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The impact of dynamic institutional capabilities on multinational enterprises' subsidiary performance in emerging markets

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Abstract

In light of the global mining industry's record profits in 2011, this inquiry explored the institutional drivers of mining multinational's subsidiaries overall performance. Using a lens of institutional theory, this inquiry explored why the subsidiaries of emerging mining multinationals have outperformed the subsidiaries of developed mining multinationals in emerging markets.

The inquiry used Mann-Whitney U hypothesis testing to compare the financial performance of 46 emerging mining subsidiaries and 39 developed mining subsidiaries. The inquiry ran eight multiple regression models to test subsidiary performance variables against institutional variables obtained from the 2011/2012 Fraser Institute annual survey of mining companies.

The findings support and add to the institutional and international business literature. Emerging multinational enterprises and their subsidiaries possess dynamic institutional capabilities which allows them to better manage institutional uncertainty than developed multinational enterprises and their subsidiaries in emerging markets. An institutional development model has been developed to assist managers of multinational enterprises reduce their institutional uncertainty in emerging markets.

Keywords: Institutional theory, institutions, dynamic capabilities, emerging markets, emerging multinational enterprises, subsidiaries.

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Name: Brett Wilks

Signature:

A handwritten signature in black ink, appearing to be 'Brett Wilks', written on a light-colored background.

Date: 07 November 2012

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1.0 Research Title

The impact of dynamic institutional capabilities on multinational enterprises' subsidiary performance in emerging markets

1.1 Introduction

According to the United Nations Conference on Trade and Development (UNCTAD) emerging economies attracted more than half of global foreign direct investment (FDI) (UNCTAD, 2011). While outward FDI from these economies peaked, FDI flowing into developed economies continued to decline (UNCTAD, 2011). Increased multinational enterprise (MNE) activity from emerging economies, traditionally considered the periphery of the global economy, is now widely seen to be reshaping the structure of international business (Gammeltoft, Barnard, & Madhok, 2010). Over the last ten years, the world's corporate landscape has been shifted by the arrival of a new breed of emerging multinationals (The Economist, 2011).

Increased international activity from emerging multinational enterprises (EMNEs) in emerging markets forms the context for this inquiry. In particular, this inquiry seeks to study EMNE performance within a global mining context. The world's top 40 mining companies experienced record profits in 2011 (PriceWaterhouseCoopers, 2012). If the results of this report are to be believed, what is driving mining MNE's performance? In particular, how have mining EMNEs and their subsidiaries fared in comparison to their developed multinational enterprise (DMNE) competitors in emerging markets?

Increasing levels of mining activity in emerging markets, in addition to the resource sector's large profits, have now attracted the attention of host governments (Deloitte, 2012). As a result, "...many governments have begun to impose super-profit taxes, discovery bonuses, resource rents, licence fees, indigenisation quotas, environmental levies and reconstruction tolls" (Deloitte, 2012, p.8). Hence, the tensions between mining profits and government regulation highlight the interdependencies between the global mining sector, the state and its regulatory institutions. How do mining companies maintain their levels of performance in the face of ever increasing government regulation? Do mining MNEs, have particular skills to manage these regulatory and institutional pressures?

At its very essence, FDI is a negotiated boundary between the MNE and the national state (Agmon, 2003). The result of this boundary condition is called "globalisation" (Agmon, 2003, p.416). If Agmon's (2003) idea is to be accepted, this inquiry looks to study the interface between the mining MNE, its local subsidiary, the state and the host nation's institutional

environment from a mining MNE perspective. This inquiry investigates mining MNE's management of institutional factors in emerging markets and answers Peng, Wang, and Jiang's (2008) call to "...study how firms adapt to institutional changes and regulatory shifts" (Peng et al., 2008, p.75). Are MNE's institutional strategies driving their performance in emerging markets?

The world's largest firms account for 90% of the global FDI (Rugman, 2007). "...[MNEs] account for approximately half [of global trade] as they...have a hundred or more foreign subsidiaries" (Rugman, 2007, p.2). Hence, to understand the MNE and its subsidiaries is to appreciate the essence of international business (Rugman, 2007). DMNE's domination of global business parallels EMNE's dominance in emerging economies (Rugman, 2007). What enables MNEs and their subsidiaries to operate across emerging market's institutional environments?

EMNEs, have recently received increased academic attention for their visible and often rapid internationalisation (Cuervo-Cazzura & Genc, 2011; Madhok & Keyhani, 2012; Ramamurti, 2012). The Economist (2008) argues that it is EMNE's home markets which offer them significant advantages for international expansion: their home market's rapid growth gives EMNEs scale and liquidity for international investment and the liberalisation of their home markets has brought international competition, encouraging EMNEs to seek growth abroad. In addition, the challenges of operating in emerging markets have made EMNE managers flexible and resilient (The Economist, 2008).

If the Economist's (2008) claims about EMNE expansion are true, it would appear that emerging market contexts indelibly shape EMNE's international business strategy. This inquiry will seek to rationalise this view: to what extent does a MNE's country of origin determine its subsequent behaviour? Furthermore, does it explain MNE performance in other emerging markets?

Narula (2006) highlights a debate in the international business literature, as to whether EMNE's increased prominence is simply the result of largely predictable progress along the investment development path or as Ramamurti, (2012) states, is the result of larger macro-economic shifts in the global economy?

Following on from this debate, do EMNEs behave differently to developed multinational enterprises (DMNEs) in emerging markets? In particular, do EMNEs possess unique institutional capabilities that give them a competitive advantage over DMNEs due to their histories in emerging markets?

1.2 Problem definition and purpose

Institutional theory is a means of explaining firm behaviour and strategy in international business (Peng et al., 2008; Peng, Li Sun, Pinkham, & Chen, 2009). However, studies within the existing institutional literature, tend to focus on the entry modes and locational aspects of multinational enterprises (Meyer, Estrin, Bhaumik, & Peng, 2009; Dunning & Lundan, 2008; Cantwell, 2009; Meyer, Mudambi, & Narula, 2011).

While these studies are able to explain ownership, locational and internalisation practices of MNEs pre-entry mode, the studies do not elaborate on a MNE's performance post entry mode. A natural question arises out of this: how do MNEs continue to achieve growth across multiple borders where institutional contexts differ to their own home institutional contexts? (Gelbuda, Meyer, & Delios, 2008). Can institutional theory help explain MNE behaviour and performance in emerging markets post entry?

Recent research demonstrates that the relationship between governments and business (a key institutional relationship) is often more important in determining market outcomes than competition and market forces (Rodrik, Subraminan, & Trebbi 2004; Qureshi & te Velde, 2007; Cali & Sen, 2011). Similarly, in another study, which set out to compare economic determinants of macro- economic growth, the authors concluded that institutions were more influential than geographic advantages, economic openness and international trade's combined effects (Rodrik et al., 2004). However, despite institutions noted role in facilitating macro-economic growth, there has been a noticeable scholarly neglect of institution's role in influencing the firm, its strategy and subsequent market behaviour (Peng et al., 2008, Peng et al., 2009).

While institutionally related studies have tended to focus on institutions and their influence on macro-environmental impacts, there are few empirical studies that deal with institutions and their micro-level influence on firm behaviour, strategy and performance (de Jong, Phan, & van Ees, 2011). Hence, this inquiry seeks to answer Dunning and Lundan's (2008) call to better understand the determinants of MNE performance as well as its effects. This inquiry seeks to "consider the institutional influences inside the firm as well as those between the firm and the external environment in which it operates" (Dunning & Lundan, 2008, p.577).

1.3 Research Objectives & Motivation

Recent literature suggests that there is considerable benefit to MNEs managing their institutional contexts proactively (Oliver & Holzinger, 2008; Dunning & Lundan, 2010; Grosse, 2011). Their collective premise is summarised by Grosse (2011) when he states

that "...positive interaction with a government or non-business actor...can lead to superior business incomes" (Grosse, 2011, p.29). Despite these assertions, there appears to be a lack of empirical research that examines whether variations in such institutional relationships can explain variations in the performance of MNEs. (Dunning & Lundan, 2008; 2010; Peng & Pleggenkuhle-Miles, 2009).

The proposed inquiry of the nature and impact of these institutional relationships builds on the existing institutional theory literature: "...[where] ample evidence exists of the interface between institutions and economic growth, though relatively little has been said on the role of MNEs in affecting these institutions" (Dunning & Lundan, 2008, p.585).

The literature states that firms do not need to consider the external institutional context as fixed or predetermined, instead, there is an opportunity for MNEs "[to] make sense of, manipulate, negotiate and partially construct their institutional environments" (Kostova, Roth & Dacin, 2008, p.1001).

Firms have tended to consider institutional aspects of strategy as exogenous, but strategy scholars argue that the firms can use their internal resources to create external market change (Teece, Pisano, & Shuen, 1997). Therefore, there appears to be numerous endogenous opportunities available to the firm, particularly in the institutional sphere of strategy.

Peng et al. (2008) suggest that while it is natural to expect firms in emerging economies to act similarly to firms from developed economies. How EMNEs go about doing this, in non-transparent, political and regulatory environments, is an interesting opportunity for this inquiry to answer Peng's et al (2008) call.

Previous studies in the literature contain examples of European and Chinese MNEs (de Jong et al., 2011; Peng & Chen, 2011), an "emerging MNEs" (Gammeltoft et al., 2010, p.1), Hence, the research is positioned to address a gap in international business literature by providing a wider array of EMNEs working across "emerging economies [which] is likely to generate more mileage for future research in international business literature" (Peng et al., 2008, p.11).

2.0 Theory and Literature Review

2.1 Introduction

The literature review will introduce the emergence of institutional theory and the historical roots of the institution-based view of business strategy. Despite institutions noted historical interdependence with market behaviour and economic growth, the review explores why strategy scholars have tended to ignore the influence of institutions and institutional context at the firm level.

Reviewing informal and formal institutions, critical components of any institutional context, the literature will demonstrate the institutional context's impact on the firm and its strategy through its constraining and enabling dynamics. The literature review explains how firms, in particular, multinational enterprises, embedded in multiple institutional environments, are beginning to develop dynamic capabilities to shape their contexts. In particular, the institution-based view of emerging economies and emerging multinationals will demonstrate that these firms are imbued with natural institutional capability that could serve as a superior competitive advantage in unpredictable and volatile contexts.

2.2 The emergence of the institution-based view of strategy

Peng et al., (2009) posit that the emergence of the institution-based view of strategy in the international business literature, builds on the rise of the institutionalism theory movement in the social sciences pioneered by institutional economist North (1990) and sociologists DiMaggio & Powell (1983) and Scott (1987; 1995; 2008).

For North (1990) institutions represent the rules of the game that structure human interaction within an institutional context. The institutional context is composed of formal and informal institutions. Formal institutions are explicitly stated conditions - laws, regulations and rules, while informal institutions are borne out of norms, cultures and ethics. (Dunning & Lundan 2008; Peng et al., 2009; Schwens, Eiche, & Kabst, 2011).

Scott (1995) expands the idea of the institutional context stating that is supported by three pillars of regulative, normative and cognitive structures. Peng et al. (2008) explain that Scott's three pillars are the essence of culture and form the foundation of informal institutions, which underpin formal institutions. Hence, an institutional system "is complete only when both formal and informal institutions are taken into account" (Dunning & Lundan, 2008, p.578). It is the combination of these informal and formal institutions which begin to influence firm and market behaviour (Peng & Chen, 2011).

Institutions exert powerful forces on markets through isomorphic pressures which direct market behaviours and enact a “hastened homogenisation” on organisations (Di Maggio and Powell, 1983). This “isomorphism” pushes firms to “adopt similar structures and strategies, particularly in the pursuit of legitimacy” (Cantwell, Dunning & Lundan, 2010, p568). But how did institutions emerge to become so influential and to exert such influence? Why do responses to institutions engender widespread similarity?

Dunning & Lundan (2010, p.1228) proposed that institutions evolved out of a human necessity to respond to the physical environment - to limit uncertainty. Initially, institutional infrastructures mirrored collectivist beliefs, values and normative behaviours or culture. Due to newer challenges confronting individuals in the human environment, institutions gradually progressed from personal ties to more impersonal systems of exchange which were vital in enabling economic growth (Dunning & Lundan, 2010). Hence, in making this shift to impersonal trade, institutions were able to reduce societal uncertainty, establish behavioural norms (what is wrong and right) and deliver a predictable framework for the regulation of social interaction and transaction (Ali, Fiess & Macdonald, 2010).

Good institutions help reduce business costs and risks while increase profitability and economic activity (North, 1990). The risk premium in any economy is not only a function of institutional quality, it also determines the scale of economic exchange in an economy (North, 1990). Should the institutional risk premium be high, economic activity will be limited to direct interpersonal exchange rather than complex impersonal exchange (North, 1990). Therefore, it is the very presence of institutions and their ability to facilitate certainty, that allows individuals and firms to engage in market transactions without incurring undue costs or risks – the effective enforcement mechanism of the market function (Meyer et al., 2009; Peng et al., 2009; Ali et al., 2010). Parties engaged in economic transactions without the critical institutional qualities of transparency, predictability and contract enforcement will have limited information, increased risks, increased costs and reduced profit (Ali et al., 2010).

To summarise, the literature conveys the historical and functional importance and the need of institutions. While there is little questioning of institutional quality’s effects on macro-economic growth, strategic scholarly focus at a micro-firm level has generally portrayed institutions as “background conditions”, downplayed their influence, or simply ignored their influence on firm strategy and performance (Peng et al., 2008; Dunning & Lundan, 2008, Meyer et al., 2009; Peng et al., 2009; Grosse, 2011). Why have institutions been ignored in the strategic management literature?

2.3 The resource-based view (RBV) of the firm

The historical absence of institutions in the strategy literature is the result of a scholarly reliance on the “resource-based view” (RBV) of the firm (Dunning & Lundan, 2008). A resource is viewed as a firm’s strength or weakness and “could be defined as those tangible and intangible assets which are tied semi-permanently to the firm” (Wernerfelt, 1984), p.172).

Eisenhart and Martin (2000) explain that the RBV of the firm and its strategy is a framework to understand how firms achieve competitive advantage and how this advantage is sustained over time. (Penrose, 1959; Wernerfelt, 1984; Prahalad & Hamel, 1990; Barney, 1991; Nelson, 1991; Teece et al., 1997). In its most basic appraisal, RBV assumes that firms are a collection of bundled resources that are spread across firms heterogeneously and evolve over time (Penrose, 1959; Wernerfelt, 1984). RBV scholars argue that resources which are valuable, rare and difficult to imitate are the determinants of sustained competitive advantage (Wernerfelt, 1984; Barney, 1991; Nelson, 1991). The use of these resources implies an assumption within RBV: firms control their own destiny and are one dimensional profit maximisers in their objectives (Dunning & Lundan, 2008).

Peng et al. (2009, p.63-65) explain that the strategy literature evolved from Penrose’s (1959) RBV to Porter’s (1980) industry-based view (IBV), and was extended to incorporate Barney’s (1991) RBV. Barney (1991, p.102) who builds on Porter’s (1980) positioning, suggests that a firm can only sustain its advantage if it’s strategy is not being executed by its current or potential competitors or their attempts to replicate the strategy have failed. In summary, the resource-based firm builds durable external market advantage through the efficacy of its internalised resources (Teece et al., 1997). It is the combination of its unique internal resources (or firm specific capabilities and assets) that is the central element of its performance and sustained competitive advantage (Penrose, 1959; Wernerfelt, 1984).

While RBV and IBV theories are credited with explaining firm behaviour, the literature argues they only offer partially adequate explanations as “[they] rarely question the underlying context and reason for firm behaviour” (Peng et al., 2009, p.65). RBV and IBV’s grounding in neoclassical economic theory, rationalises markets as “...having perfect competition, low uncertainty and the singular goal of profit maximisation. (Dunning & Lundan, 2008). While this scholarly abstraction may be logical from a theoretical standpoint, in reality, markets, especially volatile markets, do not display neo-classical economic traits (Eisenhart & Martin, 2000; Dunning & Lundan, 2008).

Eisenhart and Martin (2000) extend the RBV through exploring the idea of moderately and high-velocity dynamic markets. Firms operating in markets defined by stable industries, well- defined industrial boundaries and players (moderately dynamic markets) tend to require highly structured and predictable internal processes (Eisenhart & Martin, 2000). However, firms operating in high velocity dynamic markets, characterised by unclear industrial structure, industrial boundaries and shifting players, will tend to use practices that are much simpler and more experimental. (Eisenhart & Martin, 2000).

While the RBV is sufficient to explain firm behaviour in moderately dynamic markets, it has not been sufficient in explaining why firms operating in markets of rapid change and instability maintain their advantage (Teece et al., 1997). Within these unpredictable competitive landscapes of continual shift and flux, the way firm managers orchestrate and rapidly implement their responses to an ever changing environment becomes the origin of a firm's competitive advantage (Teece et al., 1997).

The literature states that composition and significance of competitive advantage has changed significantly within the strategic management literature – firm's tangible resources and intangible abilities have become more knowledge intensive and more relationally based (Ghemawat, 2007; Dunning & Lundan, 2008; Cantwell, 2009). The shift of these practices and strategies are shifting in line with major changes in both the human and physical environment driven by forces of globalisation (Dunning & Lundan, 2010). With the change in firm practices, institutional theory has now emerged as means to better explain the shifts in firm behaviour (Peng et al., 2008; Peng et al., 2009; Dunning & Lundan, 2010). In light of rapidly changing institutional contexts, Peng et al., (2008) ask a pertinent question: "how do [firms continue to] play the game, when the rules of the game are constantly changing?" (Peng et al., 2008, p.11).

Institutional theory has predominantly been studied at the macro level impact of institutions and its impact on economic growth, there is an emerging micro level field which is exploring the ways in which firms interact with local institutions in order to gain legitimacy (Dunning & Lundan, 2008).

Before a firm has begun its operations in a host country, the distance between institutional contexts shape a firm's potential entry strategy significantly (Xu & Shenkar, 2002). Institutional distance is defined as the cultural and ideological differences between a firm's home and host country, hence, the greater the difference in culture and ideology between home and host country, the greater the costs and risks of doing business there (Schwens et al., 2011) . Institutional distance also determines the, degree of difficulty for a firm to establish legitimacy with a host nation and influences a firm's ability to transfer inter-

organisational practices to a local subsidiary (Xu & Shenkar, 2002). It is implied that firms need a capacity to manage institutional risks.

In cases of high formal institutional risk – firms would be vulnerable to obstacles and costs resulting from less developed or inadequate legal institutions. (Meyer et al., 2009; Scwhens et al., 2011). Therefore, in choosing to enter informally-distant countries, firms would need an ability to manage institutional differences between their home and host country and bridge institutional gaps which erode their competitiveness (Cuervo-Cazurra & Genc, 2011). Consequently, institutional distance and context represents a much more significant influence on a firm's entry strategy and should be given more in-depth consideration (Peng & Pleggenkuhle-Miles, 2009).

Once a firm has chosen a host country, it has several options in choosing the organisational structure of its operations in a new market (Meyer et al., 2009). Joint ventures could be used to overcome countries with weaker institutional frameworks; while acquisitions could play a more important role in accessing resources in a stronger institutional context (Meyer et al., 2009). The concept driving the entry mode strategy enables the firm “to overcome different kinds of market inefficiencies related to both characteristics of the resources and to the institutional context” (Meyer et al., 2009, p.61). Therefore, institutional constraints faced by firm's managers could be as influential on firm strategy as industry conditions and firm resources (Peng et al., 2008; 2009). Considering their primacy and overall impact – institutions can hardly be considered as “background conditions” (Peng, et al., 2008, p.4).

As the global economy's interconnections deepen, firms will begin to engage multiple institutional contexts to overcome institutional tensions (Cantwell et al., 2010). The interplay of flexible firm resources with the immobility of host institutions presents an interface of possible institutional tensions that firms will need to overcome in order to gain widespread legitimacy (DiMaggio & Powell, 1983; Cantwell, 2009; Gammeltoft et al., 2010; de Jong et al., 2011; Peng & Chen, 2011). Hence, the firm's ability to manage multiple institutional tensions and contexts will influence a firm's performance – a firm will need to be positioned to take advantage of institution's opportunities and mitigate its constraints. (Cantwell et al., 2010).

2.4 Institutions as opportunities and constraints – the liability of foreignness and emergingness

The literature suggests that the institutional context is viewed as an “exogenous constraint that organisations have to consider” (Kostova et al., 2008, p.1001). Traditionally, non-economic or non-market factors have usually been viewed as constraints or uncontrollable

conditions to which firms must adapt (Grosse, 2011). The language of institutions frames them as predetermined constraints (North, 1990; Dunning & Lundan, 2008; Meyer et al., 2009; Schwens et al., 2011).

Institutions are, by their own logic, restrictive - they close off and discourage certain behaviours by making them excessively costly or by reducing their value (Dunning and Lundan, 2008). In this way, institutions exert their influence through their punitive conditions and subsequently encourage a particular behaviour (DiMaggio & Powell, 1983).

But firms do not have to be vulnerable to these punitive conditions; firms who adopt a proactive institutional strategy may extract institutional opportunities and gain a better position in dealing with institutional pressures both home and abroad (Peng, 2009). By adopting proactive institutional strategies, firms can exert pressures on institutions even before domestic or foreign institutions exert pressure on them (Peng & Cheng, 2011). By managing their power, firms can ensure that “their interests reflected and represented within institutional logics” (Kostova et al., 2008), and achieve legitimacy. Instead of perceiving institutions as punitive and fixed, firms should develop a capability to socially interact with institutions to maximise their non-market opportunities. (Kostova et al., 2008).

Should firms be unable or unwilling to ingratiate themselves within the local institutional context as insiders, firms risk exposing their “liability of foreignness” (LOF) (Nachum, 2003; Cantwell, 2009; Barnard, 2010). The LOF exists due to geographical, cultural and institutional distance between the firm’s home and host countries (Zaheer, 1995; Xu and Shenkar, 2002; Nachum, 2003).

The reasons for the LOF vary: firstly, the firm is not indigenous and its unfamiliar with the local environment; or it may be that foreign firms have to establish legitimacy, unlike local firms; it could be that foreign firms encounter natural obstacles and hindrances in transferring their knowledge and resources to a new market which would not trouble local firms (Madhok & Keyhani, 2012). Hence in order to mitigate these influences Hymer (1976) explains that due to these multiple disadvantages, success for a foreign firm must have compensating firm specific advantages (FSAs) that are valuable and inimitable. (Ramamurti, 2008, p.5).

While certain foreign firms try to manage their LOF, other foreign firms encounter the liability of emergingness LOE (Madhok & Keyhani, 2012). While the LOF acknowledges the limit incurred by firms because of where they are not from (they are not local), foreign firms encounter the LOE because of where their origins (Ramchandran & Pant, 2010).

When emerging firms enter more developed markets, they tend to feel their LOE; it occurs for reasons both internal and external to the firm (Madhok & Keyhani, 2012). Externally, emerging markets are characterised by lower levels of sophistication, weaker suppliers, input shortages and inefficient infrastructure (Ramamurti & Singh, 2009). Internally, comparing emerging firms to their developed counterparts – they tend to lack the resources, capabilities and insights for more developed institutional contexts (Madhok & Keyhani, 2012).

Firms overcome their LOF and LOE through their internationalisation as part of an: “entrepreneurial endeavour to overcome [their]..deficit as well as find needed resources that were unavailable at home...” (Madhok & Keyhani, 2012, p.31). Other means include developing key institutional capabilities to help them manage their respective institutional contexts (Oliver and Holzinger, 2008)

2.5 Developing a dynamic capability for institutional contexts

Narula and Dunning (2010) suggest that as firms continue to expand internationally into new markets, they will encounter new institutional contexts which will present them with increasing complexity. Consequently, firm engagement in non-market matters is likely to grow in importance (Narula & Dunning, 2010).

According to Peng and Pleggenkuhle-Miles (2009) international business scholars have battled to study the effects of non-market factors and actors on strategy. Peng (2006) in Peng and Pleggenkuhle-Miles (2009) suggests that the all associations related to the firm’s external environment be labelled an institution-based perspective. Hence, by extending Peng’s (2006) idea: firms interaction in all non-market aspects, can be interpreted as constituting institutional relationships.

Oliver and Holzinger (2008) argue that increasingly complex institutional environments, in particular, political environments pose unique challenges to firms and that they will likely need increasingly dynamic capabilities to cope with rapid political change (Dunning & Lundan, 2010). Dynamic capabilities are an extension of the concepts developed in the context of the RBV of the firm (Pitelis & Teece, 2010).

The dynamic capabilities framework is influential in the theory of the firm and it examines the ways in which firms capture wealth within environments of rapid change (Pitelis and Teece, 2010). Dynamic capabilities stress take advantage of firm specific competences to engage changing environments (Penrose, 1959; Prahalad & Hamel, 1990). “Dynamic” is defined as the capability to refresh a firm’s skillset to achieve alignment with the external environment;

while strategic management “capabilities” are required to adapt, integrate and reconfigure internal skills (Teece et al., 1997). Dynamic capabilities include hard to imitate cognitive skills, organisational processes which are specific to the firm, which do not transfer automatically to other firms and include the ability to calibrate uncertainty and enable sustainable competitive advantage (Prahalad & Hamel, 1990; Teece et al., 1997; Eisenhart & Martin, 2000; Oliver & Holzinger, 2008; Pitelis & Teece, 2010). In particular, it is a firm’s unique “managerial orchestration” ability that has come to be known as the source of a firm’s dynamic capabilities. (Augier & Teece, 2007, 2009; Katkalo, Pitelis, & Teece., 2010).

In line with Dunning and Lundan’s (2010) global marketplace shift, the consequent evolution of the firm from the *exploiter* of ownership advantages, to it being a *networker* of value creating activities, places a much stronger emphasis on the firm’s *relational* capabilities and institutional assets (Ghemawat, 2007; Cantwell et al., 2010). Dynamic capabilities RBV type analysis in the literature, has given relatively little attention either to the quality of intra or inter firm relationships (Dunning & Lundan, 2010). However, these intra and inter-firm linkages underpin the firm’s accessing, creation and usage of resources and capabilities (Giroud & Scott-Kennel, 2009).

If the literature recognises firms as being dynamic or incorporating dynamic capabilities, Morgan (2005) calls for a dynamic view of institutions. Morgan (2005) contrasts North’s (1990) analysis, in which firms primarily react to external incentives and enforcement mechanisms of institutions. If Morgan’s (2005) view is extended: institutional relationships can be altered through the efforts of the firm rather than just taken as a given and fixed element that must be accepted (Grosse, 2011). Similarly, firm’s need not merely to respond to institutions, but be actively influential in the process of engaging institutions to generate new forms of institutions (Cantwell et al., 2010). To summarise, firms have an opportunity to engage and change their “social [and institutional] environments” (Kostova’s et al., 2008, p.1002).

According to Grosse (2011) firms have generally seen government relations as given or fixed parts of the environment in which firms do business based on an assumption that these external issues are static. Consequently, firms tend to focus on areas that they perceive they can influence, namely, their internal organisational processes, such as, operational efficiencies, suppliers and customers. This alienates firms from external opportunities and institutional engagement (Grosse, 2011). Firms have chosen to see only political risks without being open to seeing political opportunities.

Cantwell et al. (2010, p. 574-577) suggest three broad forms of institutional engagement involving firms and their institutional contexts:

1. **Institutional avoidance:** firms assume the external institutional context as given. When confronted with a weak institutional context, defined by lack of accountability, poor regulation and deficient enforcement of the rule of law – the firm is likely to choose an exit strategy
2. **Institutional adaptation:** firms assume the external institutional context as given; however, the firm is willing to adjust to better fit the environment. Firms use political influence, perhaps bribery and efforts to emulate local culture and informal institutions that are most desirable. They may even attempt to hide the elements that make it appear foreign.
3. **Institutional co-evolution:** firms view the institutional context as partially endogenous. The firm is no longer trying to adjust to the influence of institutions but rather seeks to influence formal and informal institutions themselves - co-evolution. The firm may actively lobby for regulatory reform to install advantages over its competitors. The firm will also seek to introduce new practices originating from its local subsidiaries or transferred elsewhere from the MNE network.

Combining Oliver and Holzinger (2008), Dunning and Lundan, (2010), Augier and Teece (2007, 2008), Cantwell et al. (2010) and Grosse's (2011) concepts, the literature supports the notion of transforming a non-market institutional relationship into a dynamic capability that could provide a competitive advantage “[by proactively managing] their political relationship to develop competitive advantage relative to rival firms” (Grosse, 2011, p.25). Boddewyn (1993) in Grosse (2011) explains that firm's political behaviour should be to conform to the rules of the game but to change the rules when appropriate (Boddewyn, 1993). Firms may also help to initiate some institutional changes across national boundaries and thus affect host country institutions to overcome institutional inertia in the domestic business system (Dunning ,2009; Narula and Dunning, 2010) . In conclusion, there is an opportunity for firms to engage or even shape government and local institutions in their favour. (Peng et al., 2008; Grosse, 2011; de Jong et al., 2011).

Some firms, particularly those operating across multiple markets, will be better placed to exploit these institutional opportunities than others (Kostova et al., 2008). Citing multinational enterprises (MNEs), are embedded in multiple fragmented , ill-defined and constantly evolving institutional systems. Therefore, a MNE's relationships with their institutional environments are not exogenous but “dynamic, discretionary, symbolic and pro-active” (Kostova, 2008, p.1001). Due to their extensive institutional exposures, MNEs are strategically positioned to take advantage of institutional opportunities across markets.

2.6 The multinational enterprise (MNE)

The key actor in the international business literature is the MNE (Grosse, 2011, Dunning 2001). What constitutes an MNE? Are there differences between an MNE and a firm?

A firm needs to meet three conditions to become a MNE (Dunning (1993; 2001) (as cited in Ali et al., 2010):

1. **Ownership (O):** The firm must own particular assets that local firms in the host country do not possess. The MNE's ownership advantage compensates for the firm's associated extra costs for operating in a foreign market. A firm's ownership advantage can be in the form of tangible or intangible assets.
2. **Internalisation (I):** If a firm has these ownership advantages, it must seek ways to maximise its potential through FDI and retain them inside the firm to prevent the asset advantage from being replicated by competitors – this is known as the internalisation advantage (I).
3. **Location (L):** Through FDI in a host country, the firm must find a profitable combination of its ownership (O), internalisation (I) and locational (L) advantage within the host country. The host country must present a locational advantage; otherwise, the firm could easily serve it through exporting goods or services.

The eclectic paradigm or the OLI approach explains how firms choose global expansion - an interplay of ownership-specific advantages, Locational attractiveness of countries and internalisation advantages of MNEs (Klein & Wöcke, 2007).

The international business literature analyses the growth and foreign expansion phase of MNEs (Rugman, 2007). The MNE goes abroad to further expand its firm specific advantages (FSAs) (Rugman, 2007). In line with the OLI approach, their internalised FSAs are exclusive to the firm and can be technology or knowledge- based, or even reflect managerial capabilities and can be used intra-firm (Rugman, 2007). In summary, these FSAs refer to a set of firm-level factors that enable competitive advantage (Rugman, 2007; Ramamurti, 2008; Pitelis & Teece, 2010; Rugman, Oh, & Lim, 2012). More specifically, it is the complex managerial orchestration, combination and arrangement of these internal factors in response to the MNE's environment that give the MNE the vital dynamic capability of agility (Pitelis & Teece, 2010). Therefore, to understand the manner in which these dynamic capabilities are created and deployed is to understand “the new nature and essence of the MNE and FDI in the semi-globalised intangible economy” (Pitelis & Teece, 2010, p.15). However, the deployment of these FSAs is reliant on other geographic constraints – country specific advantages or (CSAs) (Rugman, 1981).

FSAs and CSAs are the two building blocks used to analyse international competitiveness (Rugman, 1981). Any understanding of MNE competitiveness must consider FSAs and the context these firm-level factors are embedded (Rugman et al., 2012).

CSAs can vary and be unique to a particular country; they can include resource endowments, the quality and supply of the labour force and geographic location (Rugman, 2007; Rugman et al., 2012). Hence, combined with an MNE's internal FSAs - international competitiveness happens at the intersection between external country-level and internal firm-level advantages (Rugman et al., 2012).

In summary, Dunning's (1993) eclectic paradigm has been extended into strategic management to explain MNE activities (Klein & Wöcke, 2007). In this theoretical extension: "...ownership advantages correspond with strategic resources and dynamic capabilities, while locational factors relate to both local adaptation to host market conditions and knowledge resources that are tied to a particular location" (Klein & Wöcke, 2007, p. 323).

With the note rise in a new multinationals from emerging markets, is the OLI approach sufficient to explain the behaviours and strategies of EMNEs or does a new theory need to be developed to better explain EMNEs internationalisation and market behaviour?

2.7 The emerging and developed multinational enterprise (EMNEs versus DMNEs)

The institution-based view of firm strategy is becoming a new lens to understand companies and competition behaviour in emerging economies with an increasing appreciation for the institutional influences on EMNEs from these economies. (Peng et al., 2008). Emerging economy institutions differ profoundly to those of developed economies – hence, "emerging firm's behaviour and strategy needs to be more closely studied in this regard" (Peng et al., 2009, p.66). There is growing recognition in the literature that due to these differing institutional contexts, that more research is required to understand emerging institutional contexts, their impacts on inward and outward FDI and the role they play in actively shaping their MNE's global strategies (Peng et al., 2008, 2009; Meyer et al., 2008, 2009; Gelbuda et al., 2008; Gammeltoft et al., 2010; Cuervo-Cazurra & Genc, 2011).

EMNEs possess FSAs which include products appropriate for emerging markets; a deep understanding of emerging market customer needs; production and operational excellence; privileged access to resources and markets via cheap capital and state support (Ramamurti, 2008). EMNEs are purported to have an ability to function effectively in the difficult

conditions of emerging markets where both the “hard” and “soft” infrastructures are underdeveloped (Ramamurti, 2008, 2012).

Typically EMNEs operate with “unreliable power, congested ports and roads, corrupt bureaucracies, political and regulatory uncertainties, weak educational institutions and a range of other institutional voids” (Ramamurti, 2008,p.13). Hence, EMNEs have evolved coping strategies or a characteristic adversity advantage to deal with these voids, and are more likely to possess these FSAs than DMNEs (Ramamurti, 2008).

EMNEs home environments are also characterised by their local government’s larger presence in the everyday market (Gammeltoft et al., 2010). The larger state presence is characteristic within emerging economies; consequently, EMNEs tend to be more sensitive to government operations than DMNEs where developed governments take a smaller role in developed economies (Gammeltoft et al., 2010). Consequently, EMNEs will tend to possess stronger political capabilities and longer histories of government interaction (Guillén and Garcia-Canal, 2009). To summarise, EMNEs may have considerable advantages compared with DMNEs in markets characterised by a weak institutional environments.

Weak institutional environments or supporting environments, are institutional environments where the institutions do not necessarily provide the market support that would be encountered in developed markets (Cuervo-Cazurra & Genc, 2011 p.450). Consequently, in this institutional absence, EMNEs either develop this support themselves or learn to operate in their absence – developing such capabilities requires an understanding of what is missing in the environment and how to operate without those elements (Cuervo-Cazurra & Genc, 2011). As a result, EMNEs from countries with less generous institutional environments have larger nonmarket resource bundles than MNEs from countries with more supportive institutional environments (Cuervo-Cazurra & Genc , 2011 p.450).

Table 1.0: Multinational Enterprise Advantages & Disadvantages

Dimension	EMNEs	DMNEs
Internationalisation	Accelerated	Gradual
Competitive advantages	Weak: upgrading of resources required	Strong: required resources available in-house
Political capabilities	Strong: firms used to unstable political environments	Weak: firms used to stable political environments

Expansion path	Dual path: simultaneous entry into developed and emerging markets	Simple path: from less to more distant countries
Default entry modes	External growth: alliances and acquisitions (relational assets)	Internal growth: wholly owned subsidiaries
Organisational capability	High, due to meagre international presence	Low, due to ingrained culture and structure

Guillén and Garcia-Canal (2009)

2.8 Institutional influences and non-institutional influences

Weaker institutional environments not only impact MNE capabilities but they also have an effect on MNE governance and organisation (Gammeltoft et al., 2010). EMNEs tend to be more vertically and horizontally integrated and provide for themselves internally what DMNEs may be able to acquire in more developed markets with greater institutional support (Gammeltoft et al., 2010). The reliance on informal institutions in the face of weaker formal institutions means that EMNEs rely on their relational assets which could see them “operate with more closed networks and more personalised governance and control systems” Dunning & Narula (2004) in (Gammeltoft et al., 2010 , p1).

EMNEs emerging market FSAs, while appropriate in lesser developed countries (LDCs), does not necessarily translate into competitive advantages in more developed economies: EMNEs tend not to have strong brands or technology and their reliance on price-based competition, is not sustainable, in the face of stronger competition (Cuervo-Cazurra & Genc, 2008). Unlike DMNEs who tend to have more sophisticated managerial systems with client needs, branding, distributions and operations, EMNE weaknesses stem from the immobility or non-transferable nature of their FSAs that appear to be country-specific and monopolistic (Barnard, 2010).

EMNEs tend to rely upon economic integration achieved solely through CSAs, in particular, they rely on economies of scale and do not adapt their products for consumers in host markets (Rugman, 2007). They lack sophisticated management systems to develop internal knowledge FSAs across a network of foreign subsidiaries (Rugman & Doh, 2008). EMNEs lack of sophisticated managerial skills in knowledge and system integration means that they should not be able to compete with DMNEs with developed FSAs and will take time to develop their own dynamic capabilities (Rugman, 2008).

In comparing the differences between EMNEs with DMNEs, these characteristic distinctions may stem more from their stage of evolution or maturity rather than their respective countries of

origin (Ramamurti, 2008). While it may be easy to dismiss EMNEs based on Rugman's non-transferable CSAs, no CSAs are common to all emerging markets - international business scholars need to investigate CSAs in greater depth to understand why they translate into FSAs for EMNEs (Ramamurti, 2008). CSAs and FSAs seem to have a more complex relationship than is recognised in international business theory..." (Ramamurti, 2008, p.24). However, despite the doubts in the literature, how can the international business theory explain the rapid expansion of EMNE internationalisation?

The swift internationalisation of EMNEs may be more a reflection in the global business environment than any innate organisational trait (Ramamurti, 2012). However, EMNE's dynamic advantages may be in that they are younger and perhaps more entrepreneurial organisations; they tend to be far more flexible and adaptable to change (Guillén & García-Canal, 2009). In contrast, DMNEs have to reconcile with their own institutional inertia, longer corporate histories and established practices due to their deeply ingrained values, culture and experience making them far monolithic or unlikely to adapt or be open to rapid change (Guillén & García-Canal, 2009).

The international business and multinational literature has tended to focus exclusively on MNE FSAs in order to compensate for their foreign disadvantage without considering the future advantages that remain unrealised (Madhok & Keyhani, 2012). Using Miller's (2003) notions of asymmetry which allows for more a forward looking view with regard to future potential, there is recognition that "hidden potential in ordinary or even disadvantaged resource positions can ultimately give rise to [future] competitive advantage" (Madhok & Keyhani, 2012, P.27). Given the right condition's EMNEs current resource disadvantages or weak ability to upgrade resources (Guillén & García-Canal, 2009), may be the very reason they engage entrepreneurial exploration and acquire subsidiaries to improve their capabilities (Madhok & Keyhani, 2012).

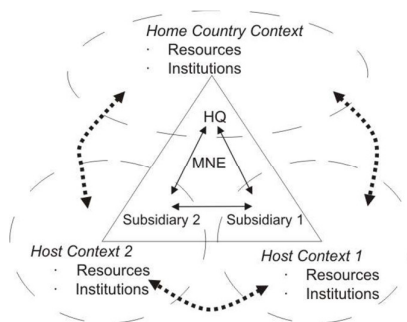
2.9 The embedded MNE its subsidiaries and the influencing of institutional contexts

MNEs and their subsidiaries may exert their institutional influence through their embeddedness across multiple institutional contexts (Figure 1) (Meyer et al, 2011). An MNE working across multiple markets can be characterised by a condition of multiple embeddedness: the MNE is embedded in its home country while being simultaneously embedded in the local host country's context through its subsidiary. The subsidiary is

defined as a “value adding entity in a host country” (Birkinshaw & Hood, 1998, p.774), and can execute a single activity or an entire value chain of activities. (Birkinshaw & Hood, 1998).

The MNE’s subsidiary would also be embedded in its ultimate owner’s network while simultaneously being embedded in its local business network. (Meyer et al., 2011). Consequently, the condition of this dual embeddedness means that the subsidiary is exposed to two sets of distinct institutional pressures. (Meyer et al., 2011). MNEs ability to embed itself across multiple institutional contexts means the MNE can overlap institutional contexts to gain exposure ““global competition and embedded in multiple institutional contexts, they receive continuous stimuli for the development of new routines” (Dunning & Lundan, 2010, p.1238).

Figure 2.1: Multinational Enterprises and their overlapping institutional contexts



Meyer et al. (2011)

MNEs ability to operate across a variety of institutional contexts, means that “MNEs [and their subsidiaries] have come to co-evolve with unpredictable shifts in a continually emergent and uneven environment and as a result have started contributing to the creation of new institutions” (Cantwell et al., 2010, p.572). MNE’s ability to influence local institutions draws on Nelson’s (1991) institutional roles of innovation whereby individual firms are able to co-evolve and influence institutions through their institutional engagement.

However, Nelson’s (1991) view of institutional change contrasts with North’s (1990) view. Institutional change or evolution is a the result of the reactions of organisations (the players) to the prevailing institutions (the rules of the game) (North, 1990,2005). Faced with perpetual institutional change and ever shifting environment, firms need to engage in continuous institutional experimentation an innovation, in order to manage the resulting institutional uncertainty (Nelson, 1991). North’s (1990) view of institutional changes and managing institutional risk is incremental, Nelson (1991) advocates addressing institutional risk through continued institutional experimentation. This institutional experimentation is

recognised in the later literature by Cantwell et al., (2010, p.572) suggesting that MNEs should actively encourage and explore “institutional entrepreneurship” due to the arising stimuli from multiple institutional environments.

Macro-economic globalisation has changed host nations institutional environments and has impacted in changes in the structure of the MNE (Cantwell et al., 2010). In shifting from an asset exploiter to complex networker reflects a greater need for increased flexibility and agility to enable the MNE and its affiliates to engage in “multiple, cross border experiments in unfamiliar and uncertain environments” (Cantwell et al., 2010, p.580).

As MNEs are organisations comprised of many different subsidiaries engaged in multiple activities between many host countries, MNEs “must manage relationships with a potentially large number of governments...” (Blumentritt & Nigh, 2002, p.58). Consequently, MNEs are likely to face countless political issues ranging in nature and scope; more specifically MNE subsidiaries in facing a range of differing institutional pressures may have to develop responses independently or in conjunction with other affiliates (headquarters or other subsidiaries) (Blumentritt & Nigh, 2002).

Coinciding with the rise of emerging market’s increased presence in the greater global economy the natural extension of international business and institutional literature should converge on developing a better understanding of emerging markets (Peng et al., 2008, Peng et al., 2009; Meyer et al., 2009). In particular, the manner in which EMNEs, DMNEs and their subsidiaries manage institutional pressures within emerging markets will further illuminate scholarly understanding of emerging market’s corporate landscape, which has been limited by scholarly neglect of institutions in the extant strategy literature (Peng et al., 2008; Peng et al., 2009).

2.10 Conclusion of the literature

The literature review traced the historical roots of institutional theory in the strategic management and international business literature which emerged out of institutional economics and sociology's new institutionalism. Due to a historical reliance on the RBV of the firm, the RBV's neoclassical economic roots favoured internalised and resource oriented approaches to firm strategy. Consequently strategy scholars took a predominantly reductive approach to MNE strategy – one which could be controlled exclusively by the firm and rendered institutions as “background conditions” (Peng et al., 2008; Peng et al., 2009). The literature revealed institution's powerful interdependency and interconnectedness with markets and firm's economic performance. Within the last decade, a new institution-based view of global strategy has emerged in the literature and has gained recognition by arguing that firm strategy is fundamentally configured by the formal and informal institutions (the institutional context) commonly known as the “rules of the game”(North, 1990). The rules of the game structure firm behaviour in which firms continually engage or comply with institutions to gain legitimacy.

In reviewing a firm's possible entry modes– the literature provided evidence that a host country's institutional environment influences a firm's strategic choices and organisational structure. A firm's direct responses to these institutional challenges of institutional distance and legitimacy demonstrated that “institutions are more than background conditions” (Peng et al., 2008, p.4). However despite responding to institutions, once established in a host country, the firm strategy has tended to view institutional environment as exogenous: external to the firm's every day operations.

The literature illustrated that firms should view and engage the institutional environment as an endogenous and dynamic opportunity – it is an environment that can be shaped and influenced. Consequently, firms should be actively engaged in their institutional environments. The literature demonstrated that successful firms may have already developed a “dynamic institutional capability” to take advantage of non-market (institutional) opportunities. Firms who successfully engaged in non-market institutional strategies were more likely to strengthen their competitive advantage than firms which were institutionally inactive or avoided institutional engagement (Grosse, 2011). A firm's method of interacting with local institutions (avoidance, adaptation or co-evolution) could result in firms changing and influencing “the rules of the game” in their favour to experience superior financial performance.

The literature focused on the MNE - the key actor of the international business literature. The MNE is a unique corporate entity that differs to ordinary firms due its specific assets, resources and locational advantages. MNE's positioning across multiple markets allows it to exploit its own firm specific advantages with particular country-specific advantages (CSAs) to create value. The MNE and its multiple subsidiaries are embedded in a variety of institutional contexts which give it the continuous ability to learn from multiple contexts and to reconfigure its routines. From an institutional perspective the MNE is well placed to learn and benefit from exposure to its multiple embeddedness in a variety of institutional environments.

With the rise of emerging economies and their contribution to the global economy – scholarly interest has revealed that the institutional contexts of emerging and developed economies diverge and has given rise to the rapidly expanding emerging MNE (EMNE). The literature debated whether the differences between EMNEs or DMNEs stemmed from their country of origin, age, the greater global economy. Are EMNEs and DMNEs the same on different or different stages of maturity or are there genuine differences stemming from their countries of origin? The literature revealed significant advantages, disadvantages between EMNEs and DMNEs. While EMNEs may lack the sophisticated management capabilities of their DMNE counterparts, their superior relational capabilities coupled with their exposure and experience in adverse institutional environments equips EMNEs with a significant competitive advantage within weaker institutional environments. Consequently, the resulting resource asymmetries between EMNEs and DMNEs inevitably shape their approach to their market and non-market opportunities.

Due to their institutional contexts, EMNEs have had to develop a dynamic entrepreneurial mode of operation to overcome institutional inefficiencies and voids. Institutional voids collectively create institutional deficits which erode competitiveness (Luo and Tung, 2007). This entrepreneurial mind-set positions EMNEs for international expansion to mitigate the institutional deficits of their home contexts and to develop capabilities, in particular, dynamic institutional capabilities which could see them to engage widespread institutional experimentation characteristic of their entrepreneurial and agile approach to internationalisation.

In expanding into unpredictable environments characterised by political and economic instability coupled with a corporate shift from resource-based assets to knowledge assets – the importance of EMNEs relational capabilities suggests that they would be better positioned to experience superior financial performance in institutionally weak host nations.

DMNEs more conservative focus and established capabilities , their rigid corporate histories and legacies mean that their expertise in technology and branding may not be sufficient to compete with EMNEs across emerging markets.

The literature implies that due to EMNEs deficient institutional home contexts, EMNEs have developed superior institutional capabilities in response to manage and compensate for these deficiencies. Therefore, due to the suitability of their institutional skillset, this inquiry could expect EMNEs to outperform DMNEs in institutionally deficient, volatile and unpredictable emerging markets due to their innate understanding and experience of emerging market contexts.

Research Question 1:

Are there differences between EMNEs and DMNEs and do these differences translate into their respective financial performance?

Hypothesis 1A: The null hypothesis states that there is no difference in EMNEs' and DMNE's operational revenue; the alternative hypothesis states that EMNE's operational revenue will be greater than DMNE's operational revenue.

Hypothesis 1B: The null hypothesis states that there is no difference between EMNEs and DMNE assets; the alternative hypothesis states that EMNE's assets are greater than DMNE's assets.

Hypothesis 1C: The null hypothesis states that there is no difference between EMNE's and DMNE's EBIT (earnings before interest and tax) per country. The alternative hypothesis states that EMNEs will experience greater profitability per country than DMNEs.

Hypothesis 1D: The null hypothesis states that there is no difference in EMNE's and DMNE's EBITOA (overall financial performance – earnings before interest and tax over assets). The alternative hypothesis states that EMNEs will experience greater EBITOA than DMNEs.

EMNEs are increasingly expanding into international markets and are providing new competition to DMNEs, however, the manner in which they compete “needs to be studied further” (Cuervo-Cazurra & Genc 2011, p.441). Against a backdrop of rapid emerging economy development, much of the competition between EMNEs and DMNEs will take place in emerging markets. (Peng et al.,2008; Cuervo-Cazurra & Genc 2011). “As...

[DMNEs and EMNEs]... play increasingly important roles in the integrated world economy, a sophisticated perspective about how DMNEs and EMNEs use their FSAs derived from CSAs..should be useful...to better understand their...strategies and implementation” (Rugman et al., 2012, p.5).

The literature suggested that there is considerable benefit to MNEs managing their institutional contexts proactively (Oliver & Holzinger, 2008; Dunning & Lundan, 2010; Grosse, 2011). Their collective premise is summarised by Grosse (2011) when he states that “there are political opportunities whereby positive interaction with a government or other non-business actor...[that]... can lead to superior business incomes” (Grosse, 2011, p.29). Despite these assertions, there appears to be a lack of empirical research that examines whether variations in such institutional relationships can explain variations in the performance of MNEs. (Dunning & Lundan, 2008; 2010; Peng & Pleggenkuhle-Miles, 2009).

Therefore, this inquiry looks to fill this gap in the literature by studying the way in which EMNEs and DMNEs manage their respective institutional environments within emerging markets:

Research question 2:

Can the differences in EMNE and DMNE performance be ascribed to their respective management of institutional factors in emerging markets rather than non-institutional factors such as age, subsidiary independence, macro-economic climate, country of origin and ultimate owner’s market exposure?

Hypothesis 2A: The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of an MNE’s operational revenue. The alternative hypothesis states that the management of institutional factors predominantly explains an MNE’s operational revenue.

Hypothesis 2B: The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of an MNE’s asset base. The alternative hypothesis states that the management of institutional factors predominantly explains an MNE’s asset base.

Hypothesis 2C: The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of an MNE’s EBIT/COUNTRY. The alternative hypothesis states that the management of institutional factors predominantly explains an MNE’s EBIT/COUNTRY.

Hypothesis 2D: The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of an MNE's EBITOA. The alternative hypothesis states that the management of institutional factors predominantly explains an MNE's EBITOA.

In conclusion, this inquiry looks to add to the existing institutional literature by studying EMNEs ability to experiment in and shape institutional contexts across emerging and developed markets. In so doing, this enquiry answers the call for further academic research of institutional theory in emerging economies (Peng et al., 2008, Peng et al., 2009; Meyer et al., 2009); EMNEs performance in relation to spanning a range of institutional settings both more and less advanced (Gammeltoft, 2010) and EMNEs role in shaping institutions (Dunning & Lundan, 2008, p.585; Dunning & Lundan, 2010; Cantwell et al., 2010).

3.0 Research Questions

There is growing recognition in the literature that due to the differing institutional contexts of emerging and developed economies, which requires extensive research to understand emerging institutional contexts, their impacts on inward and outward FDI and the role MNEs play in actively shaping their endogenous institutional contexts (Peng et al., 2008, Peng et al., 2009; Meyer et al., 2009; Gelbuda, et al., 2008; Gammeltoft et al., 2010; Cuervo-Cazurra & Genc, 2011; Madhok & Keyhani, 2012).

3.1 Research question 1

The literature reflects the debate exploring the differences and similarities between EMNEs and DMNEs. Ramamurti (2008); Guillén and García-Canal (2009) and Gammeltoft et al. (2010) argue that there are distinct differences between EMNEs and DMNEs. However, does this hold true with regard to EMNE's and DMNE's financial performance within the global mining sphere, across emerging markets?

Are there differences between EMNEs and DMNEs and do these differences translate into their respective financial performance?

4 performance variables have been selected (operational revenue, assets, earnings before interest and tax (EBIT) and earnings before interest and tax over assets) in order to analyse institutional factors across MNE performance (de Jong et al., 2011).

3.1.1 Hypothesis 1A

The null hypothesis states that there is no difference in EMNEs' and DMNE's operational revenue, the alternative hypothesis states that EMNE's operational revenue will be greater than DMNE's operational revenue.

Null hypothesis: H1A0: $\mu_{EMNE_{OPREV}} = \mu_{DMNE_{OPREV}}$

Alternative hypothesis H1A1: $\mu_{EMNE_{OPREV}} > \mu_{DMNE_{OPREV}}$

3.1.2 Hypothesis 1B

The null hypothesis states that there is no difference between EMNEs and DMNE assets, the alternative hypothesis states that EMNE's assets are greater than DMNE's assets.

Null hypothesis: H1B0: $\mu_{DMNE_{ASSETS}} = \mu_{EMNE_{ASSETS}}$

Alternative hypothesis H1B1: $\mu_{EMNE_{ASSETS}} > \mu_{DMNE_{ASSETS}}$

3.1.3 Hypothesis 1C

The null hypothesis states that there is no difference between EMNE's and DMNE's EBIT per country. The alternative hypothesis states that EMNEs will experience greater profitability per country than DMNEs.

Null hypothesis: H1C0: $\mu_{EMNE_{EBIT/COUNTRY}} = \mu_{DMNE_{EBIT/COUNTRY}}$

Alternative hypothesis H1C1: $\mu_{EMNE_{EBIT/COUNTRY}} > \mu_{DMNE_{EBIT/COUNTRY}}$

3.1.4 Hypothesis 1D

The null hypothesis states that there is no difference in EMNE's and DMNE's EBITOA. The alternative hypothesis states that EMNEs will experience greater EBITOA than DMNEs.

Null hypothesis: H1D0: $\mu_{EMNE_{EBITOA}} = \mu_{DMNE_{EBITOA}}$

Alternative hypothesis H1D1: $\mu_{EMNE_{EBITOA}} > \mu_{DMNE_{EBITOA}}$

3.2 Research question 2

Narula and Dunning (2010) suggest that as firms continue to expand internationally into new markets, they will inevitably encounter new institutional contexts which will present them with increasing institutional complexity. Consequently, firm engagement in non-market matters is likely to grow in importance (Narula & Dunning, 2010). Oliver and Holzinger (2008) argue that institutional environments, in particular, political environments, have become more complex and that firms are likely to need increasingly dynamic capabilities to cope with political change (Dunning & Lundan, 2010; Kostova et al., 2008; Peng et al., 2008; Dunning, 2009; Grosse, 2011). The literature states that EMNEs are imbued with superior relational capabilities and a greater understanding of institutional factors, which ultimately will help them shape the "rules of the game" (North, 1990).

Can the differences in EMNE and DMNE performance be ascribed to their respective management of institutional factors rather than non-institutional factors such as age, subsidiary independence, macro-economic climate, country of origin and ultimate owner's market exposure?

3.2.1 Hypothesis 2A

The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of EMNE's and DMNE's operational revenue. The alternative hypothesis states that the management of institutional factors predominantly explains EMNE's and DMNE's operational revenue.

Null Hypothesis H2A0: There is no significant difference in the management of institutional factors and non-institutional factors in determining the performance of EMNE's $OPREV$ and $DMNE_{OPREV}$

Alternative Hypothesis H2A1: EMNE's $OPREV$ and $DMNE_{OPREV}$ is predominantly explained by management of institutional factors

3.2.2 Hypothesis 2B

The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of EMNE's and DMNE's asset base. The alternative hypothesis states that the management of institutional factors predominantly explains EMNE's and DMNE's asset base.

Null hypothesis H2B0: There is no significant difference in the management of institutional factors and non-institutional factors in determining the performance of an EMNE's $ASSETS$ and $DMNE_{ASSETS}$

Alternative hypothesis H2B1: MNE's $ASSETS$ and $DMNE_{ASSETS}$ is predominantly influenced by management of institutional factors

3.2.3 Hypothesis 2C

The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of an EMNE's and DMNE's EBIT/country. The alternative hypothesis states that the management of institutional factors predominantly explains an MNE's EBIT/country.

Null hypothesis H2C0: There is no significant difference in the influence of institutional factors and non-institutional factors in determining the performance of an EMNE's $EBIT/COUNTRY$ and $DMNE's_{EBIT/COUNTRY}$

Alternative hypothesis H2C1: MNE's $EBIT/COUNTRY$ and $DMNE's_{EBIT/COUNTRY}$ is predominantly influenced by management of institutional factors

3.2.4 Hypothesis 2D

The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of an MNE's EBITOA. The alternative hypothesis states that the management of institutional factors predominantly explains an MNE's EBITOA.

Null hypothesis H2D0: There is no significant difference in the influence of institutional factors and non-institutional factors in determining the performance of an EMNE's EBITOA and DMNE's EBITOA

Alternative hypothesis H2D1: EMNE's EBITOA and DMNE's EBITOA is predominantly influenced by the management of institutional factors

4.0 Research Methodology

4.1 Research Design

The research design was quantitative and explanatory in nature. Saunders and Lewis (2012) state that explanatory research's focus lies in analysing a particular situation or a problem (EMNE and DMNE performance across emerging markets) in order to explain the relationship between variables (the institutional environment's impact on MNE performance). Quantitative research was appropriate for this inquiry, as there was extensive access to financial data available for thousands of MNEs via the Osiris Database. The ability to analyse this financial data in relation to institutional theory was an appropriate opportunity to provide more "empirical evidence in various and contrasting contexts" (Peng & Pleggenkuhle-Miles, 2009, p.55).

MNEs operate in multiple environments, each with its own path-dependent characteristics and this differentiates MNEs from normal firms (Dunning & Lundan, 2008). Research in international business literature has identified many drivers of superior MNE performance (Navaretti & Venables, 2004; Glaum & Oesterle, 2007; Buckley & Casson, 2009); however, the studies did not account for the role of the institutional context or institutional environment much like most of the strategy literature which has sought to minimise the role of institutions to that of "background conditions" (Peng et al., 2008; Dunning & Lundan, 2008; Meyer et al., 2009; Peng et al., 2009; Grosse, 2011).

"Evidence exists of the interface between institutions and economic growth, though relatively little has been said on the role of MNEs in affecting these institutions" (Dunning & Lundan, 2008, p.585). This explanatory research was a means of explaining MNEs abilities to shape institutions in their favour. The explanatory nature of the enquiry examined the correlations between an MNE's financial performance (operational revenue, assets, EBIT per country and EBITOA in relation to a MNEs ability to manage its institutional context across multiple institutional factors and economies with a wide variety of institutional contexts. The nature of the data collected ranged from 2010 to 2011 (1 year) and was cross sectional in nature due to the limited nature of subsidiary financial data on the Osiris database.

The explanatory nature of this inquiry sought to explain various variables of the institutional environment (independent variables) and their impact on EMNE and DNME performance (dependent variable). If, institutional theory's claims were to be realised - MNEs who possess a dynamic capability to shape their institutional environments favourably, would experience superior performance as compared to firms who are not institutionally active or do not possess dynamic institutional capabilities.

4.2 Scope and unit of analysis

The inquiry's focus on MNE's subsidiaries as the unit of analysis stems from idea that the MNE was the key actor in international business (Dunning and Lundan's., 2008a; de Beule & Van Den Bulcke, 2009; Grosse, 2011). In order to understand the realities of being embedded in multiple institutional contexts and generating revenue within emerging markets, the inquiry sought to study the operational performance of EMNE's and DMNE's subsidiaries (Meyer et al., 2011). Ruigrok and Wagner (2003) explained that subsidiaries were the bridge between offshore units to the MNE and local firms in the host countries; they allowed access to country specific-advantages such as local knowledge of institutions, markets and entry modes.

The scope of this inquiry was limited to the subsidiaries of mining EMNEs and DMNEs on the Osiris database. Mining MNEs widespread global presence, their operations spread across multiple countries, their relationships with multiple institutional actors (governments, NGOs, local communities etc.) and exposure to multiple and overlapping institutional environments make them a suitable cohort of companies for the purposes of the inquiry. According to Deloitte (2012) mining companies are increasingly faced with increasing regulatory pressures, hence, placing an extraordinary emphasis on their ability to handle institutional pressures. This inquiry sought to understand how and which specific institutional factors affected different variables of mining MNEs performance.

The inquiry used several financial indicators to measure MNE performance: operational revenue, total assets, earnings before interest and tax per country (EBIT/country) and (EBIT /earnings before interest and tax over assets (EBITOA)). According to de Jongh et al. (2011) EBITOA is a useful measure of performance of MNEs coming from and operating in different countries. Return on Assets is another measure that could be used but de Jongh et al. (2011) explain that the correlation between ROA and EBITOA is identical at 0,9, therefore, "since taxation rules and capital structure will likely vary across countries, studies prefer using EBITOA" (de Jongh et al, 2011, p.458). The inquiry used all of the above measures to obtain richer granularity within the findings.

4.3 Population

The population reflected all of the mining MNE's subsidiaries located on the Osiris database. However, before locating the relevant population of subsidiaries, the inquiry initially defined the population by selecting the mining MNEs (or ultimate owners of the subsidiaries) via the Osiris database using 3 specific selection search filters:

4.3.1 Company selection criteria

1. The companies had to be publicly listed
2. The companies had to have the correct industrial classification and have mining as their company's primary activity
3. The ultimate owner had to own at least one subsidiary within the listed countries of the Fraser Institute of mining companies at a minimum shareholding of 50%

4.3.2 First selection filter

The primary selection filter of "Publicly Listed" companies was selected and a population of 47,405 companies was provided.

4.3.3 Second selection filter

The secondary selection filter of "Industry Classification" was selected. There were 3 industrial selection filters that related to the mining industry:

1. Companies mining of coal and lignite
2. Companies mining of metal ores
3. Companies involved mining and quarrying

After running the Industry classification selection filter - a population of 1,405 from the original population of 47,405 mining companies was provided.

4.3.4 Third selection filter

The third selection filter: "The ultimate owner owns at least one subsidiary within the listed countries of the Fraser Institute of mining companies at a minimum shareholding of 50%" was applied. After running the third selection filter using countries listed in the Fraser Institute mining survey - a population of 147 mining companies from the original population of 47,405 mining companies was provided.

4.3.5 Fourth selection filter

The population was further divided into two "sub-populations" – EMNE mining companies from emerging markets and DMNE mining companies from developed markets. The sub-populations were divided using a further selection filter: Country of origin and turnover. The Turnover range was limited from less than U\$ 5million to more than U\$10 billion (this was a default setting provided by Osiris and was not configured further). Figure 4.1 illustrates the

geographic breakdown (country of origin) of the mining MNEs. I.e.: 44 Australian mining companies were present within the 147 companies.

Figure 4.1: MNE's (Ultimate Owner's) Country of Origin

Location	Emerging Market (EM) or Developed Market (DM)	Total Companies
Australia (AU)	DM	44
Belgium (BE)	DM	2
Bermuda (BM)	EM	3
Brazil (BR)	EM	2
Canada (CA)	DM	35
China (CN)	EM	8
Finland (FI)	DM	2
France (FR)	DM	1
Germany (DE)	DM	1
India (IN)	EM	7
Ireland (IE)	DM	2
Israel (IL)	EM	1
Luxembourg (LU)	DM	1
Mexico (MX)	EM	1
Norway (NO)	DM	2
Peru (PE)	EM	4
Philippines (PH)	EM	1
Poland (PL)	EM	1
Russian Federation (RU)	EM	4
South Africa (ZA)	EM	4
Sweden (SE)	DM	2
United Kingdom (GB)	DM	16
United States (US)	DM	3
All		147

Table Generated by author from Osiris database (2012)

In total the two sub-sets of the population stood as follows:

There were 36 mining companies from emerging economies and were classified as EMNEs

There were 111 mining companies from developed economies and were classified as DMNEs

4.4 Sample size and method

The inquiry further segmented the subsidiaries into current and non-current subsidiaries within the two population sub sets. By using a further selection filter: “Ownership Data – current subsidiaries” for each company - each of ultimate owner’s current subsidiaries was listed. The current subsidiaries were then divided into two samples following the logic of the two sub populations: EMNE subsidiaries and DMNE subsidiaries. In total the final two stood as follows:

EMNE companies had 78 accessible subsidiaries.

DMNE companies had 74 accessible subsidiaries.

The final samples were further refined: subsidiaries who did not operate within the list of Fraser Institute of Mining companies countries were excluded.

The final two sample sets included 46 EMNE subsidiaries and 39 DMNE subsidiaries. All statistical analysis was performed on these two samples.

4.5 Data collection

The inquiry’s research questions related deviations of EMNE and DMNE performance to variations in the institutional environment. This inquiry constructed a multilevel database that incorporated: (1) financial measures for subsidiary performance including additional MNE characteristics as control variables; (2) the various dimensions of institutional environment using secondary data obtained from the Fraser Institute annual survey of mining companies (McMahon & Cervantes, 2012). According to McMahon and Cervantes (2012, p.4) the Fraser Institute Annual Survey of Mining Companies was sent to approximately 5000 exploration, development and other mining-related companies around the world. Several mining publications and associations also helped publicize the survey. The survey, conducted from October 4 to December 23, 2011, represents responses from 802 of those companies. The companies participating in the survey reported exploration spending of US\$6.3 billion in 2011 and US\$4.5 billion in 2010 (McMahon & Cervantes, 2012). The rationale for the cross sectional data of the inquiry was to relate directly to the data collected in the Fraser Institute survey for 1 year.

The origin of the DMNE’s and EMNE’s was determined by the MNE’s country of origin. Hence, if an MNE’s home market was recognised by UNCTAD as a developed economy, the MNE was recognised as a DMNE. Conversely, if a MNE originated from an UNCTAD recognised emerging market, then the MNE was characterised as an EMNE.

For example, Rio Tinto originated in London, merged with the consolidated Zinc Corporation of Australia and shares a dual listed company structure (Rio Tinto, 2012). The company's origin was located in England and the United Kingdom was widely recognised as a developed market, Rio Tinto was considered a DMNE for the purposes of this inquiry. In the case of a DMNE having acquired a foreign company from an emerging market, the local subsidiary was then considered to be an extension of the purchasing DMNE. The same classification would apply in the case of an EMNE purchasing a subsidiary from a developed economy.

The international business literature has tended to focus on US, European or Chinese MNEs (de Jong et al., 2011; Peng & Chen, 2011). This inquiry seeks to study and compare both EMNEs and DMNEs from a much wider perspective and to include as many emerging and developed economies and MNEs as possible. In so doing, the research responds to calls within the institutional literature for furthering research on emerging economies and EMNEs (Meyer, et al., 2008, Peng et al., 2008, 2009, Gammeltoft et al., 2010).

Using a list of territories (Appendix 1) from the Fraser Institute (McMahon & Cervantes, 2012), annual survey of mining companies, the inquiry identified 93 separate mining territories. This inquiry focused on EMNE and DMNE subsidiary operations within emerging markets within the Fraser Institute list (Appendix 1).

By utilising the countries of the Fraser Institute Survey, the OSIRIS database yielded more mining MNE subsidiaries compared with using UNCTAD's (2011) list of least developed countries (LDCs). In order to generate the largest possible population of potential subsidiaries, the inquiry chose to use the list of countries from the Fraser Institute.

The information generated from the Fraser Institute survey was also more appropriate to the goals of the inquiry. The list of 93 territories corroborated exactly where the responding mining companies were operational in 2011 and would yield richer data insights than UNCTAD's LDCs who may or may not have hosted mining MNEs and their operational subsidiaries.

The inquiry selected mining MNEs financial data from the Osiris database. The Osiris database according to Osiris (2007, p. 1) provided financials, ownership, news, ratings, earnings and stock data for the world's publicly quoted companies from over 130 countries. A publicly quoted company on OSIRIS was defined "as a company with publicly listed equity. This definition could be different from other, broader definitions which might also include

companies with listed bonds or other certificates” (Osiris, 2007, p.1). Osiris also specified the geographic location of all subsidiaries for each particular MNE that was selected.

4.5.1 Financial performance variables

MNE subsidiary’s financial measures taken from the OSIRIS database included the following:

1. **Operational revenue** (revenue generated within a specific country)
2. **Total assets** (determined the scale and complexity of operations)
3. **Earnings before interest and tax per sales country** (EBIT / sales country)
4. **Earnings before interest and tax over assets** (EBITOA)

The inquiry also used the institutional dimensions from the Fraser Institute’s annual survey (McMahon & Cervantes, 2012). The Fraser Institute’s annual survey helped the inquiry construct the institutional dimensions and factors of the institutional context across multiple countries – in particular institutional environmental dimensions that would have affected mining MNEs operations. According to McMahon and Cervantes (2012) the Fraser Institute launched the survey to examine which jurisdictions provided the most favourable business climates for the mining industry, and in which areas certain jurisdictions needed to improve. The scope of the Fraser Institute survey was deemed an appropriate means to construct suitable proxies of the institutional environment that directly affected a mining MNE’s operations and performance within those geographical regions.

4.5.2 Institutional variables as derived from the Fraser institute

1. Mineral potential assuming current regulations and land use restrictions
2. Mineral potential assuming no regulations in place
3. Room for improvement
4. Uncertainty concerning the administration, interpretation and enforcement of existing regulation, regulatory duplication and inconsistencies
5. Environmental regulations
6. Regulatory duplication and inconsistencies
7. Uncertainty concerning areas to be protected as wilderness parks or archaeological sites
8. Legal processes that are fair, transparent, non-corrupt, timely, efficiently administered
9. Taxation regime
10. Uncertainty concerning disputed land claims
11. Uncertainty concerning which areas will be protected as wilderness areas, parks or archaeological sites
12. Infrastructure: includes access to roads, power availability
13. Socioeconomic agreements (includes local purchasing or processing requirements, or supplying social infrastructure such as schools or hospitals, etc.)
14. Trade barriers: tariff and non-tariff barriers
15. Political Stability
16. Labour regulations and employment agreements

17. Geological database (access to information)
18. Security (includes physical security due to the threat of attack by terrorists, criminals, guerrilla groups, etc.)
19. Corruption
20. Growing or lessening uncertainty (overall uncertainty)

According to McMahon and Cervantes (2012) each of the 93 territories (Appendix 1) of the survey was ranked in each policy area based on the percentage of respondents who judged that the policy factor in question encouraged investment (McMahon & Cervantes, 2012, p.9). A country that ranked first in every category would have a score of 100; a country that scored last in every category would have a score of 0. The inquiry sought to correlate the performance of MNEs financial performance within the Fraser institutes survey of 93 countries (in particular, emerging economies within these 93 countries). In so doing, it served as a base correlation of MNE performance across a wide variety of institutional environments and identified the independent variables that would have the greatest impact on MNE performance within those regions.

4.5.3 Control variables

Control variables were selected to account for influential MNE aspects which could also have had an influence on MNE financial performance (de Jong et al., 2011). The set of control variables included:

4.5.3.1 First control variable - MNE size

MNE size was measured by the total number of subsidiaries, because a large MNE had the ability to exploit economies of scale that may have allowed for larger returns on assets and sales; the number of subsidiaries according to de Jong et al., (2011) was important because this reflected the intensity by which the MNE exploited the available opportunity sets but also because it created coordination and transaction costs which may have hampered the performance of the MNE.

4.5.3.2 Second control variable – MNE age

MNE age was calculated by subtracting the year the MNE was founded from the current year – because older firms may have had lower performance levels than younger firms of the continued use of outdated management and /or obsolete technology and their resistance to new approaches (de Jongh et al.,2011).

4.5.3.3 Third control variable – country of origin

Country of origin was included to test for Ramamurti's (2012) claim whether an MNE's country of origin (COO) may have been overestimated in its influence on MNE behaviour.

4.5.3.4 Fourth control variable – ultimate owner’s market exposure

The internationalisation variable or an ultimate owner’s market exposure – measured by the amount of host countries in which the MNE was active – was included to control for this home country munificence effect (de Jongh et al., 2011).

4.5.3.5 Fifth control variable - subsidiary independence

The Osiris database included an independence indicator “to characterise the degree of independence of a company with regard to its shareholders” (Osiris Website, 2012). This Independence Indicator is assigned to each company according to the logic defined below: companies are noted as **A, B, C, D** and **U**, with further qualifications.

Indicator A

According to Osiris (2012) indicator A was attached to any company with known recorded shareholders none of which having more than 25% of direct. Companies with an A Indicator were regarded as independent. In order to translate this categorical variable into a numerical variable indicator A equalled 1.

Indicator B

According to Osiris (2012) indicator B was attached to any company with a known recorded shareholder none of which with an ownership percentage (direct, total or calculated total) over 50%, but had one or more shareholders with an ownership percentage above 25%. In order to translate this categorical variable into a numerical variable indicator B equalled 2.

Indicator C

According to Osiris (2012) indicator C was attached to any company with a recorded shareholder with a total or a calculated total ownership over 50%. The **C** indicator is also given to a company when a source indicates that the company has an ultimate owner, even though its percentage of ownership is unknown (Osiris, 2012). In order to translate this categorical variable into a numerical variable indicator C equalled 3.

Indicator D

according to Osiris (2012) Indicator D was attached to any company with a recorded shareholder with a direct ownership of over 50%. In order to translate this categorical variable into a numerical variable indicator D equalled 4.

Indicator U

According to Osiris (2012) Indicator U was attached to any company that did not fall into the categories **A, B, C** or **D** - indicating an *unknown* degree of independence. However, no companies fell within this category.

4.6 Method of analysis

4.6.1 Research Question 1:

Are there differences between EMNEs and DMNEs and do these differences translate into their respective financial performance?

Quantile-quantile (Q-Q) plots were used to determine whether the data was normally distributed (Albright, Winston & Zappe, 2009). The Q-Q plots revealed that the data (operational revenue, assets, EBIT per sales country and EBITOA) was not normally distributed.

Therefore, the data would need to be tested with non-parametric statistical procedures (Zikmund, 2000). According to Zikmund (2000) non-parametric statistical procedures do not hold assumptions about the population's distribution.

The four research hypotheses (1A,1B,1C &1D) compared the two sample means across operational revenue, assets, EBIT/country and EBITOA; they sought to ascertain if there was a statistically significant difference between the sample means across these performance variables. According to Zikmund (2000) the Mann-Whitney test allowed for testing group differences when the population was not normally distributed. Hence, the Mann-Whitney test was an appropriate statistical procedure to determine the differences between the means of EMNE and DMNE performance.

For all four hypotheses, one sided Mann-Whitney tests were run. According to Albright et al. (2009) a one tailed test is one that is determined by data in a single direction. Upon the conclusion of the hypothesis tests - the test statistic, the Z value and the level of significance were examined to determine the acceptability of the findings and to establish the difference between the means of the EMNE and DMNE performance variables.

4.6.2 Research Question 2:

Can the differences in EMNE and DMNE performance be ascribed to their respective management of institutional factors in emerging markets rather than non-institutional factors such as age, subsidiary independence, macro-economic climate, country of origin and ultimate owner's market exposure?

Eight multiple regression analyses were used to answer the research question; four hypotheses were built (2A,2B,2C & 2D). Zikmund (2003) explained multiple regression as an analysis of association in which the effects of two or more independent variables on a single interval scaled or ratio scaled dependent variable are investigated simultaneously. The coefficient of partial regression was examined in terms of the percentage of variance in the

dependent variable that is explained by a single independent variable, holding all other independent variables constant (Zikmund, 2003).

The multiple regression analyses were run first on the EMNE sample (46 companies), then the DMNE sample (39 companies).

4.6.2.1 Dependent variables

All of the dependent variables were tested separately against the independent variables listed in 4.6.4.2. The four dependent variables below constitute “MNE performance”

- Operational revenue
- Assets
- EBIT per sales country
- EBITOA

4.6.2.2 Independent variables

20 independent variables taken from the Fraser Institute survey (McMahon & Cervantes, 2012) and 5 control variables were used for the multiple regression models:

1. Mineral potential assuming current regulations and land use restrictions
2. Mineral potential assuming no regulations in place
3. Room for improvement
4. Uncertainty concerning the administration, interpretation and enforcement of existing regulation, regulatory duplication and inconsistencies
5. Environmental regulations
6. Regulatory duplication and inconsistencies
7. Uncertainty concerning areas to be protected as wilderness parks or archaeological sites
8. Legal processes that are fair, transparent, non-corrupt, timely, efficiently administered
9. Taxation regime
10. Uncertainty concerning disputed land claims
11. Uncertainty concerning which areas will be protected as wilderness areas, parks or archaeological sites
12. Infrastructure: includes access to roads, power availability
13. Socioeconomic agreements (includes local purchasing or processing requirements, or supplying social infrastructure such as schools or hospitals, etc.)
14. Trade barriers: tariff and non-tariff barriers
15. Political Stability
16. Labour regulations and employment agreements
17. Geological database (access to information)
18. Security (includes physical security due to the threat of attack by terrorists, criminals, guerrilla groups, etc.)
19. Corruption
20. Growing or lessening uncertainty (overall uncertainty)

4.6.2.3 Control variables:

- MNE size (number of subsidiaries)
- Subsidiary age
- Market exposure for ultimate owner
- Country of origin
- Subsidiary independence

The coefficient of multiple determinations was investigated and tested the percentage of the variance of the multiple-dependent variables for EMNE and DMNE performance (operational, revenue, assets, EBIT per country and EBITOA) against the variation in the 20 independent variables of the Fraser Institute (Zikmund, 2003). The coefficients β s were examined to determine the effects of the independent variables (20 Fraser Institute dimensions ranked 0 to 100) of unit increases in any of the dependent variable (MNE performance – operational, revenue, assets, EBIT per country and EBITOA). The dimensions with the highest β indicated which of the 20 variables had the greatest influence on the variance of EMNE and DMNE performance was transcribed in chapter 5.

The findings of the regression analyses were validated by the use of a backwards regression, estimating a series of regression equations by successfully deleting variables according to the prescribed steps. (Albright et al., 2009).

4.7 Research limitations

- The analysis only studies the behaviour of mining MNE's subsidiaries and may not be generalisable for MNE's subsidiaries in non-mining industries
- The Osiris database has only limited access to some of the subsidiaries of their ultimate owners; hence the research reflects the limited view of the current subsidiary data that was captured. If Osiris had access to the excluded subsidiaries and it were possible to include these additional companies in the inquiry, it could possibly alter the results of the findings
- Unlisted or private MNEs who are not visible on the Osiris database and could explain alternative behaviours / performance of family owned EMNEs.
- The data collected is cross sectional as it ties to the findings of the latest Fraser Institute survey. The captured data is not longitudinal in nature and will not illustrate past trends but only reflect a view of the last 12 months.
- This inquiry did not test for the effect of global commodity prices on financial performance and hence excludes the effect of commodity prices.

5.0 Results

The following chapter lays out the results generated from the statistical analysis of the data. The data is displayed and discussed in order of the research questions and hypotheses.

5.1 Research question 1

Are there differences between EMNEs and DMNEs and do these differences translate into their respective financial performance? (operational revenue, assets, EBIT per sales country and EBITOA)?

Q-Q Plots were used on each of the performance measures to test the data for normality. The Q-Q plots revealed that the data (operational revenue, assets, EBIT per sales country and EBITOA) that all skewness and kurtosis z-scores exceeded 2.58, confirming that data was not normally distributed (Lund Research, 2012).

5.1.1 Hypothesis 1A

EMNEs will experience greater operational revenue than DMNEs.

Null hypothesis: H1A0: $\mu_{EMNE_{OPREV}} = \mu_{DMNE_{OPREV}}$

Alternative hypothesis H1A1: $\mu_{EMNE_{OPREV}} > \mu_{DMNE_{OPREV}}$

A one tailed Mann-Whitney test was run to determine if there were differences in EMNEs and DMNEs assets. There was a statistically significant difference in the means of the asset scores: $\mu_{EMNE_{ASSETS}}$ (US\$2,831,970,000) are larger than $\mu_{DMNE_{ASSETS}}$ (US\$ 404,125,000), *test statistic* = 563, $z = -4.29$, $p < 0.05$. Hence, the null hypothesis was rejected at a 5% significance level.

5.1.2 Hypothesis 1B

EMNEs will have larger asset bases than EMNEs.

Null hypothesis: H1B0: $\mu_{DMNE_{ASSETS}} = \mu_{EMNE_{ASSETS}}$

Alternative hypothesis H1B1: $\mu_{EMNE_{ASSETS}} > \mu_{EMNE_{ASSETS}}$

A one tailed Mann-Whitney test was run to determine if there were differences in EMNEs and DMNEs assets. There is a significant difference in the means of the asset scores: $\mu_{EMNE_{ASSETS}}$ (US\$2,831,970,000) are larger than $\mu_{DMNE_{ASSETS}}$ (US\$ 404,125,000), *test statistic* = 1121, $z = -4.9$, $p < 0.05$. Hence, the null hypothesis was rejected at a 5% significance level.

5.1.3 Hypothesis 1C

EMNEs will experience greater EBIT per country than DMNEs.

Null hypothesis: H1C0: $\mu_{EMNE_{EBIT/COUNTRY}} = \mu_{DMNE_{EBIT/COUNTRY}}$

Alternative hypothesis H1D1: $\mu_{EMNE_{EBIT/COUNTRY}} > \mu_{DMNE_{EBIT/COUNTRY}}$

A one tailed Mann-Whitney test was run to determine if there were differences in EMNEs and DMNEs EBIT/country. There is a significant difference in the EBIT scores: as expected, EMNE EBIT/country (U\$188,050,000) is greater than DMNE EBIT/country (U\$ 147,214,000), *test statistic = 1200, z = -4.20, p < 0.05*. Hence, the null hypothesis was rejected at a 5% significance level.

5.1.4 Hypothesis 1D

EMNEs will experience superior overall financial performance compared with DMNEs

Null hypothesis: H1E0: $\mu_{EMNE_{EBITOA}} < \mu_{DMNE_{EBITOA}}$

Alternative hypothesis H1E1: $\mu_{EMNE_{EBITOA}} > \mu_{DMNE_{EBITOA}}$

A one tailed Mann-Whitney test was run to determine if there were differences in EMNEs and DMNEs EBITOA. There is a significant difference in the EBIT scores: as expected, EMNE EBIT/country (0.0938) is greater than DMNE EBITOA (-0.0558), *test statistic = 1240, z = -3.85, p < 0.05*. Hence, the null hypothesis was rejected at a 5% significance level.

5.1.5 Hypotheses summary of results

In all 5 hypothesis tests, all 4 null hypotheses were rejected at a 5% significance level, hence, mining EMNEs have experienced superior operational revenue, asset bases, EBIT/country and EBITOA when compared to mining DMNEs. The results confirm that mining EMNEs have statistically significant performance advantages over their DMNE competitors in emerging markets.

5.2 Research question 2

Can the differences in EMNE and DMNE performance be ascribed to their respective management of institutional factors in emerging markets rather than non-institutional factors such as age, subsidiary independence, macro-economic climate, country of origin and ultimate owner's market exposure?

Tables 5.2 summarises the Pearson correlations between the financial variables (sum of country sales, operational revenue, Assets, EBIT and EBITOA) and the 18 variables of the Fraser Institute survey. The strength of association between the variables is defined below:

As a general construct for interpreting the findings, strong positive or negative correlations (highlighted in yellow), indicated an institutional activity or engagement, in which EMNEs and DMNEs attempted to control or influence these institutional factors to achieve superior performance. Table 5.1 indicates the range of correlation strengths below.

Table 5.1 Correlation strengths

Strength of Association	Coefficient, r	
	Positive	Negative
Small	.1 to .3	-0.1 to -0.3
Medium	.3 to .4	-0.3 to -0.4
Large	.4 to 1.0	-0.4 to -1.0

The chapter analyses the results of the 8 regression models. (8 separate models testing both EMNE and DMNE financial performance across 4 performance variables).

- The dependent variables were listed in section 4.6.2.1.
- The independent variables taken from the Fraser Institute were listed in section 4.6.2.2
- The control variables were listed in 4.6.2.3 in the previous chapter.

Table 5.2: Pearson Correlations summary (strong / significant correlations highlighted in yellow)

Pearson Correlations	EMNE Sales	DMNE Sales	EMNE Operational Revenue	DMNE Operational Revenue	EMNE Assets	DMNE Assets	EMNE EBIT	DMNE EBIT	EMNE EBITOA	DMNE EBITOA
Mineral potential assuming current regulations / land use restrictions	-0.067	0.235	0.211	0.381	0.253	0.281	0.313	0.306	0.062	0.219
Policy mineral potential assuming no regulations in place	-0.045	0.224	0.212	0.41	0.235	0.333	0.27	0.337	-0.018	0.256
Room for improvement	0.026	-0.075	-0.022	-0.089	-0.045	-0.04	-0.072	-0.063	-0.073	-0.035
Uncertainty concerning the administration, interpretation and enforcement of existing regulations	0.057	-0.112	-0.333	-0.283	-0.373	-0.2	-0.394	-0.24	-0.07	-0.153
Environmental regulations	0.125	-0.413	-0.209	-0.498	-0.229	-0.397	-0.292	-0.385	-0.008	-0.232
Regulatory duplication and inconsistencies	0.074	-0.314	-0.236	-0.47	-0.27	-0.353	-0.332	-0.383	-0.051	-0.241
Legal system-legal processes that are fair, transparent, non-corrupt, timely, efficiently administered, etc.	0.083	-0.03	-0.152	-0.113	-0.186	-0.057	-0.201	-0.085	-0.072	-0.107
Taxation regime	0.174	-0.288	0.038	-0.43	0.021	-0.303	-0.123	-0.303	-0.095	-0.387
Uncertainty concerning disputed land claims.	-0.037	-0.281	-0.214	-0.342	-0.241	-0.227	-0.272	-0.231	0.033	-0.257
Uncertainty concerning which areas will be protected as wilderness areas, parks or archeological sites.	-0.037	-0.47	-0.022	-0.433	-0.003	-0.4	-0.112	-0.36	0.108	-0.222
Infrastructure (includes access to roads, power availability, etc)	0.142	-0.103	0.026	-0.105	0.012	-0.047	-0.107	-0.059	-0.026	-0.146
Socioeconomic agreements	-0.073	-0.114	-0.171	-0.122	-0.197	-0.069	-0.202	-0.076	-0.004	-0.12

Pearson Correlations	EMNE Sales	DMNE Sales	EMNE Operational Revenue	DMNE Operational Revenue	EMNE Assets	DMNE Assets	EMNE EBIT	DMNE EBIT	EMNE EBITOA	DMNE EBITOA
Trade barriers	0.095	0.032	-0.135	-0.111	-0.174	-0.042	-0.244	-0.085	-0.137	-0.128
Political stability	0.1	-0.103	-0.291	-0.081	-0.317	-0.05	-0.266	-0.048	0.02	-0.138
Labour regulations / employment agreements	0.012	-0.133	-0.062	-0.097	-0.064	-0.057	-0.058	-0.035	-0.022	-0.214
Geological database	0.038	0.105	-0.203	-0.006	-0.225	0.027	-0.257	-0.023	-0.019	-0.062
Security (includes physical security due to the threat of attack by terrorists, criminals, guerrilla groups, etc.)	0.047	-0.079	-0.127	-0.012	-0.117	0.002	0.011	0.024	0.149	-0.062
Supply of labor/skills	-0.107	-0.183	0.024	-0.407	0.027	-0.167	-0.037	-0.162	0.106	-0.322
Corruption	0.057	-0.002	-0.091	-0.087	-0.121	-0.023	-0.115	-0.054	-0.071	-0.106
Growing or lessening uncertainty	0.009	-0.163	-0.421	-0.196	-0.445	-0.139	-0.338	-0.145	0.082	-0.173
Subsidiary age	-0.005	-0.078	0.125	0.061	0.135	-0.016	0.027	0.002	0.149	0.037
Number of current Subsidiaries	0.675	0.074	0.084	-0.202	0.064	-0.107	0.062	-0.083	0.002	0.066
Subsidiary independence	-0.153	0.076	-0.243	0.384	-0.235	0.281	-0.06	0.294	0.145	0.256
Market exposure for ultimate owner	0.141	-0.049	0.685	-0.291	0.702	-0.186	0.466	-0.161	-0.16	0.064

5.2.1 Hypothesis 2A

The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of EMNE's and DMNE's operational revenue. The alternative hypothesis states that the management of institutional factors predominantly explains EMNE's and DMNE's operational revenue.

Null Hypothesis H2A0: There is no significant difference in the management of institutional factors and non-institutional factors in determining the performance of EMNE's $OPREV$ and DMNE $OPREV$

Alternative Hypothesis H2A1: EMNE's $OPREV$ and DMNE $OPREV$ is predominantly explained by management of institutional factors

A multiple regression was run to determine which factors influence EMNE operational revenue.

5.2.1.1 EMNE operational revenue regression model

There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.066. A multiple regression was run to predict EMNE's operational revenue from the 25 variables (20 institutional variables taken from the Fraser Institute survey and 5 control variables). The assumptions of linearity, independence of errors, homoscedasticity, unusual points and normality of residuals were met. The statistically significant variables predicted EMNE's operational revenue: $F(3,38) = 14.342$, $p < .000$, $R^2 = .531$. Three statistically significant variables, their regression coefficients and standard errors can be found in Table 5.3 (below).

Table 5.3: Regression coefficients (EMNE operational revenue)

Variable	Beta	SE Beta	β
Market exposure for ultimate owner	1022342.483	188418.320	.621
Political stability	-76064.915	29520.145	-.415
Taxation Regime	-2899632.744	1730331.818	.417

5.2.1.2 DMNE operational revenue regression model

A multiple regression was run to determine which factors influence DMNE operational revenue.

There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.351. A multiple regression was run to predict EMNE's operational revenue score from the 23 variables (18 institutional variables were taken from the Fraser Institute survey and the 5 control variables). The assumptions of linearity, independence of errors, homoscedasticity, unusual points and normality of residuals were met. These variables statistically significantly predicted the predict DMNE's operational revenue: $F(3,25) = 5.48$, $p < .005$, $R^2 = .425$. Three statistically significant variables, their regression coefficients and standard errors can be found in Table 5.4 (below).

Table 5.4: Regression coefficients (DMNE operational revenue)

Variable	Beta	SE Beta	β
Supply of labour skills	-180374.381	69339.654	-.765
Labour regulations	44253.698	20235.855	.610
Environmental regulations	-53420.637	27160.526	-.349

5.2.1.3 Summary

In reviewing table 5.2, EMNE subsidiaries' operational revenue was positively associated with market exposure for the ultimate owner and negatively associated with uncertainty regarding governmental administration and general growing or lessening uncertainty. Hence, while policy implementation may seem to pose a threat to operational revenue, it would appear that EMNEs are still able to mitigate policy uncertainty to generate superior operational revenues. The most important influencer of EMNE's operational revenue, market exposure for EMNE's ultimate owner, is not institutional in nature. The result suggests that operational success can be both a combination of the ultimate owner's FSAs in addition to the subsidiaries institutional capabilities.

DMNE's operational revenue is only positively associated with a host country's mineral potential and negatively associated with environmental regulations, uncertainty with operational site's classification (wildlife or heritage) and taxes. However, while a non-institutional factor of mineral potential may seem to influence DMNE operational revenue, DMNE's appear to focus their institutional influence on labour supply and skills, labour regulations and environmental regulations. This institutional approach may stem from DMNE's host markets characterised

by stricter regulations, in particular, where DMNEs face more stringent environmental and labour legislation.

To summarise, DMNE's operational performance can be explained predominantly by institutional factors. When comparing DMNE's inferior operational revenue, it would suggest that despite their specialised environmental regulatory expertise, it does not necessarily translate into a source of competitive advantage in emerging markets. The findings suggest an institutional misalignment between the DMNE, its institutional capabilities and the host nation's institutional context.

5.2.2 Hypothesis 2B

The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of EMNE's and DMNE's asset base. The alternative hypothesis states that the management of institutional factors predominantly explains EMNE's and DMNE's asset base.

Null hypothesis H2B0: There is no significant difference in the management of institutional factors and non-institutional factors in determining the performance of an EMNE's $ASSETS$ and DMNE $ASSETS$

Alternative hypothesis H2B1: MNE's $ASSETS$ and DMNE $ASSETS$ is predominantly influenced by management of institutional factors

A multiple regression was run to determine which factors influence EMNE assets.

5.2.2.1 EMNE assets regression model

There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.122. A multiple regression was run to predict EMNE's assets performance from the 25 variables (20 institutional variables were taken from the Fraser Institute survey and the 5 control variables). The assumptions of linearity, independence of errors, homoscedasticity, unusual points and normality of residuals were met. These variables statistically significantly predicted the predict EMNE's assets: $F(7,37) = 9.056$, $p < .000$, $R^2 = .631$. 7 statistically significant variables, their regression coefficients and standard errors can be found in Table 5.5 (below).

Table 5.5: Regression coefficients (EMNE assets)

Variable	Beta	SE Beta	β
Market exposure for ultimate owner	1501902.937	228135.825	.794
Subsidiary independence	-924776.466	467993.657	-.202
Subsidiary age	-47773.087	24783.828	-.232
Socioeconomic agreements	-71505.981	37382.184	-.291
Uncertainty (areas demarcated as archaeological / wildlife parks)	175516.738	59317.002	.548
Environmental regulations	-283886.423	78817.432	-.947
Mineral potential	-28085.088	95331.553	-.686

5.2.2.2 DMNE assets regression model

A multiple regression was run to determine which factors influence DMNE assets.

There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.428 and indicates negative autocorrelation (Albright et al., 2009). A multiple regression was run to predict DMNE's assets performance from the 23 variables (18 institutional variables were taken from the Fraser Institute survey and the 5 control variables). The assumptions of linearity, independence of errors, homoscedasticity, unusual points and normality of residuals were met. These variables statistically significantly predicted the predict DMNE's assets: $F(1,38) = 7.064$, $p < .012$, $R^2 = .160$. 1 statistically significant variable, its regression coefficient and standard error can be found in Table 5.6 (below).

Table 5.6 Regression coefficients (DMNE assets)

Variable	Beta	SE Beta	β
Uncertainty (areas demarcated as archaeological / wildlife parks)	-47823.098	17992.959	-.400

5.2.2.3 Summary

EMNE's superior asset base is explained by their ultimate owner's market exposure to international best practice or technology, their influencing of environmental regulations and their ability to honour socio economic agreements within the communities in which they operate. The strong negative association regarding the uncertainty over regarding local administration, interpretation and enforcement of existing regulations in table 5.2 suggests

that EMNEs are able to mitigate this negative influence and continue operating their existing assets.

DMNEs by contrast are affected by the uncertainty over possible operational sites demarcated as archaeological and /or wildlife parks. It appears as if DMNEs are not equipped with regulatory capabilities to influence or deal effectively with this process. The strong negative associations summarised in (table 5.2) suggest that while DMNEs may be able to shape environmental regulations and reduce regulatory inconsistency, these particular skills do not necessarily help clarify the status of possible operational sites across emerging markets.

5.2.3 Hypothesis 2C

The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of an EMNE's $EBIT/COUNTRY$ and DMNE's $EBIT/COUNTRY$. The alternative hypothesis states that the management of institutional factors predominantly explains an MNE's $EBIT/COUNTRY$.

Null hypothesis H2C0: There is no significant difference in the influence of institutional factors and non-institutional factors in determining the performance of an EMNE's $EBIT/COUNTRY$ and DMNE's $EBIT/COUNTRY$.

Alternative hypothesis H2C1: EMNE's $EBIT/COUNTRY$ and DMNE's $EBIT/COUNTRY$ is predominantly influenced by management of institutional factors

A multiple regression was run to determine which factors influence EMNE $EBIT/country$.

5.2.3.1 EMNE $EBIT$ / country regression model

There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.198. A multiple regression was run to predict EMNE's $EBIT$ performance from the 25 variables (20 institutional variables were taken from the Fraser Institute survey and the 5 control variables). The assumptions of linearity, independence of errors, homoscedasticity, unusual points and normality of residuals were met. These variables statistically significantly predicted the predict EMNE's $EBIT$: $F(1,44) = 9.494$, $p < .004$, $R^2 = .181$. 1 statistically significant variable, its regression coefficient and standard error can be found in Table 5.11(below).

Table 5.7: Regression coefficients (EMNE EBIT)

Variable	Beta	SE Beta	β
Market exposure for ultimate owner	52821.465	17143.354	.425

5.2.3.2 DMNE EBIT / country regression model

A multiple regression was run to determine which factors influence EMNE EBIT/country.

There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.331 and indicates negative autocorrelation (Albright et al., 2009).

A multiple regression was run to predict DMNE's EBIT performance from the 25 variables (20 institutional variables were taken from the Fraser Institute survey and the 5 control variables). The assumptions of linearity, independence of errors, homoscedasticity, unusual points and normality of residuals were met. These variables statistically significantly predicted the predict DMNE's EBIT: $F(1,38) = 5.492$, $p < .025$, $R^2 = .129$. 1 statistically significant variable, its regression coefficient and standard error can be found in Table 5.8 (below).

Table 5.8: Regression coefficients (DMNE EBIT)

Variable	Beta	SE Beta	β
Market exposure for ultimate owner	-21556.750	9198.159	-.360

5.2.3.3 Summary

The non-institutional nature of the findings, together with the lack of institutional factors highlights that both EMNEs and DMNEs rely on their ultimate owner as a source of profitability. Reviewing the correlations with EMNE and DMNE EBIT (table 5.10), a host country's mineral potential was strongly and positively associated with both EMNE's and DMNE's EBIT. However, the weakness of the regression model suggests that institutional factors absence from the model indicates that institutional pressures are more likely to exert themselves on mining operations and assets rather than influence their earnings before interest and tax.

5.2.4 Hypothesis 2D

The null hypothesis states that management of non-institutional and institutional factors predominantly explain the performance of an MNE's EBITOA. The alternative hypothesis states that the management of institutional factors predominantly explains an MNE's EBITOA.

Null hypothesis H2D0: There is no significant difference in the influence of institutional factors and non-institutional factors in determining the performance of an EMNE's EBITOA and DMNE's EBITOA

Alternative hypothesis H2D1: EMNE's EBITOA and DMNE's EBITOA is predominantly influenced by the management of institutional factors

5.2.4.1 EMNE EBITOA regression model

The data was not able to produce a model to explain EMNE's EBITOA performance from the 25 variables (20 institutional variables taken from the Fraser Institute survey and the 5 control variables).

The lack of a model suggests that either more data needs to be collected or the cross sectional nature of the data is not appropriate and that longitudinal data is required to run a more comprehensive regression.

5.2.4.2 DMNE EBITOA regression model

A multiple regression was run to determine which factors influence EMNE EBITOA. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.656. The Durbin-Watson statistic is greater than 1,5 and therefore does not indicate autocorrelation (Albright et al., 2009).

A multiple regression was run to predict DMNE's EBITOA performance from the 25 variables (20 institutional variables were taken from the Fraser Institute survey and the 5 control variables). The assumptions of linearity, independence of errors, homoscedasticity, unusual points and normality of residuals were met. These variables statistically significantly predicted the predict DMNE's EBITOA: $F(2,38) = 4.642$, $p < .016$, $R^2 = .205$. 2 statistically significant variables, their regression coefficients and standard errors can be found in Table 5.10 (below).

Table 5.9: Regression coefficients (DMNE EBITOA)

Variable	Beta	SE Beta	β
Supply of labour / skills	.011	.005	.324
Mineral potential	-.007	.003	-.380

5.2.4.3 Summary

In terms of overall MNE performance (EBITOA), table 5.2 reveals that EMNE's EBITOA had no strongly positive or negative institutional associations. In considering EMNE's purported stronger political, institutional and relational capabilities (Cuervo & Cazurra-Genc, 2009; Madhok and Keyhani, 2012), this is an unexpected finding as the inquiry expected EMNE's EBITOA to have significant correlation with at least several of the institutional factors.

DMNE's EBITOA was negatively associated with taxation and the supply of labour and skills. In terms of taxation, the result is understandable – the lower the taxes within the host nation, the greater the incentive to invest in a host nation or the greater the incentive to negotiate better tax deals. However, the negatively correlated labour supply seems to be counter intuitive to the logic of complex mining operations – all mining operations would be expected to use considerable labour, and one would expect a strong positive correlation. Perhaps if viewed from a skills perspective, the lower the level of local skill, the greater the overall performance due to low wages and a limited investment in human development.

All the results from the regression models are summarised in table 5.10 below:

Table 5.10 Summary of all regression model results

Regression summary table	EMNE Operational revenue	DMNE Operational revenue	EMNE Assets	DMNE Assets	EMNE EBIT / country	DMNE EBIT / country	EMNE EBITOA	DMNE EBITOA
Durbin Watson score	2.066	2.351	2.122	1.428	2.198	1.331	No result	1.656
F value	F(3,38) = 14.342	F(3,25) = 5.48	F(7,37) = 9.056	F(1,38) = 7.064	F(1,44) = 9.494	F(1,38) = 5.492	No result	F(2,38) = 4.642,
P Value	p < .000*	p < .005*	p < .000*	p < .012**	p < .004*	p < .025**	No result	p < .016**
R ² Value	0.531	0.425	0.631	0.16	0.181	0.129	No result	0.205
Mineral potential	-	-	-0.686	-	-	-	-	-0.38
Environmental regulations	-	-0.349	-0.947	-	-	-	-	-
Taxation regime	0.417	-	-	-	-	-	-	-
Uncertainty wilderness parks or archaeological sites.	-	-	0.548	-	-	-	-	-
Socioeconomic agreements	-	-	-0.291	-	-	-	-	-
Political stability	-0.415	-	-	-	-	-	-	-
Labour regulations/employment agreements	-	0.61	-	-	-	-	-	-
Supply of labour/skills	-	-0.765	-	-	-	-	-	0.324
Corruption	-	-	-	-	-	-	-	-
Subsidiary age	-	-	-0.232	-	-	-	-	-
Subsidiary independence	-	-	-0.202	-	-	-	-	-
Market exposure for ultimate owner	0.621	-	0.794	-0.4	0.425	-0.36	-	-

*statistically significant / **statistically insignificant

5.5.4 EMNE results

For EMNEs the null hypothesis is rejected in terms of their operational revenue ($p < 0.000$); assets ($p < 0.000$) and EMNE EBIT/ country ($p < 0.04$).

In conclusion, the regression results would support the idea that EMNE's management of institutional factors within emerging markets has resulted in their superior performance.

Mining EMNEs possess a competitive advantage when managing emerging market institutions and have translated their institutional capabilities into superior financial performance.

5.5.5 DMNE results

For DMNE's the null hypothesis is rejected in terms of their operational revenue ($p < 0.005$)

In addition, DMNE's the null hypothesis cannot be rejected in terms of their assets ($p < 0.012$); EBIT / country ($p < 0.25$) and EBITOA ($p < 0.25$)

DMNEs do manage some institutional factors in relation to their operational revenue (environmental regulations, labour regulations and employment agreements).

Predominantly the results indicate DMNEs lack of institutional engagement to interact with emerging market institutions has resulted in their inferior financial performance. The inability to support the alternative hypothesis illustrates that DMNEs would tend to look at their institutional environments as fixed and would be more comfortable managing conventional non-institutional factors to achieve superior performance.

Chapter 6 will discuss these results in greater detail.

6.0 Discussion of Results

6.1 Research question 1

Are there differences between EMNEs and DMNEs and do these differences translate into their respective financial performance? (Operational revenue, assets, EBIT per sales country and EBITOA)?

6.1.1 Hypothesis 1A

EMNE's operational revenue will be greater than DMNE's operational revenue.

The findings of EMNE's superior revenue generation support the alternative hypothesis. EMNE's mining subsidiaries' superior operational revenue, confirms a firm specific advantage (FSA) of operational and technical excellence within the literature (Ramamurti, 2008). According to Ramamurti (2008) EMNE firms tend to be characterised by superior production efficiency and process excellence, particularly in the context of emerging markets.

Their technical advantage includes an ability to optimise production processes by using more labour and less capital, using inputs more efficiently, or having lower overheads than DMNEs (Ramamurti, 2008). The strong correlation (table 5.2) of EMNE's subsidiary's superior operational revenue and their owner's market exposure refers to the multiple embedded effects of mining EMNE's subsidiary networks (Barnard, 2010). For Barnard (2010) EMNEs have a capacity to use informal networks to overcome local challenges. In particular, the strong negative correlation regarding growing or lessening uncertainty, reflected an uncertainty for the host nation's administration, interpretation and enforcement of existing regulations.

EMNE's ability to generate superior revenues in light of this administrative uncertainty, demonstrates their capability to mitigate regulatory uncertainty. It also suggests that mining operations are pressurised by their local institutions, in particular, local administrators who do have the potential to disrupt everyday operations. The presence of superior operational revenues suggests that EMNE's operations run with greater continuity and that they manage institutional operational pressures more robustly than DMNEs in emerging markets.

DMNE's inferior operational revenues are negatively correlated with environmental regulations and regulatory duplication and inconsistencies. It would suggest that DMNEs focus their institutional capabilities in regulatory areas of their respective expertise: in expanding from home markets characterised by more stringent environmental regulations; DMNEs have a far greater understanding of environmental challenges and threats to

operations than EMNEs. DMNE's home bureaucracies may be generally characterised as being more mature and efficient than emerging market bureaucracies (Barnard, 2010), hence, the negative correlation to regulatory duplication and inconsistency may suggest emerging markets institutions are less sophisticated than developed market institutions. While DMNEs are habituated to their efficient home bureaucracies and institutions, they do not appear to manage less developed institutional environments profitably. DMNE's differing institutional focus suggests that a deeper knowledge of environmental regulations and regulatory consistency, albeit useful, may not be appropriate to maintain efficient daily operations in emerging markets. In summary, DMNEs may be too focused on institutional factors that do not translate into more profitable operations.

Mining managers recorded responses in the Fraser Institute (McMahon & Cervantes, 2012) survey of mining companies illustrates the regulatory hindrances to every day mining operations:

“There are an increasing number of impediments (small and large) being forced upon companies, especially in the field of compliance with regulatory matters (finance, environmental, form filling and statistics for government departments, filling in sheets on the grounds of safety) while real safety suffers” (Mining manager in McMahon & Cervantes, 2012, p.27).

In conclusion, based on the divergence of their institutional responses, there is a marked difference in the way mining EMNEs and DMNEs approach and behave in emerging markets.

6.1.2 Hypothesis 1B

EMNE assets are greater than DMNE assets.

EMNE mining subsidiaries have significantly larger assets when compared with DMNE mining subsidiaries. This finding contradicts the literature where according to the World Investment Report (2008) in Gammeltoft et al. (2010) EMNEs tend to have much smaller asset bases than those of long-established DMNEs.

The substantial difference between the size of EMNE and DMNE assets reflects the difference in organisational structure between the two cohorts. In less developed contexts, voids or inefficiencies in the institutional contexts; “emerging economy firms tend to be more horizontally and vertically integrated and provide for themselves internally what in more advanced economies might be procured through more established and well-functioning markets” (Gammeltoft et al., 2010, p.1).

EMNEs conglomerate type structure speaks directly to the need to provide asset strategies or coping mechanisms for services or firms that do not exist in their host markets, while DMNEs may prefer acquiring local subsidiaries and managing them remotely from their headquarters.

This inquiry found (table 6.1), using the OSIRIS database's independence indicators that EMNE subsidiaries were less independent than DMNE subsidiaries. This suggests that acquired EMNE subsidiaries would be incorporated into EMNE organisational structures and are more closely managed while DMNE subsidiaries will operate with greater independence and would be less reliant on their ultimate owners for guidance.

Table 6.1: Descriptive statistics of MNE subsidiaries

	EMNE Median	EMNE Standard Deviation	EMNE Count	DMNE Median	DMNE Standard Deviation	DMNE Count
Subsidiary age	19.5	24.885	46	18	22.017	39
Number of current subsidiaries	3	10.736	46	5	228.496	39
Subsidiary independence	3	1.112	45	2	1.307	39

As experienced with their operational revenue, EMNE's assets' strong negative correlation with administrative uncertainty, suggests that host governments' administrative focus could be directly channelled towards the assets of mining EMNEs. In reviewing commentary gained from the Fraser Institute (McMahon & Cervantes, 2012) survey of mining companies, mining manager's comments reflect the ever increasing regulatory pressures and resource nationalism encountered by mining MNEs (McMahon and Cervantes, 2012).

DMNE's smaller asset base and operational revenue suggests that DMNEs may have struggled to acquire new assets or perform within emerging markets. The findings confirm that DMNEs are more resistant to rapid regulatory change (due to their due to their historical legacies and established practices) developed in more stable home markets (Guillén & García-Canal, 2009). Their regulatory uncertainty and discomfort with regulatory regimes results in a hesitancy to invest in further assets.

DMNE's assets showed a negative correlation (table 5.2) with uncertainty concerning the areas which will be protected as wilderness areas, parks or archaeological sites. Their positive correlation with mineral potential, reveals that in as much as DMNEs struggle with

their respective regulatory regimes in emerging markets, institutional risks are offset by the large natural resource endowments in emerging markets. Their lower operational revenues and asset base reveals a conservative investment approach or an inability to engage the appropriate institutions.

“Resource nationalism is obviously becoming a significant problem worldwide. I work in Bolivia and while it can be difficult at times and the policies guiding the mining industry can seem to fluctuate wildly, the untapped mineral potential of this country for many commodities is so incredible that working there is worth the risks” (survey respondent in McMahon & Cervantes, 2012, p.31).

6.1.3 Hypothesis 1C

EMNEs will experience greater profitability per country than DMNEs.

While EMNE EBIT outperformed DMNE EBIT, the figures would suggest that while EMNEs made more profit, their larger asset base suggests inefficiencies with regard to their bottom line. DMNEs generated higher profitability from a significantly smaller asset base. Hence, the marginal difference between EMNE and DMNE EBIT (table 5.3) was not as significant as other financial performance variables.

The finding would tend to corroborate Rugman (2007) who stated that EMNEs lacked the sophisticated managerial skills in knowledge and system integration to compete with DMNEs with finely calibrated FSAs. Consequently, it would take EMNEs years to develop these dynamic capabilities. However, the operational efficiencies experienced in the earlier hypotheses would suggest that EMNEs are capable of running efficient operations in certain facets of their business. Rugman’s (2007) views also tend to mitigate the institutional influences and capabilities of EMNEs which offset some of their profitability inefficiency.

While EMNEs may lack the managerial sophistication of their DMNE competitors, the findings suggest that EMNEs, in light of Madhok and Keyhani (2012) EMNEs may be more entrepreneurially driven, therefore, they invest heavily in emerging markets with a long term view rather than perfecting management and operational techniques. EMNEs may also not be as concerned on profitability ratios and seek to increase market share through continual expansion into other emerging markets.

The volatile and unpredictable nature of emerging markets means that EMNEs entrepreneurial approach, enforces EMNEs to remain innovatively nimble and agile in order to respond to everyday challenges. Their slightly superior financial EBIT performance, albeit not enjoying greater margins, as experienced in other financial aspects, would justify EMNEs

idiosyncratic approach when compared to DMNEs more conservative management approach.

However, there lies a contradiction within the previous hypothesis findings. If EMNE subsidiaries are less independent than DMNE subsidiaries, how does this fit in with Madhok and Keyhani's (2012) entrepreneurial approach? One would expect that EMNE subsidiaries would tend to be maverick in style, more independent than DMNE subsidiaries and hence more entrepreneurial. Hence the contradiction: can a subsidiary be entrepreneurial if it is so tightly managed? (BRIKINSHAW & HOOD, 1998)

Ramamurti's (2012) argument entailed that EMNE behaviour could be a function of maturity or lack thereof in international markets rather than its country of origin. In the absence of Ramamurti's (2012) maturity and country of origin's influence on EMNE performance, this inquiry proposes that the control over EMNE independence, suggests a significant EMNE subsidiary reliance on their ultimate owner's guidance. Subsidiaries maintain a focused operational approach (due to asset immobility), while the EMNE's highly mobile head-office engages new markets to new develop new business opportunities.

EMNE's lower profitable margins could be interpreted as also being invested in learning newer markets, while it may appear to be a current disadvantage or resource inefficiency Madhok and Keyhani (2012) argued a notion that EMNEs current resource asymmetry cannot discount future competitive advantage. EMNEs, often, with significant government-equity stakes and access to cheaper capital mean that they are not solely driven by DMNE quarterism or delivering shareholder value. EMNEs may have a longer term plan that is funded by more patient investors (government equity) who may have a higher tolerance for operational inefficiencies. (Peng, 2012; Ramamurti, 2012).

EMNE's EBIT showed positive correlation (table 5.2) with market exposure of their ultimate owner and mineral potential. Significant negative correlations were characterised by administrative uncertainty; the negative correlations would also confirm Madhok and Keyhani's (2012) entrepreneurial characterisation of EMNEs, despite the negative impact of host government uncertainty and regulatory inconsistencies. Mining EMNEs are able to produce greater profit per country than mining DMNEs.

DMNE's EBIT's negative associations with environmental regulations, regulatory duplication and site uncertainty (regarding areas demarcated as wildlife parks or archaeological sites) is similar to the previous findings. The reoccurrence of the same institutional factors would infer that DMNEs do not have as wide a range of institutional capabilities as EMNEs or they are

engaging in what Cantwell's et al. (2010) findings. "Faced with a weak institutional environment, characterised by a lack of accountability and political instability, poor regulation and deficient enforcement of the rule of law, the response of most firms is likely to be characterised by an exit..." (Cantwell et al., 2010, p.577).

6.1.4. Hypothesis 1D

EMNEs will experience greater EBITOA than DMNEs

EMNEs experienced greater EBITOA than DMNEs. Despite this result, EMNEs were not positively or negatively associated with any institutional factors. DMNEs experienced negative associations with labour supply and taxation.

The results, while expected, are surprising in that they do not reveal associations for EMNE subsidiaries experiencing superior EBITOA. The result challenges the notion of institutional capabilities residing at the subsidiary level. While subsidiaries are complex operations, they are clearly targets of their host government (Blumentritt & Nigh, 2002), however, they lack of any institutional associations at subsidiary level and this requires further exploration.

The result suggests that in terms of overall financial performance, the institutional environment is significantly less pressurised than at an operational and asset level. Once profitability has been accounted for – host governments would invariably tax MNE profits. Overall it would institutional pressures exert themselves close to sites of mining operations as taxation is a transaction which reduces institutional pressures on EMNEs.

6.1.5 Hypotheses summary

Summarising the previous results, mining EMNE subsidiaries have experienced superior financial performance across their operational revenues, larger asset bases, EBIT per sales country and EBITOA. Looking at the range of institutional factor correlations, this inquiry will try to understand which institutional factors feature most prominently and define the differences between EMNEs and DMNEs institutional approach.

While the extant literature suggested that EMNEs would be equipped with a greater relational capabilities (Ramamurti, 2008; Cuervo-Cazzura & Genc, 2008; Guillén and Garcia-Canal, 2009; Madhok & Keyhani, 2012) and that DMNEs would tend to rely on their other dynamic capabilities (Rugman, 2007; Barnard, 2010).

The results of the hypotheses revealed that institutional factors affect both EMNEs and DMNEs, their subsidiaries and their networks and that EMNEs and DMNEs actively engage institutions, albeit differently. The significance of the findings lies in that DMNEs focus their institutional efforts in different institutional regimes to EMNEs. EMNEs and DMNEs compete

against one another across emerging markets but they diverge within these same markets with regard to the diversity of their institutional interactions.

DMNE subsidiaries were most negatively associated with environmental legislation, regulatory duplication and uncertainty concerning potential operations sites demarcated as wildlife parks and / or archaeological heritage sites. It would appear that DMNE's lack of experience with local regulatory regimes and uncertainty with local governments and shifting environmental regulations has hindered their ability to perform or compete with EMNEs in emerging markets.

The results would differ slightly from Guillén and García-Canal's (2009) and Madhok and Keyhani, (2012) ideas. DMNEs do have institutional capabilities, yet subsidiaries of mining DMNEs do not necessarily possess all of the required political capabilities in dealing with governments and regulators from emerging markets. DMNE subsidiaries smaller asset base, is also an indication of either a conservative investment agenda or a hesitancy in acquiring local subsidiaries. It may also indicate that DMNE mining subsidiaries may lack key relational competencies in forming business alliances, in the absence of more established institutions.

EMNE subsidiaries seem to be most positively associated with the market exposure of their respective ultimate owners and negatively associated with issues of general uncertainty. It would seem that mining EMNE subsidiaries rely heavily for guidance and knowledge from their ultimate owner's experience in their operations, assets and profitability. The greater lack of independence with EMNE subsidiaries tends to confirm this ultimate owner reliance. In addition having fewer subsidiaries within their networks, the reduced number of subsidiaries may result in a sizeably smaller resource pool than DMNE subsidiaries. The greater knowledge available to DMNEs through their subsidiary network can explain why DMNEs appear to have more sophisticated management systems with regard to their profitability.

EMNE's smaller subsidiary network may be an explanation for the larger association between EMNE subsidiary performance and general uncertainty. They have fewer international-market experiences to rely on due to their relative inexperience. However, while EMNE subsidiaries may be negatively affected by greater uncertainty, EMNE's superior operational revenues, profitability and overall performance suggests that EMNEs display a maverick tendency to thrive in uncertain conditions and would confirm Madhok and Keyhani's (2012) notion that EMNEs are more entrepreneurially driven, flexible and resilient within emerging markets than DMNE subsidiaries.

What is surprising from the correlations is the absence of institutional factors that did not feature more prominently with MNE performance. Firstly, this inquiry expected that infrastructure, the legal system, political stability to all be positively associated with MNE's subsidiary performance irrespective of origin, yet none of these institutional factors emerged as to having any association (positive or negative) across the financial performance measures.

Secondly, this inquiry also expected that corruption, labour regulation, trade barriers and socio economic agreements and security issues would be negatively associated with subsidiary performance, however, very few of these institutional factors featured widely across the performance measures.

Interpreting these results could mean that the role of infrastructure, the transparency of the legal system and political stability are overstated in relation to individual company performance in emerging markets. Regarding the above stated variables, these issues are familiar territory within emerging markets and due to widespread MNE exposure, do not pose a significant external challenge to overcome.

It appears that with these particular institutional factors, specifically corruption no longer hold a significant advantage. If all MNEs are involved in these aspects of institutional engagement or "institutional adaptation" (Cantwell et al., 2010), it no longer serves as a differentiator, or source of competitive advantage, or a possible explanatory variable for MNE performance.

However, while the Pearson correlations are indicative of possible relationships between performance variables and institutional factors, they do not explain the degree to which EMNE's and DMNEs firms shape institutional factors, nor the degree of impacts on their respective performance. The following research question and hypotheses use multiple regression analysis to quantify the extent to which EMNEs and DMNEs are influencing, shaping and engaging in emerging markets and the consequent impact on their financial performance.

6.2 Research question 2

Can the differences in MNE performance be ascribed to their respective management of institutional factors or non-institutional factors?

6.2.1 Hypothesis 2A

The management of institutional factors predominantly explains EMNE's and DMNE's operational revenue.

The following graphs (figures 6.1 and 6.2) are visual summaries of each of the multiple regression models. The institutional factors (independent variables) are ranked from 0 to 1. A score of 0 would mean the factor would be of little influence on the respective dependent variable. A score of 1 would mean the independent variable as having great influence on the respective dependent variable. The ranking of the variables impact / importance themselves equates to a descending order: the top variable is the most important overall, while the last variable is the least important in determining the dependent variable's performance.

EMNE and DMNE subsidiary operational revenue is mostly affected by the market exposure (number of sales countries) of their respective ultimate owners. Mining operations hedge against commodity price volatility and have to spread their operations as widely as possible in order to meet ever changing nature of commodity demand. Hence, the role of the ultimate owner's choice of market locations is a key determinant of operational revenue as it will invariably dictate the location of future mining operations, largely underpinning the logic of generating commodity sales. Figure 6.1 illustrates the factors affecting EMNE subsidiary's operational revenue:

Figure 6.1: Institutional factors engaged by EMNEs with regard to their operational revenue

Security and regulatory duplication influence DMNE's subsidiary operational revenue. In addition to having fewer assets in emerging economies than EMNEs, DMNEs' need for safety and regulatory clarity to drive operational performance suggests an institutional unfamiliarity with local institutional context. This emphasises the institutional distance between their own markets and emerging markets. It is interesting that security does not appear to have an influence on EMNE's operational revenue, suggests a familiarity in

operating within volatile environments.

EMNE's greater exposure to institutional voids and familiarity with adverse local conditions explains why security and regulatory inconsistencies do not affect their operations to the same extent of DMNEs. However, this does not suggest that DMNE subsidiaries do not have the capability or experience to overcome these challenges but the current results suggest that these factors can explain their significantly lower operational revenue. While security issues may pose a temporary hindrance to DMNE's operations, they are well resourced enough to secure their sites of operations.

Political stability's influence on EMNE subsidiary's operations is a surprising finding as one would expect EMNE's to be familiar within politically unstable regimes. It may suggest that while a subsidiary's ultimate owner can traverse and transfer operations across international boundaries in the face of political instability, the EMNE subsidiaries' assets are located within the institutional context have less mobility to deal with political instability. Hence political instability ranks more highly for a DMNE subsidiary as opposed to their ultimate owner. The result also indicates an assumption of EMNE's "adversity advantage" (Ramamurti, 2008; Ramamurti & Singh, 2009) within the extant literature, which lacks the contexts of emerging markets complex bureaucracies. It is simplistic to assume that EMNE tolerance with political stability in one particular host nation does would translate into an ability to handle differing political instabilities across other emerging markets.

Despite EMNEs greater exposure to politically unpredictable environments (Gammeltoft et al., 2010), the results of the EMNE regression indicates that some institutional factors remain exogenous to a resource-seeking subsidiary. EMNEs may be just as vulnerable to political instability as their DMNE competitors. Given their considerable relational capabilities, both EMNEs and DMNEs entering a new market are equally foreign to host governments. Furthermore, as institutional capabilities invested in their subsidiary networks, EMNE subsidiaries influence on macro, social and economic stability is limited outside of their everyday operations.

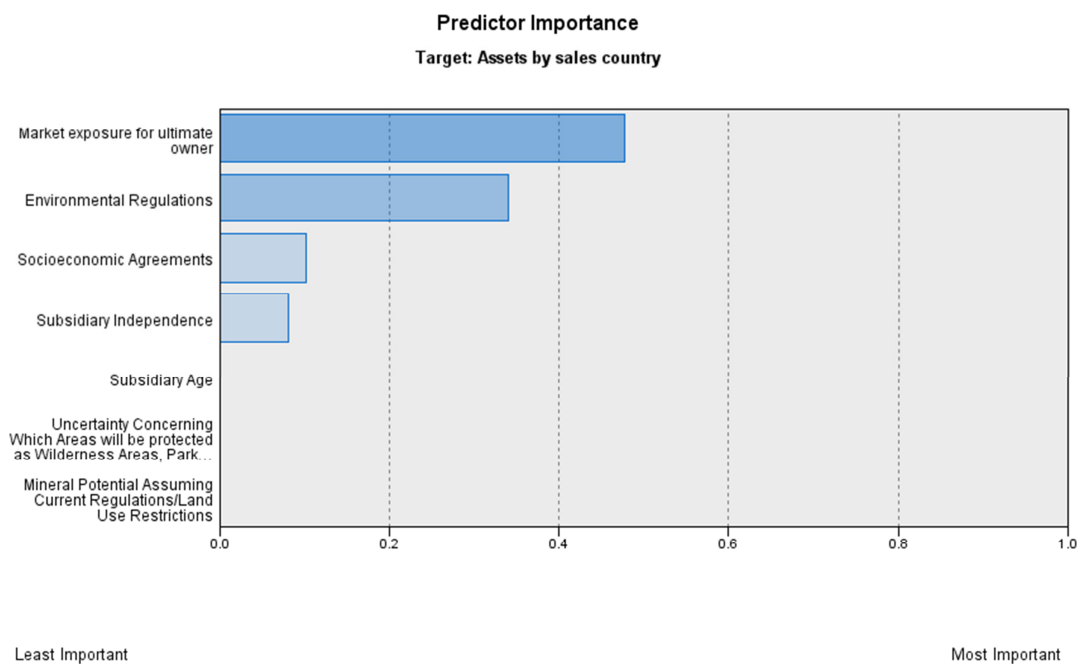
In conclusion, both EMNE and DMNE operational revenues are shaped by their respective management of predominantly institutional issues and supports the alternate hypothesis that management of institutional issues trumps non-institutional factors when dealing with mining operational revenue.

6.2.2 Hypothesis 2B

The management of institutional factors predominantly explains EMNE’s and DMNE’s asset base.

The high R² of the EMNE asset regression model contrasts the low R² value found in the DMNE model (table 5.10). This finding links directly to the sizeable inequality between EMNE and DMNE subsidiary assets in the data set. As a result, the DMNE model was not robust enough to explain what institutional factors affect DMNE subsidiary assets. Perhaps greater data is needed to draw richer conclusions. For the purposes of discussion – EMNE subsidiary assets will be discussed as the regression model explained up to 63,1% (table 5.10) of EMNE subsidiary assets.

Figure 6.3: Institutional factors managed by EMNEs in relation to their assets



The prevalence of an ultimate owner’s market exposure (figure 6.3) and experience tends to indicate EMNE’s need to grow in international markets or learn from a more experienced business partner. The presence of the ultimate owner in other markets also serves as an opportunity to transfer leanings, technology and skills that could benefit the running of existing assets through the subsidiary network. This finding would confirm Barnard’s (2010, p.3) finding that EMNEs use networks to overcome their bureaucratic challenges. Mathews (2006) linkage, learning and leverage framework (LLL) is also supported, in that EMNEs have an ability to identify and bridge gaps in order to achieve superior performance. EMNE’s

reliance on their ultimate owner would confirm the current thinking in the literature “where [EMNE’s] quest overseas can be viewed as an extension of their linkage efforts” (Peng, 2012, p.100).

The presence of environmental regulations is undoubtedly an institutional and regulatory constraint in EMNE mining operations. Mining more so than other industries has come under increasing pressure to conform with environmental agency requirements (Deloitte, 2012). While these processes are necessary they also represent considerable delays and pose potential revenue losses for EMNEs. Hence, EMNE firm’s tendency to internationalise to other emerging markets and is a deliberate strategy to undermine weaker regulations which could improve the efficiencies of their assets without the hindrance of environmental performance.

The expansion into markets with weaker institutional contexts provides EMNEs with greater freedom to exploit their assets and enhances a potential host nation’s desirability for direct investment. As environmental legislation presents sizeable costs to MNE operations, it is probably unsurprising to see that it is continually negatively correlated with MNE performance. EMNEs use their institutional abilities to mitigate the constraining dynamics of environmental regulation.

Concurrently, EMNEs have an opportunity to consult with governments in determining opportunities for improving environmental legislation and bureaucracy, harmful to their asset performance. While EMNEs may oppose environmental legislation, they may have a larger opposition to the time taken to make decisions and the incurred costs of delays to their assets operations.

The lack of a statistically significant regression model to explain the performance of DMNE assets stems from DMNEs avoidance of appropriate institutional interaction. It would confirm Guillén and Garcia-Canal’s (2009) idea that DMNEs possess weaker institutional capabilities. In considering DMNE’s familiarity with environmental legislation in their home markets, this inquiry expected that DMNEs would have a natural advantage in managing environmental procedures over EMNEs in emerging markets. In particular, the lack of a statistically significant finding is unexpected, as the DMNE subsidiary is in all likelihood a local firm, one vested in the institutional context and familiar with local challenges.

The small DMNE asset base is symptom of a rigid investment agenda and inflexible routines. By not seeking to engage local institutions, DMNEs have chosen a strategy of institutional avoidance (Cantwell et al., 2010) and confirms Kostova’s et al. (2008) idea that firms perceive the existing institutional environment as exogenous, fixed and inaccessible.

DMNE's noted weaker institutional capabilities (Guillén and Garcia-Canal, 2009), also translates into weaker relationships has with their local subsidiaries. Birkinshaw and Hood (1998, p.789) proposed that the quality of parent-subsidiary relationships had a direct bearing on subsidiary performance and parent investment. If the asset results of DMNE subsidiaries are taken into account, their inferior performance is a symptom of poor internal relations with their ultimate owners.

DMNE subsidiaries are given more "decision making autonomy" Burgelman (1995) (as cited in Birkinshaw & Hood,1998). While it may appear that DMNEs are willing to let the subsidiary develop their own business opportunities, the subsidiaries greater independence reflects the informal institutional distance between the local subsidiary and the DMNE ultimate owner, especially in the case of a DMNE acquiring a local subsidiary.

Consequently, DMNE subsidiaries have a more distant relationship with their detached ultimate owner. Additionally, conservative managers at the ultimate owners-level treat "initiatives [generated by the subsidiary] from the peripheral part of the corporation with suspicion" (Birkinshaw & Hood, 1998, p.786), and are unlikely to support subsidiary driven initiatives that require sizeable investment unless they know who is championing the initiative at the subsidiary level (Birkinshaw & Hood, 1998). In summary, the poor performance of the subsidiary is attributed to distant and ineffective relations with their ultimate owner due to their respective informal institutional distance – there is an internal institutional misalignment.

DMNEs ultimate owner's poorer quality subsidiary relations, coupled with their risk averse investment approach results in either corporate inaction or active divestment from their local subsidiary (Birkinshaw & Hood, 1998). The significantly smaller DMNE asset base indicates lower levels in asset investment and confirms DMNE's ultimate owner's risk averse investment profile (Birkinshaw & Hood, 1998).

A count of the total number of emerging markets from the dataset revealed that 80% of EMNE subsidiary operations were located in emerging markets. In contrast, only 40% DMNE subsidiary operations were located in emerging markets. According to Birkinshaw & Hood (1998) the strategic importance of a host country will have a positive impact on Parent Direct Investment (PDI) into the subsidiary.

Therefore, the higher levels in asset investment experienced among EMNE subsidiaries reflect their ultimate owner's commitment to strategically prioritising emerging market investments. In contrast, DMNE subsidiaries lower asset base reflects their ultimate owner's

lack of commitment to investing strategically across emerging markets (Birkinshaw & Hood, 1998).

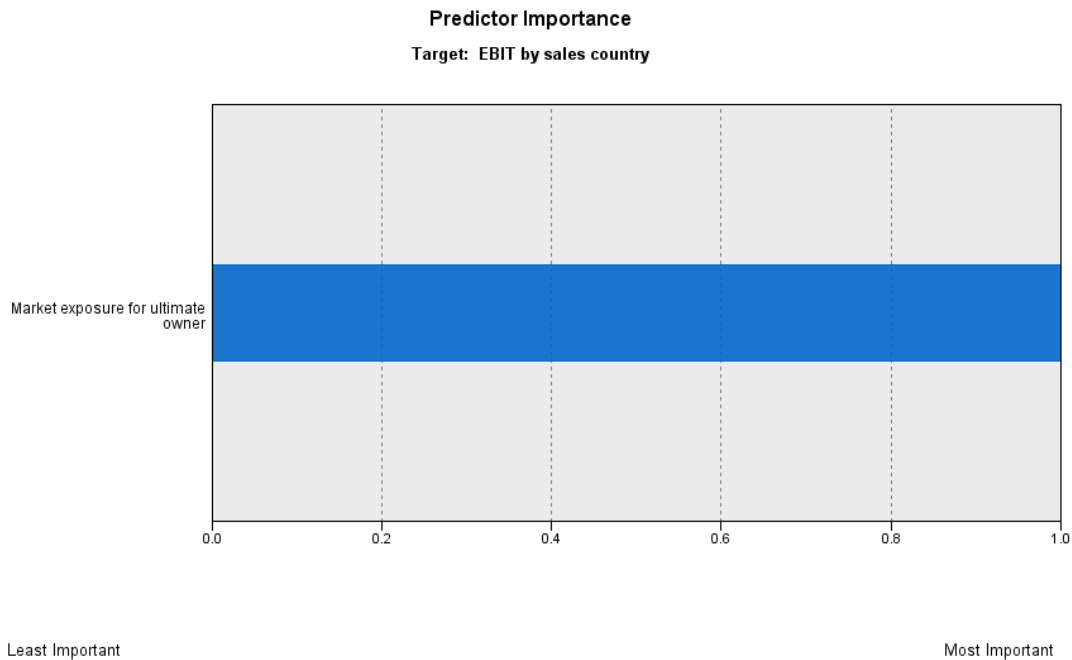
6.2.3 Hypothesis 2C

The management of institutional factors predominantly explains EMNE's EBIT/COUNTRY- and DMNE's EBIT/COUNTRY

The low R^2 values for both EMNE regression models (table 5.10) suggest that institutional factors have little influence over the sales of mining MNE's subsidiaries. As with previous regression models EMNE's display a tendency to rely on their ultimate owner's market exposure (Figure 6.4). While total market sales would explain the profitability of the ultimate owner, it does not provide a sufficient answer for the reasons underlying an EMNE's subsidiary's profitability in a particular country. While the R^2 of the model is low – up to 18% of an EMNE's EBIT performance can be explained by their reliance on their ultimate owner.

The lack of apparent management of institutional factors within the EMNE subsidiary questions the range of institutional capabilities of embedded within the EMNE subsidiary and

6.4 Institutional factors managed by EMNEs in relation to EBIT/country



the subsidiary network and the transferability of institutional FSAs. The finding would confirm Rugman's (2007) assertion that EMNEs battle to transfer local FSAs when expanding into international markets. The result also confirms a finding in the literature that resource seeking subsidiaries capabilities "tend to be sticky and don't transfer easily between firms" (Birkinshaw & Hood, 1998, p.781).

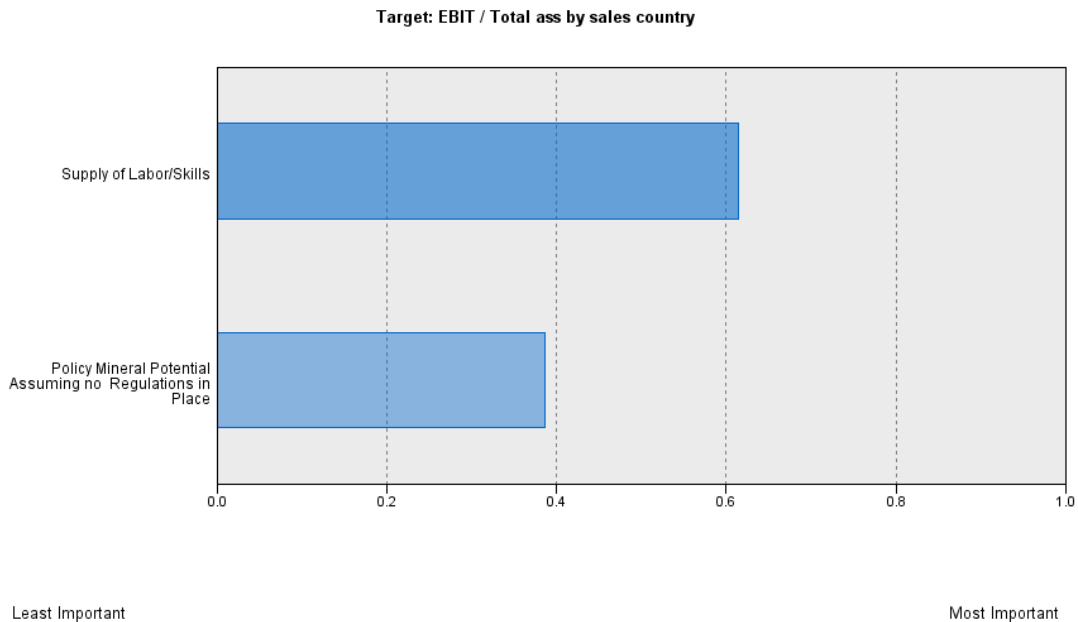
With the institutional context's pressures on mining is far more concentrated than other industries - due to mineral rights, taxation and environmental issues (Deloitte, 2012). Hence, the lack of institutional factors in the regression is unexpected. This inquiry would expect tax to bear significantly on mining entity profitability. The current result suggests that certain institutional capabilities may not reside within the EMNE subsidiary. Secondly, the finding suggests taxation may not be a deterrent for EMNE investment in emerging markets or due to its transactional nature is a lesser-felt institutional pressure on the MNE.

6.2.4 Hypothesis 2D

The management of institutional factors predominantly explains EMNE's EBITOA and DMNE's EBITOA.

The data was unable to produce a regression model for EMNE EBITOA. The correlations of (table 5.2), highlight no strong correlations, positive or negative, with institutional factors that explain associations for EMNE's overall financial performance. In the case of EMNE subsidiaries, their core operations is to deal with mining activity and little else outside of it. The lack of any institutional result suggests that EMNE subsidiaries are not as sophisticated in institutional relations than what was expected. With 0% of EMNE EBITOA explained, it highlights EMNE mining subsidiaries overall financial performance cannot be attributed to any institutional capabilities.

Figure 6.5: Institutional factors managed by DMNEs in relation to their EBITOA



Similarly only, 20% of DMNE subsidiaries overall performance could be explained by 2 variables (Figure 6.5): supply of labour and skills and the host nation's natural endowment. When exploring these results, these two variables are not of an distinctly institutional nature. The reliance on non-institutional or conventional factors to explain their overall success confirms DMNE's conservative investment profile, they will only invest in an emerging market on the basis of a suitable supply of skill and a significant mineral endowment.

By contrast, EMNEs recorded superior EBITOA (table 5.4) supports the idea that are more entrepreneurial (Madhok & Keyhani, 2012) and have a higher tolerance for risk and uncertainty. The absence of a range of uncertainty variables (administrative, regulatory, operational sites demarcation, provision, security), namely, institutional issues that regularly affect DMNEs, illustrates that EMNEs have an dynamic capability to profit within uncertain and volatile institutional environments.

There does not appear to be significant evidence across all the regressions of these subsidiaries shaping their institutional contexts through corruption, the supply of infrastructure or the implementation of socioeconomic agreements with host governments. However, while these institutional elements may be missing from the regressions means that EMNEs are engaged in this form of institutional adaptation but it is not a source of sustained competitive advantage.

The lack of conclusive statistical evidence suggests that if any institutional capabilities or skills were used in regard to their overall financial performance, these capabilities may not reside with the subsidiary but with the subsidiary's ultimate owner or in the subsidiary network. While the nature of the finding would suggest that resource seeking subsidiaries are solely operationally focused, the previous regression model findings suggest that EMNE subsidiaries do have limited resource institutional capabilities. It also may be a signal that EMNE's in certain cases such as EBITOA, have not evolved and upgraded their institutional resource bundles (Birkinshaw & Hood, 1998). Similarly it also provides a case for the EMNE's ultimate owner's inability to build the necessary linkages to the subsidiary to transfer more sophisticated institutional capabilities to the local subsidiary.

For DMNE mining subsidiaries, their lower number of subsidiaries, smaller asset base, low operational revenues and sales suggests that they have either not expanded into emerging markets as successfully as mining EMNEs, or they have deliberately avoided emerging markets. Aside from a handful of global mining giants, on average, DMNE's lower financial performance indicates a reluctance to engage in emerging markets as widely as EMNE mining firms. Their lacklustre performance suggests a timidity or organisational inflexibility

(Guillén and Garcia-Canal, 2009) due to established histories, processes and cultures that have yet to be successfully shifted to emerging markets.

As a result the lack of DMNE competition can explain why mining EMNE's are experiencing superior financial performance across emerging markets. By not aggressively expanding into emerging markets, DMNEs have ceded the advantage to EMNEs who are far more risk-tolerant and widely spread in emerging markets.

6.3 Conclusion

Reviewing the results of the Chapter 6, the findings can be condensed into 2 theoretical propositions:

6.3.1 Proposition 1

Mining DMNEs have low tolerance for institutional risk, and a misaligned investment criteria , resulting in institutional avoidance.

DMNEs lack of institutional interaction appears to stem from a reluctance to invest in emerging markets whose institutional structure is dissimilar to their own developed markets. In terms of operational revenue and their overall performance, DMNEs require regulatory consistency and a generous supply of skills and labour.

Throughout the regression analyses (table 5.10), DMNE's largely ignore institutional engagements. In many respects, DMNEs specific investment requirements, whilst logical for developed markets, are perhaps not aligned to the institutional realities and the deficits of emerging markets: there may be limited pools of skilled labour; there may not be consistent environmental legislation; and there may not be a predictable logic to the enforcement of existing legislation.

By extension, DMNE's investment criterion consequently excludes them from investing as widely in emerging markets as EMNEs. DMNE's lack of investment for want of expected established institutional requirements has resulted in DMNEs avoiding emerging market investment.

The complex realities of emerging markets and their institutional deficits mean that DMNEs may not have any recognised institutions to negotiate with outside of host governments. In the absence of recognised institutions and legal systems, DMNEs will be hesitant to bridge these gaps or to build these institutions themselves. The building of institutions would be opportune for DMNEs to shape institutional logics in their favour, but it also presents significant costs and risks outside of their core capabilities of mineral extraction. In considering their risk averse approach- institution building is a lower priority when compared

to mineral potential. Consequently, DMNEs low institutional risk profile and unwillingness to build institutional infrastructure means that they would prefer avoiding problematic institutional environments rather than improving them.

The challenges of building, supporting and upgrading institutional contexts could be a responsibility beyond most DMNEs capabilities and expertise operating in host nations.

DMNE's ultimate owner's risk averse approach also extends to their own subsidiaries (Birkinshaw & Hood, 1998), which means that they do not invest in tangible assets to improve operational performance. Additionally, DMNE's divest from their subsidiaries intangible assets as they fail to appreciate the value of their subsidiaries institutional capabilities.

While DMNE subsidiaries displayed a limited range of institutional capabilities, the limited nature is borne out of DMNEs ultimate owners detached management approach. DMNEs poorer relational capabilities maintains poorer quality relationships with their local subsidiaries and results in lower levels of required investment (Birkinshaw & Hood, 1998).

Consequently, DMNE subsidiaries do not have the required support to invest or engage local institutions or improve their limited institutional capabilities (Birkinshaw & Hood, 1998).

DMNE ultimate owner's behaviour is summed up by their lack of operations across emerging markets underpinned by an investment agenda that does not appreciate the strategic value of emerging markets and their local institutions.

6.3.2 Proposition 2

EMNEs dynamic institutional capabilities reside with their ultimate owners ability to build strong intra-firm-institutional linkages with their subsidiary networks

In 3 out the 4 dependent variables: operational revenue, assets and EBIT/per country, EMNEs displayed a consistent positive correlation on their ultimate owner's market exposure (table 5.10).

This tendency highlights EMNE's institutional interactions coming from a close relationship and interdependency with their ultimate owners. EMNE ultimate owner's superior relational capabilities are able to forge closer ties with their own subsidiaries and maintain higher quality parent-subsidiary relationships (Birkinshaw & Hood, 1998).

The mobility of EMNE's ultimate owner's institutional capabilities and their stronger management of their subsidiaries (lower independence rankings), suggests that EMNE's ultimate owners transfer their institutional knowledge through their closely knit subsidiary networks. Although, more complex institutional capabilities in managing their overall

performance (EBITOA) has not been fully transferred to the subsidiary level. The increased presence of the ultimate owner across the regression analyses suggests that EMNE ultimate owners work closely and collaborate with their subsidiaries on institutional matters.

Unlike DMNE ultimate owners, who are characterised by risk-averse and informally distant subsidiary relationships, EMNE ultimate owners are driven by strong parental investments into their subsidiaries and spend more time building relationships with their subsidiaries to improve their resource capabilities (Birkinshaw & Hood, 1998). EMNE subsidiaries superior financial performance, together with their wider institutional capabilities across all financial variables is evidence of EMNE's ultimate owner's continual investment into their subsidiaries capabilities.

EMNE subsidiaries display a limited range of institutional skills but in the absence of a particular institutional capability, EMNE ultimate owners compensate with investment and a blending of their own institutional capabilities. The primary ownership of institutional assets and institutional capabilities resides with the ultimate owner and is shared across EMNE's subsidiary network through close collaboration. It is in this process whereby EMNEs forge their institutional innovation and institutional entrepreneurship (Madhok & Keyhani, 2012).

The bridging of EMNEs subsidiaries through knowledge-resource linkages parallels Giroud & Scott-Kennel's (2009) ideas of MNE linkages. However, this inquiry builds on the extant institutional literature by proposing that EMNEs ultimate owners build higher quality relationships with their subsidiaries through their continual investment into institutional intra-firm linkages. The continual development of these linkages within their subsidiary network allows subsidiaries to improve their dynamic capabilities to shape local institutions to overcome institutional deficits to reduce their reliance of the MNE network (Birkinshaw & Hood, 1998).

The upgrading of subsidiary capabilities via intra-firm linkages is central to the network perspective of subsidiary evolution (Birkinshaw & Hood, 1998). In the network perspective, the subsidiary's role in the MNE network is an equal partner of the MNE ultimate owner which has unique capabilities that complement the MNE head office; the subsidiary is also embedded in which can be used as a source of knowledge and influence for the MNE headoffice (Birkinshaw & Hood, 1998).

EMNEs ability to build intra-firm institutional linkages through their dynamic capabilities aligns to the network perspective of the subsidiary (Birkinshaw & Hood, 1998), the RBV of

the firm (Penrose, 1959; Wernerfelt, 1984; Teece et al., 1997) and accounts for Peng's et al. (2008) local institutional conditions and transitions. In addition, EMNEs building of intra-firm linkages to transfer capabilities in high velocity markets aligns Eisenhart and Martin's (2000) concept of firms using experimentation to solve challenges in highly volatile markets.

Local Institutional challenges are overcome through a collaborative effort between a subsidiary's institutional knowledge and the ultimate owner's dynamic institutional capabilities. The continual presence of the ultimate owner collaborating with its subsidiaries in the regression models suggests that this is the source of EMNEs institutional agility and dynamism - a blend of the two complementary skill sets and would confirm Cantwell's et al. (2010, p.579) notion of institutional innovation.

This inquiry would propose that based on the continual presence of EMNEs ultimate owners across various EMNE performance variables and due to EMNEs considerable relational strengths, the intra-MNE-subsidiary linkages are much stronger than in DMNE networks who favour a more remote and insular management approach.

DMNEs negative correlation to their ultimate owners in addition to their independent subsidiaries highlights that their subsidiaries, do not work as closely within their subsidiary network as EMNE subsidiaries. The conservative investment agenda of DMNE ultimate owners has created a distance between itself and its subsidiary, leaving fewer opportunities to share country-specific advantages and to build quality institutional linkages to take advantage of non-market opportunities within its own subsidiary network.

7.0 Conclusion

7.1 Summary of findings

This inquiry sought to understand and compare mining EMNEs and DMNEs performance in emerging markets in light of their respective management and influencing of institutional factors. This inquiry has found that mining EMNE subsidiaries have experienced superior financial performance to mining DMNE subsidiaries, across emerging markets.

In light of this superior performance, this inquiry found that mining EMNEs and DMNEs managed different institutional factors in response to differing operational requirements and performance measures. EMNE mining subsidiaries were found to have a much broader set of institutional responses than DMNE mining subsidiaries.

EMNEs were found (table 5.10) to manage a wider array of institutional factors than DMNEs. EMNEs were shown to shape environmental regulations; manage uncertainty over operational sites which were demarcated as wildlife parks or archaeological heritage sites; mitigate the influence of politically unstable environments and honour their socio economic agreements with host governments.

DMNEs displayed a more limited and tentative institutional response including an expert knowledge of environmental regulations. (This stemmed from increased exposure to more stringent environmental regulatory regimes in developed markets, a need for stable labour regulations and a generous labour supply and / or skills.

The characterisation of DMNE institutional capabilities reflects the institutional structure of their home markets marked by more mature and stable institutions. As a result, DMNEs in expanding their operations into emerging markets have experienced an institutional misalignment with host institutions and have either misinterpreted their local institutional logic and engaged in institutional avoidance. Their inferior financial performance across several measures suggested a limited ability to access and shape local institutions.

The research also confirmed that due to EMNEs ability to handle a wider variety of institutional challenges, coupled with their exposure and familiarity to institutional deficits, their compensating FSAs (dynamic institutional capabilities) were able to help them build quality intra-firm institutional linkages to their subsidiaries. These institutional linkages enable EMNE subsidiaries to engage local institutions effectively. With closer ties to local institutions, EMNE subsidiaries are less affected by institutional uncertainty than DMNEs subsidiaries. EMNE subsidiaries display of achieving superior operational performance from their assets, despite considerable levels of administrative and regulatory uncertainty is

evidence that their capacity to manage institutional uncertainty is greater than DMNE subsidiaries.

The research confirms that EMNEs do possess a dynamic institutional capabilities and an agility to adapt to institutional challenges. The research findings support the idea that they possess an “adversity advantage” (Ramamurti, 2008). In addition, this inquiry found that mining EMNE’s superior profit is due to their dynamic capability of building and shape the appropriate institutions in their favour.

EMNE ultimate owner’s tighter control over their subsidiaries, in addition to their stronger relational capabilities (forged in markets with stronger informal institutions); allows them to build a higher quality relationship with their subsidiaries and play a much closer collaborative role. EMNE ultimate owner’s ability to build stronger institutional-intra-firm linkages enables the ultimate owner access to local institutional knowledge and enables their subsidiaries to expand their institutional capabilities. The local subsidiary is able to benefit and share from the blend of intra-firm dynamic institutional capabilities to overcome institutional deficits and improve its own set of dynamic capabilities. The mobility of EMNE ultimate owners together with their superior intra-firm linkages allows mining EMNEs to manage multiple institutional contexts simultaneously and more successfully than DMNEs.

In contrast, DMNEs weaker relational capabilities suggest that DMNEs subsidiaries do not share the same level of collaboration and cooperation with their ultimate owners. DMNE subsidiaries are more independent their inability to deal with institutional pressures demonstrates that their intra-firm linkages are not as strong as EMNE linkages. DMNEs possess certain institutional capabilities but the lack of their owner’s investment in their institutional assets means that they hindered in their attempts to solve challenges.

Mining DMNE’s inferior financial performance across financial measures confirms the research proposition that mining EMNEs are able to better connect to and understand their local subsidiaries and institutions via their stronger institutional intra-firm linkages. Based on their superior relational capabilities, EMNE ultimate owners are able to create and sustain their superior quality parent-subsidiary relations. These EMNE-subsidiary relations are the foundation which provides support to their subsidiaries operating across a variety of volatile and unpredictable markets.

While mining EMNEs displayed differing institutional behaviours to DMNEs, this inquiry found little or no support for Narula’s (2006) and Ramamurti’s (2012) debate in the literature. There was no statistically significant evidence in the statistical analysis to support the idea that an MNE’s country of origin had a significant bearing on financial performances.

Similarly, this inquiry found no statistical evidence to suggest that EMNE and DMNE behaviour is a result of their maturity or progress along a defined investment path. This inquiry would propose that it is EMNE's relative inexperience or "immaturity" in international markets (as defined by their lack of EBIT efficiencies) that has a greater bearing on their performance than age or their country of origin.

7.2 The roots of institutional development model

MNE strategy, organisational structure, mode of entry and operations are inextricably linked to their respective institutional contexts. MNE's have a unique opportunity through active institutional engagement to shape the rules of the host context into mutually beneficial organisations, that ensure market efficiencies and protect MNEs from the institutional voids that threaten profitability. Through institutional engagement, MNEs have an ability to improve their own operational and financial performance and they stand to benefit from a more robust institutional context. Simultaneously, they also stand to overcome their liability of foreignness and to achieve legitimacy in a more credible manner.

EMNEs, in particular, mining EMNEs, have demonstrated that firm level performance is interdependent with interacting with local institutions. Mining MNE operations are already familiar with building roads and physical infrastructure (schools, hospitals etc.). This inquiry proposes that this supportive mode for their mining operations has in some ways found an institutional application to upgrade institutions.

Emerging market institutions are characterised by institutional voids and deficits, these gaps in an institutional context are a direct threat to FDI and hinders micro-firm level profitability. DMNEs which have not actively engaged with institutions as proactively-engaged market institutions have proven that their profits are considerably lower when compared against EMNEs. Institutional engagement explained 63% of EMNE's assets and up to 53% of their operational revenue. Based on this evidence, MNE mining firm should have enough incentive to manage institutional factors that has such a significant bearing on their operational revenues and overall performance.

Mining MNEs entries into emerging markets often present catalytic foreign direct investments in emerging markets. These companies will also encounter extremely underdeveloped institutional environments characterised by a lack of accountability and political instability, poor regulation and deficient enforcement of the rule of law (Cantwell et al., 2010), all of which threaten their profitability.

Mining MNEs may often be more powerful than the states they negotiate with and are positioned to provide much needed institutional insight and development. Therefore, due to

their first mover advantage into emerging markets and exposure to underdeveloped institutional contexts, mining MNEs, more so than other industries, have the ability to shape local institutions first.

This paper has proposed that firms who continually invest in formal and informal institutions will eventually come to resemble local institutions themselves and ensure their long term sustainability. By creating long term legacies of institutional development, MNEs who have continually reinvested in local institutions will have an easier time favourably influencing institutions to ensure their business performance. MNEs who do not engage in long term institutional investment, who do not build robust intra-firm linkages between themselves, their subsidiaries and local institutions, will invariably suffer from greater institutional uncertainty and reduced profitability. Consequently reduced institutional investment ultimately means reduced influence, when trying to shape institutions.

In considering the mining industry's regulatory pressures, it is logical that they should be involved in the creation, development and continual investment in mutually supportive institutions. Stronger institutions could help protect mining concerns against predatory government taxes and instincts.

The Institutional Development Model (IDM) (Figure 7.1) is an abstraction of the above ideas. It is primarily a tool to shift mining manager's perceptions of institutions from constraints to realising local institutions as distinctly profitable non-market opportunities that require long term investment. By being willing to engage governments to upgrade underdeveloped institutions – mining MNEs will:

- Increase local institutional knowledge
- Reduce local institutional uncertainty
- Increase operational efficiencies and asset performance
- Be able to share institutional knowledge and capabilities with other subsidiaries in their subsidiary network
- Improve business-government interactions through institutional collaboration and co-creation
- Build strong independent institutions that are mutually supportive of industry, government and developmental needs
- Build institutions that aim to collaborate with MNEs, government



7.3 Institutional Development Model (IDM)

The MNE (ultimate owner) sits at the centre of model. The primary responsibility of the MNE is to build intra-firm institutional linkages to share institutional knowledge and capabilities within its subsidiary network. 3 external layers surround the MNE: the initial layer is the subsidiary network, the second layer is the host government and the third layer is the local context's institutional network.

Step 1:

The MNE which looks to invest in an emerging market should consider investing its resources into emerging market institutions. Institutional investment seeks reduce uncertainty, improve institutional quality and credibly establish legitimacy with local governments through the investment in mutually beneficial and relevant institutions. In light of the evidence that institutional adaptation (bribery and corruption) no longer serve as sources of competitive advantage – MNEs willing to improve local institutional contexts stand to make longer term competitive gains and co-evolve than firms choosing to avoid or adapt to the local institutional context.

Step 2:

As the MNE expands its operations into the emerging market via its subsidiary, the MNE will encounter the host government in the secondary layer. At this stage of operation, the institutional context is still not fully known or understood, nor have local institutions exerted their full influence on daily operations. The MNE should seek out local institutions in order to fully understand their level of development and quality. Initial institutional engagement should include the identification of the relevant institutional players and the assigning of resources to work with them. The IDM model does not specify granular steps as the framework must consider local contextual challenges of the relevant host nation. The IDM model encourages a continual dialogue within institutions to maintain knowledge on institutional developments and a presence within local institutions.

Step 3:

The strength and power of the host government will dictate the character of institution building. Weak governments may require stronger guidance as to what regulatory inputs and institutional infrastructure is necessary for MNE operations. MNEs could offer to lead this process by building these institutions themselves and to eventually transfer the institutional knowledge to host governments through institutions. In the absence of a developed institutional landscape, firms with specialist legal and environmental departments could create local versions of these institutions.

Stronger governments will require more institutional collaboration to ascertain what institutional factors need development. MNEs should be willing to partner with host governments to co-develop institutional infrastructure outside of building roads, schools and physical infrastructure. MNEs who use their dynamic institutional capabilities to support local institutions will achieve legitimacy and superior performance more rapidly than firms who engage in institutional avoidance and adaptation.

Step 4:

The MNE's primary task is to build intra-firm institutional linkages, however, it can strengthen the network ties between subsidiaries in order to maximise knowledge sharing between subsidiaries. As the IDM model matures, the information flows can be rerouted freely through the subsidiary's intra-firm linkages. The strengthening of these linkages will reduce subsidiary dependency on their ultimate owner and enable greater flows of dynamic institutional capabilities and institutional knowledge.

MNE ultimate owners which develop the best quality and most robust intra-firm institutional linkages will enhance their exposure, learning and increase transfer of institutional knowledge assets across their subsidiary networks. They will increase their institutional agility, and be able to respond to institutional uncertainty across multiple institutional environments with greater agility.

Step 5:

The initial linkages between the MNE-subsidary-government and institutions have strengthened to a degree that there is open sharing of knowledge between all 4 entities. Through a legacy of continued MNE investment into institutions, institution's should be assert greater influence and take a more significant role than that of local government. The links between the ultimate owner, its subsidiary, the local government and newly created institution form a web of interconnected entities. The stronger the institutional links between these entities, the less uncertain the administrative, regulatory and institutional nodes. Ultimate owners should not only focus on building linkages to their subsidiaries but look to connect or internalise country specific entities and institutional knowledge. Local institutions should grow off of the knowledge transfer from the MNE.

As institutional uncertainty decreases, local institutions role and influence increases to the point where the MNE interacts and engages solely with the respective institutions and not directly through the host government. As institutional influence increases, a decrease in government-MNE interactions will see a decrease in its overall influence and a strengthening between the linkages of MNEs and local institutions. These micro-institutional linkages will

allow MNEs to upgrade and continually reinvest in institutions and continue to reduce their institutional risks while simultaneously increasing their financial performance.

7.4 Recommendations

7.4.1 MNEs

- MNEs have been well documented in upgrading their local subsidiaries capabilities and knowledge in order to improve their financial performance. Now MNEs, together with their subsidiaries can enhance their collective profitability by continually investing in institutional infrastructure in emerging markets.
- MNEs who build robust institutional linkages within their subsidiary network increase their access to local institutional knowledge and will be better placed to respond to institutional changes within the institutional context. Continual and increasing time and resources dedicated to institutional investments will be rewarded with lessening uncertainty, improving institutional relationships, cooperation and local legitimacy.
- MNEs involved with conventional institutional adaptation (bribery, corruption) may no longer necessarily maintain their competitive advantage in emerging markets, especially in cases where these adaptive practices may be widespread; building and upgrading of institutions has a greater positive impact on financial performance than merely adapting to local rules and regulations.

7.4.2 Host governments

- Emerging market governments who are willing to negotiate their environmental regulations in addition to clarifying uncertainty surrounding mineral sites of operation improve their nations desirability for direct investment
- EMNEs and DMNEs have differing and distinct investment profiles. Host governments can adjust institutional factors to attract the kinds of mineral FDI to their countries.
- Political stability, quality of infrastructure, corruption and the transparency of legal systems do not have a significant negative impact on mining MNEs ability to operate. These institutions can now be upgraded with the help of investing MNEs
- Utilise foreign MNEs to continually develop and upgrade weak institutions in exchange for more favourable operating conditions within host markets

7.4.3 Future research

- This inquiry studied the effects of institutional factors on mining subsidiaries. Future research should look to broaden the study using similar variables across different industries. Do other non-resource seeking MNEs and their subsidiaries possess dynamic institutional capabilities?

- The quantitative nature of the study lacks qualitative insights of how mining MNEs build institutional relationships with local governments and institutions.
- Future research should focus on in-depth interviews and case studies of South African mining operations and their managers. How do mining operations manage multiple governments and institutional pressures across many emerging markets to maintain their profitability? In this way, the research would continue to build on under-researched EMNE narratives in the international business and strategic management literature
- Future research could look to use longitudinal data to record institutional trends over a significant time of 5 to 10 years, to track mining MNE's responses and evolution to institutional changes and flux. Do institutional pressures change on mining operations with the maturing of institutional relations?

7.5 Concluding remarks

This inquiry is a response to Peng's et al. (2008) calls for furthering research on EMNEs and their influencing of institutions in emerging markets. This inquiry contributes to the extant institutional and international business literature's theoretical pursuit by providing an empirical perspective of mining EMNE's interaction with their institutional contexts. This inquiry provides a granular understanding of which institutional factors are respectively managed by EMNEs and DMNEs in emerging markets and the related effects on their performance.

The inquiry explored mining EMNE's and DMNE's post-entry operations in emerging markets, the institutional drivers of their profitability and how both sets of MNEs influence and engage institutional contexts. Resource-seeking MNEs are impacted by a host country's institutions and have an ability to shape and influence local institutions for their benefit.

EMNE's superior financial performance in emerging markets is evidence of their institutional influencing while DMNE's inferior financial performance reflects their avoidance of institutional engagement. This inquiry concludes that EMNEs have an innate advantage to build intra-firm-institutional linkages. These institutional linkages facilitate the transfer of dynamic institutional capabilities to their subsidiaries while improving their subsidiaries' capacity to manage volatile contexts. The linkages also enable host governments to partner with EMNEs to build, develop and upgrade underdeveloped institutions which might hinder their performance and erode a host nation's overall competitiveness.

“There is increasing government intervention and / or regulatory changes that are being implemented on a global basis. This will influence medium term mineral exploration and development expenditure but, more importantly, creates an opportunity for progressive governments to establish a regulatory regime that promotes mineral industry investment”
Mining manager (as cited in McMahon & Cervantes, 2012, p.27).

EMNE’s subsidiaries’ dynamic institutional capabilities have seen them outperform DMNE’s subsidiaries in emerging markets. The IDM model has been developed to help mining managers reconceptualise institutions as non-market opportunities for investment and to constructively reduce their overall risk profiles and institutional uncertainties for future investment in emerging markets. The IDM model also encourages host governments to focus on co-creating, building and developing local institutions with external MNE investors to improve host nation’s investment profile and their overall competitiveness.

8.0 References

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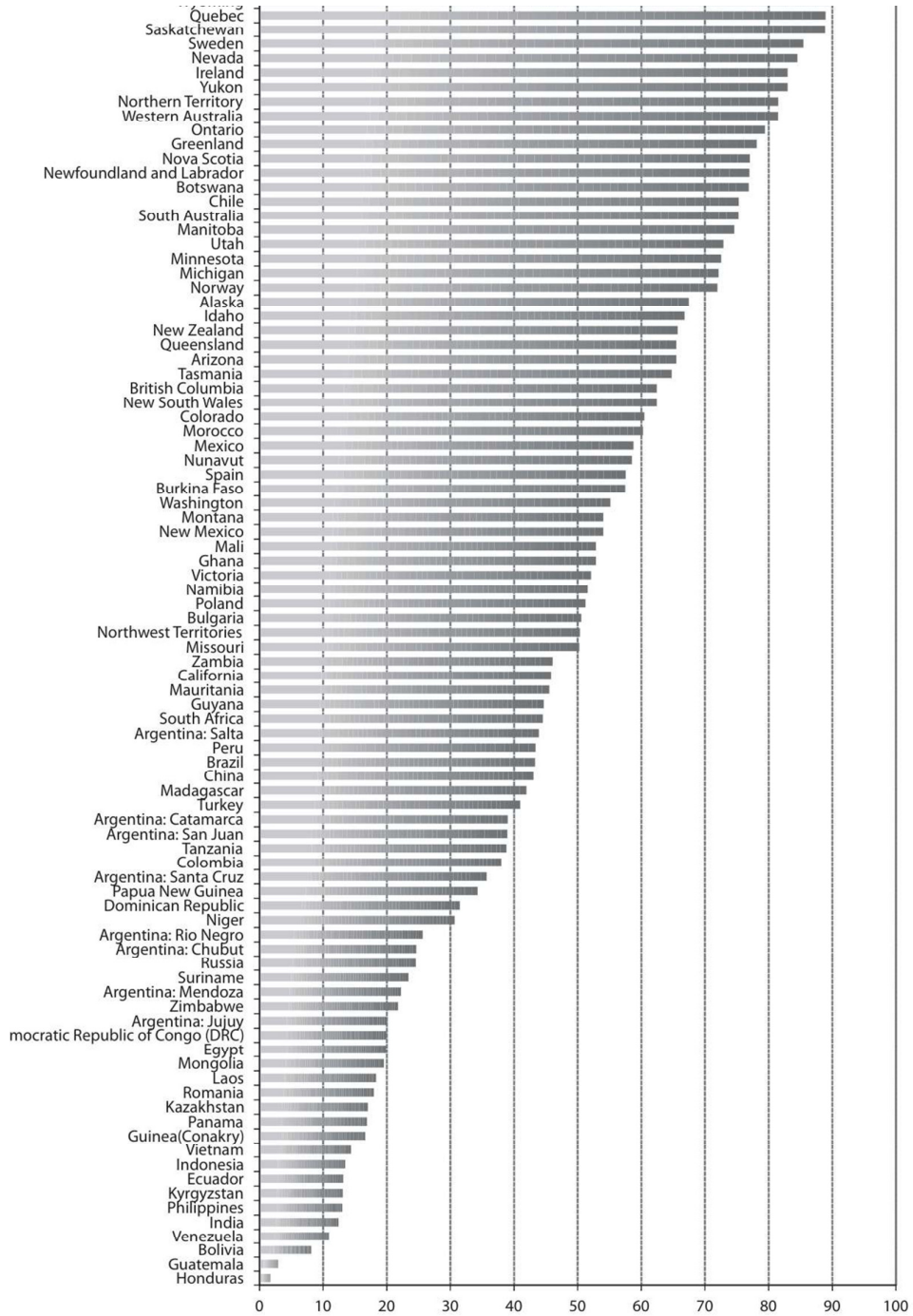
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Appendix 1

Appendix 1: List of Fraser Institute mining countries and territories



McMahon and Cervantes (2012)