Institutional Environments and Mode of Entry

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ABSTRACT

Institutional Environments and Mode of Entry

Emile Kinuma

Mode of entry studies the international behavior of multinational firms and the factors that impact their international behavior. This study examines the impact the macro level institutions of a host country on the entry strategy of a foreign multinational enterprise (MNE). The framework developed in the study focuses on two sets of institutions, formal institutions which comprise the political and judicial rules and informal institutions which are comprised of cultural and business practices that are not formally codified. The results of the study provide further empirical evidence that the institutional environment influences MNE behavior. In particular this study found that, for a constant level of informality, the increased degree of formality of an institutional environment encourages multinational firms to choose acquisitions over joint ventures. Meanwhile the increased degree of formality and informality makes MNEs more likely to choose joint ventures over acquisitions and strategic alliances as modes of entry.

Acknowledgements and dedications page

To the casual observer, a M.sc. thesis may appear to be solitary work. However, to complete a project of this magnitude requires a network of support, and I am indebted to many people. I am most especially grateful to my parents, Faustin and Bellancile Kinuma, and the Kinuma family for their guidance, support and extraordinary courage. I would also like to thank Professor Farashahi and the committee members for their reviews and comments throughout this endeavor.

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Introduction

The late Godfrey Binaisa, the former Ugandan president once joked that in Kampala “if your car travelled in a straight line you risked being arrested for drunken driving” (Holman, 2010). At the time he was referring to the chaos that was all over the capital city of Uganda in the late 1970s. However his quote is very relevant when applied to the field of international management and more specifically when dealing with the foreign entry strategy of multinational firms. The proverbial car in the quote above can be thought of as a multinational firm and the manner in which it is driving the firm`s entry strategy. If the strategy is inadequate to the institutional context in which the multinational firm is operates in, the latter might be accused of “drunk driving” and suffer the consequences of such a behavior.

The field of international strategic management is broad and includes topics such as human resource management, internationalization; international joint ventures (Ricks et al., 1990, p.220); foreign direct investment (FDI); strategic alliances and networks; organizational behavior, business-government relations and strategy to name a few (Werner, 2002, p.280). This thesis will focus on the topic of foreign entry-mode strategy-a topic which has received an important amount of attention by scholars and is the third most researched subject in international strategic management after the foreign direct investment (FDI) and internationalization fields of study (Werner, 2002).

The topic of foreign entry-mode strategy research focuses on the international behavior of multinational enterprises (MNEs) (Ricks, 1991). As in any other branch of management, in international management there are competing theories which seek to explain the mode of entry of firms in foreign countries. Canabal & White`s (2008) review of over 160 empirical studies on mode of entry decisions between 1980 and 2006 outlined the 10 most commonly used theories and constructs. The theories and constructs they found are: Transaction cost theory, Resource-based view, OLI/Location factors, Culture/cultural distance, Control, Internationalization, Risk, Institutional theory, Foreign direct investment, and Organizational/competitive capabilities. Most researchers on this topic have tended to focus on the characteristics of the proverbial car, that is the characteristics of the MNE in order to explain the international behavior of firms (Peng 2003). Theories such as Transaction Cost (TC) and Resource-based view (RBV) (as the most cited in this literature) focus on MNE resources and capabilities (Meyer et al., 2008; Canabal & White, 2008). These theories assume a relatively stable environment and consider the institutional environment to be merely the background within which MNEs operate. Going back to the metaphor, these theories focus on the car and not on the fact that it is on the street in Kampala. Even when these theories focus on the contextual factors, they do not take into account the overall institutional framework of the country (Peng, 2003). There has been several consequences due to the limited amount of research on the characteristics of national institutional frameworks, one of them being lack of understanding the impact of these macro-level variables on the international behavior of firms (Meyer et al., 2008).

However, there is a recent growing effort in research to understand how the characteristics of a host country's institutional framework affect mode of entry (Meyer et al., 2008). This study will use the institutional perspective in an effort to further knowledge on the topic. Institutions regulate the economic activities within a country (North, 1990). Therefore the mode of entry chosen by an MNE can be viewed as a consequence of the influence of the characteristics of the host country's institutions. With such a diversity of institutional frameworks in countries around the world (Peng, 2003), there is a need to better understand how these different characteristics affect the strategic choices of MNEs (Hitt et al., 2004). There are two main approaches to research on the impact of the institutional characteristics on MNE mode of entry. The first approach combines the institutional perspective with other theories, such as TC theory and RBV, to explain the international behavior of firms (Brouthers and Brouthers, 2000; Yiu and Makino, 2002; Meyer et al., 2008). The second approach places a great emphasis on the formal characteristics of institutional frameworks (Delios and Beamish, 1999). This later approach intends to provide a more in depth analysis of the variations in institutional frameworks around the world, and provide empirical evidence for the possible impact of these variations on mode of entry.

The purpose of this thesis is to study how the formal and informal characteristics of the host country`s institutional environment affect international behavior of an MNE (i.e. entry strategy). Among the theories mentioned above, transaction cost theory was by far the most commonly used theory in studying international entry modes (Canabal & White, 2008). Therefore, this study begins by explaining the key tenets of transaction cost theory, followed by resource-based view, outlining the entry modes favored by each theory and then introduce the institutional perspective. The study will then go over the entry mode choices covered in this study, followed the development and testing of the hypotheses.

1. Literature review

1.1 Transaction Cost Theory and Entry Mode Selection

"Research efforts in the area of international entry mode selection have tended to concentrate on transaction cost explanations" (Brouthers, 2002, p. 203). Transactions Cost Theory (TC) has its origins in the market imperfection thesis (Hymer, 1976). In TC theory the MNE is concerned with minimizing the cost of letting an external party take care of an operation versus internalizing it (Brouthers, 2002). The second objective is to maximize long term risk adjusted efficiency (Anderson &Gatignon, 1986). TC Theory relies on two assumptions namely bounded rationality and opportunism (Zhao et al., 2004). Transaction Cost Theory is a great tool for predicting "polar mode of entry" (2004). Polar modes of entry are the choice between markets and hierarchy (2004). Market mode of entry refers to non-equity mode of entry, such as strategic alliances, and hierarchy refers to equity modes of entry, such as acquisitions (2004). There are two factors that will influence entry mode according to TC theory: the degree of control the entry mode offers (Williamson, 1985) and the external context within which the entry strategy is implemented (Anderson and Gatignon, 1988). When the external context is certain, and the MNE does not wish to exercise a high degree of control over the entry mode, the preferred mode of entry is Strategic Alliance (Williamson, 1979). The advantage of this mode of entry, characterized by low control, is that it allows the MNE to benefit from economies of scale in a market efficient environment (Williamson, 1985). In a context of high uncertainty, the MNE will more likely avoid ownership through low control modes like Strategic Alliance (Williamson, 1979). This gives certain level of flexibility to the firm and shifts risk to the other contracting party while taking advantage of the business opportunity in that environment (Williamson, 1979; Caves 1981). Researchers have pointed out, that in practice transaction cost explanations can be impractical because it does not take into account the contextual grounding of human actions and, therefore, presents an under-socialized view of human motivation and an over-socialized view of institutional control (Goshal and Moran, 1985; Granovetter, 1985). The meta-analysis by Zhao et al. (2004) found that although the TC Theory was a powerful tool for explaining and predicting modes of entry, but it failed to predict the use of intermediate modes of entry such as joint ventures accurately.

1.2 Resource-based view and Entry Mode Selection

Resource-based view (RBV) is also a major field of study dealing with entry modes (Canabal and White, 2008). Under RBV the main objective of the firm is to achieve a sustainable competitive advantage over its competitors (Barney, 1991). The MNE derives a sustainable competitive advantage by controlling “valuable, rare, imperfectly imitable, and not substitutable” resources and capabilities (Barney, 1991). The central idea of this view is that an MNE will choose the entry strategy that allows it to achieve the best fit between the MNE`s internal resources and external opportunities in order to create a sustainable competitive advantage (Connor, 1991). This perspective has the ability to explain the variations in the mode of entry used by MNE within the same industry (Ekeledo and Sivakumar, 2003). This theory identifies the firm as the source of competitive advantage rather than the industry in which it operates (Ekeledo and Sivakumar, 2003). The main assumption of the theory is that sole ownership is the default mode of entry which all firms would pursue (Stopford and Wells, 1972). There is evidence that sole ownership such as Greenfield/Acquisition is the preferred mode of entry by

US firms (Anderson and Gatignon, 1986) and that alliances such as Joint ventures are the second-best alternative by Japanese firms (Ouchi and Johnson, 1974; Hamel, 1991).

The key takeaway from both theories is that when MNE expand internationally they seek for high control modes of entry (Stopford and Wells, 1972) that are cost effective (Anderson & Gatignon, 1986). Despite the strong explanatory power of TC and Resource-based theories in interpreting the international behavior of MNEs, more contextual factors - such as cultural and institutional explanations - should be added to both these economic explanations to better analyze a firm's entry mode selection (Brouthers, 2002).

1.3 Institutional theory

1.3.1Institutional Theory and Entry Mode Selection

Institutions determine "the rules of the game" and help to reduce uncertainty within an economy in which an MNE operates (North, 1990, p.3). Institutional theory states that for firms to enter a given economy they must comply with the rules, regulations and beliefs of a given institutional environment (DiMaggio & Powell, 1983; Xu and Shenkar, 2002). Institutional Theory attempts to explain the effect that institutions have on organizations (Zucker, 1983; Davis et al., 2000) and in our case, the effect of these institutions on the modes of entry that firms select. This theory is appealing because it emphasizes contextual factors influencing entry mode decisions (Yiu & Makino, 2002) and draws attention to non-market pressures (Davis et al., 2000; Oliver, 1991, Rodriguez, 2005). There are a variety of institutions; however they can be regrouped into two broad characteristics which include "formal rules (laws, regulations) and informal constraints (customs, norms, cultures)" (Peng, 2003, p.277).

The key tenet of Institutional Theory is the concept of "Institutional Isomorphism" (Xu and Shenkar, 2002, p.609). Indeed, in Institutional Theory there is a general understanding that for organizations to survive and operate normally within a specific institutional environment they must "conform to the rules and belief systems prevailing in the environment" (DiMaggio & Powell, 1983; Xu and Shenkar, 2002). The fact that firms conform to the pressures exerted by the institutional environment is called "institutional isomorphism", which allows the firm to obtain legitimacy (Xu and Shenkar, 2002). Kostova and Zaheer (1999) define "organizational legitimacy as the acceptance of the organization by its environment".

1.3.2 Institutional theory and defining the Institutional Environment

For the purpose of this paper institutional environment is defined as "the elaboration of rules and requirements to which individual organizations must conform if they are to receive support and legitimacy (Scott and Meyer 1983, p.149)". North (1990) like most scholars acknowledges the impact of institutions on firms` behavior and classifies institutions into formal and informal institutions (North, 1990; Peng, 2003; Peng et al., 2008). He sees informal and formal institutions as being the opposite ends of the same spectrum and believes that as societies become more complex they move from informal institutions to more formal types of institutions to increase their specialization and division of labor (North, 1990). In the following lines both types of institutions will be defined before explaining the theoretical basis upon which the hypotheses are developed. Throughout this study, the institutions that are used to define the institutional environment of a country are macro-level market supportive institutions (i.e. Formal and Informal) unless otherwise specified.

1.3.2.1 Formal Institutions

Formal institutions include political (and judicial) rules, economic rules and contracts (North, 1990). These formal institutions are usually characterized by a state or government. These formal institutions for instance regulate the economic activity in a particular country and will influence the behavior of firms operating in within the country (North, 1990). In addition to North`s insight this study will consider formal institutions as “the legal framework and its enforcement, property rights, information systems, and regulatory regimes” (Meyer, Estrin, Bhaumik and Peng, 2008, p. 63).

1.3.2.2 Informal Institutions

Informal institutions are everywhere; they are present in both formal and informal societies (North, 1990). North asserts that even in societies where formal institutions are quite important for instance in the Triad region (North America, the European Union and Japan) (Rugman and Verbeke, 2004), informal institutions make up a significant portion of the institutional environment (1990). Informal institutions are “socially transmitted information and are part of the heritage that we call culture (North, 1990, p.37)”. Informal institutions are the social and moral norms other than formal institutions that structure human interaction, and by extension, how multinational firms are to enter and operate in a given environment in addition to the influence of formal institutions (1990). Countries that have been popularly called emerging economies or transition economies have a high degree of informal institutions in the institutional landscape (Peng, 2003). The focus of this study is on informal institutions that are business supportive. These informal institutions, for instance, focus on “personal relationships and other social connections that promote values such as mutual respect and mutual benefit" needed to carry out business and give a firm legitimacy in an institutional environment (Buckley et al., 2007, p.506). These informal institutions usually serve as ways to compensate for the lack of market supportive formal institutions (2007).

1. 4 Entry Mode Choices

This study covers the four most common entry strategies: Acquisition, Strategic Alliance (SA), Joint Venture (JV), and Greenfield (Agarwal and Ramaswami, 1992). Each of these four entry strategies has different objectives with respect to access to local resources and prerequisites for their implementation (Meyer et al., 2008)

1.4.1 Acquisition

The three characteristics needed for an acquisition to be considered as an entry strategy are (Yip, 1982):

1. An intention to use the acquired business as a base for expansion in the new market;

2. A desire to exploit relatedness/synergy between the acquired business and other parent businesses;

3. An interest in the market, and not just in the acquired business, i.e., the acquiring company would have seriously considered entering directly (Yip, 1982, p.332).

Acquisition is used as a mode of entry to gain access to resources held by the acquired firm in a foreign country (Meyer et al., 2008). In order to benefit from the resources held by a foreign firm using acquisitions, an MNE relies on the efficiency of the host country's resources market (2008). The efficiency of financial markets is another condition for the acquisition strategy to be a viable option for MNEs. An MNE needs to be able to access financial market, which require "transparency, predictability and contract enforcement mechanisms" (2008, p. 64). In acquiring a local firm an MNE can mitigate risk of retaliation from local competitors because as Brouthers (2000) points out, the overall capacity of the host economy is still the same.

1.4.2 Strategic Alliances

Strategic alliance is an agreement signed by two or more partners to engage in long or short term business activities that will be mutually beneficial (Tsang, 1998). Tsang (1998) identifies the following agreements as strategic alliances: R&D coalitions, marketing and distribution agreements, franchising, co-production agreements, management agreements, licensing, consortiums, and Joint Ventures (Tsang, 1998). Mergers and acquisitions are excluded from this definition. In addition, strategic alliances will be differentiated depending on whether some type of equity is involved in the alliances (JV vs. Managements agreements) (Dalcin et al., 2007). The reason for differentiating joint venture as a particular entry strategy is that it highlights the impact of non-market pressures, "that may induce firms to trade their ownership for legitimacy in the local environment" (Yiu and Makino, 2002, p.668).

1.4.3 Joint Venture

Joint Venture involves the creation of a new entity by two different firms (Dacin et al., 2007). Although Joint Ventures and Acquisitions are similar in the sense that they are the conscientious effort of one firm trying to access resources held by another firm, they differ in the degree of ownership which in a JV is usually evenly shared among the participating firms (Meyer et al. 2008). Equity in Joint Venture is used by the parties involved as a control mechanism (Xu and Shenkar, 2002).

1.4.4 Greenfield

The last foreign entry strategy covered in the paper is the Greenfield mode of entry. When firms decide to enter a market they have to decide upon the level of control which they wish to have in their new venture (Brouthers and Brouthers, 2000). When the MNE wants to have full control and decides to build a new plant it will go with what is called a Greenfield investment (Hennart and Park, 1993).

The benefits of a Greenfield investment according Hennart and Park (2003) are:

1. It reduces the dissemination of firm specific advantages
2. It allows the firm to deploy an MNE`s resources such as company policies and corporate culture without having to impose upon existing personnel.

An MNE that opts for a Greenfield mode of entry maintains its internal consistency, and is less concerned by pressures to conform stemming from the external environment (Hennart and Park, 1993). There are a few cases where a Greenfield investment will yield the most benefits for the MNE: the first case is a fast growing market where the new venture would have enough capacity to expand (Brouthers and Brouthers, 2000). The second case is when market supportive institutions are weak - that is, when there is high uncertainty in the market.

2. Theoretical Framework

2.1 The Framework

The key question this thesis intends to answer is: "How does the degree of formality and informality of a particular institutional environment affect the entry strategy of an MNE?"

To address this question one needs to have a clear understanding of the formality and informality levels of host countries' institutional environments. Then, the variation of entry strategies with respect to various levels of formality and informality can explain the impact of host country institutional environment on MNEs' entry strategies. In this study, entry strategies are summarized in four categories as fully-owned operations through Acquisition or Greenfield, equity Joint Venture, and Strategic Alliance.

This study proposes a framework that seeks to predict the entry strategy of firms based on the relative influence exerted by either formal or informal institutions at the national level (North, 1990) and the empirical evidences provided by TC theory and Resource-based view. It also intends to consider market supportive (Peng, 2003) formal and informal institutions in order to define the institutional environment.

The host country`s institutions whether formal or informal have an essential role in a market economy; they can either support the effective functioning of the market mechanism or hinder it (North, 1990; Peng, 2009). In the suggested theoretical framework the impact of institutions is such that firms and individuals can engage in market transactions without incurring undue costs or risks (North, 1990; Peng, 2009).

Formal institutions include, for the purpose of this study, the legal framework and its enforcement, property rights, information systems, and regulatory regimes. Institutional arrangements are considered to be exerting a relatively high degree of influence if they support the "voluntary exchange underpinning an effective market mechanism" (Meyer et al., 2008, p.7).

On the other hand if the formal institutions fail to ensure effective markets or even undermine markets, they will be considered as exerting a relatively low degree of influence. For instance when the regulatory regime of a host country is not business friendly or the bureaucracy of the host country`s government is characterized by too much red tape, effectively undermining the effective working of the market mechanism, those institutions are referred to as exerting a relatively low degree of influence (Meyer et al., 2008). In the same vein informal institutions that exert a relatively high degree of influence are considered to be market supportive and conversely informal institutions that exert relatively low degree of influence are considered to be market 'disruptive' (2008). In countries where formal institutions are well developed and are exerting relatively high degree of influences like in the United States , "their role, though critical, may be almost invisible" (Meyer et al., 2008, p.63). In contrast, when there is markets malfunction, as in some emerging economies like China, the absence of market supportive formal institutions is 'conspicuous' (MacMillan, 2007; Meyer et al., 2008).

The two characteristics –formal and informal– of an institutional framework can be summarized in a two dimensional matrix. The matrix developed in this study seeks to capture the entire contextual environment by separating it into two sets of institutions: formal institutions and informal institutions (North, 1990). In addition to capturing the context, this study also takes into account the quest of internal and external legitimacy by multinational firms (Rosenzweig & Singh, 1991).

2.1 Main Assumptions

This study will rely on a two dimensional framework similar to that of Rodriguez et al. (Rodriguez et al., 2005). Rodriguez et al. attempt to single out government corruption as an essential element of the external environment (2005). They use corruption not only to differentiate various environments but also to predict firms` behavior (2005). They devised a two dimensional framework that seeks to explain the entry strategy of firms based on the “pervasive” (the average firm’s likelihood of encountering corruption with state officials) or “arbitrary” (the degree of uncertainty related to corruption) nature of corruption (2005, p.385). The problem is that it only focuses on government corruption and fails to take into account other contextual macro-level variables in order to predict firms` behavior (2005). This study acknowledges the fact that there are other elements in every environment and separates them into sets of formal and informal institutions. However, this study focuses on the degree of influence that each set of institutions might have on the entry strategy of an MNE. This study seeks to complement the work of Rodriguez et al. by increasing the scope of institutions that are involved in determining legitimacy and influencing firms` behavior.

This study recognizes the fact that MNEs face “dual pressures of conformity”, one originating within the firm itself and that of the host country`s institutional environment (Yiu and Makino, 2002, p.668). This paper will, however, assume that the pressures to conform within organizations (i.e. internal legitimacy) are constant across all the MNEs. This is done so that in the case where the host country`s institutional environment`s influence on the MNE entry mode is negligible, the internal consistency of the MNE will become the determinant factor in the MNE`s selection of the appropriate mode of entry (Kostova and Zaheer, 1999). In other words, should the degree of influence of the institutional be weak; the MNE will choose the entry strategy that favors its internal consistency (1999). This is the case in countries such as Somalia, which characterized by an institutional vacuum in which the notion of a centralized government is being contested by family clans which compete for the control of resources (Baker, 1999). In this context of low general institutional influence (International institutions, and industry influences being held constant) and increased uncertainty, MNE`s need to develop trust with the host country`s population by having an internal story that is consistent (Aldrich and Fiol, 1994). Therefore firms operating in such institutional environments will be more influenced by the pressure to conform from within the organization than those originating from the external environment (Aldrich and Fiol, 1994).

2.3 The Institutional environment and entry strategy

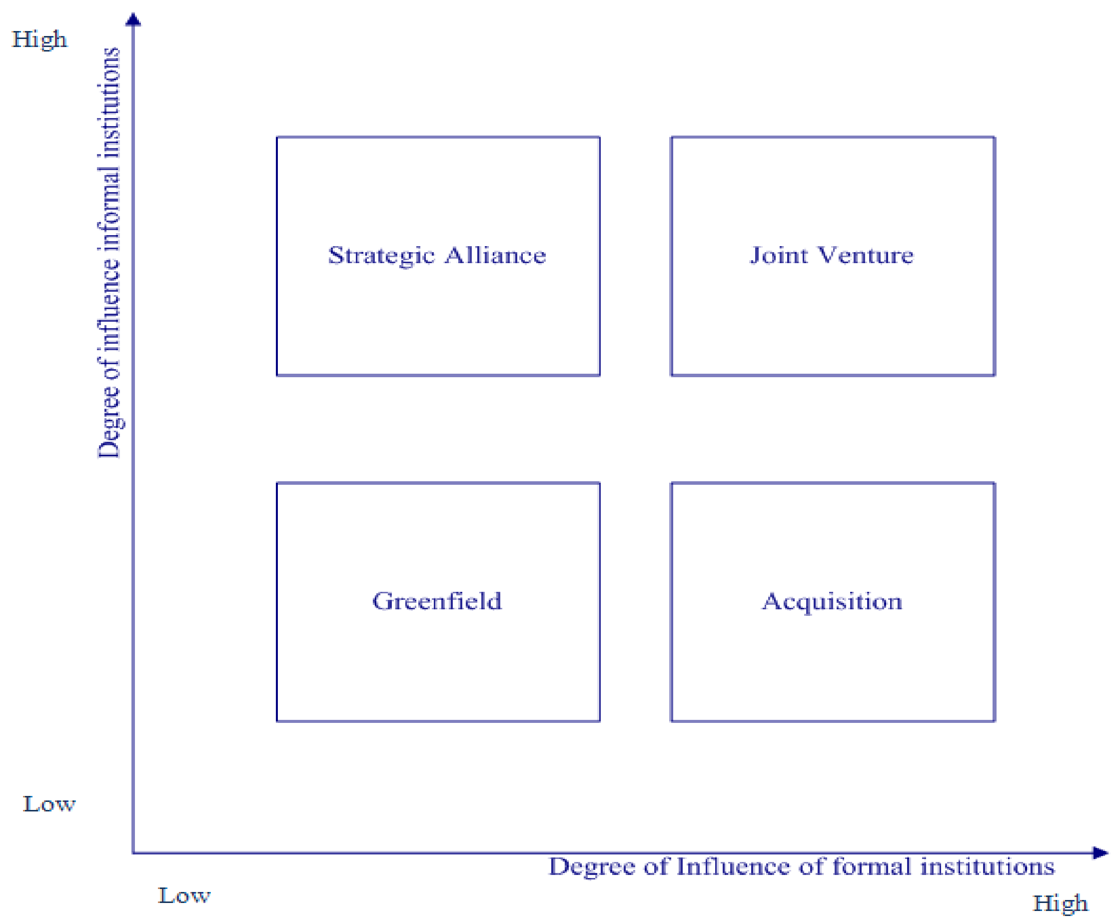
The institutional environment of the host country is modeled by a two dimensional framework. The first dimension represents the degree of influence that formal institutions can have on the entry strategy of MNEs. The second dimension represents the influence stemming from informal institutions and the possible impact it has on the mode of entry of MNEs. Figure 1 summarizes the different environments that exist by only taking into account the degree of influence that formal and informal institutions can have on an MNE`s behavior. The Y axis represents the degree of influence exerted by informal institutions present in the environment. The X axis represents the degree of influence exerted by formal institutions in the institutional environment.

Generally MNEs compared to the host country`s firms are under “discriminative institutional pressure” from the host country`s national government (Poynter, 1985; Yiu and Makino, 2002, p.670). In order to overcome the liability of foreignness (Zaheer, 1995), an MNE will choose an entry strategy that will allow it to deal best with the isomorphic pressures originating from institutional environment of the host country which it operates in (Di Maggio and Powell, 1983; Meyer and Rowan, 1977; Scott, 1995; Yiu and Makino, 2002).

This first institutional environment covered in this framework is characterized by a predominance of the influence of formal institutions on MNE behavior compared to informal institutions. This means that the degree of influence exerted by formal institutions is higher relatively speaking than that exerted by informal institutions. Formal institutions, according to North, regulate the economic activity in a particular country and will influence the behavior of firms operating within it (North, 1990). In this quadrant, formal institutions are expected to have a high degree of influence through mechanisms to reinforce contracts, functioning courts and government policies (North, 1990). The foreign entry mode of firms must conform to “the regulatory domain of the host country” in order to obtain legitimacy (Yiu and Makino, 2002, p.670). However as Meyer et al. (2008) pointed out “where institutions are strong in developed economies, their role, though critical, may be almost invisible (Meyer et al., 2008 p. 63)”. Indeed in this institutional environment formal institutions ensure the market functions well and their impacts are less visible than those of market forces (Meyer et al., 2008). An example of such an entry is the case of Tata Group. Indeed, in 2009 India`s largest conglomerate purchased two car manufacturing companies (Jaguar and Land Rover) from Ford (Leahy, 2009).

Figure I

Impact of institutional environments on entry modes



Under conditions of institutional certainty like the ones described here, TC theory asserts that an MNE would have the option of choosing a strategic alliance or an acquisition as a mode of entry. The logic behind that is that as institutional environments become more and more formal the cost of doing business in that environment also decreases (Estrin, 2002) The institutional environment in this case provides the certainty that MNEs seek in order to establish contacts which will be enforced by function contract enforcement mechanisms (Anderson & Gatignon, 1986). However, with respect to issues of the degree of control over resources, RBV favors sole ownership type of entry modes. In a stable environment an Acquisition is preferable to a Greenfield because it allows the MNE to expand by accessing resources and knowledge previously held by the firm that the MNE whishes to acquire (Meyer et al., 2008). The second advantage with acquisition is that the expansion is done without changing the overall capacity of the host country (Brouthers, 2000). This helps the MNE to overcome the liability of foreignness (Zaheer, 1995), and mitigate the threat of retaliation from local competitors (Brouthers, 2000).

It is therefore hypothesized that:

Hypothesis 1: All things remaining equal, firms are more likely to choose acquisition over other modes of entry when entering a host country where its formal institutions are highly influential as opposed to its informal institutions.

The second institutional environment covered by the framework is characterized by the predominance of informal and formal institutions in that environment. This means the isomorphic influence exerted by both informal and formal institutions on the behavior of the firm are relatively high.

Peng in his article coins the terms “transition economies” to talk about the economies that are experiencing great changes in their formal and informal institutional environments as they transition from planned to market economies (Peng, 2003, p.277). Peng identifies two phases in the institutional transition from planned to market economies (Peng, 2003). Countries in the early phase are at the beginning of the institutional transition and countries in the second phase are well advanced in the transition and have significantly changed their institutional environment (2003). The second institutional environment covered in the study describes the countries in the late phase of the transition such as China (Peng, 2003).

In recent years China has made tremendous efforts to liberalize its economy by giving itself strong formal institution to regulate its economy, but as it shifted from a planned economy to a market economy it resulted in massive market failures (Peng, 2000). For example, during the 1980s, the Chinese government required firms wishing to enter China to set up a joint venture with a local partner in accordance with the Joint Venture laws of 1979 (Beamish and Wang, 1989). Indeed, as Luo (2000b) points out China has privileged a slower transition of its institutional landscape towards a more "market friendly" institutional landscape. China developed an array of policies aimed at rewarding partnerships that allowed local firms to gain access to technical knowledge needed for its development. (UNCTAD, 2005, Luo 2000b, Hitt et al., 2004). These efforts in countries such as China have favored the development of stable and market supportive formal institutions (Hitt et al., 2004). However, the Chinese government has exercised a tight control of its financial system in order to avoid instability (2004). This tight control of the financial system has had the consequence of having market inefficiencies (2004). In order to deal with these failures, businesses have relied on informal institutions to mitigate the negative effects of those market inefficiencies (Rose, 2000). In the case of China the informal institution that helped mitigate those inefficiencies is "*guanxi* (the ancient system of personal relationships and social connections based on mutual interest and benefit) in Chinese business dealings" (Buckley et al., 2007, p.506). In emerging economies where formal institutions are strong there will be an increase in the equity mode of entry in the form of acquisitions and foreign direct investment (Meyer et al., 2008). An example of this case is India when it started engaging in the strengthening of its formal institutions in 1991 (Peng et al., 2008). The consequence has been the gradual increase in foreign direct investment and acquisitions in recent years (Peng et al., 2008).

In such an institutional environment there are formal constraints placed on the level of equity ownership or on the access of key resources, which limit the possibility of an MNE to choose either Acquisition or Greenfield as modes of entry (Delios and Beamish, 1999). The high degree of influence of informal institutions also puts the MNE at a disadvantage compared to local firms (Peng, 2003). For instance, knowing when bribery is acceptable can significantly lower the cost of doing business (Meyer, 2001). Joint venture is an interesting mode of entry, since it reduces the information asymmetry present in that environment by gaining useful insight about the business practices from the local partner (Meyer, 2001). In addition to the example just provided JV gives the MNE access to local resources which other types of strategic alliances cannot access in a cost efficient manner (Meyer et al., 2008). Finally, the MNE may choose to trade full ownership with partial ownership for legitimacy in the local environment (Yiu and Makino, 2002).

The hypothesis that can be made about the firm entry strategy in the institutional environment described above is the following:

Hypothesis 2: All things remaining equal, firms are more likely to choose equity joint venture over other modes of entry when entering a host country where both formal and informal institutions are highly influential.

The third institutional environment outlined in this study is characterized by a relatively high degree of influence of informal and a relatively low degree of influence of formal institutions in that environment. Countries typical of this institutional environment are countries from Africa, the Middle East and Central Europe; generally, these countries have received little attention from research (Hoskisson et al., 2000). However, Peng states that these countries are at the early stage of economic transition (2003). Indeed, the first stage is the early phase of economic transition; in this stage, firms put most of their efforts into establishing ties with local businesspeople which is a time and resource consuming process (Peng, 2003). The institutional chaos that emerged in the 1990s in Russia from the decentralization and the subsequent immediate opening of its national market led to massive market failures (Ledvena 1998, Luo 2000a, Hitt et al., 2004). These failures have led the business culture of the country to be characterized by what is referred to as *blat*, a system of relationships through which business is carried out, and increased corruption in order to palliate for the lack of formal market supportive institutions (Ledvena 1998, Luo 2000a, Hitt et al., 2004). In order to take advantage of the business opportunities available in these countries, MNEs must take into account the heightened uncertainty, and therefore higher level of risk associated with doing business in these countries (Peng, 2003). Multinational firms that choose to enter these markets need to minimize the risk of doing business in that environment (Delios and Beamish, 1999) and by the same token increase their overall legitimacy in the host country`s institutional environment (Dacin et al., 2007).

The weak influence of formal institutions in these cases limits the choice of an Acquisition, a mode of entry which is particularly sensitive to the degree of formality within an institutional environment (Meyer et al., 2008). An important characteristic of the third institutional environment, defined in this paper, is the high corruption and uncertainty present in such environments (Peng, 2003). This raises significantly the cost of doing business in such environment, and discourages firms from selecting entry modes which require full ownership (Williamson, 1979). Indeed, many of the transactions done in such an institutional environment must rely on the trustworthiness of the local partner (Ledvena 1998, Luo 2000a, Hitt et al., 2004). However this problem is worsened by the general lack of institutions that help mitigate the lack of information about the business environment (Meyer et al., 2008). Therefore MNEs will prefer Strategic Alliance over JV, in order to take advantage of the business opportunities in that institutional environment (Williamson, 1979; Caves 1981). This will not only allow the MNE to remain flexible, but also shift more risk onto the local partner (Williamson, 1979; Caves 1981).

It can therefore be hypothesized that:

Hypothesis 3: All things remaining equal, firms are more likely to choose strategic alliances over other modes of entry when entering a host country where informal institutions are highly influential as opposed to its formal institutions.

The final institutional environment is characterized by a low degree of influence of both formal and informal institutions. Basically in this institutional environment the national influence of institutions that seek to promote and develop business is negligible. Research on this issue is relatively nonexistent in the management literature (Hoskisson et al., 2000). However, researchers in political science define these institutional environments by the term “failed states” (Reno, 1997).

A failed state is a nation that is: “utterly incapable of sustaining itself as a member of the international community" (Helman and Ratner, 1996, p.12). It is also a nation that has significant internal challenges to its political order (Olson, 1993). Examples of such failed states are present day Somalia and Libya. This phenomenon of failed states is quite recent - it started with the end of the Cold War - and many of these states do not disappear (Dorff, 1996).

One interesting insight that Reno (1997), in studying failed states and commercial alliances, has made concerning firms operating in such environment is that usually firms that wish to expand in those states have wholly owned subsidiaries operating there (Reno, 1997). Indeed, most firms operating in such areas are focused on extraction of raw materials (1997). The companies operating in these areas are usually invited by the ruler who controls the regions where these minerals or oil deposits are found (1997). Reno (1997) asserts that in order to operate in such an environment these firms must rely on the services of mercenaries to protect their investments (1997). The example that Reno uses is the example of South African mining firms operating in former Zaire now the Democratic Republic of Congo which relied on the services of private military companies also to ensure the security of both its personnel and its site of production (1997).

In this institutional environment, there is neither state nor government to provide the minimum contract enforcement requirements for MNEs to protect their interest without incurring prohibitive costs (Helman and Ratner, 1996). The only viable entry strategy in this case is Greenfield investment (Reno, 1997). Transaction cost solutions such as Strategic Alliance or Acquisition require the use of existing structures by MNEs to expand (Madhok, 1997). The main advantage of this mode of entry is that it allows the MNE to access external resources and opportunities in that environment directly to achieve a sustainable competitive advantage (Barney, 1991). This entry mode also allows the firm to deploy its resources without imposing (i.e. culture) or sharing them (i.e. financial resources) with another firm (Hennart and Park, 1993). The hypothesis regarding the mode of entry into this fourth institutional environment is the following:

Hypothesis 4: All things remaining equal, as the influence of both informal and formal institutions become less and less relevant firms will choose a Greenfield Investment mode of entry over other forms of entry strategies.

3. Methodology

3.1 Sample

To test the hypotheses made in the previous section a period of five years (1998-2003) is chosen to get as many different countries as possible represented in the dataset. This is also done to get a significant amount of transaction for entry strategy. The year 2001 is chosen as a benchmark to see more variation in terms of the variables needed for the study.

The population of interest in this study is MNEs that have entered foreign markets using one of the four foreign strategies outlined earlier in the paper. The sample that is used in the study comes from the Thomson Reuters`s database called SDC Platinum (SDC Platinum, 2010). It is a financial database that records global financial transactions (e.g. Mergers and Acquisitions, Bond issues) (Thomson Reuters, 2010). The selected sample lists all the transactions between MNEs of the bottled and canned soft drinks and the carbonated drinks industry with the Standard Industrial Classification number 2086 between 1998 and 2003. The reason why this industry is chosen is because it produces very standardized products which require only minimal adaptation of their product to local markets. This is done in order to isolate the impact the institutional environment has on a firm`s behavior.

The data retrieved from the SDC lists 213 transactions in 43 countries that are considered to be foreign entry strategies, meaning that an MNE with the 2086 SIC code is employing one of the four foreign strategies explained in the previous lines.

The 43 countries represented in the sample have considerable variations when it comes to their institutional environments; for example, 14 of the countries are from the EU, Brazil, Russia, India, China, as well as South Africa, Canada and the United States are among the list.

There are 60 companies represented in the sample which originate from 17 countries of the high income OECD. Theses 60 MNEs are listed in appendix 2, along with the entry strategies they used. This study limits the scope of origin of the MNEs to those of the OECD, because firms originating from developed economies have different objectives for their expansion compared to those originating from transition economies (Peng and Heath, 1996). The study will also focus exclusively on firms originating from the high income countries of the Organization for Economic Co-operation and Development (OECD) so that they all have one common objective in their foreign expansion which is growth (Peng and Heath, 1996).

For a complete list of the countries that were used in this study please refer to Appendix 1 at the end of the paper. The following table shows the number of transaction per strategy:

Table I

Frequency of foreign entry strategies employed by the MNEs

Entry mode	Frequency	Percentage
Acquisition	101	47.4
Joint Venture	77	36.2
Strategic Alliance	30	14.1
Greenfield	5	2.3
Total	213	100

For the data concerning the measure of institutional environment of the countries in the sample, the paper relies on historical data provided by the World Bank website: The World Governance Indicators (WGI) from 2001 (World Bank, 2010). WGI tries to measure the governance perception in over 200 countries from 31 different data sources (Kaufmann et al., 2010). These indicators have been used in the field of econometrics and economic development to measure the impact of institutions on economic growth (Durlauf et al. 2005) the flow of FDI (Helpman, 2006). The paper also relies on the index on Property Rights in 2001developed by the Heritage Foundation and the Wall Street Journal (Heritage, 2010). In addition to the WGI this paper also relied on the World Economic Forum`s 2001 World Competitiveness Report (WEF, 2001) Report and on the measure of the size of the Informal Economy of 110 countries in 2001 (Schneider, 2002). This measure has been used in the measurement of informal economies in mega-cities (Daniels, 2004). All the items used to measure the Institutional environment have been rescaled so that they become a percentile. The scale of the original data was reversed so that a higher score in the study represents greater influence being exerted by Informal Institutions and a lower score represents lower influence being exerted by Informal Institutions. The scales of each item measuring the degree of influence being exerted by Formal Institutions have been kept as is. The objective behind these modifications is to facilitate the analysis of the data. For example in the case of formal institutions, a higher score will be interpreted as a higher degree of influence being exerted by formal institutions.

3.2 Measures

3.2.1 Dependent Variables

The dependent variable that is used in our study is a categorical one and represents the 4 types of entry strategies used by the MNEs to enter a foreign market. Three regressions were conducted to better understand the possible impact the institutional environment of a host country might have on the entry strategy of an MNE by comparing the likelihood of choosing a particular entry strategy compared to the reference entry strategy.

The classification of the entry modes is based on the classification provided by the database in most cases**.** The cases where we have Greenfield strategies as a mode of entry are found in the Joint Venture data of SDC; in this paper, Joint ventures are considered to be Greenfield strategies if two companies engage in equity joint venture to set up production facilities in a another country. This paper considers the operation as a Greenfield foreign mode of entry undertaken by both firms jointly. The main reason behind this decision is that the institution environment will impact the new entity as whole, and not the different firms that partake in the joint venture independently. The distinction between Acquisition and Joint Venture is a bit more problematic. Researchers in the field have come across the same problem (Yiu and Makino, 2002). In this paper we have adopted the cutoff point provided by the database: 80% which is in line with conventional accounting practices. Given that the values come from a finance database, this cut off point is particularly salient (Makino and Beamish, 1998). Researchers are split on the issue; previous studies established the cutoff at 95% (Anderson and Gatignon 1986; Gomes-Casseres 1989; Hennart 1991; Padmanabhan and Cho 1996; Yiu and Makino 2002).

3.2.2 Independent Variables

3.2.2.1 Formal Institutions

Acemoglu and Johnson (2004) managed to identify two sets of formal institutions that capture the essence of market-oriented formal institutions: "property rights and contracting institutions (specialized intermediaries, contracting-enforcing mechanism, and regulatory systems that allow the firm to operate freely within a host country)" (p.955)The website of the World Bank defines Governance as: "Governance consists of the traditions and institutions by which authority in a country is exercised*"* (World Bank, 2010). This definition encapsulates the two sets of institutions pointed out by Acemoglu and Johnson (2004), in addition to highlighting the central role that national governments play in defining the national Institutional environment in general.

To be able to measure to what extent MNE`s are being influenced by the Institutional environment the paper proxies the strength of market-supporting institutions by three items of the World Governance Indicators developed by the World Bank (Kaufmann et al., 2007). The three dimensions that are considered for the purpose of this paper are the following *Government Effectiveness, Regulatory Quality*, and *Rule of Law* (Kaufmann et al., 2007). The last item used to measure the influence of Formal Institutions on the independent variable is the *Property*

Rights index developed by the Heritage Foundation (Heritage, 2010).

Government Effectiveness GE: This variable focuses on the quality of public services, the quality of the civil service and the degree of its independence from political influences, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies (Kaufmann *et al.*, 2007).

Regulatory Quality RQ: This variable captures the perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development (Kaufmann *et al.*, 2007).

Rule of Law RL: This variable captures the perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence (Kaufmann *et al.*, 2007).

Property Rights PR: This variable is taken from the Heritage Foundation. According to the Heritage website the index captures the perceptions of the extent to which a country's citizens are able to access property and accumulate property (Heritage, 2010). It measures the degree to which the laws of the country protect private property and the degree to which the government enforces those laws. This index is salient to the study because it proxies a market-supporting institution.

From the four dimensions an index is computed called *Formal* which is the average of the four indices and will represent the degree of influence of formal institutions within an institutional environment. With the use of this average this study seeks to better understand the influence formal institutions have on average over the MNE`s entry strategy decision making process.

3.2.2.1 Informal Institutions

Finding proxies to represent the degree of influence which informal institutions exert upon the international behavior of MNEs is a real challenge (Helmke and Levitsky, 2009). Indeed there is a lack in the literature of theoretical model representing informal institutions due to the fact that it is hard to measure (Helmke and Levitsky, 2009). After reviewing the literature the following proxies were identified as modeling market supportive informal institutions : *the size of the informal economy as a percentage of a given country`s GDP* (Shneider 2002), *the corruption perception index of a country* (WGI), the *Sophistication of Business Culture*(World Competitive Report, 2001) and finally *Political stability,* which is also a key measure when dealing with informal institutions that affect the mode of entry strategy of a multinational firm (WGI, 2010, p.20).

Corruption Perception Index CC: Tanzi defines corruption as the abuse of public power for private benefit (Tanzi, 1998). The level of corruption of a particular country can alter the entry strategy of an MNE (Rodriguez et al., 2002). Measuring corruption just like measuring the size of the informal economy is not easy either (Rodriguez et al., 2002). The paper however uses the CPI devised by World Governance Indicators which measures "the perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests" (Kaufmann et al., 2010, p.11).

Political Stability PS: This item measures the extent to which the government of a country is like to be overthrown by unconstitutional means including violence (Kaufmann, 2002). The relevance of this measure in this section of the study comes from the fact that if a country is highly unstable, this means that the laws are no longer being enforced properly by the government and that Informal Institutions become relevant in such an Environment.

Sophistication of Business Culture BC: The sophistication of business culture is measured by the Global Competitive Index GCI (WCR, 2000). Traditionally researchers have tended to use cultural distance as a variable in order to measure the impact of culture in the MNE`s entry strategy decision (Harzing, 2004). In this study a broader view of the impact that culture has on the impact of the entry strategy is needed. The Global Competitive index offers the kind of required breadth which this study is seeking. In essence, the study is looking for the business culture of the host country and how its sophistication impacts the behavior of the firm. Cultural Influences which is the combination of Cultural distance and Ethnocentricity according to Yiu and Makino (2002), should also include the relationship-based institutions like *guanxi* in China which are part of their Informal Institutions and an essential component of their business practices (Hitt et al., 2004). It is believed in this study that with the GCI these aspects are included in the measure (WCR, 2000). The Global Competitive Index ranks countries from 1 to 57; in order to use the rankings we rescaled the rankings to assign them a value out of 100. Countries with scores of 90, for instance, are very competitive thus having a sophisticated business culture supportive for business; conversely the opposite is true for low scoring countries.

Size of Informal Economy IE: There are several definitions for Informal Economy, however, this paper relies on the one provided by Castells and Portes (1989). Informal Economy includes all the activities generating income that are not regulated by state institutions; some of which can be legal or illegal (Castells and Portes, 1989, p.12). In the informal economy, ‘trust, the solidity of social norms and ties of those involved" are the informal institutions that support production within it (Portes, 1994, p. 430). Therefore, the size of the informal economy provides a proxy for measuring the importance of Informal institutions within a country. For instance as the size of the informal economy of a country increase as a percentage of its GDP", so will the degree of influence of the Informal Institutions on the economic activity in that particular country. This paper uses Schneider's measure of the size of the Informal Economy. The measure relies on the burden of taxation, social security contribution and government regulation (Schneider, 2002).

The average of these four indices represents the degree of influence of informal institutions within an institutional environment which is called *Informal* index in this study. With the use of this average, this study seeks to better understand the average influence that informal institutions have on the MNE's entry strategy.

After measuring *Formal* and *Informal* aspects of institutional environments, three other new variables were computed: Formal over Informal (*FOI)*, Informal over Informal (*IOF)*, and Difference between formal and informal over sum of them (*DOT)*. These variables are defined as follows:

FOI measures the degree of formality with respect to the degree of informality of an institutional environment. It is computed by dividing the formal index over the informal index. This variable will be particularly useful in validating hypothesis 1

IOF measures the degree of informality with respect to the degree of formality of an institutional environment. It is computed by dividing the informal index over the formal index. This variable will be particularly useful in validating hypothesis 3

DOT measures the combined influence of formal and informal institutions on the behavior of firms. DOT is computed as the difference of the formal index and the informal index over the sum of these indices. This will be particularly useful for validating hypothesis 2 and 4.

3.3 Data Analysis

This paper uses a multinomial logistic regression model (M-Logit) that estimates the effect of the independent variables on the probability (differential odds) that one of the four specified strategies is chosen by an MNE**.**

Table 2 provides the descriptive statistics for the study, including the means and the standard deviation of the three independent variables. Table 3 represents the correlations between each entry strategy and the independent variables.

Table II

Descriptive Statistics

Simple Statistics							
Variable	*N*	*Mean*	*Std Dev*	*Sum*	*Minimum*	*Maximum*	*Label*
Mode	213	2.17371	1.35035	463.00000	1.00000	4.00000	Mode
FOI	213	2.36907	0.99095	504.61211	0.17460	4.22727	FOI
IOF	213	0.57752	0.50470	123.01088	0.23656	5.72727	IOF
DOT	213	0.33638	0.24850	71.64931	-0.70270	0.61739	DOT

Table III

Correlations among Acquisition, JV, SA, Greenfield, FOI, IOF and DOT

Pearson Correlations Coefficients, N=213				
	Acquisition	JV	SA	Greenfield
FOI	0.13553*	(0.2802)**	0.18523**	(0.00385)
Correlation Sig. 2-tailed	0.04820	<0.0001	0.00670	0.95550
IOF	(0.02138)	0.13522*	(0.14862)*	(0.00744)
Correlation Sig. 2-tailed	0.75630	0.04870	0.03010	0.91400
DOT	0.10652	(0.25325)**	0.19156**	(0.00618)
Correlation Sig. 2-tailed	0.12120	0.00020	0.00500	0.92860

Note: $*p<0.05; **p<0.01$

Looking at the correlation matrices, we can see clearly see that the results will not allow draw conclusions on the Greenfield mode of entry. In the case of FOI and its correlation with the other dependent variables we can observe the followings:

- There is a significant positive correlation between FOI and Acquisition which suggest a positive relationship between formality and Acquisition.

- There is a significant negative correlation between FOI and JV, and there is a positive correlation between FOI and SA. These correlations suggest a negative relationship between formality and JV, but a positive one with SA.

From the correlation coefficients between IOF and JV and SA we can observe the followings:

- There is a significant positive correlation between IOF and JV. This result suggests a positive relationship between informality and JV.

- There is a significant negative correlation coefficient between IOF and SA. This result suggests a positive relationship between informality and SA.

- There is a negative correlation between DOT and JV. This suggests a relationship between the combined influences of formal and informal institutions and JV. There is a positive correlation coefficient between DOT and SA. This suggests a positive relationship between formality and SA.

3.4 Results

Table 4 provides the summary of the multinomial logistic regression analysis. The likelihood ratio statistics of each model in the three regressions are significant, this means that the models are valid and that at least one of the coefficients is not equal to zero. The high p-value ($p>0.05$) suggests a good fit between the model and the data.

The coefficients calculated in the table represent the differential odds of a particular outcome of the dependent compared to those of the reference outcome of the dependent variable. For the complete results of the three regressions please refer to the appendix 3 at the end of the study.

Table IV

Regressions 1, 2 and 3

				Model Significance
Regression 1	Likelihood Ratio	DF=123	Chi-Square=140.3	Pr>ChiDq=0.1334*
				Coefficient Significance
		Coefficient	Chi-Square	Pr>ChiDq
FOI	JV vs. Acquisition	(0.5418)**	11.51	0.0007
				Model Significance
Regression 2	Likelihood Ratio	DF=123	Chi-Square=148.58	Pr>ChiDq=0.1158*
				Coefficient Significance
		Coefficient	Chi-Square	Pr>ChiDq
IOF	Acquisition vs. SA	2.4686*	5.36	0.0206
	JV vs. SA	2.8603**	7.07	0.0078
				Model Significance
Regression 3	Likelihood Ratio	DF=123	Chi-Square=142.00	Pr>ChiDq=0.0580*
				Coefficient Significance
		Coefficient	Chi-Square	Pr>ChiDq
DOT	Acquisition vs. JV	1.7845**	8.29	0.004
	SA vs. JV	4.3607**	10.92	0.001

Note: *p<0.05;**p<0.01

In the first regression, the number in the coefficient column represents the differential odds of an MNE choosing JV over Acquisition as an entry strategy. The negative sign on the coefficient means that as the degree of formality in the institutional environment increases, MNEs are less likely to choose JV over Acquisition as a mode of entry. This result partially supports hypothesis 1 in the sense that as the degree of formality of an institutional environment increases so does the likelihood of MNEs choosing Acquisitions over JV.

In the second regression there are two significant positive coefficients ($p<0.05$). The differential odds of an MNE choosing Acquisition and JV as an entry strategies over SA are both positive. This means as the influence of informal institutions increase with respect to formal institutions firms are more likely to choose Acquisition and Joint Venture as a mode of entry over Strategic Alliance. This result partially contradicts hypothesis 3.

In the third and final regression, there are two significant positive coefficient ($p<0.05$). The differential odds of an MNE choosing Acquisition and SA as an entry strategies over JV are both positive. This means that as the influence of both informal and formal institutions increase firms are more likely to choose Acquisition and Strategic alliance as a mode of entry over Joint Ventures. These results partially confirm hypothesis 1 but partially disconfirm hypothesis 3. Hypothesis 1 states that as the degree of formality of the institutional environment increases, in this case as the DOT increases Acquisition is more likely to happen than JV. The result partially disconfirms hypothesis 3 because the results do not support a relationship between informality and SA.

However, as the difference is reduced, this means that as the degree of influence of both institutions increases, Joint Venture is more likely to occur than the other two entry strategies which confirms hypothesis 2. This latest case supports hypothesis 2 which establishes a relationship between high formality/high informality and JV.

4. Discussion and Conclusion

4.1 Discussion

The results of this study partially support Hypotheses 1 and 2. In Hypothesis 1, it is suggested that there is a positive relationship between formality and Acquisition. The correlation coefficient between FOI and Acquisition suggests a positive relationship between the degree of formality of an institutional environment and Acquisition as an entry strategy. Looking at the result of the first regression and the third regression in Table IV, the results partially confirm that is preferred over Joint Venture where formality is more influential.

Hypothesis 2 suggests that there is a relationship between choosing JV and the high degrees formality and informality of an institutional environment. The results here again partially confirm this Hypothesis. In table III, the positive correlation between IOF and JV suggest a relationship between informality and JV, but more importantly the negative correlation DOT and JV seems to suggest that the combination of the formal and informal characteristics have a positive impact on JV. The results in table IV are mixed with respect to JV. The results from the third regression show two things. First, as the degree of formality in an institutional environment increases Acquisition and SA are more likely to occur. This partially contradicts Hypothesis 3. Second, as the DOT decreases, entering through JVs are more likely to occur compared to Acquisition and SA. This means that as both formality and informality of an institutional environment of a country become stronger, the likelihood of JV for entering this country will increase. This partially supports Hypothesis 2.

The results in tables III and IV are more problematic when dealing with Hypothesis 3. Hypothesis 3 predicts a relationship between high informality and SA. The positive correlation between FOI and SA, and the negative correlation between IOF and SA seem to disconfirm Hypothesis 3. The second regression finds similar results. In the second regression, the differential odds show that as the degree of influence of informal institutions increases, Acquisition and JV are more likely to occur more than SA. This partially disconfirms Hypothesis 3. This lack of finding support for Hypothesis 3 can be a result of focusing on OECD countries in the selected sample for the study.

With respect to Hypothesis 4, the results are not significant as shown in Table III all three correlation coefficients are not significant. The coefficients between any of the entry strategies and Greenfield are also not significant. The results make it impossible to draw conclusions on the relationship between the characteristics of the institutional environment and Greenfield mode of entry.

This study therefore concludes that, as predicted, there is partial evidence of a positive relationship between the degree of formality of an institutional environment and Acquisition over JV. This result is consistent with others studies on this topic (e.g. Meyer et al., 2008). The second empirical evidence provided by this study is that there is a positive relationship between JV and the high degree of influence of formal and informal institutions in a country. This result is consistent with other studies on the same topic (e.g. Yiu and Makino, 2002). It is interesting to notify that this study clearly shows that it is the combination of both formal and informal institutions that affect entry modes. This result is consistent with Yiu and Makino (2002) findings in that JV is influenced by a combination of normative and regulative institutions.

4.2 Contribution

The study has major theoretical, empirical and practical contributions. Theoretically, this study argues that formal/informal characteristics of host countries' institutional environments explain the variations of MNEs' international behavior. Another theoretical contribution of this study is that it shows how Institutional theory complements the Transaction Cost theory and Resource-based view in explaining MNEs' entry strategies.

Empirically, this provides evidence for the relationship between entry strategy of MNEs and the extent to which the host country's institutional environment is driven by formal and/informal institutions. The theoretical framework used to test the hypotheses has rarely been used in the literature (Canabal and White, 2008; Meyer et al., 2008; Yiu and Makino, 2002). Furthermore, the results from this study are consistent with the results of others studies in the field that have combined other perspectives to test their hypotheses (Yiu and Makino 2002; Meyer et al., 2008). This study makes a small methodological contribution by introducing the variable sophistication of business culture (BC). This variable is broader than others measures of culture used by authors such as Yiu and Makino (2002), who rely on variables such as Ethnocentricity and Cultural distance to measure the impact of culture on the entry strategy of MNEs.

In practice, this study offers managers concrete examples taken from the non-alcoholic beverages industry in 43 countries.

4. 3 Limitations and further research

There are theoretical and empirical limitations to this study. The first limitation is the fact that the study assumed all firms had a constant level of internal legitimacy which cannot be true in reality. Indeed MNEs must deal with the internal and external legitimacy which vary across MNEs (Zaheer and Kostova, 1999). Further research should be conducted to better understand how firms with different internal legitimacy requirements my change the effect of institutional environments on entry strategy of MNEs.

Empirically, this study only considered firms originating from high income OECD countries which can give skewed results. The results of the study establish a positive relationship between high formality and SA over Acquisition and JV, which disconfirms Hypothesis 3. However, Transaction cost theory has already established a relationship between high formality and Strategic Alliance when firms do not seek to own their foreign venture (Anderson and Gatignon, 1986). Furthermore in the sample used for the study, most of the transactions involving SA were done in countries that have a certain degree of influence formal institutions in their environment that facilitate the formation of strategic alliances between local and MNEs. Indeed SDC relies heavily on the data provided by national stock exchanges which in turn rely on a relatively important set of market supportive formal institutions. Had the sample been extended to other non high income OECD country, the results could support hypothesis 3. Further research should look to broaden the scope of countries involved in order to better capture the variation of the impact of the degree of formal and informal institutions on multinational firms from all over the world.

The third limitation has to do with the lack of control variables in the study. This study attempts to control for industry effect, product effect, and finally the effect of country of origin through its sampling procedure. It controls for industry effect by focusing solely on the beverages industry as a manufacturing industry. It also controls for the type of products by focusing on non-alcoholic beverages. Firms from the non-alcoholic beverages industry produces very standardized products which require only minimal adaptation of their product to local markets. Finally, it controls for the country of origin effect by only considering firms originating from high income OECD countries, so that they only focus on growth.

However, there are other variables such as firm size, firm age and/or experience, and even firm ownership that can moderate the relationship between institutional effects and entry strategies. Controlling for these kinds of firm level variables might change the results. Further research should also investigate the impact of for example firm size and experience on mode of entry with various combinations of formal and informal institutional effects. The same can be investigated for the impact of ownership.

4.4 Conclusion

In conclusion, this study examines the impact of two characteristics – formal and informal – of various institutional environments and their combinations on the international behavior of MNEs. Indeed, this study demonstrates the relationship between formal characteristic of an institutional environment and Acquisition as an entry strategy. It also demonstrates the relationship that exists between the combination of formal and informal characteristics and JV. These results are valid in 43 countries around the World. In addition, this study responds to the calls from scholars to further enhance our knowledge on the influences of institutions on modes of entry, while acknowledging the important results derived from Transaction Cost theory and Resource-based view. All in all, this study argues that research should pay as much attention on the fact that the car is on the streets of Kampala, as the characteristics of car itself; so that the vehicle gets to its destination safe and sound.

References

Acemoglu, D., S. Johnson, and J. Robinson, 2004. Institutions as the Fundamental Cause of Long-run Growth. *National Bureau of Economic Research* Working Paper no.10481.

Aldrich, H. E., & Fiol, C. M. 1994. Fools rush in? The institutional context of industry creation. *Academy of Management Review*, 19: 645-670.

Allison, Paul David. 1999. Logistic regression using the SAS system: theory and application 288, SAS Institute, Cary, N.C

Anderson, E., H. Gatignon. 1988. The Multinational Corporation's Degree of Control over Foreign Subsidiaries: An Empirical Test of a Transaction Cost Explanation. Journal of Law, Economics, & Organization, 4(2): 305-33

Anderson, E., H. Gatignon. 1986. Modes of foreign entry: A transaction cost analysis and propositions. *Journal of International Business Studies*. 17:1- 26.

Andersson, T. and R. Svensson. 1994. Entry modes for direct investment determined by the composition of firm-specific skills. *Scandinavia Journal of Economics*, 96(4): 551-560.

Agarwal, Sanjeev and Sridhar Ramaswami. 1992.Choice of Foreign Market Entry Mode: Impact of Ownership, Location and Internalization Factors. *Journal of International Business Studies*, 23: 1-27.

Baker B. 1999. African anarchy: is it the states, regimes, or societies that are collapsing?. Politics, 19(3): 131–138.

Bator, F. M. 1958. The Anatomy of Market Failure. *The Quarterly Journal of Economics*, (72) 3: 351-379

Beamish, Paul W., & Wang, Hui Y. 1989. Investing in China via Joint Ventures. *Management International Review*, 29(1), 57. Retrieved February 8, 2011, from ABI/INFORM Global.

Buckley, P.J, Mark C. Casson, M. C. 1998. Analyzing Foreign Market Entry Strategies: Extending the Internalization Approach. *Journal of International Business Studies*,29(3): 539-561

Buckley, P.J., Clegg, L.J., Cross, A.R., Liu, X., Voss, H., and Zheng, P. 2007. The determinants of Chinse outward foreign direct investment. *Journal of International Business Studies*, 38:499–518

Brouthers, D. K., Eliot, L. 2000. Acquisition or Greenfield Start-up? Institutional, Cultural and Transaction Cost Influences. *Strategic Management Journal*, 21(1): 89-97

Brouthers, Keith D. 2002. Institutional, Cultural and Transaction Cost Influences on Entry Mode Choice and Performance, *Journal of International Business Studies*, (33)2:203-221

Caves, Richard E. 1982. Multinational Enterprise and Economic Analysis, Cambridge: Cambridge University Press.

Caves, R. E. and S. Mehra 1986. Entry of foreign multinationals into U.S. manufacturing industries. In M. Porter (ed), Competition in Global Industries. Harvard Business School Press, Boston, MA, pp. 459-481.

Connor, K. 1991. A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm?. *Journal of Management*, 17: 121-154.

Dacin, M. T., Oliver, C., Roy, J-P., 2007. The legitimacy of strategic alliances: an institutional perspective. *Strategic Management Journal*, 28: 169–187

Daniels, P.W., 2004. Urban challenges: the formal and informal economies in mega-cities. Cities, 21, 501–11.

Davis, P.S., Desai, A.B., and Francis, J.D. 2000. Mode of International Entry: An Isomorphism Perspective, *Journal of International Business Studies*, (31)2:239-258.

Delios A, Beamish PW. 1999. Ownership strategy of Japanese firms: transactional, institutional, and experience influences, *Strategic Management Journal*, 20(10): 915–933.

DiMaggio, P. J. and Powell, W. 1983. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, (48) 2:147-160.

Dore, R. 1983. Goodwill and the spirit of market capitalism. *British Journal of Sociology*, 34: 459-482.

Dorff, Robert H. 1996. Democratization and Failed States: The Challenge of Ungovernability. *US Army War College Quarterly*, 26(2).

Durlauf, Steven, Paul Johnson and Jonathan Temple. 2005. Growth Econometrics. In Durlauf, S, Philippe Aghion, P. (eds.), Handbook of Economic Growth, vol. 1, part A,chapter 8, pp. 555-677, Amsterdam: North Holland.

Ekeledo, I. and Sivakumar, K. 1998. Foreign market entry mode choice of service firms: a contingency perspective. *Journal of the Academy of Marketing Science* 26(4):274-292.

Gomes-Casseres, B. 1989. Ownership structure of foreign subsidiaries: Theory and evidence. *Journal of Economic Behavior and Organization* 11: 1-25.

Granovetter, M. 1985. Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91: 481-510.

Ghoshal, S. and Moran, P. 1996. Bad for Practice: A Critique of the Transaction Cost. *The Academy of Management Review*, (21)1:13-47

Habib, M., and Zurawicki, L. 2002. Corruption and Foreign Direct Investment. *Journal of International Business Studies*, 33 (2):291-307

Harzing, A.W.K. 2004. The Role of Culture in Entry Mode Studies: from Negligence to Myopia?', in J. Cheng and M. Hitt (eds.), Advances in International Management, vol. 15 Elsevier: Amsterdam, pp: 75-127.

Hamel, Gary. 1991. Competition for Competence and Interpartner Learning Within International Strategic Alliances. *Strategic Management Journal*, 12: 83-103.

Harvard University; World Economic Forum. 2000. The global competitiveness report. Geneva

Helman, G.B. and Ratner, S.R. 1993. Saving Failed States, *Foreign Policy*, 89:3-18

Elhanan Helpman, E. 2006. Trade, FDI, and the Organization of Firms. *Journal of Economic Literature*. (44)3:589-630

Helmke, G., and S. Levitsky. 2004. Informal institutions and comparative politics: a research

agenda. *Perspectives on Politics* 2(4):725-740.

Hennart, J.-F. and Y. R. Park. 1993. Greenfield vs. Acquisition: The strategy of Japanese investors in the United States. *Management Science*, September: 1054-1070.

Heritage Foundation, 2010. Property Freedom. Retrieved December 1rst, from http://www.heritage.org/index/Property-Rights

Hitt, M. A., Ahlstrom, D., Dacin, M. T., Levitas, E & Svobodina, L. (2004). The Institutional Effects on Strategic Alliance Partner Selection in Transition Economies: China vs. Russia. *Organization Science*, 15(2): 173-185

Hymer, S. 1976. The International Operations of National Firms: A Study of Direct Foreign

Investment, Cambridge: MIT Press.

Hoskisson, R.E., Eden, L., Lau, C.M., and Wright, M. 2000. Strategy in Emerging Economies, The Academy of Management Journal, 43(3):249-267

Joe Leahy. (2009, October 10). Tata buys breathing space as it raises $750m. Financial Times,16. Retrieved December 6, 2009, from ABI/INFORM Global. (Document ID: 1876885051).

Kaufmann, Daniel, Kraay, Aart and Mastruzzi, Massimo, The Worldwide Governance Indicators: Methodology and Analytical Issues (September 2010). World Bank Policy Research Working Paper No. 5430

Kondra A. Z. and Hinings C. R. 1998. Organizational Diversity and Change in Institutional Theory, Organization Studies, 19:743-767

Kostova, T. and Zaheer, S. 1999. Organizational Legitimacy under Conditions of Complexity: The Case of the Multinational, The Academy of Management Review, (24)1:64-81

Ledeneva, A. V. 1998. Russia's Economy of Favours: Blat, Networking and Informal Exchange. Cambridge University Press, Cambridge, U.K.

Luo, Y. 2000. Guanxi and Business. World Scientific Press, Singapore

MacMillan J. 2007. Market institutions, in Blume L, Durlauf S (eds.), The New Palgrave Dictionary of Economics, 2nd ed. London: Palgrave

Makino, S., P. W. Beamish. 1998. Performance and survival of joint ventures with non-conventional ownership structures. Journal of International Business Studies, 29(4) 797-818.

Makino, S. & K.E. Neupert. 2000. National Culture, Transaction Costs, and the Choice Between Joint Venture and Wholly Owned Subsidiary, Journal of International Business Studies, 31(4): 705-713.

Manwaring, Max G. 1993. Gray Area Phenomena: Confronting the New World Disorder ,Boulder, Colo.: Westview Press, 1993

Meyer, K. E. (2001). Institutions, transaction costs and entry mode choice in Eastern Europe. Journal of International Business Studies, 32(2): 357–367

Meyer, John W.; Scott,W.Richard. 1983. Organizational environments: ritual and rationality, Sage, Beverly Hills

Meyer, K. E., Estrin, S., Bhaumik, K.S., and Peng, W.M. 2008. Institutions, Resources, and Entry Strategies in Emerging Economies, Journal of International Business Studies, (31)2:239-258

Milgrom, P. R., & Roberts, J. 1992. Economics, organization and management. Englewood Cliffs, NJ: Prentice Hall.

Oliver, C. 1991. Strategic responses to institutional processes. Academy of Management Review, 16, 145-179.

Olson, W.J. 1993. The New World Disorder: Governability and Development. in Max G.

Ouchi, W.F., Johnson, R.T,1974. Made in America:(Under Japanese management). Harvard Business Review, September-October:61-69

Padmanabhan,P. , K. R. Cho. 1996. Ownership strategy for a foreign affiliate: An empirical investigation of Japanese firms. Management International Review. 36: 45-65.

Perrow, C. 1986. Complex organizations. New York: Random House.

Peng, M.K. 2000. Business strategies in transition economies. Thousand Oaks, CA:Sage

Peng, M.K. 2002. Towards an Institution-Based View of Business Strategy, Asia Pacific Journal of Management, (19):251–267

Peng, M. W., & Heath, P. S. 1996. The growth of the firm in planned economies in transition: Institutions, organizations, and strategic choice. Academy of Management Review, 21: 492-528.

Peng MW. 2009. Global Business. South-Western Cengage Learning: Cincinnati

Peng, M.W., Wang, D.Y.L., and Jiang, Y. 2008. An institution-based view of international business strategy: a focus on emerging economies. Journal of International Business Studies, (39) 5:920-937

Portes, A. 1994. The informal economy and its paradoxes. In N.J. Smelser and R. Swedberg (eds.), The handbook of economic sociology, Princeton University Press, Princeton, NJ.

Portes, A., Castells, M., Benton L, eds. 1989. The Informal Economy. Baltimore, MD, Johns Hopkins University Press

Poynter, T. A. 1985. Multinational Enterprises and Government Intervention. Croom Helm, London, U.K

Ricks, D. A. 1991. Letter from the Editor-in-Chief. Journal of International Business Studies, 22: 1–4.

Ricks, D. A., Toyne, B.,&Martinez, Z. 1990. Recent developments in international management research. Journal of Management, 16: 219–253.

Rodriguez, P., Uhlenbruck, K., and Eden, L. 2005. Government corruption and the entry strategies of multinationals. Academy of Management Review 30: 383-396.

Rose, R. 2000. Uses of social capital in Russia. Post-Soviet Affairs, 16(1): 33-57.

Rosenzweig, P., & Singh, J. 1991. Organizational environments and the multinational enterprise, Academy of Management Review, 16: 340–361.

Rugman, A. M. and Verbeke, A. 2007. Liabilities of Regional Foreignness and the Use of Firm-Level versus Country Level Data: A Response to Dunning et al. Journal of International Business Studies, 38(1): 200-205.

Sharma, V. M., & Erramilli, M. K. (2004). Resource-based explanation of entry mode choice. Journal of Marketing Theory and Practice, 12: 1–18.

Schneider, F. 2002. Size and measurement of the informal economy in 110 countries around the world. Paper presented at a Workshop of Australian National Tax Centre, ANU, Canberra.

Simon, H. A. 1991. Organizations and markets, Journal of Economic Perspectives, 5(2): 25-44.

Stopford, John M. and Louis T. Wells, Jr. 1972. Managing the Multinational Enterprise, New York:Basic Books.

Tanzi, Vito. 1998. Corruption Around the World: Causes, Consequences, Scope, and Cures. IMF Working Paper WP/98/63, International Monetary Fund, Washington, D.C.

Thompson Reuters. 2010. SDC Platinum. Retrieved on December 9th 2010: http://thomsonreuters.com/products_services/financial/financial_products/a-z/sdc/

Tsang, E W. K. 1998. Motives for strategic alliance: A resource-based perspective" Scandinavian Journal of Management, 14(3): 207-221

Tse, D. K., Pan, Y., & Au, K. Y. (1997). How MNCs choose entry modes and form alliances: The China Experience. Journal of International Business Studies, 28: 779–805

Tull, Denis M. 2006. China's engagement in Africa: scope, significance and consequences, Journal of Modern African Studies, 44(3): 459–479

UNCTAD. (2005). World investment report 2005: Transnational corporations and the internationalization of R&D. New York and Geneva: UNCTAD.

Wang Y, Nicholas, S. 2007. The formation and evolution of non-equity strategic alliances in China. Asia Pacific Journal of Management 24: 131-150

Werner, S. (2002). Recent developments in international management research: A review of 20 top management journals. Journal of Management, 28, 277–305.

William, Reno. 1997. African Weak States and Commercial Alliances. African Affairs, (96)383:165-185

Williamson, O., E. 1979. Transaction Cost Economics: The Governance of Contractual Relations. Journal of Law and Economics, 22:233-62.

Williamson, O., E. 1985. The Economic Institutions of Capitalism. New York: The Free Press

World Economic Forum. 2001. The World Competitiveness Report 2001. The Foundation, Cologny/Geneva, Switzerland.

World Bank. (2001). World Governance Indicators. Retrieved on September 9th 2010, from http://info.worldbank.org/governance/wgi/index.asp

Xu, D., Shenkar, O. 2002. Institutional Distance and the Multinational Enterprise Author(s): The Academy of Management Review, (27) 4:608-618

Yip, G. S. (1982). Diversification entry: Internal development versus acquisition. Strategic Management Journal, 3(4): 331-345.

Yiu, D. and Makino, S. 2002. The Choice between Joint Venture and Wholly Owned Subsidiary. Organization Science, (13)6: 667-683

Zejan, M. C. (1990). New ventures or acquisitions, the choice of Swedish multinational enterprises. The Journal of Industrial Economics, March: 349-355.

Zhao, H., Luo, Y., and Suh, T. 2004. Transaction cost determinants and ownership-based entry mode choice: a meta-analytical review. Journal of International Business Studies (2004)

35: 524–544

Zucker, L. 1983. Organizations as Institutions, In S. B. Bacharach, ed., Research in the Sociology of Organizations, 1-47. Greenwich, CN: Jai Press. 258

Appendices

Appendix 1: Countries and Mode of Entry

Country	Strategic Alliance	Joint Venture	Greenfield	Acquisition	Grand Total
ARGENTINA		2			2
AUSTRALIA	2	2		1	5
AUSTRIA				1	1
BELGIUM		1		1	2
BRAZIL	1	4	1	8	14
BULGARIA		1			1
CANADA	5	1		11	17
CHILE		4			4
CHINA		9		1	10
CZECH REPUBLIC		1		1	2
DENMARK				1	1
EGYPT		2			2
FINLAND		1		2	3
FRANCE	1	1		8	10
GERMANY				4	4
GREECE				1	1
HUNGARY	1	2		6	9
INDIA		3	1	1	5
INDONESIA				1	1
ISRAEL		1			1
ITALY				3	3
JAPAN	3	3	1		7
JORDAN				1	1
MALAYSIA	1			1	2
MEXICO	1	2		4	7
NETHERLANDS				2	2
NEW ZEALAND			1	2	3
PERU	1	1		3	5
PHILIPPINES		4		1	5
POLAND		1	1	3	5
RUSSIAN FED		1		4	5
SINGAPORE		1		1	2
SOUTH AFRICA				1	1
SOUTH KOREA		1		1	2
SPAIN		3		1	4

SWEDEN				2	2
SWITZERLAND		3		5	8
THAILAND		3		1	4
UNITED KINGDOM	2			10	12
UNITED STATES	12	7		12	31
VENEZUELA		1			1
VIETNAM		4		1	5
ZIMBABWE				1	1
Grand Total	30	70	5	108	213

Appendix 2: MNEs and Entry Strategy

Firm Name	Country of origin	Acquisition	Joint Venture	Greenfield	Strategic Alliance	Grand Total
National Foods Ltd	Australia		1			1
Chaudfontaine Monopole SA	Belgium	1				1
SEA Holdings SA	Belgium		1			1
Sepef Corp	Belgium		1			1
Beverage Holdings Ltd	Canada	2				2
Brio Industries Inc	Canada	1				1
Cleraly Canadian Beverage	Canada				1	1
Cott Beverages Inc	Canada	1				1
Cott Corp	Canada	4	2			6
Iceberg Corp of America	Canada		1			1
Leading Brands Inc	Canada		1			1
Lifestyles NA Beverage Corp	Canada	1				1
Peterborough Capital Corp	Canada	1				1
Sparkling Spring Water Ltd	Canada	3				3
Stonepoint Group Ltd	Canada	2	1			3
CO-RO Food A/S	Denmark	1				1
Groupe Danone SA	France	1	7	1	3	12
Perrier-Vittel SA	France	12	9	0	0	21
Societe des Eaux Minerales de	France		1			1
Eckes-Granini Deutschland GmbH	Germany	3	2			5
Sinter Umwelttechnik	Germany		1			1
Greece`s Co-operative Union	Greece		1			1
Hellenic Bottling Co SA	Greece	2				2
Eden Springs Ltd	Israel	4	2			6
Mey Eden	Israel	1				1
Soda Club Group	Israel	3				3
Asatsu DK Inc	Japan		1			1
Kirin Beverage Corp	Japan		1			1
Pokka Corp	Japan		1		1	2
East Springs International	Netherlands	1				1

Refresco Holding BV	Netherlands	2				2
Hoop SA	Poland		1			1
Sumoiis-Cia Industrias de	Portugal		1			1
Equatorial Coca-Cola Bottling	Spain	1				1
Aqua of Sweden AB	Sweden	1				1
Nestle Co Inc	Switzerland	3	2		6	11
British First Trimph Company	United Kigdom		1			1
Cabri Spring Water	United Kigdom				1	1
Four Square	United Kingdom	1				1
United Foods International PLC	United Kingdom	1				1
Virgin Drinks	United Kingdom		1			1
Aetna International Inc	United States		1			1
American Botling Co	United States				1	1
Beverage Group Inc	United States				1	1
BEVsystems International Inc	United States	1			1	2
Buffalo Rock Co	United States				1	1
Coca-Cola	United States	25	20	3	9	57
Cosmos Bottling Corp	United States		1			1
Eastern Water Resources	United States		1			1
Monsanto	United States				1	1
Panamerican Beverages Inc	United States	4	1			5
PepsiCo Inc	United States	13	12	1	2	28
Sierra Spring Water(Suntory)	United States	1				1
South Beach Beverage Co	United States				1	1
Stearns & Lehman Inc	United States	1				1
Universal Foods Corp	United	1				1

	States					
USA Sunrise Beverages Inc	United States	1				1
Whitman Corp	United States	1				1
WTAA International Inc	United States				1	1
Groceries USA	United States		1			1
Grand Total		**101**	**77**	**5**	**30**	**213**

Appendix 3: Regressions Results

Regression 1

Maximum Likelihood Analysis
Maximum likelihood computations converged.

Maximum Likelihood Analysis of Variance

Source	DF	Chi-Square	Pr > ChiSq
Intercept	3	25.38	<.0001
FOI	3	18.03	0.0004
Likelihood Ratio	123	140.53	0.1334

Analysis of Maximum Likelihood Estimates

Parameter	Function Number	Estimate	Standard Error	Chi-Square	Pr > ChiSq
Intercept	1	-2.4097	0.7323	10.83	0.0010
	2	0.7816	0.3855	4.11	0.0426
	3	-2.6609	1.1924	4.98	0.0257
FOI	1	0.4227	0.2537	2.78	0.0957
	2	-0.5418	0.1597	11.51	0.0007
	3	-0.1699	0.4681	0.13	0.7167

Regression 2

Maximum Likelihood Analysis of Variance			
Source	*DF*	*Chi-Square*	*Pr > ChiSq*
Intercept	3	30.44	<.0001
DOT	3	15.16	0.0017
Likelihood Ratio	123	142.00	0.1158

Analysis of Maximum Likelihood Estimates					
Parameter	*Function Number*	*Estimate*	*Standard Error*	*Chi-Square*	*Pr > ChiSq*
Intercept	*1*	-0.1172	0.2457	0.23	0.6333
	2	-2.4652	0.6112	16.27	<.0001
	3	-2.9686	0.7593	15.28	<.0001
DOT	*1*	1.7845	0.6198	8.29	0.0040
	2	4.3607	1.3199	10.92	0.0010
	3	1.1430	1.8651	0.38	0.5400

Regression 3

Maximum Likelihood Analysis of Variance			
Source	DF	Chi-Square	Pr > ChiSq
Intercept	3	19.41	0.0002
IOF	3	7.69	0.0529
Likelihood Ratio	123	148.58	0.0580

Analysis of Maximum Likelihood Estimates					
Parameter	Function Number	Estimate	Standard Error	Chi-Square	Pr > ChiSq
Intercept	1	0.1509	0.4800	0.10	0.7532
	2	-0.5223	0.4965	1.11	0.2928
	3	-2.8736	0.9043	10.10	0.0015
IOF	1	2.4686	1.0666	5.36	0.0206
	2	2.8603	1.0757	7.07	0.0078
	3	2.3826	1.5604	2.33	0.1268