WORKING PAPER NO.258

Institutions and International Entrepreneurship: Directions from an Emerging Economy

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June 2007

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ABSTRACT

The conceptualization of the phenomenon of firms doing business outside their home country as "international entrepreneurship" has captured academic interest of late. However, this stream of research has primarily looked at firms from developed economies entering international markets. In this paper, we specifically look at firms from emerging economies going international. We detail the historic trajectories of three Indian industries that have been performing well internationally in the recent past. Despite the differences in the nature of opportunity among these three industries, what enabled them to overcome constraints in internationalization was active reliance on institutions that provided them the requisite skills and legitimacy. We theorize about the role of institutions in enabling international entrepreneurship, particularly from emerging economies.

INTRODUCTION

Research in entrepreneurship has transcended debates on the behavioral traits of entrepreneurs. While concepts such as "entrepreneurial personality" (De Vries, 1977) do find application, current research places the individual entrepreneur in perspective with reference to environmental and firm level attributes. Miller's work (1983) laid the groundwork for placing emphasis on firm characteristics, and following his lead, several researchers studied the entrepreneurial orientation of firms. Entrepreneurial orientation has traditionally been operationalized through constructs such as proactiveness, innovation and risk taking. These features of a firm are arguably put to the most stringent test when it internationalizes, as the environmental complexity, differences in customer preferences and the concomitant demands on the organizational response are of a higher magnitude and order. This aspect, coupled with the increasing globalization of firms has lent urgency to the emergence of international entrepreneurship as a field of inquiry.

International entrepreneurship

As a field that grew rapidly, international entrepreneurship looked at several pertinent issues such as market entry modes, venture financing, national cultures, transitioning economies and the like, despite being plagued by definitional problems. McDougall and Oviatt (2000) helped clarify matters by conceptualizing international entrepreneurship as "a combination of innovative, proactive, and risk-seeking behavior that crosses national borders and is intended to create value in organizations." However, the multi-disciplinary nature of this field and increasing interest in other relevant issues such as knowledge management and cognition led to their re-conceptualization (Oviatt and McDougall, 2005) of the definition of international entrepreneurship as "the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services."

Despite the increased scope of the field of international entrepreneurship, both in terms of the extended definition and the multiplicity of research questions tackled, the institutional perspective is conspicuous by its absence in this research stream

(Young, Dimitratos and Dana, 2003). Considering that international entrepreneurship literature draws from allied fields such as research in start-up firms and small & medium enterprises, where the role of institutions is stressed, this incidence may appear to be surprising at first glance. However, we believe that the reasons for the limited presence of institutional perspective in this stream of research are not far to seek. They can be traced entirely to the contexts the researchers in international entrepreneurship arena have been predominantly preoccupied with.

While the international entrepreneurship literature has generated several interesting insights that have pushed the boundaries of its envelope (See Zahra and Garvis, 2000, for example), it has viewed these issues from the perspective of a well-established firm of a developed economy (mostly US) going international. A US firm going international may indeed face tough and complex questions on product-market choices and cultural compatibility; however, its pedigree as an established firm[1] from an economically advanced nation would obviate the need to either acquire technical skills or signal legitimacy through recourse to institutional support. Also, it would not be out of context to mention here that the alliances it enters into with firms in its international markets have the primary objective of appreciating cultural differences and market realities rather than achieving technical superiority or legitimacy with reference to its antecedents. Given this explanation, it does not appear too surprising to notice the limited presence of institutional perspective in the international entrepreneurship literature to date.

Narratives of the success of firms from Japan and Korea, when these economies were still in transition, – albeit perhaps not grounded in either the institutional perspective or the international entrepreneurship research – suggest that state intervention and the active role of government bodies contributed to the success of these firms. Building on this idea, we argue that institutions play a major role in the surfacing and the success of international entrepreneurs from emerging economies. These institutions need not be restricted to the state and its organs; they can range from nation-wide industry bodies to internationally renowned entities such as reputed universities. We believe that the role of institutions would be found to be significant in international entrepreneurship research if it engages strongly with the scenario of emerging economies. While research has been carried out in the context of emerging economies (See London and Hart, 2004 for example), such research has been more concerned with the performance of firms from developed economies entering emerging economies. It would be an apt research setting to look at firms from emerging economies going international, especially to advanced markets such as the United States, to understand the role of institutions in this phenomenon.

Firms from emerging economies

International entrepreneurs from emerging economies entering developed countries (IE-EEDs hereafter) are of topical interest as firms from countries such as China and India have started going global. But for a few exemplary studies (see Aulakh, Kotabe and Teegen, 2000, for example), very little research has been carried out on IE-EEDs within the ambit of either international entrepreneurship or even the much broader domain of international business[ii]. If entrepreneurship is measured through aspects such as proactiveness and risk-taking, it is indeed conceivable that IE-EEDs display higher levels of entrepreneurship as it is difficult to display proactiveness and risk-taking while hailing from industrial backwaters lacking in managerial and technical talent. This premise, in conjunction with the role of institutions is what we look at in this paper. Unlike the Chinese, Japanese and Korean contexts where the state and its institutions played a major role (Johnson, 1982; Oi, 1995), not much evidence is available for the role of the state in the Indian context (Kapur, 2002). Hence, we focus on IE-EEDs from India, as it would uncover an additional layer of the role of institutions, namely in the absence of active state intervention.

Structure of the paper

We specifically look at the historic trajectories of three Indian industries that have been performing well internationally in the recent past. The first section looks at the nature of opportunity in each of these industries and its antecedents – ranging from the technological to the legal; we restrict the description to the nature of opportunity available to the Indian firms in the US market for two reasons – (i) for the purposes of maintaining a linear narrative and focus and (ii) US has been the primary and the largest market for Indian firms in the three industries we detail. The subsequent section looks at the nature of constraints followed by the section where we look at how different institutions were leveraged by each industry in overcoming the constraints. In the penultimate section, we theorize about the versatile role of institutions in enabling international entrepreneurship in an emerging economy context. Finally, we indicate the implications of this study and look at ways and means to advance this stream of research.

THE NATURE OF OPPORTUNITY

In early 2006, the market capitalization of the Indian software services major Wipro reached $20 bn.; in sharp contrast, the market capitalization of EDS, the US firm that pioneered outsourcing, was $13 bn. on that day (Hamm, 2007). Wipro was not an exception in its industry; rather, it was an exemplar of its industry-wide trend in India, as were Sundram Fasteners, a five time winner of "Supplier of the year" award from General Motors in the auto components industry and Ranbaxy Laboratories, the tenth largest generics pharmaceutical company in the world with three fourths of its turnover generated outside India in the pharmaceutical industry.

In order to understand the success of the international entrepreneurs from India in the global software services, pharmaceutical and auto components industries, we look at the historic trajectory of each of these industries, starting with the nature of opportunity in each case.

Opportunity in software services industry

Of the three industries that we detail, the success of Indian firms in the software services industry is probably the most commented and commended upon in the business press (See Ramachandran & Garg, 2006 for a detailed description). Hence, in the interest of brevity, we provide a perfunctory description of the emergence of opportunity in the software services industry. For the sake of clarity, however, we emphasize those aspects of the industry that defined the contours of the opportunity.

Two trends revolutionized the paradigm of computing, pushing it firmly from the ambit of military and scientific applications to the arena of business problems. One was the advent of personal computers and networking; the other was the increasing importance of software vis-à-vis hardware. While these trends enabled flexibility that was paramount for business applications, they also brought in their wake, a new source of demand in the developed countries for customized software. Typically, the tasks required a large number of people with knowledge of diverse software languages and protocols, which was not easily available in the West. Even if it was available, such expertise was rather expensive to acquire.

This led to the exploration of alternate sources of manpower. Some Indian firms addressed this demand by supplying engineers from India, who were lower priced and the fundamental value proposition of the industry became its ability to "deliver" a working team of professionals capable of undertaking any software engineering task. The projects were conceived, designed and managed by client organizations while Indian software professionals worked on specific "tasks" assigned to them. Bulk of the work undertaken by the industry during this period was the so-called "low end project work" – legacy application development, migration and maintenance, providing support to technology products in the mature phase of their lifecycle etc. The dominant revenue generation model during this period was to second software engineers to overseas client organizations to work *onsite* in client projects.

While this model solved the problem of the client by handing over to him, a workforce that was skilled and inexpensive, the flipside was that it also brought to fore, some unanticipated problems. Globalization theories advocate freeing up of capital, trade and labor, in that order, as globalization of labor is the most problematic in the sense that it raises attendant socio-political issues such as immigration. The growing number of Indians working abroad at client sites meant that demands for capping visas could place this model in jeopardy.

A possible solution to this vexatious issue presented itself in the form of advances in ICTs (information and communication technologies) which enabled work to be done from anywhere in the world and to be integrated seamlessly. Operationally, this meant that the Indian firms could have bulk of their workforce working from India itself, with only a skeletal workforce staying abroad at the client site for purposes of integration and co-ordination; additionally, this would also enhance the value proposition. However, this also meant that the client had to cede a significant amount of direct control on the project and trust his Indian vendor to carry out work

efficiently in his absence and at a distant location. Thus, the onus lay on the Indian vendors to convince the client that they are capable of executing projects without supervision. Their lack of prior experience in planning and executing such work meant that it was very difficult for the client to be convinced of their abilities – thus, a large opportunity beckoned Indian software services industry with an even larger constraint.

Opportunity in pharmaceutical industry

United States has been the largest pharmaceutical market world-wide for many decades now. For a long time, the operating paradigm in the US pharmaceutical industry had been the relentless pursuit of innovation encouraged by the strong patent regime. Increase in R&D expenses and exploitation of monopoly rents resulted in higher drug prices and consequently, higher healthcare costs. The resultant public pressure to bring costs down, orchestrated under the auspices of health management organizations (HMO), managed care organizations (MCO), private insurance schemes, company employee health plans and group purchasing organizations, led to legislation aimed at "genericization", where generic alternatives could be made more easily available.

This legislative action culminated in promulgation of the Drug Price Competition and Patent Restoration Act of 1984. The primary aim of the Act, commonly referred to as the Waxman-Hatch Act, after the two senators who had drafted it, was to increase generic drug availability. The Act sought to enable availability of alternatives by, among other things, creating a generic drug approval process called the Abbreviated New Drug Application (ANDA). An ANDA is an application to the US FDA (Food and Drug Administration) for permission to float a generic version of the drug. The ANDA process removed the burden of proving the safety and efficacy of the generic drug from the manufacturers by allowing the generic manufacturer to refer to the safety and efficacy data supplied by the innovator company – thus obviating the need for costly and time consuming field trials and substituting them with bio-equivalence studies. As a consequence, ANDA filings are cheaper (costs around $1 million) and faster (takes around 18 months) than filing for a New Drug Application – the process required to be followed for approval of a new drug. Further, the Act authorized the pharmacist to replace the branded drug in the doctor's prescription with an equivalent generic drug unless it specifically mentioned "dispense as prescribed".

While these potentially rule-changing shifts were taking place in the US pharmaceutical industry, changes of a different complexion were taking place in the Indian industry. We now look briefly at the changes in the Indian industry to see how it evolved to be well poised to exploit the generics opportunity in US. There were two major interventions by the Government of India (GOI), which impacted the growth and evolution of the Indian pharmaceutical industry. The first was the introduction of the Indian Patent Act in 1970, which recognized only process patents rather than the product patents (Ramachandran, Mukherji and Sud, 2006). Thus it permitted Indian companies to reproduce patented drugs provided they produced them in a novel way. Second, the GOI, with a view to ensure availability of drugs at affordable prices introduced the Drug Price Control Order (DPCO) that capped prices of select drugs sold in the Indian market. These two regulations impacted the form and nature of the

Indian pharmaceutical industry. The first regulation helped in the production of generics by the Indian firms as it is relatively simpler to reverse-engineer a drug and find out a non-infringing alternate process of production rather than sift through thousands of molecules and identify and develop the one with the most potential to become an effective drug. This regime facilitated specialized synthetic chemistry skill set acquisition by Indian firms. The second regulation forced the Indian companies to improve efficiency. These two regulations led to fast availability of inexpensive clones of costly branded drugs launched by MNCs from developed world in the Indian market.

Thus, the process patent regime helped Indian firms to be cost-efficient as well as be well-versed in the production of a variety of drugs – exactly the attributes required by the US pharmaceutical industry in the changed scenario, thus opening a huge window of opportunity for Indian firms. However, the Indian firms were acquainted with neither the US regulatory processes nor the requisite channel management skills. Apprehensions about quality of products produced by firms from underdeveloped economies also meant that the opportunity could not be acted upon easily.

Opportunity in auto components industry

Starting in the 1970's, US auto manufacturers found that competitors from Japan were much nimbler, thus enabling them to capture market share. This led the US firms to take a hard look at their own processes and start focusing more on core activities, outsourcing the rest. Outsourcing increasingly became the accepted practice of the industry, with OEMs sourcing almost 75% of the vehicle from suppliers, while they themselves focused on core activities like design, research and development, vehicle assembly, marketing and brand management.

This also forced a hard look at the automobile industry supply chain, leading to its restructuring in the late 1980s through the 1990s. Reducing the overall number of suppliers and dealing with a select few 'systems integrators' became the operating paradigm. The onus of maintaining competitiveness shifted to these system integrator companies in a large way. These suppliers were under pressure to reduce costs on a continuous basis and started looking seriously at opportunities to cut costs by sourcing globally. They scouted aggressively for sub-assembly manufacturers and component manufacturers from low-cost economies in Asia, among others. Chinese firms, known for their skills in large scale mass-manufacturing at low costs, fitted the bill. Encouraged by their experience with Chinese firms, the system integrators looked to develop other sources of supply in the vicinity.

Around the same time, the Indian auto components industry, which grew in size due to the Indian government's shift to market economy and the consequent entry of auto majors from around the world, experienced improvements in quality and productivity due to this global association. This set a platform to exploit international markets. However, considering that China had a head start both in terms of scale and time, it became imperative for the Indian firms to overcome the late mover disadvantage through bases extending beyond cost, such as quality. While their experience with global majors in India made them competent to offer global quality at low cost, it also became imperative to signal this to the world at large, before

embarking on capital expenditure decisions pertaining to capacity expansion. Thus, again, as in the case of other two industries, we find that the opportunity came along with a constraint.

Variety in the nature of opportunity – fertile ground for entrepreneurship

We see that the nature of opportunity was varied in the three industries. While cost advantage was an important factor that contributed to the nature of the opportunity, the antecedents that made this advantage important were all very different – ICT, genericization and outsourcing. However, along with the nature of opportunity, came severe, potentially debilitating constraints. Achieving success requires careful navigation through the myriad set of constraints confronted by them. We first detail the nature of constraints faced by Indian firms and then engage with the role of institutions in the successful navigation of constraints.

THE NATURE OF CONSTRAINTS

Liabilities of origin

As elaborated upon in the previous section, there were distinct sets of opportunities available for Indian firms in the software services, pharmaceutical and auto components industries that were seeking to establish themselves in key international markets. The abilities of Indian firms in these industries to exploit these opportunities were, however, constrained by their 'liabilities of origin.' As international entrepreneurs from emerging economies like India venture into developed economy markets, they come up against a set of interrelated obstacles that pertain to enduring credibility issues with customers in host countries, deficient institutional support in home countries, and lack of organizational readiness to engage with the challenges of competing in the international arena. The liabilities of origin borne by emerging economy firms are significantly broader and deeper than those disadvantages of foreign firms in host markets that are recognized in the international business literature (specifically the literature pertaining to the liability of foreignness; Zaheer, 1995). We explicate these disadvantages on three dimensions in the subsequent parts of this section.

Constraints in securing customers

The first dimension of the liabilities of origin borne by emerging economy firms in developed country markets pertains to the constraints in securing customers and convincing them of product / service quality. Evidence in the Country-of-Origin literature in international marketing has repeatedly demonstrated the belief of consumers in developed nations that products from developing economies are of inferior quality and carry a high risk of poor performance (Verlegh and Steenkamp, 1999). For example, the Indian software services industry, in its early years, faced a significant challenge in convincing clients located in the United States of their ability to deliver services that met the quality threshold. We wish to emphasize that the challenge of attaining the said quality threshold is only the precursor to the challenge of convincing the client that service delivered from a distant location would meet the expected threshold of quality. What compounds the problem for firms from emerging economies is that negative impressions of product / service quality (in the absence of

trial) mesh with negative country image biases to create a scenario where attempts by firms to attenuate their liabilities of origin with customers are only partially successful in the absence of an improvement in the country of origin image. These biases prevail not only among purchasers of consumer goods, but also among purchasers of industrial goods (Verlegh and Steenkamp, 1999). Furthermore, studies suggest that firms can overcome negative country of origin biases only when their performance is exceptionally radical (Lotz and Hu, 2001). Incremental improvements go unnoticed, it would seem, by customer who have dominant country image biases. This was precisely the challenge faced by Indian software services firms in the early years of the industry.

The crux of the challenge for emerging economy firms entering developed economies is their lack of linkages to key institutions (Baum and Oliver, 1991) in the host country environment that allow them to demonstrate their reliability and accountability (Hannan and Freeman, 1984) in terms of cultural accounts established in the host country. For example, the Indian generic pharmaceuticals industry seeking to enter the US market needed to demonstrate their ability to produce quality generic drugs using procedures and norms that were established by regulatory institutions in the United States.

To pull together the different strands of the argument in this sub-section, not only was it necessary for Indian firms in the software services and generic pharmaceuticals industry to give proof of quality of their products and services in the US market, they had to do so in terms of the established accounts of reliability and accountability in that market.

Constraints in accessing factor markets

The second dimension of the liabilities of origin borne by emerging economy firms in developed country markets pertain to the constraints faced by them in accessing factor markets. The institutional characteristics of home countries have been shown to significantly influence the competitive advantage of firms abroad (Nachum, 2001). For emerging economy firms competing in developed country markets, this suggests a serious disadvantage vis-à-vis developed economy firms on their home ground since emerging economies are marked by 'underdeveloped economic and institutional infrastructure' (Hitt, Dacin, Levitas, Arregle and Borza, 2000). The underdeveloped institutional infrastructure in emerging economies constrains the ability of local firms to access two broad kinds of resources essential for an internationalization program – patient capital and global managerial talent.

In emerging economies, the absence of a mature institutional infrastructure for allocating capital sharply reduces the ease of capital access for local firms (Aulakh et al., 2000; Hitt et al, 2000). Of the three industries discussed in the paper, this institutional void (Khanna and Palepu, 1997) most adversely impacted the Indian pharmaceuticals industry and, as a consequence, firms such as Dr. Reddy's Laboratories found their programs for challenging patents under pressure. Such programs – a quintessential component of any bid to gain a presence in the generic pharmaceuticals arena – entail high regulatory and legal costs that need stable sources of patient capital for sustenance.

The other scarce resource in emerging economies is global managerial talent. Emerging economy firms making inroads into developed economy markets need to be well equipped with managers having the skill set and experience to work in mature market economies and manage cross-national operations. The low level of historical engagement of emerging economy firms with international operations ensures that there is an extremely scarce pool of managerial talent in emerging economies that meets such criteria (Aulakh, et al., 2000; Uhlenbruck, Meyer and Hitt, 2003). The absence of an ecosystem that can provide global managerial talent imposes high costs on emerging economy firms entering developed markets and slows the process of their internationalization. This problem surfaced again in the internationalisation process of the Indian generic pharmaceutical firms (Ramachandran et al., 2006).

Constraints in internal organization

The third dimension of the liabilities of origin relate to the constraints emanating from within the organization. In the absence of a pool of examples of peers who have successfully internationalized and established themselves in developed country markets, champions of pioneering internationalizing initiatives by firms in emerging economies must first tackle lack of active support from organizational insiders who do not share the confidence of the champion in the ability of their firm to take on developed country firms in their home market. Managers in such firms have to do more than merely make economic sense. They have to convince sceptical organizational members of the feasibility of the internationalisation initiative. Their challenge is all the more acute because they cannot provide tangible evidence that such a foray would pay off nor can they cite tradition to their employees in justification of the foray, since such initiatives would have been largely unheard of in the community of firms to which the focal firm belongs (cf. Aldrich and Fiol, 1994).

Taken together, these interrelated disadvantages of international entrepreneurs from emerging economies create a severely restrictive countervailing force to the pull of the opportunities discussed in the previous section. Unlike the success of a single firm, where firm-specific idiosyncrasies may probably account for that success, we see that all the industries detailed in the previous section did very well, despite the severe nature of constraints that we described in this section. In the next section, we seek to explain what led to the success of these industries.

EXPLOITING OPPORTUNITIES THROUGH INSTITUTIONS

What is it that enabled these industries to overcome their constraints and exploit the opportunities at hand? We argue that it was their leveraging of well known institutions for support and sustenance that accounted for their success. We now turn to a description of the role of institutions in each of these industries to further bolster our premise.

The case of Indian software services industry

Advances in ICTs meant that it was possible for a major part of the work that was hitherto carried at the client location to be done at a fraction of the cost from India. It would however mean that the client ceded direct control. This ceding of control needed to be recompensed suitably for the new model to work. Initially, the

Indian firms sought to do this by adopting the client's proprietary processes. Soon, they realized that proprietary processes need not always represent best practices. Also, dealing with multiple clients and their disparate processes would not result in efficiency gains for the supplier. More importantly, this course of action does not bestow signal value to the supplier's activities. The genius of Indian software firms lay in their realization that all these concerns could be addressed by resorting to a standard process which could assuage the client's concerns about their ability to deliver high quality software on time. They sought to do this by embracing the standard newly launched by the SEI (Software Engineering Institute) of the Carnegie Mellon University, Pittsburgh, USA.

The mandate of the SEI, under the commission of the US Department of Defense was to improve the software development processes that would enable rapid development of software without sacrificing quality. By 1993, SEI released the stable version of its assessment process, known as the Capability Maturity Model (CMM). CMM is designed as a layered system with five levels, level 5 being the most evolved – Achieving level 5 certification of CMM translates into a capability that helps improve the software development process by increasing the efficiency, imparting measurability and making it "scientific"; however, achieving the certification at level 5 was not easy.

In December 1998, Wipro, an Indian software company, became the *first software services company* in the world to be assessed at level 5; overall, it was only the eighth entity in the world to achieve that certification. By June 1999, four other Indian firms also got assessed at the same level. Apart from improving the quality levels and signaling this to the world at large, the certification, by virtue of converting the software development process from the "craft" mode to the "engineering" mode also helped in the rapid development of software and more importantly from the perspective of the Indian software industry, in the scaling of the organization as well, which was critical for exploitation of the growing opportunity.

Apart from the tangible benefits of the certification, the legitimacy of the certification due to its association with the reputational capital of Carnegie Mellon University enabled these Indian software firms in allaying the apprehensions of the client. Also, a realization that it was not enough if a few firms adopted it and that several firms needed to do so to lend it the character of "best practices" took root. Following this, NASSCOM (National Association of Software and Service Companies), the nodal body of the Indian software industry urged the Indian firms to try and achieve CMM level 5 certification and lent them a helping hand in doing so (Ramachandran and Mukherji, forthcoming). To give a further fillip to its efforts to boost the growth of the Indian software industry, it commissioned the now famous NASSCOM-McKinsey study in 1999. The stellar reputation of McKinsey and company aided its efforts to provide visibility to the Indian industry in international markets. Follow-up studies were undertaken in 2002 and 2005. These initiatives bore fruition and within a short period, the scope and character of the Indian software services industry changed – Not only did the industry grow spectacularly - in mid 2006, the top four Indian IT & IT-enabled services exporters had a combined market capitalization of $73.44 billion; in comparison, the six corresponding US-Europe based players had a combined market capitalization of $66.98 billion (Shirsat, 2006) –

over 75% of all the companies assessed at CMM level 5 in the world are located in India.

The same trend continued when the SEI launched two more certification initiatives for the renewal and the continuous improvement of firm processes – the People Capability Maturity Model (PCMM) and the Integrated Capability Maturity Model (CMMi), geared towards improvement of people skills and integrated management skills, respectively.

We see that NASSCOM and SEI complemented the efforts of each other in the adoption of CMM and its derivatives. These two institutions were not only individually effective but also collectively cohesive with the former playing the role of an enabler by design, and the latter, that of an enabler by default. It was the effective leverage of these institutions that aided the Indian software services firms in transcending the liabilities of origin.

The case of Indian pharmaceutical industry

While the opportunity was huge for Indian pharmaceutical firms in the changed scenario of the US market, they did not initially possess the resource configurations to enter the market. The firms needed to have their plants approved by the US FDA to produce drugs for consumption in that market. While at one level, this was a barrier, at another level, this was also an enabler as having an FDA approved plant made the market contestable immediately.

Having access to FDA-approved plants is a *necessary condition* to compete in the US market. While this approval of plants may solve several problems, it was important to tackle the missing piece in the puzzle – the problem of complementary assets, especially access to distribution channels – of reaching out to the consumer. However, the unique structure of the distribution channels in the US pharmaceutical industry obviated that problem to a great extent. The US distribution network comprised large distributors which are typically chain drug warehouses or dedicated healthcare distribution companies, which acted as the key link between the manufacturers and the final outlets from which consumers buy the product. This structure, coupled with the power to the pharmacist to replace the branded drug in the doctor's prescription with an equivalent generic drug, averted the need for having a large sales force calling on doctors as long as the firms could be competitive on costs they offered to the drug chains. Indian firms were among the most competitive on costs by virtue of their location and home market context. Thus, in the case of the Indian firms, having access to FDA-approved plants also became a *sufficient condition* to compete in the US market.

Realizing this, Indian firms rapidly scaled up facilities in India that would make the cut with the FDA approval process. Today, India has the largest number of US FDA approved plants in the world outside of the USA - over a hundred plants and growing, in contrast to fifty five in Italy and twenty seven in China, other key competitors in the market (Financial-Express, 2006). This also has led to better performance in related areas – of all the ANDAs filed, 20% are from the Indian firms. Also, the greatest number of DMFs (Drug Master File)[iii] refers to the plants in India.

Today, over 50% of the turnover of the top 10 Indian pharmaceutical firms comes from exports, mostly to the US; this is all the more impressive because of the fact that the Indian firms entered the US generic market in a big way only in the 1990's. It is evident that it was the access to the stamp of approval for the Indian facilities by the US FDA that drove this rapid growth. Thus, US FDA approvals became an institution that enforced quality in Indian plants and bestowed them with the requisite legitimacy.

The case of Indian auto components industry

Unlike the case of the software services and pharmaceutical industries where the focus was on exploiting opportunities at hand, the Indian auto components industry had to contend with overcoming the late mover disadvantage as well, since Chinese firms which were known for cost competitiveness, had been established in the market. Thus, the focus shifted to advantages beyond cost such as quality, and importantly signaling the same by leveraging institutions.

Sundram Fasteners, an exemplar in the Indian auto component industry opted to signal its capability by gaining recognition for its operational excellence from the well-known Japan Institute of Plant Maintenance in 1998 in the form of the TPM (Total Productive Maintenance) Excellence Award. It was the first Indian component manufacturing company to get that award. The same year, the brakes division of Sundaram-Clayton , a sister company became the first Indian company to win the prestigious Deming Prize by the Union of Japanese Scientists and Engineers (JUSE) for having "achieved distinctive performance improvement through the application of company-wide Quality Control." What made this award all the more remarkable was that this was only the fourth instance that a firm outside Japan won the award. Sundaram-Clayton improved upon this record when it won the even higher rated 'Japan Quality Medal' from JUSE for the year 2002, becoming only the second firm outside Japan to win the same.

Other firms noticed these occurrences with keen interest and set about improving their quality practices – by 2006, India had 16 companies that won the Deming prize and 92 companies that won the TPM awards. Considering that Indian companies had not won either of these awards even once just eight years before, this transformation bordered on the revolutionary. This also led to the auto component industry of India being rated higher than China and Thailand on quality (Kapur, 2006).

Here again, industry bodies played a crucial role in orchestrating the transformation of the industry. The Confederation of Indian Industry (CII) initiated a mission for manufacturing innovation and improving quality. In 2004, ACMA, the Automotive Component Manufacturers Association of India commissioned McKinsey to prepare a vision document for the year 2015 for the industry, emulating the path followed by NASSCOM in the software services industry.

Efforts of the individual companies and the industry bodies in raising the profile of the industry had a salient effect on the performance of the industry. It grew at a compounded annual growth rate of 20 per cent for five years, reaching $ 10

billion in 2005. The McKinsey report expected this figure to double every four years, reaching $ 40 billion in 2014.

We find that certifications and awards helped improve the perception of the quality standards of the industry, apart from helping it mitigate the effects of being a late mover firm. However, a disclaimer may be in order here – unlike the software services and the pharmaceutical industry where the relative competitive positions of firms of each country have been more or less firmly established, this story is still playing out in the global auto component market place.

INSTITUTIONS AND THEIR VERSATILITY

Similarities in the nature of overcoming constraints

We see that it was the effective leveraging of a range of institutions that helped the Indian firms in overcoming the constraints. Our description illustrates how the customers were won over in each of the industries. They were not the only ones to change their perceptions. Achievement of the standards put forth by these institutions meant a positive impact on the morale of the firms as well; this fostered a can-do spirit among the employees apart from imparting to them, better training and sensitivity on issues such as quality. Acquisition of legitimacy by allying with these institutions also helped in attracting global talent, which was imperative to further the international foray of the firms. Attaining the approval from these institutions also opened doors to global capital; apart from raising debts globally, firms also got listed on US stock exchanges such as the NYSE and the NASDAQ. Allying with these stock exchanges, which were established institutions themselves, advanced the legitimacy of the Indian firms and helped them battle the negative stereotypes about India.

Differences in the expression of isomorphic forces

We notice a steady pattern of isomorphism in the actions by Indian firms in each of the three industries we described. However, the nature of forces that led to isomorphism was different in each of the cases. In a seminal paper, DiMaggio and Powell (1983) describe the types of isomorphic forces; based on their typology, we briefly highlight the variety in the nature of isomorphic forces in each of the industries. In the pharmaceutical industry, the nature of isomorphism was mostly coercive, in that, unless the firms had access to FDA-approved plants, they could not compete in that market. In the software services industry, isomorphism was clearly achieved through normative forces, as the stress was on professionalization and improving the process maturity through CMM; also, the role of NASSCOM in identifying the appropriate standards to adopt as prescriptive solutions, makes it an apparent case of normative isomorphism. In the case of auto components industry, a clear solution did not present itself to the uncertain nature of the opportunity – the standard response was to imitate actions of those Indian firms that were active internationally; this led to several firms improving their efficiency and processes to vie for prestigious international awards – a patent case of mimetic isomorphism.

DISCUSSION & CONCLUSIONS

The overarching role of institutions and beyond

Do we have a robust explanation on the role of institutions in the success of IE-EEDs? "Once may be happenstance, and twice may be coincidence, but three times is more than a conjecture" is what we would like to believe. We have looked at three industries, each widely different in the scale and scope of opportunities and the nature of challenges. We see that appropriate leveraging of institutions plays an important role in overcoming the liabilities of origin by international entrepreneurs, regardless of the context.

With this work, we seek to establish institutional perspective as an important conceptual lens in the domain of international entrepreneurship. We believe that an interesting body of work studying the differences between the contexts of firms from emerging economies vis-à-vis those from advanced economies can emerge from this research stream. At a normative level, this work also has implications for practitioners ranging from industry representatives to entrepreneurs going international.

Having said that, we believe that this stream of literature can be advanced further by looking at what firms do after they acquire legitimacy through isomorphic processes. For example, Archibald (2004) infers from his study that while cultural legitimacy is available to organizations when they imitate other organizations' competencies, socio-political legitimacy is a function of the degree to which their competencies are differentiated from those of their peers. Furthermore, he finds that differentiation and not mimetic isomorphism increases the viability of organizations over time. We anticipate that such a line of inquiry would inform the institutional perspective about the interplay between firms and institutions in the changed context, possibly along with how institutions revise their mandates with the passage of time.

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NOTES

[i] The same arguments would apply to even a start-up firm from US, albeit in a weakened form.

[ii] The primary difference between the international business literature and international entrepreneurship is that the former focuses more on models derived from economics and stage-process models while the latter focuses on entrepreneurial strategies and capabilities, despite both these disciplines looking at similar contexts.

[iii] A Drug Master File is a submission to the USFDA providing information about the facilities, processes or articles used in the manufacturing of raw material or the bulk active. It is mandatory for a manufacturer intending to sell the bulk active in the US to file a DMF.

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