"Investigating the international expansion of high growth power providers in emerging markets: motives, management and entry modes"

Abstract:

This paper explores motivations for pursuing internationalisation as a strategy in emerging markets. We track the internationalisation paths of six international power producers that are active in developed and emerging markets in our analysis with further focus on diverging modes of entry and the entrepreneurial attitude impacts of top-level management. Key takeaways from this contribution are that firms in highly controlled capitally intensive infrastructure industries are highly sensitive to changes in the regulatory environment and that many firms are capturing extreme growth through a variety of entry modes in emerging markets. We conclude with implications for policy, academia, and managers alike.

Keywords: international business, strategy, entry modes, motivation, energy, power

1. Introduction

Renewable energy and emerging markets are two business trends that have become a focal point of much attention as they both reflect long term sustained growth and demand potential. With over four billion people and the fastest growing populations existing in developing and emerging markets, opportunities exist to unleash the market potential in these base of the pyramid markets (Prahalad and Hart, 2002, London and Hart, 2004, Prahalad, 2006). Emerging markets offer long-term growth opportunities fuelled by increasing disposable incomes, population increases and ever-increasing economic liberalisation. Underpinning much of the capability to achieve economic growth is the availability and reliability of energy supplies. OECD corroborated this when stating that substantial investment in energy infrastructure is required to sustain the growth in emerging markets (2012).

The International Energy Agency commented that electricity generation growth has historically been led by OECD countries, but projects that this trend will shift with non-OECD leading growth before 2015 (IEA, 2010). Furthermore, with an 80% increase in energy demand coming from non-OECD countries by 2035 (IEA, 2010), consensus is that emerging countries will need to secure domestic supplies of low cost renewable energy to fuel their economic growth (Weaver, 2012). The market demand growth of renewable energy technologies in these emerging markets of developing countries is estimated to range from 10-18% per annum over the 2010-2020 period (BNEF, 2011).

In this context the international expansion of electricity power producers is important. However, research focusing on the international activity of electricity power producers is limited (Kolk, 2013), specifically those that have targeted emerging markets. Additionally it has been recognized that empirical research is lacking on related strategies, i.e. how to pursue opportunities in these new markets (London and Hart, 2004, Acquaah, 2009). One exception is Högselius (2009) who conducted a historical case study of the Swedish giant Vattenfall's expansion through Europe over the past twenty years. His major contribution highlighted the lack of international experience within the industry, and how the case company needed to continually readjust its approach to doing business abroad after a number of failed attempts. Del Sol (2002) addressed experiences a Chilean former state owned electric provider endured when capitalizing on newly deregulated electricity markets in emerging markets throughout South America. His work suggested that first movers in this industry are likely to create competitive advantages that enable them to leverage these into further expansion plans.

In this paper, we will focus the internationalisation process of six renewable energy companies, presenting both their development patterns and the role of the top management teams. Our first intent is to understand why these firms are internationalizing. Our second goal is to identify the international market entry strategies utilized by each of the firms.

The article is structured as follows. First we present a theoretical backdrop including motivations for internationalisation and the critical role of top management in devising internationalisation strategy. We then present our research design and case companies, followed by results and discussion. We conclude with implications that tie our empirical data back to presented theory and offer a number of opportunities for further empirical testing.

2. Theoretical considerations

The well-established Uppsala international business theory suggests that firms take a risk adverse approach and use incremental steps by limiting their exposure until acceptable levels of knowledge of foreign market operation can be built up within the organization (Johanson and Vahlne, 1977, Johanson and Wiedersheim-Paul, 1975). Other studies have found that some firms tend to skip stages in the evolutionary model and internationalise in a manner that contradicts the traditional models as rise has been given to the born global and international new venture theories (Oviatt and McDougall, 1994, Knight and Cavusgil, 1996, McDougall et al., 1994). This has resulted in divided opinions concerning the value of the stage model, and the validity of the incremental process has been questioned and extensively debated (Moen and Servais, 2002). Our research stream focuses on incumbent utilities with historically strong domestic assets bases and new ventures that quickly adopted internationalisation paths.

We deem it plausible that a theoretical gap exists within internationalisation theory. Not all industries' business models allow for alternative contractual modes for internationalisation such as export, foreign sales subsidiaries or licensing as modes of operation abroad. In the case of infrastructure service providers (power, water, natural gas) where physical assets (lines, pipes) represent the requisite resources that enable business to be conducted, we can see how the first three stages of the Uppsala model offer little theoretical insight into industries where transferability of the product (service) is limited to the extension of the physical infrastructure in place. Therefore the decision to internationalise is either limited to the physical infrastructure that enables a given firm to operate in a foreign market, or in the absence of such a possibility, a form of foreign direct investment must take place. This is in line with the proposed "Big Step" hypothesis proposed by Pedersen and Shaver (2011) which suggests that internationalisation is a discontinuous rather than incremental process by taking an initial large plunge with considerable sunk costs. Industries that demand large capital investments in plants and equipment fit well within their conceptualisation, as foreign direct investment embodies such big steps. The big step theory additionally argues that firms choose to take the big step over a more gradual internationalisation process because the opportunity cost dictates that lower risk factors translate into lower corresponding returns with close neighbouring markets (Pedersen and Shaver, 2011), as opposed to higher risk and reward profiles offered elsewhere. Figure 1 visualises the divergence of internationalisation theories with regards to activities over time.

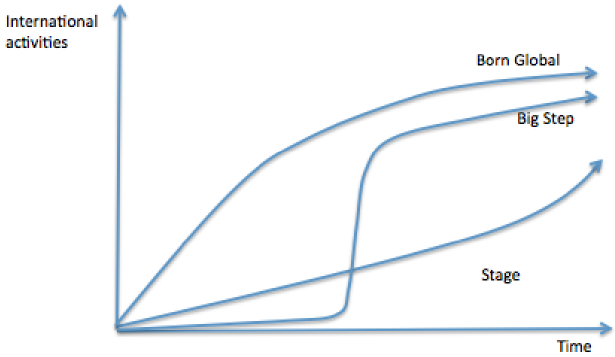

Figure 1 Disparities between the internationalisation theories

One additional factor is at play in the timing of the internationalisation decision. Within industry life cycle, the point at which a firm finds itself may have an impact, depending upon sector wide growth and the consequent intensity of competition (Gallego et al., 2009). As a sector reaches its pinnacle where growth slows down, companies are often forced to look abroad for new growth opportunities. As a consequence, firms that operate in mature sectors (with saturated domestic markets) that choose to pursue their main business line make it necessary to expand into new geographical markets. Thus we argue that sector specificity cannot be overlooked when examining internationalisation decisions.

2.1. Motives for international expansion

Firms choose to engage into international activities for a variety of reasons. March (1991) offered the notion of exploitation in that after firms have developed specific capabilities in their home market, they may then leverage these threshold capabilities to implement an internationalisation path (Prange and Verdier, 2011). This lends credence to the resource-based view of the firm (Barney, 1991), as firms without sufficient accumulated resources that offer sustained competitive advantage are less likely to succeed in the international marketplace. March's converse notion of exploration reflects that firms see foreign opportunities as a driver for growth and thus orient their strategy to broaden their market expansion (Prange and Verdier, 2011, March, 1991). However the concepts of exploration and exploitation do not take the holistic business environment into account as they exclude external stimuli. Perhaps a more comprehensive framework as offered by (Leonidou, 1998, Tan et al., 2007) groups proactive and reactive forces in the endogenous or exogenous business environments as explanatory factors leading towards a firm level internationalisation decision.

	Proactive	Reactive
Endogenous	-Recognition of competitive advantage -Potential for higher sales/profits	-Stagnation decline in domestic sales/profits -Reducing dependence on domestic business
Exogenous	-Identification of attractive foreign opportunities -Governmental support for internationalisation initiatives -Positive changes in foreign regulatory environment	-Competitive pressure in domestic market -Shrinkage in domestic market -Negative changes in domestic regulatory environment

Table 1 Proactive and reactive stimuli in the endogenous and exogenous business environment (Leonidou, 1998, Tan et al., 2007)

Whilst common stimuli as reflected in Table 1 are well covered in the literature, an area that we believe is underexplored is that of the impacts of a changing regulatory environment. In highly regulated or tightly governmentally controlled industries, such as in most infrastructure industries, the regulatory framework provides the conditions of the license to operate. Mahon and Murray (1981) highlighted that within such administered markets the regulatory bodies act either as buffers or change agents. Firms may enjoy certain degrees of protection under the buffering regulatory body (i.e. high entry barriers for competition, price stability, fixed returns on assets, etc.). However to ensure a continuation of this protection firms must adopt political analysis and negotiation strategies to safeguard their protected interests, or at the very least, possess foresight capability for changing political and regulatory climates (Mahon and Murray, 1981) that will have an impact on the organisation. The latter Adner and Helfat (2003) refer to as managerial cognition as knowledge of future events and managerial alternatives shapes strategic decisions and outcomes. Thus Mahoney (1992) argued that management is most valuable when they exercise the ability to exploit opportunities and/or neutralise threats in the firm's external environment.

Firms operating in administered markets face their greatest uncertainty when regulatory agencies change their roles from being a buffer to a change agent (Mahon and Murray, 1981). Thus when such conditions negatively change in markets they operate within, many of these types of firms find themselves in a reactive stance. Conversely, when framework conditions change in markets they do not possess operational assets within, new opportunities may arise as a result. In the face of deregulation and market liberalisation, these changing business environments pose significant competitive threats, but also accompany enormous opportunities (del Sol, 2002). Thus we believe it crucial to include ‘changing regulatory conditions’ to the existing lists of stimuli that may cause a firm to consider internationalisation initiatives. Haar and Jones’s contribution (2008) succinctly tracked this phenomena as their data revealed managerial recognition of positive changes in the foreign regulatory environment offered promising opportunities for foreign entrants, and thus managerial cognition of such events created the impetus to shape corporate internationalisation strategies oriented towards capturing such potential. Their results showed that a number of US utilities demonstrated opportunity seeking behaviour by entering the UK energy market as a result of market liberalisation during the 1990s, but ultimately many retreated as a result of misreading both political and market signals.

Conversely as managers may reactively consider foreign market entry as an opportunity to escape from the problems in the home market (Lee and Brasch, 1978), or as demonstrated above, proactively recognize the international market as an opportunity for expansion and growth (Pavord and Bogart, 1975). Aspelund and Moen (2005) found necessity to be a major motivating factor, and that companies are pushed into the global market in order to survive. Such a push factor could be that the domestic demand is too limited for the firm to grow in order to meet shareholder expectations. Conversely many firms exhibit opportunity-seeking behaviour and thus can be characterized as being proactive rather than reactive. We postulate that the reality is far more complex as firms experience a simultaneous confluence of endogenous and exogenous stimuli coupled with defensive and offensive pressures that force a firm’s management to question the future orientation of the firm. Thus the perception of the impact of such stimuli on the firm, and ensuing managerial reaction constitutes the basis of a subsequent decision of whether to include internationalisation as a viable strategic option for the growth and survival of the firm.

2.2. The role of management

Internationalisation as a strategy is closely linked to the management team, as is it expected that the manager's attitude and mind-set, international experience and risk averseness will affect the internationalisation process of the company (Bilkey, 1978, Bartlett and Ghoshal, 1989, Johanson and

Vahlne, 1990, Sullivan and Bauerschmidt, 1990, Madsen and Servais, 1997). The decision of whether to internationalise, and how to do so, is at the core of managerial decisions.

The internationalisation decision is often moderated by the strength of the business case, a firms resource-based risk tolerance (Perks and Hughes, 2008), and the flexibility of strategic direction offered through its ownership structure. Leaning on the resource school, a firm's resource base is its source of competitive advantage. The value of accumulated tangible and intangible resource stocks when inimitable and non-substitutable suggest whether the firm will be in an advantageous position or not when making the decision to internationalise (Leiblein and Reuer, 2004, Perks and Hughes, 2008). The extent to which this is true is moderated by managerial assessment of the level of competition abroad. Strategic positioning abroad is thus clearly impinged upon the managerial cognition of divergence between resource stocks within the firm and the prospective host market. In the decision to pursue an internationalisation path managers must assess the opportunity cost of reallocating scarce resources under uncertain market conditions (Perks and Hughes, 2008) in the home and host markets and look for compensating resource based advantages to overcome them (Leiblein and Reuer, 2004). Yet as Adner and Helfat pointed out (2003), differences between firms' resource bases and their capabilities are likely to lead toward differences in managerial decisions in guiding strategic future orientation.

A manager's attitude and mind-set play a role in a company's international strategic capabilities (Bartlett and Ghoshal, 2000) and thus will influence the manager's decision to consider foreign market entry as a strategic viable growth option. Prior international experience is assumed to influence the manager's mindset, and hence the likelihood of the firm's international involvement (Reid, 1981). According to Bilkey (1978) the international experience of the manager will affect how likely a company is to export, and Reid (1981) supports this in his study suggesting that the manager's attitude, experience, motivation and preferences for foreign markets entry in addition to his perception and expectations will be major determinants of the ensuing foreign market activity. This also indicates that the experience the manager accumulates in an international context will affect the internationalisation process, and that formulation and implementation of international strategies are linked to manager's international experience (Tung and Miller, 1990).

Another important element affecting the internationalisation strategy of the company is the manager's risk tolerance. Reid (1981) pointed out that the decision maker will have a foreign market orientation that is a measure of perceived risk in the foreign market along strategic economic, cultural, political and market dimensions. He argues that in principle those that have a smaller cognitive distance between the home market and the foreign market are more likely to enter these markets. This is supported in a study made by Kobrin (1994) who found that companies that have managers with a geocentric mind-set are more likely to have an early internationalisation.

The recognition of entrepreneurship as a significant force in the formulation of strategy grew in the 1990s (McDougall et al., 1994), and the entrepreneurial founder possesses an important role in the born global literature. A study by Cavusgil and Knight (1997) demonstrated that managers of born global firms have a more global orientation which results in improved international performance. Furthermore others (Zucchella et al., 2007) argue that personal business contacts abroad are important drivers of early internationalisation as it gives access to important information from the start up, and hence, the network of the manager is expected to have an essential role in the born global firm.

Managers in established organisations that have long operational histories solely in their domestic market must also understand their resource limitations in the context of internationalisation. Accumulated knowledge within an industry and regulatory context when limited to a sole operational environment restricts the value of this knowledge resource, or at least, it questions its transferability. Thus coping with liberalisation and the decision to pursue an internationalisation path requires that managers must focus on a set of choices which reflect the resources and capabilities possessed by the firm. Thus it is important to understand not only the existence of resources, but how the given resource base is ultimately used (Tuppura et al., 2008, Teece et al., 1997). Mahoney (1992) highlighted a further need to understand how a firms resources and capabilities influence managerial perceptions and subsequent future growth orientation decision making, a viewpoint shared more recently by Perks and Hughes (2008).

The resource based view suggests that the firm's access to resources is the source of competitive advantage (Barney, 1991), but how management chooses to mobilise and implement those resources in strategic decision making is at the core of strategic planning and implementation. As Teece et al. (1997) highlighted, past histories constrain future strategic choices through path dependencies. Thus in attempting to understand how industrial firms exploit corporate resources in their efforts to implement international strategies (Pehrsson, 2008), a strong understanding of the manager's role is crucial. Prange and Verdier

(2011) argued that foreign market expansion and growth is contingent upon the firms portfolio of capabilities and the (managerial) potential to reconfigure and deploy them for foreign market entry.

In summary, large well-established power providers entering emerging markets may not be able to follow a gradual process as described in the Uppsala internationalisation process models. In addition, many are not newly established making them incompatible with the international new ventures or born globals literature. Based on the characteristics of the industry they operate within, it is possible that they follow what may be described as a big step internationalisation process. In the cases, we will investigate their proactive or reactive motivations and entry strategies used when entering emerging markets. Finally, we will discuss how the internationalisation strategy influences the growth patterns observed.

3. Research design and case companies

A qualitative multiple case method design was selected for this research as proposed by Yin (2008) and Bryman (2008). Eisenhardt's (1989) systematic theory building was further applied in order to lift the findings out of the qualitative material collected about the case companies. We combined different data sources: a) firm level data collected from the case companies' investor disclosures; b) several personal interviews with one of the case companies; c) external media coverage in attempts to offset information provided by the case companies (where information bias and reliability may be in question due to vested interests), or when investor disclosures were not available.

The same research methodology challenge was recently shared by Kolk et al. (2013) in the same industry context as they stated "extracting exact figures on (firm) presence in specific markets has been challenging due to the paucity of information in firms' annual reports …the restructuring of companies or business units and availability of (disclosed) activity." However, the combination of different types of information from different sources made it possible to identify key development steps for each of the case companies.

Only the most salient data as it pertains to the given research questions is thus presented within this article. Metrics thus utilized in this exploratory analysis include revenues, ownership type, generation assets abroad[1], geographic market presence, and choice(s) of entry mode to

[1] Megawatts (MW)= a measure of power plant energy generation capacity and standard use of asset classification within the power industry

engage into our discussion regarding emerging market internationalisation as a business strategy.

3.1. Case companies

The sample of case companies was based upon the following criterion. All firms must: be hydropower electricity generators, own generation assets in at least 2 emerging markets, have origins in different countries, be of organizational maturity (10+ years). Based on these criterions, we selected the following case companies due their breadth and depth of international activities: *Pacific Hydro (*Australia), *ENEL* (Italy), *Verbund (*Austria), *Statkraft* (Norway), *International Power* (United Kingdom) and lastly *AES* (United States). Salient factors for the case companies are presented in Table 3. A map displaying the global footprint for the case companies is in Appendix A.

3.1.1. Pacific Hydro

Pacific Hydro was founded in 1992 to develop a series of small-scale power projects in Australia. Pacific Hydro began its internationalisation path in 1997 when signing a 50/50 joint venture (JV) agreement in the Philippines. Shortly thereafter Pacific Hydro formed another JV in the Philippines, acquired a 50 percent stake of a local power company in New Zealand, and formed a JV project in Fiji while simultaneously seeking out other opportunities throughout Asia and the Pacific Rim. Not long after all stakes in these projects were divested as the firm redirected its efforts towards Chile in South America. The initial mode of entry in Chile in 2002 consisted of a two pronged approach: the purchasing of two existing plants for rehabilitation and the acquisition of several greenfield concessions. To develop their first greenfield project, a 50/50 JV was formed with Norwegian SN Power (Statkraft). By 2008 they had gained a foothold in the Chilean market, undertaking their largest greenfield project in the country. Internationally they currently have projects in Chile and Brazil and approximately 40 percent and 10 percent respectively of their operating capacity is derived from these countries. Today Pacific Hydro operates 850 MW of generation assets but has 2000 MW in the development pipeline throughout Australia, Brazil and Chile (PH).

3.1.2. Enel

Enel was founded in 1962 when Italy nationalized 1 272 companies into a single state owned enterprise (SOE) responsible for its electricity sector. Like many other national utilities, it maintained this role until the deregulation wave spread through Europe. However unlike other European competitors who were already spreading their geographic reach throughout the 1990s, Enel was a latecomer with their first move towards internationalisation occurring in 2001 through a Spanish acquisition. In 2002 Enel experienced a major setback when the Italian government mandated Enel to divest roughly 20% of its generation assets in Italy.

In the same year Enel openly stated international ambition as a way forward which formed the platform for a series of acquisitions in Slovakia, Bulgaria, Spain, the United States, Russia and Romania, and ending with the acquisition of the large Spanish utility Endesa. Enel's acquisition of Endesa was of major importance as Endesa possessed a substantial asset portfolio spread throughout the Latin America region. In 2007-08 Enel completed its growth phase with major acquisitions in Russia and Spain.

Although Enel internationalized later than most of its peers it has become one of the largest electricity companies in Europe, and has a broad international presence (Schülke, 2011). As a result of the intensive international acquisitions strategy, international sales jumped from 5% in 2005 to 49% in 2008. Future focus has been placed on emerging markets, specifically due to their abundant resources and high economic and population growth rates (Enel).

3.1.3. Verbund

Verbund was a traditional SOE until the deregulation wave forced change upon the organisation. Verbund adopted the philosophy to "act rather than react" in order to be at the forefront of shaping the market (Verbund). They responded to new entrants on the home turf by creating a new structure that sought to leverage their knowledge within the hydropower and electricity trading sectors in the newly opened eastern European markets. There were limited growth opportunities in the Austrian market at the time, whereas in neighbouring countries demand outstripped supplies. The deregulation and market imbalance factors resulted in Verbund expanding into the international market. There were also favourable conditions in the international market such as higher price levels in certain countries, arbitrage potential based on trading, and new subsidy systems for renewable energy capacity additions that made Verbund decide to go international.

Verbund made its first international moves in 1999 when they entered into the neighbouring countries Italy and Germany through joint ventures where later they took a greater stake in the Italian market (adversely impacting Enel's market position). In 2007 Verbund entered Turkey by acquiring 50 percent of an existing local firm and established a separate partnership where they jointly committed themselves to the growth in Turkey. A year later in 2008 Verbund entered Albania through a 50/50 joint venture with their largest Austrian rival EVN. Verbund continued to expand in Germany, and in 2009 they acquired 13 power plants that increased their portion of the German market significantly. This purchase from the energy company E.ON made them became one of Europe's largest hydropower producers (Verbund).

3.1.4. Statkraft

Statkraft is a SOE dating back to 1895. It underwent similar deregulation in 1991 with forced asset divesture, but retained a significant portion of generational assets in Norway. In the mid-1990s Statkraft expanded its reach through minority domestic and Swedish acquisitions. Similar to many other European countries at this time, it was mandated to divest some domestic assets to avoid concerns of market power in 2002 (Statkraft).

Going abroad was first conceptualised in 1998 but was operationalised in a major way through a joint venture (SN Power) with the state owned Norwegian Investment Fund for Developing Countries (Norfund) in 2002. This strategic partnership reflects geographic proximity and limited neighbouring market constraints, to which a global approach was adopted. In 2003 SN Power catapulted itself onto the global stage through a series of minority and majority stakeholder acquisitions in Sri Lanka, Peru and India. Shortly thereafter it forged joint ventures to pursue greenfield projects in Chile and Panama to gain market presence while simultaneously acquiring stakes of existing firms in the Philippines, Zambia and Brazil. Statkraft also set focus on the Turkish market with a major acquisition that included concessions for new greenfield projects.

3.1.5. International Power

International Power was formerly National Power of the UK but experienced tumultuous times throughout the 1990s. In the face of deregulation the company was forced to divest assets and undergo a series of corporate restructurings. A decade on International Power emerged out of this storm with the strategic intent to focus on new markets and was subsequently listed on the stock exchange in 2000. Most recently GDF Suez acquired the firm. Rather than solely focusing on generation projects, International Power diversifies operations into other related infrastructure such as downstream gas supply or power and gas distribution networks.

Under the leadership of CEO Phillip Cox in the late 1990s, International Power used the shotgun approach towards its global expansion landing it in markets throughout Europe, the USA, Australia, and countries like Pakistan, Kazakhstan, Turkey and Malaysia. This strategy continues to date as they focus on increasing their global footprint in Latin America, the Middle East and Asia. Formerly market entry primarily occurred through mergers and acquisitions but more recently focus is set upon pursuing greenfield projects in emerging markets (IP).

3.1.6. AES

AES was founded based upon a regulatory change in the USA in 1981 that forced regulated utilities to purchase power from independent generators. This regulatory change offered a new business model at the time, but faced opposition from equity providers limiting its growth.

In 1985 AES put the entire firm's assets in one single project and succeeded. This was a turning point for the company allowing AES to go public in 1991 creating a new strong equity base, which gave them the opportunity to look at new opportunities in international markets. In the early 90's CEO Dennis Bakke estimated that 70 percent of AES's opportunities lay outside the USA, and thus AES searched globally early on to capitalise on rapidly unfolding opportunities. The first international acquisitions were in Northern Ireland/UK, and during the next few years they expanded further to Argentina, China, Pakistan, Hungary and Brazil. The Asian markets of China and India were targeted due to their high growth, and AES made subsequent investments in Kazakhstan, Argentina and Brazil (AES).

AES's utilised divestments as a primary entry mode throughout the 1990's as they participated in many auctions of state-owned electricity companies held by foreign governments, which sought to open up these markets for privatisation and new competition. These bids for asset transfers were also accompanied by long-term sales contracts with the SOEs, to which AES profited handsomely for achieving gains in reliability and operational efficiency. AES was thus a prominent bidder at the forefront of many countries' privatization programmes. Subsequent expansion was primarily through acquisitions of existing power generating plants (both privatizations and acquisitions) before moving onto greenfields at later stages in markets where presence was already achieved.

Founders Dennis Bakke and Roger Sant transformed the organisation by growing its employee base from 1 400 to over 50 000 which now operates in 27 countries. Many in the industry consider their business approach and early achievements to have revolutionised the global power industry by blazing the trail in demonstrating that lucrative financial results could be realised when doing business with state owned infrastructure enterprises abroad.

3.2. Sector specific motivational factors

Firms are motivated to enter international markets for a variety of reasons as outlined in Table 1. In the context of firms in the power sector, and the case companies outlined in this study, Figure 2 presents a summary of push and pull factors for firms in the power sector to internationalise into emerging markets.

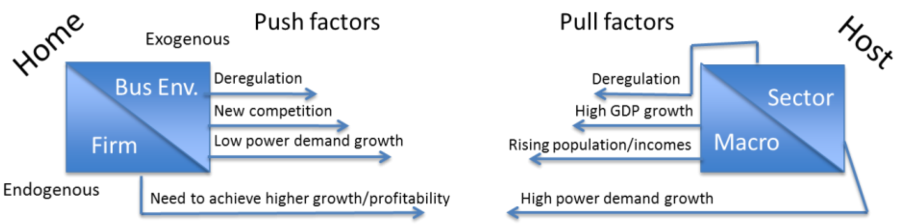

Figure 2 Power sector push and pull factors triggering internationalisation into emerging markets

In the home business environment, exogenous factors are more prevalent than endogenous factors for the case companies. As a result of deregulation the operational environment was opened for new competition which had profound impacts on the firms. In several instances the case companies were required by newly formed competition authorities to relinquish domestic assets through divesture to new entrants, effectively transferring income generating assets to the new competition. This imposed push factor left many of the case companies limited opportunities in their domestic market to pursue.

In the host business environments, deregulation was also opening opportunities for these firms to take their competitive capabilities abroad into markets that had previously been closed off to them. Underpinning motivations to pursue these opportunities was the strong recognition of macroeconomic factors such as higher GDP growth, fuelled by rising populations and disposable incomes. These macroeconomic factors at the country level translated into higher power demand growth at the sector level.

Managerial cognition of changes in the home domestic business environment coupled with opportunities unfolding abroad led the case companies on internationalisation paths. The timing of engagement for the firms varied greatly, as did their international strategies as presented in the following discussion.

	Pacific Hydro	Enel	Verbund	Statkraft	International Power	AES
Origin & founding	Australia 1992	Italy 1962	Austria 1947	Norway 1895	United Kingdom 1990	USA 1981
Revenues (BUSD:2011)	\$0,157	\$101,6	\$4,9	\$5,7	\$20,8	\$17,7
Ownership	Private (unlisted)	Public[1] (listed)	Public[2] (listed)	Public[3] (unlisted)	Public (listed)	Public (listed)
Assets abroad[4]	51%	73%	18%	20%	86%	82%
Country presence	3	40	7	9	30	27
Entry modes	Joint Ventures Greenfields	Acquisitions Joint ventures Greenfields	Joint ventures Greenfields	Acquisitions Joint Ventures Greenfields	Greenfields Joint ventures Privatisations Acquisitions	Privatisations Acquisitions Joint ventures Greenfields
International strategy	Market concentration	Global diversification	Regional concentration	Global diversification	Global diversification	Global diversification
Implications & future orientations	Geographic concentration	Excessive debt from extensive acquisitions strategy, priority on consolidation	Focus placed upon neighbouring markets entered through strategic JVs	Expanding globally through available entry modes suiting timing	Expanding geographic footprint & maintaining market diversification strategy	Market diversification lead to over exposure; consolidating to core markets

Table 3: salient factors for case companies

1 31% Italian Government
2 51% Austrian Government
3 100% Norwegian Government
4 Percentage of total generation assets (MW capacity)

4. Findings and discussion

The case study findings show that despite large differences in starting points and diverging internationalisation entry modes, all case companies have demonstrated remarkable growth as reflected in Table 4.

	Revenues (MUSD)		
	Year internationalised	**Pre-internationalisation**	**Present ('11)**
Pacific Hydro	'00	$44	$157
Enel	'99	$28 400	$101 600
Verbund	'00	$1 200	$4 900
Statkraft	'98	$636	$5 700
International Power	'99[1]	£7 700	$ 20 800
AES	'91	$330	$17 760

Table 4 Extreme growth: pre-internationalisation and present revenues[2]

Contrary to Zahra and Garvis's results (2000) that demonstrated firms which aggressively pursued international corporate entrepreneurship with augmented hostility had higher returns on assets but without higher levels of growth, the case companies presented in fact all demonstrate extreme revenue growth. Although we cannot compare and empirically demonstrate the effects of their internationalisation strategies had on their financial performance (as measured by return on assets), we can make the clear distinction these firms embody in terms of their growth performance.

Although all companies experienced substantial growth, the revenues display that there are major differences in the speed of growth of the different companies. While Verbund quadrupled its revenue during the internationalisation process, AES has realised revenue growth at a factor of 53 than before its internationalisation. This shows that although different strategies will lead to growth, the strongest growth reflects a more aggressive internationalisation strategy. Based on the case study findings it emerges that strategies that involve a rapid increase of international activities also reflects a rapid growth, and this indicates that companies with born global or big step characteristics will have a growth rate much larger than those following the process described by the stage models. However we must denote that revenues are also fully encompassing of other activities outside power generation (namely

[1] Internationalisation first occurred in 1993, 1999 is earliest available data
[2] Historic currency conversions conducted at oanda.com

trading) which makes direct comparisons of the effects of internationalisation onerous.

Although most firms retained large market shares in their home markets, their different approach when entering foreign markets resulted in large differences in the speed of internationalisation and growth. Verbund chose a regionalisation strategy that followed a gradual, cautious approach more akin to the stage process models while Enel made major acquisitions in distant markets without following the gradual process associated with the stage theory. AES and International Power experienced the fastest growth by demonstrating their capabilities to capture large shares of the newly opened markets, AES through their aggressive pursuit of privatisation programmes and acquisitions/joint ventures for International Power. While Pacific Hydro is still a small company compared to the other case companies, it is evident that they have experienced significant growth since they entered the international market with born global characteristics. From the cases it is clear that internationalisation can give significant growth, and that the chosen internationalisation strategy will determine the growth rate.

The findings show that the management of Enel and Verbund to a large extent had the choice to stay at home and protect their market share or seek growth abroad when the industry was privatized. Instead of fighting to stop liberalization of the domestic market, the companies supported it and prepared for internationalisation. The study further shows the importance of the managers' ability to change the strategy and focus on core energy business and internationalisation enabled the foreign growth.

For AES the founders are said to be the basis for the companies' success in the global market. They sought after opportunities in the foreign market and had a rapid internationalisation with global reach. This supports the argument put forward by McDougall, Shane and Oviatt (1994), that the management's vision and desire to be offensive or passive play a role in the company's international process. At the same time the AES case shows that a manager may have characteristics to suit various phases of a company's development. While the founders' entrepreneurial spirit led to rapid growth, it turned out not to be suitable to tackle the structural changes that were needed as the firm became too large. This implies that a high-risk tolerance and the ability to seek new opportunities are managerial characteristics that catalyse growth, but might not be optimal when the organization has grown large and needs stability.

The case study of Pacific Hydro show the managers' former international experience is correlated to the likeliness to internationalise

(Bilkey, 1978) and achieve improved international performance (Cavusgil and Knight, 1997). The fact that Pacific Hydro changed its international expansion strategy from Asia to Latin America indicates that the experience and knowledge of the manager also affects the selection of market. That many of the leaders had roles in cross national collaboration initiatives between Australia and Latin America (unrelated to their core business) which gave them more knowledge of these markets, likely influenced the decision to focus on these markets for future business (Reid, 1981). This suggests that manager's investment in social capital for knowledge building will affect the willingness to make commitment in the international market and hence be an endogenous stimuli factor (Andersen, 1993).

The focus on the manager's impact is more evident in some of the companies, and this suggests that the manager plays a different role in the internationalisation process of the companies. Further our findings support the theory in that the attitude, international experience, global orientation and entrepreneurial spirit are characteristics of managers that influence the rapidness of the internationalisation and growth.

Theory suggests that the choice of entry mode is based on the degree to which a company is willing to take risks determined by their appetite for commitment and control. The use of acquisitions, greenfields and joint venture entry modes imply the case companies' entry modes embody relatively high risk and a substantial commitment. However as formerly stated, this is more dictated by the nature of their industry than managerial decision-making. From the cases it is seen that nearly all case companies entered selected foreign markets through acquisitions. One reason why they chose this entry mode might be that in contrast to greenfields, acquisitions generate income immediately. However a more plausible justification is the capability to purchase local market knowledge and tap into the foreign firm's network bases. One case company stated that project development savings of up to 40 percent could be realised in greenfield projects once the firm is already established in the market. This fact may explain why in their early internationalisation AES, International Power and Statkraft entered through minority stake acquisitions to complement their competencies and gain a foothold in the prospective target market.

Verbund focused on regionalisation by entering countries with low psychic and physical distance, which indicates risk averseness and a gradual approach to the internationalisation process. Over time they have made commitment in more distant markets, in line with the stage theory where the firm gradually increases the investment in the international market (Johanson and Vahlne, 1977, Johanson and Vahlne, 1990, Andersen, 1993). Given industry specificity and geographical proximity, International Power, Pacific Hydro and Statkraft were all compelled to enter distant markets by deploying a global strategy.

The cases in the study have subsidiaries that control the international operations, and in this way they isolate the risk typically through special purpose vehicles. Some of the daughter companies in the study are founded in cooperation with holding or funding companies, which provide requisite access to capital to fund the projects. Further, findings show that many of the case companies relinquish control and choose to cooperate and according to Chang and Rosenweig (2001), equates to sharing cost and risk when investments are large is common. These findings indicate that the company's willingness to bear risk upon the organisation is decisive for which entry mode they choose.

AES, Enel and International Power have had the largest and most rapid international growth by taking large steps into the international market with high risk and substantial commitment. This may indicate that commitment and risk tolerance is crucial for those firms that want to have rapid growth. As demonstrated by the diverging choices of market entry mode of the case companies presented in this analysis, successful organisations develop strategies and innovative ways of implementing them for conducting business in emerging markets that differ from those that they use at home (Khanna et al., 2005) and as Khanna and Palepu (2010) suggested, there is no simple answer or formula for navigating the unique challenges of doing business in emerging markets (McCann and McCarren, 2012). This was clearly the case for AES, whose growth can be attributed to their first mover strategies in privatisation programmes.

Firms in the business of providing critical infrastructure services such as water or electricity supply must choose between expanding networks across borders enabling export or setting up new capital investment plants further abroad. In the absence of promising new opportunities in their domestic or neighbouring markets, global internationalisation strategies are being observed from electricity providers as illustrated in Appendix A. Fuelling this shift in strategy from traditional domestic path dependent firms is a number of key issues.

5. Implications

A clear implication for governments of industrialised nations is that by choosing to deregulate their electricity markets, they in effect push large actors in a key sector such as energy abroad. On the receiving end of this push have been a number of developing and transition countries that were also toying with different forms of deregulation in their markets. The opening for more private competition in home and host countries ten years on corresponded to a major shift in foreign direct investment activity. Having been subjected to new rules of capitalism, former SOEs sought to leverage their capabilities in new markets where such skills and resources continue to be highly sought after. Thus while privatisation and deregulation does invite new actors and open up competition into previously closed industry spheres, capital flight may occur as firms search for their growth abroad.

An implication for academic theory is that distinct limitations exist within internationalisation theory. Not all industries possess the capability to move abroad through contractual arrangements and thus are left with decisions that embody high risk through the commitment of substantial equity disbursements (FDI). We have demonstrated distinct limitations of the stage theories, and highlighted that Pedersen and Shaver's newer theory (2011) demands more academic exploration. Our cases have aligned within the big step theory as many firms had been in existence for a number of years before international orientations began, suggesting scant relations to the born global or international new venture theories. Once internationalisation as a strategy had been adopted within these incumbent firms, large foreign direct investments shortly followed which offers credence to the big step theory. However, it would be interesting to understand how broad this theory can be applied to other industries through further empirical testing.

What we have observed and described is the combination of three major factors. First, as described in the opening part of this paper, we pointed to the consensus that emerging countries will need to secure domestic supplies of low cost renewable energy to fuel their economic growth (IEA, 2010, OECD, 2012, Weaver, 2012). The average, yearly market growth rated of renewable energy in these countries is estimated to range from 10-18% over the 2010-2020 period by BNEF (2011). From a firm level perspective this means opportunities in the countries opening up for international actors. Second, national monopolies in some developed companies with deregulation processes changed what had been tightly controlled and regulated industries towards more competitive and dynamic environments. The firms within these industries had to respond, with a wide variety of possible strategic decisions. Third, in some firms the managers recognised that the opening for private competition through deregulation in other markets offered new growth avenues for the firm to pursue.

We have presented case stories of some of the firms in the energy sectors which in fact used these growth avenues and were able to develop and follow successful high growth strategies. Other firms may have tried and failed, or made decisions towards focusing entirely on the home market through industry diversification endeavors. A key implication for managers is the need for focus on how regulatory movements in both domestic and prospective host countries is prudent for neutralizing threats and capturing opportunities for the growth of firms in regulated industries. For investors and policy makers an equally important implication is the understanding of how strong the top management group in a company influences factors as ambition levels, risk tolerance, international entry strategies and growth rates.

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Appendix A: Global spread of case companies vis-à-vis 2015 GDP percentage growth