td><strong>Behavioral assumptions</strong></td>
</tr>
<tr>
<td>bounded rationality and opportunism</td>
</tr>
<tr>
<td><strong>Decision criteria</strong></td>
</tr>
<tr>
<td>trade-offs between regulative, normative and cognitive legitimacy pressures</td>
</tr>
<tr>
<td><strong>Modes of entry</strong></td>
</tr>
<tr>
<td>several classifications, cf. transaction cost approach</td>
</tr>
</tbody>
</table>

Analysis of a wide range of journal articles related to ownership based entry modes shows that the cognitive domain of institutional theory generally appears to have been at the bottom of the academic research agenda. This stance is also supported by Trevino et al. (2008), who conclude that most theoretical and empirical research regarding foreign direct investment (FDI) applying an institutional framework has focused primarily on regulative institutions. They argue “it is easier to classify constructs as regulative rather than as [cultural]-cognitive or normative” (p. 120). The mere fact that regulative institutions by nature are formalized and subsequently visible and tangible, subscribes to this contention. Brouthers (2002) and Dikova and Witteloostuijn (2005: p. 13) reason that in their research only the regulative domain of institutional theory is looked at as it is more often subject of entry mode research than are the other two domains. Others (Gaur and Lu, 2007) group the normative and cognitive domain together, or – simply – do not distinguish
beyond the level of formal (regulative) and informal (normative and cognitive) institutions (Helmke and Levitsky, 2004; Henisz, 2000), which in itself precludes separate attention for the influence of cognitive institutions.

As mentioned earlier: when a firm enters a foreign country, it is in its best interest to attain legitimacy on all three dimensions. This also goes for the choice between a greenfield investment and an acquisition. While cognitive institutions are tacit by nature, that property does not predetermine or diminish their level of influence or importance. Disregarding or not fully acknowledging cognitive institutions’ role on account of not being tangible ‘enough’ would be like intentionally giving yourself a blind spot. After regulative legitimacy, cognitive legitimacy may be the most urgent legitimacy MNEs need to attain in the host country (Yiu and Makino, 2002: p. 680): all the more reason to gain deepened understanding of the role of cognitive institutions.

Nelson and Winter (1982), evolutionary theorists, see these cognitive institutions as the organizational genes: they are taken for granted, they are subconsciously embedded, and often are of a tacit nature. By definition, these are informal rules, and even formal rules over time can become so grounded that they are on the verge of or actually already being accepted as a given.

In addition, Selznick (1957) proposes that in order to understand organizational conduct, one cannot merely look at formal rules, but should also take into account unwritten, informal rules. These are essential to the system as a whole and are vital for a just assessment of the current situation, which supports the above further. If these cognitive institutions are in fact so much embedded, decision makers within organizations aspiring to venture (further) into the world of FDI and foreign establishment are likely to be unaware of the full spectrum of alternatives available to them, as they are guided in their decisions by what they regard as the most logical. One of the biggest challenges here, is measuring the role (or presence) of cognitive institutions. They are “extremely difficult to measure” (Hoffman, 1999: p. 364).
1.2 Problem statement

The scarcity of academic work dealing with the cognitive domain of institutional theory in relation to the choice between a greenfield investment and an acquisition not only presents an interesting albeit complex area for research. Following the aforementioned, research into this area has practical relevance as well. Interested stakeholders could particularly include managers of firms dealing with this type of decision making. Due to the move towards globalization organizations allocate resources to extra national expansion. If the decision making process – even over time – becomes narrowed by the restrictions of the cognitive structures (Yiu and Makino, 2002 : p. 672), then other important factors might be overlooked or not weighed sufficiently. The practical implication here is a suboptimal decision making process and waste of resources if the 'taken-for-granted'-choice demonstrates itself ex post as the economically less appropriate one.

Research question

Following from the above, this thesis – intended as an exploratory research – ultimately considers the role of cognitive institutions in the choice between a greenfield investment and acquisition, which leads to the following research question:

*How do cognitive institutions influence the decision making process of the management of a multinational enterprise that deals with the choice between a greenfield investment and an acquisition in a foreign country?*

1.3 Thesis overview

The next section of the thesis outlines the key concepts: institutional theory is elaborated on and neighboring research is discussed. The following chapter involves a discussion of methodology. Next the results are discussed and the thesis closes with conclusions and discussion.
2. Defining key concepts

2.1 Institutions shaping the world

Institutional theory in itself has been at the center of academic attention of a multitude of scientists from a myriad of disciplines, ranging from sociology, political science, and economics to areas such as history, anthropology, and law (Offe, 1996: p. 199). Their definition of the concept 'institution' varies considerably, foremost stemming from their background, although they generally seem to agree upon one main idea, as put forward by Scott (1995) in his seminal work on the subject: "Institutions consist of cognitive, normative, and regulative structures and activities that provide stability and meaning to social behavior." (p. 33; cf. also Helmke and Levitsky, 2004: p. 727). North (1991: p. 97) posits that institutions comprise informal constraints as well as formal rules – the regulating, restricting and prescriptive function – which, according to Offe (1996: p. 200) in their combined form provide a framework of appropriate action. Furthermore, Offe asserts that there is a reciprocal relationship between institutions and social norms, as institutions establish what makes sense in the social domain for which it is valid. He uses an interesting metaphor to explain one of the functions – the enabling function, to "make certain things easier to do" (Goodin, 1998: p.16) – of institutions in a cogent way:

"[I]nstitutions can be compared to an exoskeleton of social life. If – and only to the extent that – such demarcation rules are common knowledge, institutions perform the function of “saving energy” – the energy and costs, that is, that would otherwise have to go into the cognitive assessment and moral evaluation of what is going on and how “I” should relate to what “everyone else” is doing." (p. 205).

Or, as German philosophical anthropologist Arnold Gehlen calls it, the "unburdening" effect (Entlastungseffekt) (Offe, 1996: p. 206). As for the dichotomy formal vs. informal institutions, an interesting point made by Helmke and Levitsky (2004) about one of the functions of informal institutions is that they may actually be doing "the enabling and constraining that is widely attributed to formal institutions" (p. 726).
There is a vast array of conceptualizations of both informal and formal institutions, almost all of which fail to capture the two in their fullest extent. Helmke and Levitsky (2004) propose an alternative approach to this issue of definition and explain informal institutions as "socially shared rules, usually unwritten, that are created, communicated, and enforced outside of officially sanctioned channels" (p. 727). Furthermore they are based on social norms or networks, "regulated by a set of expectations about other people’s behavior" (World Bank, 2002 : p. 171). Formal institutions, however, are characterized as rules and procedures “that are created, communicated, and enforced through channels widely accepted as official” (Helmke and Levitsky, 2004 : p. 727). From an economical perspective, it should be noted that for geographically isolated and poor market participants, said formal institutions are not easily accessible. More particularly, for a great part of the world’s poor, it is the informal institutions that make doing business less of an effort (World Bank, 2002 : p. 171).

Analysis of institutions does not merely occur at macro-level such as countries or meso-level such as organizations, but can and actually does exist at micro-level such as individuals (employees, members of society, etc.) complying with e.g. a code of conduct. Such a subdivision of levels of analysis is operationalized by Scott (1995) as “the range of jurisdiction of the institutional form” (p. 55). A different subdivision of institutional environment levels is proposed by Chan et al. (2006), in which global industry, local industry, host country, and parent firm are the relevant levels of analysis for the study of FDIS.

2.2 The three pillars: offering organizational legitimacy

The first, regulative pillar has (explicit) regulative processes at its roots, which are threefold: establishment of rules, inspection of conformity by others and possible sanctioning for non-compliance (Scott, 1995 : p. 35). The elements of this regulative domain “ensure stability and order in societies” (Yiu and Makino, 2002 : p. 670). The second, the normative pillar, is held high by theorists who see institutions primarily as sets of values and norms with a prescriptive, evaluative, and obligatory dimension (Scott, 1995 : p. 38). Conduct is judged against and driven by a social framework that defines what action is suitable in certain situations (p. 39). The third pillar, cognitive institutions, is the
one that guides organizations – and individuals alike – to engage in particular conduct that is considered to be nothing less than the proper way. It refers to the widely shared cognitive structures "by which actors of a given organizational field or societal entity interpret and make sense of their world" (Scott, 1995: p. 40). In business conduct, the rules of a practice are a reflection of the underlying beliefs and values, integral to how the tasks are supposed to be performed (Kostova, 1999: p. 310). These cognitive sets like schemas, frames (of reference), inferential sets, and representations influence how people perceive, categorize and make sense of stimuli from their environment (p. 314). For a large part these are our cultural inheritances, which we start to acquire from birth and onwards. It is specifically not a case of some type of genetic transfer, rather we gain this mental programming because we are "at the right place at the right time" (Hofstede and Bond, 1988: p. 7). The authors define culture as "the collective programming of the mind that distinguishes the members of one category of people from those of another" (p. 7). Even though these cognitive sets or programs (both on national and corporate level) are applied by individuals, they are part of the social environment and shape the individuals’ common interpretation of what constitutes reality (Kostova, 1999: p. 314).

Eden and Miller (2004: p. 200-201) propose the following interpretation of the three pillars:

- **regulatory pillar** defines what organizations and individuals ‘may/may not’ do, where may implies permission;
- **normative pillar** defines what organizations and individuals ‘should/should not’ do;
- **cognitive pillar** defines what 'is/is not true' and what 'can/cannot be done', where ‘can' implies ability.

**Lizardo’s refinement of the cognitive pillar**

Scott (2008b) explains compliance to cognitive institutions as motivated by the fact that "one cannot conceive any other way of acting" (p. 429). (With reference to the choice between a greenfield investment and an acquisition this involves the compliance of the subsidiary to the cognitive institutions in the host country.) This strong definition creates a
problem when a researcher wants to observe cognitive institutions. From the moment the involved actors can think of alternative arrangements for the situation they are in, it is no longer institutionalized in a cognitive way. As Lizardo (2010) points out, following this logic of inconceivability: if something is thought of as institutionalized in a cognitive way, it is most likely institutionalized in a regulative or normative way (p. 5). He proposes a different interpretation of cognitive institutions in that actors in a cognitively institutionalized situation are able to think of an alternative arrangement but deem it meaningless to do so (p. 6). The actor's judgment of meaningfulness is "separable from judgments of normative desirability and judgments of regulative propriety" (p. 6) on analytical and empirical levels. Following from this re-definition, the notion of something being institutionalized in a cognitive way is more acquiescent to empirical research.

**Legitimacy vs. efficiency**

As mentioned, for each of the three pillars there is the matter of compliance: actors can earn or retain legitimacy when they act within the bounds of these institutional structures, as well as lose legitimacy when they cross these bounds. Kostova and Zaheer (1999) group the cognitive domain alongside the normative domain as both are of a tacit nature, as opposed to the regulative domain: laws and regulations are more easily observed and made sense of by comparison (p. 70; cf. also Yiu and Makino, 2002: p. 680). This would clarify the suggestion why acquiring legitimacy - in a foreign environment, in a host country - is more of a challenge in the normative and cognitive domains, rather than in the regulative domain, as compliance with the latter is most easily made visible. The authors acknowledge that over time, as experience is gained through conducted operations, the cognitive and normative institutions in the host country may become more easily interpretable and subsequently complied to, though they are unlikely to ever make as much sense as the institutions in the regulative domain (p. 70).

The three pillars are attributed different merit by different scholars as all of these theorists argue from their own perspectives: "each pillar rests on fundamentally different assumptions regarding the nature of reality and how to account for behavior" (Scott, 1995: p. 52). Nevertheless, the pillars exist and continue to do so in the commonality of their
legitimizing function: what is taken for granted, what is captured in declared policies and which moral norms shape decisions and subsequent conduct?

Striving for legitimacy can put into effect one of the mechanisms of institutional isomorphic change, particularly one as hypothesized on ‘mimetic processes’ by DiMaggio and Powell (1983 : p. 154): “The greater the dependence of an organization on another, the more similar it will become to that organization in structure, climate and behavioral focus.” This basic assumption or criterion of legitimacy of institutional theory is a departure from what proponents of the transaction cost theoretical approach regard as central to organizational conduct, namely efficiency. In this context Suchman (1995) defines legitimacy as:

“a generalized perception or assumption that the actions of an entry are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (p. 574).

Further, Scott (1995) makes an important remark regarding the nature of legitimacy: “[L]egitimacy is not a commodity to be possessed or exchanged but a condition reflecting cultural alignment, normative support, or consonance with relevant rules or laws” (p. 45). The cultural definitions in a society are the framework of reference against which an organization is built, how it is run, but also, how one should understand and evaluate it (Suchman, 1995 : p. 576). Organizational legitimacy, in the normative domain for example, is gained by “congruence between the values pursued by the organization and wider societal values” (Parsons as cited in Kostova and Zaheer, 1999 : p. 69). Secondly, the two theories differ in their attention to contextual variations in institutional environments: although in transaction cost theory traces of regulative institutions might be found, the normative and cognitive institutions are yet to be unveiled in their works (Yiu and Makino, 2002).

**Legitimacy: multifaceted**

It is both interesting and necessary to take a closer look at the issue of legitimacy and how it works in the case of organizations, as the topic of FDI in this thesis plays a role on an organization level.
Types

Suchman (1995) recognizes a range of types of legitimacy, pragmatic, moral and cognitive being at the base of them. The first, pragmatic legitimacy is of a fairly practical and visible nature, where organizational actions in an immediate or less immediate manner affect the most proximal, primary audiences. The most basic form of this is where the audiences become constituencies relating organizational behavior to how it benefits the audiences themselves (p. 578). The second, moral legitimacy, rests on judgments about the extent to which, if at all, the organizational conduct benefits societal welfare and is the right thing to do. “[M]oral legitimacy reflects prosocial logic that differs fundamentally from narrow self-interest” (p. 579) as to be observed with pragmatic legitimacy. The final and third, cognitive legitimacy, comes about by “legitimacy dynamics based on cognition rather than on interest or evaluation” (Aldrich and Fiol as cited in Suchman, 1995: p. 582). A distinction is made between comprehensibility, the institutions in place serve to make sense of the chaotic cognitive environment, and taken-for-granted legitimacy, the institutions offer a set of so-called givens (p. 583). Suchman argues that – moving from the pragmatic to the moral to the cognitive – legitimacy becomes more difficult to obtain and more of a challenge to manipulate, yet at the same time, once established, it becomes “more subtle, more profound, and more self-sustaining” (p. 585).

Note that stemming from the aforementioned explanation moral legitimacy can be matched with the normative pillar, the cognitive legitimacy with the cognitive pillar, whereas the pragmatic legitimacy and the regulative pillar do not seem to be so overtly compatible (cf. Figure 1). For the topic at hand, however, it is useful to be able to establish the linkage between cognitive legitimacy and the cognitive pillar.

Figure 1 - A possible linkage between types of legitimacy and the three pillars

<table>
<thead>
<tr>
<th>Pragmatic legitimacy</th>
<th>Regulative pillar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral legitimacy</td>
<td>Normative pillar</td>
</tr>
<tr>
<td>Cognitive legitimacy</td>
<td>Cognitive pillar</td>
</tr>
</tbody>
</table>
Factors

Institutional theory suggests that organizational legitimacy is given meaning by three sets of factors: the characteristics of the institutional environment, the organization's characteristics and actions, and the legitimating process the environment uses to shape its perceptions of the organization respectively (cf. Figure 2; Kostova and Zaheer, 1999: p. 66).

Figure 2 - Factors influencing organizational legitimacy

First, to be legitimate in a particular institutional environment, the organization has to comply with stated requirements of a regulative system, its norms and values have to be congruent with those of wider society, and its actions should be consistent with what is taken for granted in society (p. 69). Each of the three pillars serves for a different part or type of legitimacy, as what is assessed as proof of legitimacy differs for all three of them. A regulative view values the legal compliance, a normative view stresses answering to moral obligations and so forth. Furthermore, MNEs are confronted with many and often varied institutional environments, at least as many as the number of countries in which the MNEs have subsidiaries. The differences or similarities between institutions in the regulative, normative and cognitive domains of the home and host countries can also pose challenges to the MNEs' legitimacy. This phenomenon is termed institutional distance, also defined as the "difference between the institutional profiles between (...) two countries" (Kostova, 1999: p. 316; Xu and Shenkar, 2002), namely those of home and host countries.

Second, the organizational structure of MNEs makes for a two-sided legitimacy issue: each subsidiary or subunit faces both an external host country environment and an internal...
parent company environment. Achieving external legitimacy may conflict with the internal institutional environment.

Third, the process of legitimation has to deal with at least two types of complexity, the first being that of bounded rationality and the liability of foreignness. According to March and Simon (as cited in Kostova and Zaheer, 1999: p. 73) the legitimating process is, due to its social and cognitive nature, complex, imperfect, and boundedly rational. The mentioned liability of foreignness relates to, on a cognitive level, “the lack of information about the MNE on the part of the host country environment, the use of stereotypes and different standards in judging MNEs versus domestic firms, and the use of these MNEs (especially large and visible MNEs) as targets for attack by host country interest groups” (p. 73). The extent to which an MNE’s subunit is accepted is contingent upon “the host environment’s perception and attitude toward foreign firms” (p. 68). In addition, there is the liability of being large and visible, an issue which moguls such as Nike, Shell, and MNEs alike are faced with: interest groups might publicly question the legitimacy of these large companies for political reasons rather than because they supposedly indulged themselves in wrongful conduct (p. 74). The second type of complexity in the process of legitimating concerns legitimacy spillovers from outside and within the organization. A subunit’s legitimacy in one environment cannot be seen fully separate and independent from the legitimacy of other organizational entities residing in other environments with which the unit is cognitively associated. This coincides with what is argued by Markus and Zajonc (as cited in Kostova and Zaheer, 1999: p. 75): “people make sense of social events by categorizing them on the basis of such cognitive structures as schemas and stereotypes”. It is suggested that these legitimacy spillovers are particularly salient for MNEs, as they can come from different sources and from different directions. One can distinguish between positive spillovers, which contribute to legitimacy, and negative spillovers, which hurt legitimacy and often have a more stringent effect. Further, there are internal spillovers, occurring within organizations, both vertical – between parent and subsidiary – and horizontal – between subsidiaries –, and external spillovers, occurring between organizations (p. 75).1

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1 This section draws heavily upon the research of Kostova and Zaheer (1999).
2.3 FDI: the role of cognitive institutions

Legitimacy and decision making uncertainty

When actors such as organizations are confronted with decision making uncertainty, they are likely to "imitate the actions of other organizations" (Haveman, 1993: p. 595), also known as mimetic isomorphism (DiMaggio and Powell, 1983: p. 151). Yiu and Makino (2002) propose that there are essentially two ways for firms to gain cognitive legitimacy: through external mimicry and internal mimicry, both of which are types of mimetic isomorphism (cf. Figure 3).

Figure 3 - Types of mimetic isomorphism

In effect, this implies that there are two ways in which cognitive institutions affect the choice between a greenfield investment and an acquisition. External mimicry, on the one hand, refers to organizations reflecting other firms’ behavior in similar situations in their own conduct when they are faced with uncertainty. Legitimacy spillovers then occur externally, where constituents in the host country look at a foreign entry by referring to other entries from the same cognitive category. This could be an organizational field, but also the country of origin (Yiu and Makino, 2002: p. 672). Internal mimicry, on the other hand, occurs because the MNE "itself constitutes a micro institutional environment" where organizational routines and practices are spread both vertically, between parent firm and subunit, and horizontally, between subunits. These effects are called internal legitimacy spillovers (Kostova and Zaheer, 1999). Furthermore, with internal mimicry the historical norm, a 'temporal' influence, comes into play: "institutions are shaped by historical factors that limit the range of options open to its decision makers" (North as cited in Yiu and Makino, 2002: p. 672).
Tversky and Kahneman coined the term ‘representative heurism’, “which refers to the situation in which individuals’ judgments about particular events are affected by their judgments about similar events that fall into the same cognitive category” (as cited in Yiu and Makino, 2002 : p. 672), excluding those distant and with low levels of cognitive legitimacy. Deephouse and Suchman (2008) refer to studies that build on the connection between mimetic isomorphism and cognitive legitimacy: "the more widespread its acceptance and the greater its legitimacy" (p. 55). Xia et al. (2008) in their study about mimetic entry and the 'bandwagon effect' explain how “firms rely on social comparison to decide whether to adopt or reject a course of action” (p. 197). They make sense of choices and ambiguous situations by looking at others (p. 198). This idea of mimicry as uncertainty reduction and legitimation tool towards achieving cognitive legitimacy – with society-at-large in the host country as source of legitimacy – leads to the following hypothesis:

_HYPOTHESIS 1_  Multinational enterprises undertaking an initial establishment in a country will more likely opt for an acquisition if that has been the dominant entry mode chosen by their home country predecessors in the same host country.

From a transaction cost perspective, this type of isomorphism could also be seen as the precipitation of an efficiency seeking type of behavior, a tendency referred to by others as "strategic followership" (Bolton, 1993). However, that assumption is contingent upon 'efficiency' being the imperative criterion within every institutional setting. The transaction cost perspective loses much of its explanatory power in i.e. a Marxist society where efficiency is far from being one of the leading principles (Martinez and Dacin, 1999 : p. 84).

Martinez and Dacin (1999) recognize the natural existence of efficiency concerns, but stress that importance of other imperatives – such as legitimacy – should not be overlooked as possibly better "predictors of actions or structural arrangements" (p. 84). Institutional explanations may even supplant efficiency explanations, particularly in situations with ambiguity such as initial establishments.
Density dependent legitimacy

In support of the previous, broader mimetic isomorphism operationalization, it is useful to also put forward density dependence. Yiu and Makino (2002) argue that continuous adoption of a particular organizational form "may further increase the legitimacy associated with this organizational form" (p. 672; italics added).

Where Hypothesis 1 only takes into account the ratio between different entry modes (here greenfield investments vs. acquisitions), the application of density dependent legitimacy can give insight into whether volume (as in: the total number of greenfield investments and acquisitions from a home country into a host country) affects the extent of measured isomorphism. Does the relative prevalence of either greenfield investments or acquisitions increase along with the total number of entries?

**HYPOTHESIS 2**

Multinational enterprises undertaking an initial establishment in a country will more likely opt for an acquisition if that has been the dominant entry mode chosen by their home country predecessors in the same host country and if the total number of that home country's entries is higher compared to those from other home countries.

It might be argued that frequency based measures – according to Lu (2002 : p. 23) frequency based imitation "is the purest form of mimetic isomorphism" – do not sufficiently reflect the richness of the institutional environment. Hannan and Carroll (1995 : p. 543) take issue with this label of insufficiency and state that "[r]esearch on density-dependent organizational evolution is institutional analysis." Deephouse and Suchman (2008) further this by adding that "density is a parsimonious indicator of legitimacy that enjoys predictive validity" (p. 55).

Institutional distance

Greenfield investments and acquisitions are cross border activities and thereby always involve two countries and at least two institutional contexts. Furthermore, closely related to institutional distance, MNEs have to deal with the aforementioned liability of
foreignness. Zaheer (1995) defines this as "the costs of doing business abroad that result in a competitive disadvantage for an MNE subunit (...) broadly defined as all additional costs a firm operating in a market overseas incurs that a local firm would not incur" (p. 342–343). According to Eden and Miller (2004) the key driver behind liability of foreignness is "the institutional distance (...) between the home and host countries" (p. 189). Xu and Shenkar (2002) advise that “entry strategies must be matched with institutional distance to that country in order to enhance competitive advantages resulting either from a small institutional distance or from the ability to mitigate the negative impact of a large distance” (p. 610).

Ionașcu et al. (2004) show that “while an increase in the regulatory distance results in a higher propensity to set up a greenfield investment, the opposite is true for high differences in cognitive aspect” (p. 25). Following this logic, the distance between cognitive institutions of the home and host country should bare explanatory power to the choice between a greenfield investment and an acquisition. This leads to the following hypothesis:

**HYPOTHESIS 3**  
*Multinational enterprises undertaking an initial establishment in a country will more likely opt for an acquisition if the cognitive distance between home and host country is high.*

The following chapter Methodology outlines the way the dataset is set up and how it facilitates accepting or rejecting the aforementioned three hypotheses under review.
3. Methodology

To test the hypotheses the analysis will focus on initial establishments of subsidiaries and apply a frequency-based measure of mimetic entry, which has been done in past studies such as Fligstein (1985) and Haveman (1993). There are no readily accessible databases that include information about large numbers of both greenfield investments and acquisitions, which is a prerequisite to be able to determine historical decision making.

3.1 Sample selection

Greenfield investments

Finding and accessing databases with greenfield investments proves itself a challenge. Differently from acquisitions, multinational enterprises ordinarily do not publish detailed information about greenfield investments in their annual reports. Furthermore, an exploration of several company registers (Kamer van Koophandel [NL], Company House [UK], Les Chambres de Commerce et d’Industrie [FR]), and government bodies (De Nederlandsche Bank, Centraal Bureau voor de Statistiek [NL], US Department of Commerce [USA]) reveals no relevant data about greenfield investments.

Purely commercial sources were reviewed as well. The website fDiMarkets.com of the Financial Times “is the only online database tracking cross-border greenfield investment covering all sectors and countries worldwide“ (fDiMarkets.com, 2011), though it does not provide access to universities and the annual subscription fees (up to £9,000) widely exceed the financial room of this thesis project. The Ernst & Young European Investment Monitor positions itself as the “leading online information provider tracking inward investment across Europe” (Ernst & Young, 2011), but for the purpose of this research it suffers from the same restrictions as fDiMarkets.com: no (non-paid) access for universities.

Ultimately, the sample of greenfield investments is selected from the Netherlands Foreign Investment Agency (NFIA), an executive government agency under the umbrella of the Dutch Ministry of Economic Affairs, Agriculture and Innovation. In its more than 30 years
of existence this agency has supported over 2,800 foreign companies from nearly 50
countries in the setting up and/or expansion of their activities in the Netherlands (NFIA,
2012 : p. 3). The Netherlands as setting for this sampling is interesting for several reasons,
one of which is the significant size of inward foreign direct investment. In 2009 the
country ranked as eight recipient of inward FDI (measured in US Dollars at current prices
and current exchange rates in millions) in the world (UNCTADSTAT, 2012).

Upon request the NFIA provided a depersonalized dataset of 1,216 foreign direct
investments into the Netherlands spanning the time from 2001 till 2010, ten years in total.
The organization distinguishes between the following investment categories when
registering realized projects (NFIA, 2012 : p. 9):

- **initial establishment** first establishment of a foreign company in the Netherlands
- **outsourced** foreign company that outsources (mostly logistical)
  activities to a service provider in the Netherlands
- **expansion** foreign company that is expanding existing activities in the
  Netherlands
- **acquisition** foreign company that takes over a Dutch company
- **retention** foreign company realizes retention of existing employment
  in the Netherlands in competition with locations abroad

From the aforementioned investment categories only the **initial establishments** fall within
the scope of greenfield investments as being applied in this thesis: "entries that involve (...)
starting a new operation from scratch" (Herrmann and Datta, 2006). The other items were
removed from the sample. The final sample from this dataset included 713 entries
considered to be greenfield investments.

**Dataset limitations**
The NFIA – while being the only organization with relatively large amounts of Dutch inward
greenfield investment information – is not allowed to release identifying information
about individual entries. This precludes the possibility of measuring historical norm (a
representation of *internal* mimicry) or taking into account typical transaction cost variables such as R&D-intensity and the parent company’s host-country-specific experience.

Ideally the acquisitions would have been sourced from the same NFIA-dataset. However, these acquisitions are not identifiably at company level. As a consequence, there is no way to establish which of them are ‘first acquisitions’, forcing this study to look for another source. This sourcing is discussed in the following paragraph.

**Acquisitions**

The sample of acquisitions investments was selected from the Bureau van Dijk Zephyr mergers & acquisition database accessed through an Erasmus University Rotterdam VPN-tunnel. The following search strategy was applied:

- **time period**: announced acquisitions on and after 01/01/2001 and up to and including 31/12/2010
- **deal type**: acquisition (excluding mergers and other types, excluding withdrawn acquisitions)
- **target country**: The Netherlands
- **percentage of stake**: 95 to 100 percent ownership

The time period, deal type and target country were chosen to match the sample of greenfield investments. Only acquisitions with a 95 percent or higher stake of ownership are included in the sample. In total 6,459 acquisitions fell within these bounds. During a manual review of the sample some acquisitions with a stake lower than 95 percent at the moment of measurement were found and taken out. The same was done with acquisitions outside the specified time period.

Subsequently all domestic acquisitions (Dutch companies acquiring subsidiaries in the Netherlands) were removed from the sample and all acquisitions that did not specify an announcement and completed date, a target and / or acquirer country. Furthermore, due
to their geographical distance and for the purpose of clarity, the countries Aruba, Curacao, 
and Sint Maarten belonging to the Kingdom of the Netherlands and the special 
municipalities of the Netherlands (all situated in the Caribbean region) are excluded from 
this sample.

Since the greenfield investment sample is comprised of initial establishments, the sample 
of acquisitions is further narrowed down by only including one acquisition per acquiror 
(or country of origin) where the acquiror name is available. Where the target company 
name is duplicate (in the same year), only the first entry is kept. Effectively, this leaves 
1,158 acquisitions in the sample.

**Combined sample**

When the separate samples are combined, this results in 1,871 initial establishments in 
the Netherlands that are either greenfield investments or acquisitions and have been 
registered accordingly. The full list of countries and corresponding number of greenfield 
investments and acquisitions can be found in Appendix 1.

### 3.2 Measures

**Hypothesis 1**

Mimetic entry (variable ‘mimentry’) is calculated by the rate of acquisition over 
greenfield investments from parent companies from the same home country. The number 
of acquisitions is divided by the number of acquisitions and greenfield investments 
combined. E.g. having 17 acquisitions and 1 greenfield investment from Denmark results 
in a ratio of 17 / (17 + 1) = 0.94. Following the premise of hypothesis 1, the expected 
values of all home countries are either close to 0 or 1, a scatter plot of ‘mimentry’ set 
against ‘country’ can give insight into how the dataset reflects the hypothesis.

**Hypothesis 2**

The density dependent legitimacy measure is calculated by testing whether mimetic entry 
is relatively more prevalent when the total number of entries from a home country is 
higher. This hypothesis can be analyzed by setting of the countries’ mimetic entry (variable
‘mimentry’) scores against the total volume of entries per country (variable ‘total’). Both a scatter plot and regression analyses will help test this hypothesis.

**Hypothesis 3**

Estrin et al. (2007) theorize that higher educated people “are more likely to spot and adequately process essential information and are more receptive to innovation” (p. 20). In addition, “exposure to a wide range of stimuli” helps them to recognize opportunities better.

“Therefore, employees that are more highly educated, more cosmopolitan and more exposed to new information and technology are more likely to contribute to routines developed in the organization.” (p. 20)

Following from this reasoning, in their construct of cognitive institutional distance, in their research Ionașcu et al. (2004) and Estrin et al. (2007) measure along four dimensions:

**Education:**
1. the percentage of economically active population with tertiary education
2. the average schooling years in the total population

**Technology exposure and cosmopolitanism**
3. the number of computers per 1,000 persons
4. the number of internet hosts per 1,000 persons

Whenever possible, data for the year 2005 was used; both for the purpose of simplicity, reasons of availability and the scope of this research. If not available for the year 2005, data from the closest preceding or following year was used.

The percentage of economically active population with tertiary education (nr. 1 – coded ‘ecoacttert’) is taken from LABORSTA, an International Labour Office database on labour statistics operated by the ILO Department of Statistics (2012). Tertiary education for the purpose of this dimension is captured by the data items level 5, level 5A, and level 5B in this database. Countries without available data: China, Egypt, India, Jamaica, Jordan, Libya,
Monaco, Nepal, Thailand, and the British Virgin Islands. These missing values are likely to be caused by the respective national statistics agencies not including them as data items in their periodical surveys.

The average schooling years in the total population (nr. 2 – coded ‘avgschool’) are readily available in the Barro-Lee Educational Attainment Dataset accessible by Barro & Lee (2011). For some countries, however, no data on this dimension is available, in particular: the Bahamas, Cayman Islands, Georgia, Monaco, Oman, and British Virgin Islands, likely for the aforementioned reason.

**Table 4 - Internet usage statistics (as percentage of total population)**

*Internet World Stats*  

<table>
<thead>
<tr>
<th></th>
<th>China</th>
<th>The Netherlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1.7%</td>
<td>24.1%</td>
</tr>
<tr>
<td>2010</td>
<td>31.6%</td>
<td>88.6%</td>
</tr>
</tbody>
</table>

The two measures of technology exposure and cosmopolitanism (nr. 3 – coded ‘pcpercap’ and nr. 4 – coded ‘inthostpercap’) are retrieved from the website NationMaster.com (2012), which in its turn sources from World Development Indicators database and the CIA’s The World Factbook. While the number of internet hosts per 1,000 people is available for all countries in the dataset, the number of computers per 1,000 people is not available for all countries. Notably for the Bahamas, Cayman Islands, Kazakhstan, Monaco, Taiwan, and British Virgin Islands these numbers are unavailable.
It is important to note that using data from the year 2005 possibly limits the effect of change in the respective dimensions. In particular the effect of the change in the number of internet hosts per 1,000 persons on the aggregate construct of cognitive distance might be limited. With the expansion of internet use, this data item is likely to have undergone growth in the time window relevant to this research (cf. Table 4 and Figure 4 above). Choosing to use the median year of 2005 – halfway the time path – is a way to \textit{partially} negate the aforementioned limited effect.

The computation of cognitive distance follows the formula applied by Ionaşcu et al. (2004):

\[
D = \sqrt{\sum_{i} \left( I_{i,host} - I_{i,origin} \right)^2 / V_i}
\]

Here $D$ is the construct of aggregate distance where $I_{i,host}$ is the $i$th dimension of the host country and $I_{i,origin}$ is the $i$th dimension of the country of origin, and $V_i$ represents the variance on the $i$th dimension itself. The variances used in these computations are displayed in the latter column of Table 5. The Dutch values (host country, $I_{i,host}$) used in the computations are 10, 99, 28, 24, 682, 63, and 510, 83 respectively. The syntax used to compute the formula above reads:

Table 5 - Descriptive statistics for cognitive distance construct

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>avgschool</td>
<td>56</td>
<td>2.74</td>
<td>13.19</td>
<td>9.36</td>
<td>2.269381</td>
<td>5.150</td>
</tr>
<tr>
<td>ecoacttert</td>
<td>51</td>
<td>7.71</td>
<td>44.22</td>
<td>22.4573</td>
<td>9.26484</td>
<td>85.837</td>
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<tr>
<td>pcpercap</td>
<td>57</td>
<td>3.33</td>
<td>865.58</td>
<td>323.4135</td>
<td>256.29727</td>
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<tr>
<td>inthostpercap</td>
<td>59</td>
<td>0.01</td>
<td>712.11</td>
<td>116.0546</td>
<td>156.29695</td>
<td>24428.737</td>
</tr>
</tbody>
</table>

Additional countries excluded from analysis

Countries missing data on more than one of the four dimensions involved in the computation of cognitive distance were excluded from the final statistical analysis. The 'select cases' option in SPSS facilitates exclusion of all cases (entries) that do not fall within the following conditions: `avgschool ~= 9999999999 OR ecoacttert ~= 9999999999 AND avgschool ~= 9999999999 OR pcpercap ~= 9999999999`, with '9999999999' fulfilling the role of 'missing value' in the dataset. These countries were the Bahamas, Cayman Islands, Monaco, and British Virgin Islands. Together they accounted for 7 entries into the Netherlands, a negligible number on a total of 1,871 entries.

Countries missing data on only one of the four dimensions are included, with the missing data items excluded from the computation of 'cogndist'.

Interestingly, in their study of cross-border M&A activity the scholars Chakrabarti et al. (2008) chose to exclude observations from Bermuda, the Bahamas, and the British Virgin Islands, because of the risk that these are 'shell' operations (p. 220) for MNEs in other countries of origin. While in this thesis research there have not been indications that the dataset includes such shell operations, as mentioned above the Bahamas and the British Virgin Islands were excluded due to too many missing data items.
Additional institutional measures: normative and regulative distance

When measuring the cognitive distance as part of the institutional framework to gain insight into possible effects, there is an opportunity to take into account possible effects from normative institutional distance and regulative institutional distance. Both distances represent the difference, albeit on their respected scales, between home and host country. Beyond being an opportunity, it can be argued that the solely institutional approach also gains in declarative value by the incorporation of these two other distances, as no controlling variables – taken from other perspectives such as transaction cost theory – are included. This will be further discussed in the following chapter.

Normative distance

The normative pillar of the institutional framework is the domain of values and norms: normative institutions steer (socially) acceptable behavior (Scott, 1995: p. 38). Subsequently normative distance can be computed using the same formula as for cognitive distance, with four dimensions of Hofstede’s culture index representing the normative pillar of a country’s institutional profile. Ionaşcu et al. (2004) elaborate on this by pointing out:

“Power Distance describes the expected behavior toward higher and lower rank people, Individualism/Collectivism depicts peoples attitude toward the group, and Masculinity/Femininity captures the status of values traditionally associated with male and female role models. (...) [I]n other societies people are relativist, have as few rules as possible, and feel at much more ease in unstructured situations (...) aspects (...) captured by (...) Uncertainty Avoidance.” (p. 13-14)

To compute the new variable ‘normdist’ the variances in the latter column of Table 6 are used. The Dutch values (host country, $I_{host}$) used in the computations are 38,00, 80,00, 14,00, and 53,00 respectively.
Table 6 - Descriptive statistics for normative distance construct

Variables cultdpi, cultidv, cultmas, and cultuai

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
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<td>485,332</td>
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<td>5,00</td>
<td>1110,00</td>
<td>50,7551</td>
<td>19,61455</td>
<td>384,730</td>
</tr>
<tr>
<td>cultuai</td>
<td>49</td>
<td>8,00</td>
<td>112,00</td>
<td>66,6939</td>
<td>25,57685</td>
<td>654,175</td>
</tr>
</tbody>
</table>

Regulative distance

The regulative pillar of institutional theory has tangible rules, laws and regulations as formalized guidelines that shape (rule-abiding) behavior (Scott, 1995: p. 35). Relevant to the topic of this thesis is how the distance between regulative institutions in home and host country might affect decision making, as we measure those distances on normative and cognitive dimensions too.

The Index of Economic Freedom (The Heritage Foundation, 2012a) offers ten different indices that summed up and averaged form a level of ‘economic freedom’ ranging from a minimum of 0 and a maximum of 100, being the ‘most free’ or having the ‘least restrictions’. Six of these indices show particular relevance to regulative distance and how it pertains to foreign direct investment, namely:

- Regulatory Efficiency (Business Freedom, Labor Freedom)
- Rule of Law (Property Rights, Freedom from Corruption)
- Open Markets (Trade Freedom, Investment Freedom)

To highlight one of these indices, Business Freedom is “quantitative measure of the ability to start, operate, and close a business that represents the overall burden of regulation as well as the efficiency of government in the regulatory process” (The Heritage Foundation, 2012b).
Again, index numbers for the year 2005 are used, to keep in line with the numbers used for the cognitive distance construct. The new variable ‘regudist’ is computed as the absolute difference between the average scores of host country the Netherlands and those scores of the respective home country. E.g. the Netherlands scoring an average of 80,11 and Denmark scoring 89,18 results in a regulative distance of 9,07.

The following chapter Results discusses the findings resulting from analysis of the dataset.
4. Results

Following from Hypothesis 1, it was predicted that the values of all home countries on the variable 'mimentry' are either close to 0 or 1, 0 being solely greenfield investments, 1 being solely acquisitions. The scatter plot in Figure 5 shows a wide spread on the range of 0,00 to 1,00 score of mimetic entry with regard to the different countries. Most entries (visualized by the small circles) are either near the lower of the upper half of the vertical scale.

**Figure 5 - Scatter plot**

*Variables country and mimentry*

However, looking at the three markers, representing Egypt (score 0.50, only 2 entries, 1 greenfield, 1 acquisition), Nepal (score 0.50, only 2 entries, 1 greenfield, 1 acquisition), and the United States (score 0.42, 482 entries, 256 greenfield investments, 226 acquisitions, by far the most of all countries in the dataset), it becomes pertinent to see how the plot changes when such 'outliers' are taken out. One the one hand, having fewer entries from a home country implies having fewer entries to mimic and thusly making it harder to measure subsequent mimetic entry. On the other hand, for the United States it is likely that industry- or sector-level differences are in effect, which is a discussion point later on in
this study. By capping\(^2\) the total number of entries per country at a minimum of 10 and a maximum of 208 (the total of entries from the United Kingdom, second highest after the United States) a new scatter plot can be plotted.

**Figure 6 - Scatter plot (entries >= 10 and <= 208)**

Variables country and mimentry

![Scatter plot](image)

After this modification, the new scatter plot in Figure 6 shows a visibly larger bandwidth that is void of countries within the 0,00 to 1,00 score on mimetic entry. With this, 0,72 (Australia, 5 greenfield investments, 18 acquisitions) becomes the lowest score in the upper half and 0.33 (Turkey, 10 greenfield investments, 5 acquisitions) the highest score in the lower half.

Consistent with Hypothesis 1 these results suggest, though not confirm significantly, that multinational enterprises undertaking an initial establishment in a country will more likely opt for an acquisition if that has been the dominant entry mode chosen by their home country predecessors in the same host country and vice versa.

\(^2\) This number was decided upon after reviewing the total number of entries per country: more than half of \(N = 59\) is well under 10 entries and appear to have little explanatory value, while those well above 10 entries logically often demonstrate nominally greater differences on mimetic entry.
The second hypothesis is based upon the premise that mimetic entry is relatively more prevalent when the total number of entries from a home country is higher. This proposed density dependent legitimacy can give insight into what extent volume (as in: the total number of greenfield investments and acquisitions from a home country into a host country) affects the level of measured isomorphism in the decision making process under review. The left and right triangle are superimposed on Figure 7 to indicate within which area of the scatter plot one would expect the higher values. The capping of the entry volumes in the dataset (entries >= 10 and <= 208) is also applied here (cf. footnote 2). In line with density dependent legitimacy the markers on the vertical axis would be closer to the top left hand side of the left triangle or opposite in the top right hand side of the right triangle (cf. the arrows).

**Figure 7 - Scatter plot (entries >= 10 and <= 208)**

*Variables total and mimentry*

However, as the scatter plot in Figure 7 shows, there is no pronounced indication that the volume of entries from one home country results in higher, or outspokenly lower, scores on mimetic entry. Thus, inconsistent with **Hypothesis 2** and based upon the current dataset, the scatter plot does not definitively suggest that density dependent legitimacy is at play in the decision making process.
Noticeable here is the marker for the United Kingdom (score 0.82, 208 entries), the highest volume in the dataset, visibly well outside the right triangle. Equal to the United States in the discussion of Hypothesis 1 it is likely that industry- or sector-level differences are in effect, resulting in the deviating score of the United Kingdom. Save for this outlying marker the markers in the right triangle appear to conform themselves to this artificial funnel slightly more than in the left. This gives – however little – support to the contention that a larger dataset to pull markers from could offer better insight.

Performing regression analysis of 'mimentry' as dependent variable and 'total' as independent variable can provide further insight into a causal relationship. However, the ANOVA table (cf. Table 7) displays a p-value of 0.092 when including all the countries. The capping of the entry volumes in the dataset (entries >= 10 and <= 208) and a new regression analysis results in a p-value of 0.611. Both are not significant and lead to a rejection of Hypothesis 2.

### Table 7 - ANOVA

**Independent variable mimentry; dependent variable total**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.297</td>
<td>1</td>
<td>2.933</td>
<td>0.092</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>5.770</td>
<td>57</td>
<td>.101</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>6.066</td>
<td>58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 8 - ANOVA (entries >= 10 and <= 208)

**Independent variable mimentry; dependent variable total**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.035</td>
<td>1</td>
<td>.266</td>
<td>0.611</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>3.007</td>
<td>23</td>
<td>.131</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.042</td>
<td>24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To test Hypothesis 3 (multinational enterprises undertaking an initial establishment in a country will more likely opt for an acquisition if the cognitive distance between home and host country is high), mimetic entry is set off against cognitive distance. This supposes a positive correlation: the higher the score on the level of cognitive distance, (variable: ‘cogndist’), the higher the score on the level of mimetic entry (variable: ‘mimentry’).

The correlation is reviewed initially for the complete dataset, without capping countries (entries >= 10 and <= 208).

**Table 9 - Correlations**

*Variables mimentry, cogndist, normdist, and regudist*

<table>
<thead>
<tr>
<th></th>
<th>mimentry</th>
<th>cogndist</th>
<th>normdist</th>
<th>regudist</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>mimentry</strong></td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.095</td>
<td>.320*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.473 ←</td>
<td>.025</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>59</td>
<td>59</td>
<td>49</td>
</tr>
<tr>
<td><strong>cogndist</strong></td>
<td>Pearson Correlation</td>
<td>-.095</td>
<td>1</td>
<td>.463**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.473</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>59</td>
<td>59</td>
<td>49</td>
</tr>
<tr>
<td><strong>normdist</strong></td>
<td>Pearson Correlation</td>
<td>-.320*</td>
<td>.463**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.025</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>49</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td><strong>regudist</strong></td>
<td>Pearson Correlation</td>
<td>.091</td>
<td>.113</td>
<td>.467**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.493</td>
<td>.395</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>59</td>
<td>59</td>
<td>49</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

In Table 10 the Pearson Correlation for ‘mimentry’ and ‘cogndist’ reads -.095 with a p-value of .473. Applying an α of 0.05, it implies that there is no significant correlation between the cognitive distance between a home and host country and mimetic entry. These results do not support Hypothesis 3’s contention.

Equally, no significant correlation is detected between ‘mimentry’ and ‘regudist’ either, with a Pearson Correlation of .091 and p-value of .493. On the dimension of normative distance (‘normdist’), however, a negative correlation of -.320 is found with a significant p-value of .025, indicating that a higher normative distance negatively affects the choice for
acquisition. From the three pillars of the institutional framework and with regards to this particular dataset, only normative distance appears to be correlated to mimetic entry.

Likewise with the review of Hypothesis 1, the correlations are recalculated capping countries (entries >= 10 and <= 208, cf. Table 10).

Table 10 - Correlations (entries >= 10 and <= 208)

<table>
<thead>
<tr>
<th>Variables</th>
<th>mimentry</th>
<th>cogndist</th>
<th>normdist</th>
<th>regudist</th>
</tr>
</thead>
<tbody>
<tr>
<td>mimentry</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-0.36606</td>
<td>,599**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.071916</td>
<td>0.00155</td>
<td>0.003887</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>cogndist</td>
<td>Pearson Correlation</td>
<td>-0.36606</td>
<td>1</td>
<td>,436*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.071916</td>
<td>0.029207</td>
<td>9.74E-06</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>normdist</td>
<td>Pearson Correlation</td>
<td>-,599**</td>
<td>,436*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.00155</td>
<td>0.029207</td>
<td>0.018695</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>regudist</td>
<td>Pearson Correlation</td>
<td>-,556**</td>
<td>,762**</td>
<td>,467*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.003887</td>
<td>9.74E-06</td>
<td>0.018695</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

As can be seen, the Pearson Correlation for ‘mimentry’ and ‘cogndist’ is far stronger with -0.36606, yet with a p-value of 0.071916 still not significant. Were this correlation actually significant, it would indicate results opposite to Hypothesis 3. Mimetic entry and normative distance are more negatively correlated in this reduced dataset, likely as there were less mimetic entry scores around the 0.50 level. Regulative distance and mimetic entry show a Pearson Correlation of -0.566 – wherein the larger dataset it was a positive value – with a p-value of 0.003887, making this a correlation of significant nature.

However, as for the distance dimension under review, cognitive distance, there is no clear and definitive indication that multinational enterprises undertaking an initial establishment in a country will more likely opt for an acquisition if the cognitive distance between home and host country is high.
As Hypothesis 3 implies a causal effect between a higher cognitive distance and a greater propensity to opt for acquisition, the whole institutional model of 'mimentry' as dependent variable and 'regudist', 'normdist', and 'cogndist' as independent variables is also put through a regression analysis. This is done with the previously applied bandwidth of entries $\geq 10$ and $\leq 208$. The ANOVA table (cf. Table 11) indicates that the model of 'institutional dimensions' and mimetic entry is significant with a p-value of .003. This implies that there is a 99.7% level of certainty that the model has declarative value.

**Table 11 - ANOVA**

*Independent variable mimentry; dependent variables cogndist, normdist, and regudist*

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1,453</td>
<td>3</td>
<td>.484</td>
<td>6.403</td>
<td>.003</td>
</tr>
<tr>
<td>Residual</td>
<td>1,589</td>
<td>21</td>
<td>.076</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3,042</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In Table 12 (next page) the coefficients are displayed for each of the three independent variables with regards to mimetic entry. Relevant to Hypothesis 3 is whether the independent variable 'cogndist' can be described as having a positive causal effect on the dependent variable 'mimentry'. It is interesting to note that – when analyzed as part of a three-pillar model rather than isolated – cognitive distance shows much weaker correlation with mimetic entry and in opposite direction. With a p-value of .370 this, however, is not at a significant level, leading to the definitive rejection of **Hypothesis 3**.
Table 12 - Coefficients

*Independent variable mimentry; dependent variables cogndist, normdist, and regudist*

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.134</td>
<td>.209</td>
<td>5.436</td>
</tr>
<tr>
<td></td>
<td>cogndist</td>
<td>.071</td>
<td>.077</td>
<td>.225</td>
</tr>
<tr>
<td></td>
<td>normdist</td>
<td>-.164</td>
<td>.064</td>
<td>-.457</td>
</tr>
<tr>
<td></td>
<td>regudist</td>
<td>-.016</td>
<td>.008</td>
<td>-.514</td>
</tr>
</tbody>
</table>
5. Conclusions

This thesis set out to explore the decision making process in foreign direct investments by multinational enterprises and doing so from an outspokenly, and perhaps equally narrow, institutional perspective as opposed to the pre-dominantly applied transaction cost theory. More particularly, the author focused on the influence of cognitive institutions with regards to the choice between a greenfield investment and an acquisition in a foreign country that the management of a multinational enterprise has to deal with.

Clearly, this ambition has proven itself both a lengthy and difficult feat, with several obstacles along the way: limited data availability on greenfield investments and a pair of cognitive spectacles that are equally difficult to come by. Ultimately, mimetic entry and a measure of density dependent legitimacy were chosen to operationalize the cognitive institutions’ influence, in addition to the construct of cognitive distance between the respective home and host country.

In reviewing the three hypotheses in support of the research question, only the findings for the first hypothesis enjoyed support: multinational enterprises undertaking an initial establishment in a country will – more likely – opt for an acquisition if that has been the dominant entry mode chosen by their home country predecessors in the same host country.

Admittedly, although having been used in several earlier studies on this and related research topics, this frequency-based measure and in specific its outcome would have gained predictive value had the second hypothesis concerning density dependent legitimacy been accepted. There is no significant indication that the propensity to opt for acquisition becomes greater when acquisition has been the dominant choice more often: isomorphism does not seem to become stronger with an increase of frequency.

The third hypothesis, supposing a positive correlation between greater cognitive distance and greater propensity to opt for acquisition, found no significant support. If the correlation had been significant, it would have indicated a negative correlation, opposite to the prediction in the hypothesis. Other studies (cf. Xu & Shenkar, 2002) appear to explain
such an opposite outcome by describing acquisitions – under the circumstance of high cognitive institutional distance – as perceived take-overs and a “blow to national sovereignty” (p. 613).

With only one of the three hypotheses finding support in the Results chapter of this study, it remains difficult to adequately answer the research question:

*How do cognitive institutions influence the decision making process of the management of a multinational enterprise that deals with the choice between a greenfield investment and an acquisition in a foreign country?*

Reiterating Yiu and Makino’s (2002) position (i.e. there are essentially two ways for firms to gain cognitive legitimacy: through external mimicry and internal mimicry, both of which are types of mimetic isomorphism), the findings provide insufficient indication that the decision making process is actually affected substantially by the cognitive institutions in the home (and host) country.

The following chapter Discussion recounts the difficulties encountered during the study and proposes pathways for future research to offset (or resolve) them.
6. Discussion

As alluded to in the chapter Results with regards to both the data on the United States and the United Kingdom it is likely that industry- or sector-level differences are in effect. In paragraph 2.1 a division of levels of analysis for the study of FDI is proposed: global industry, local industry, host country, and parent firm.

Due to the limitation of data availability and in specific its richness, the analyses were strictly limited to the three dimensions of institutional theory. They did not differentiate between the effects of institutional environments with regards to Dutch FDI inflows specific to industries. While MNEs investing in the Netherlands have to deal with one and the same host country institutional environment, the three dimensions of each industrial institutional environment may vary. Chan and Makino (2007) point this out as shortcoming of previous research: "[it] tends to be limited in scope in terms of the institutional [industrial] environments that have been examined" (p. 622).

Furthermore, the MNE’s own institutional environment (on parent firm level) may not always reflect or being an extrapolation of the national home country. More likely, the computed distances on the three dimensions of a country’s institutional profile – here with regards to the Netherlands – are an approximation of the MNE’s institutional profile at most. Chan and Makino (2007) distinguish in this context between the host country, local industry, and corporate levels of the institutional environment, which all “represent different sources of institutional pressures” (p. 624) on MNEs. The research would have provided more fine-grained information were this parent firm’s level of view included. Future research can do so and gain a view closer to the reality of the decision making process. With such improvements the recommendations can have a more practical perspective.

The chart in Appendix 2 sets the total number of entries from the United States\(^3\) and the score on mimetic entry off against each other split out per industry (in the original

\(^3\) The number of entries from most other countries combined with the number of industries is too low to draw conclusions from. The United States here serve as purely a tentative example for analysis.
datasets, the acquisitions are labeled by ‘major sector’ and the greenfield investments by industry, complementing each other). For the United States, with 482 entries, there is some preliminary exploration possible. The chart motivates future and further research into analysis on this level. Appendix 3 shows the same chart, though industries with fewer than 10 entries are withheld: the outlined box indicates that there is a more pronounced industry-specific preference towards either greenfield investment or acquisition. This can serve as a starting point for future research: differences between industrial institutional environments within one host country industrial environment.

Aside from dataset richness and subsequent (non-)inclusion of moderating variables, the current study inevitably suffers from other limitations. Firstly, while this study starts with a combined dataset populated by 1,871 entries (every entry for each country), the conversion to aggregate scores per country reduces N = 1,871 to a maximum of N = 59. This makes that the ultimate analyses are conducted with a much smaller number of scores. Secondly, the focus on the Netherlands as only host country offers less opportunity for generalizing the findings to other economies, particularly with respect to emerging and developing economies (the Netherlands being considered a developed nation and economy). With multiple home and host countries, i.e. a greater diversity in host countries, there is a possibility to detect whether the findings differ when making foreign direct investments into different countries. Estrin et al. (2009) support this notion by concluding that “variation of institutional (...) contexts between source and recipient countries makes it unlikely that (...) results are driven by the idiosyncrasies of a particular source or host country” (p. 1172). An enriching exercise not afforded in the current study. Thirdly, as this study only takes into account the initial establishments into the Netherlands per parent firm, this precludes the possibility of measuring any kind of historical norm (a representation of internal mimicry). This parent firm level variable (i.e. the parent firm’s experience) adds value to the insights gained from approaching the decision making process from an institutional perspective. Unsurprisingly, Canabal and White (2008: p. 276) identify ‘MNE/international experience’ as most commonly used independent variable in various entry mode studies (in 46 of the 126 reviewed studies). Fourthly, there is no guarantee that either the original dataset of acquisitions or the original dataset of greenfield investments captured all such entries into the Netherlands within the specified
time period. The combination of both datasets puts pressure on its reliability as a whole. In future research, it would be advisable to develop a method of data collection that fills a dataset through a unified system or survey, rather than separate ones.

By using density dependence as a measure for Hypothesis 2, only the entries are taken into account when looking at the decision making process. This may well be an incomplete approach, as is argued by Chan et al. (2006). Instead of looking at merely the absolute number of entries to express density dependence, they propose to rather look at the flow of both entries and exits into and from a market (p. 647). In future research, this broader approach is likely to prove itself a more realistic measure and in the least more dimensional.

With regards to the operationalization for Hypothesis 3, using the measure of cognitive distance is not without issues either. One of its dimensions, the number of internet hosts per 1,000 people, is problematic by its definition of what these 'internet hosts' are. The official definition pertains to the number of computers "connected directly to the Internet" (CIA, 2012). According to the most recent data in The World Factbook (CIA, 2012), the United States would have 498,000,000 internet hosts (on a population of 313,847,465 - July 2011 est.) and Iraq would have only 23 internet hosts (on a population of 31,129,225 - July 2011 est.). While Iraq undeniably has faced some societal uproar in the past decade\(^4\), these figures inspire suspicion. Following from this observation future scholarly attention is warranted as toward which dimensions should be included in a revised version of the construct of these institutional distances.

A minor limitation concerns the issue of temporal changes: institutions evolve over time and the data items used in the aggregated measures in the current study can only be considered an approximate snapshot. Some data items, such as a tertiary education attained by the economically active population, are not widely available for each year. To deal with this but also instigated by time constraints, 2005 was chosen as focus year, bypassing an

\(^4\) A reference to the Iraq War, also called the Second Persian Gulf War, commenced in 2003 and ended in 2011, spanning the majority of the time period under review. (Encyclopaedia Brittanica, retrieved June 15, 2012 from http://www.britannica.com/EBchecked/topic/870845/Iraq-War)
approach that would include the data items for each year in the time period under review. With the assumption that institutions change over time, there is an opportunity to include this variation in the measurement of the three institutional distances.

In closing, the main theme of this chapter strongly revolves around the data richness: a palpable weakness of the current study, though a sea of opportunity for further research into this topic.
References


Appendices

Appendix 1 - Countries and initial establishments

Based on combined datasets from NFIA and Bureau van Dijk Zephyr mergers & acquisition database

<table>
<thead>
<tr>
<th>Country</th>
<th>greenfield</th>
<th>acquisition</th>
<th>Country</th>
<th>greenfield</th>
<th>acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>5</td>
<td>13</td>
<td>Libya</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Austria</td>
<td>0</td>
<td>14</td>
<td>Luxembourg</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Bahamas</td>
<td>0</td>
<td>1</td>
<td>Malaysia</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Belgium</td>
<td>0</td>
<td>144</td>
<td>Malta</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Bermuda</td>
<td>0</td>
<td>4</td>
<td>Mauritius</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Brazil</td>
<td>3</td>
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Appendix 2 - United States entries per activity / industry

Variables mimentry and total
Appendix 3 - United States entries per activity / industry (entries >= 10)

Variables mimentry and total