Leveraging networks to win globally

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In a knowledge economy, where technology continues to globalize rapidly, small knowledge-intensive firms are often keen to internationalize rapidly and successfully. Firms must distinguish between different types of networks - such as bridging and bonding ties - and have realistic expectations of each. They must also ensure that they are not blind to networks embedded in their local context. Finally, they should make the generation of knowledge, both market and technological, a vital objective of their interaction within their networks. Succeeding in a highly competitive and volatile environment is no easy task; neither is the effective leverage of networks. But when this is achieved, the payoff can be considerable.

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Introduction

In the world of international business research, where technology has been globalizing to an unprecedented degree, small software firms have been drawing considerable interest for a couple of decades. A small software firm is an example of the small knowledge-intensive firm (SKIF), which is defined in this article as one "that has fewer than 100 employees, the majority of whom comprise a highly qualified workforce, which is its most important resource and is engaged in knowledge work - meaning that knowledge is inherent in the firm's main activities - as its central preoccupation."[1] SKIFs are known to internationalize rapidly.[2] However, relatively little has been known - at least through research published in the Western world - about how SKIFs in developing economies internationalize. This is one reason why I have been studying the internationalization of small software firms in India for the past four years. In this article, I share some insights from one component of my research viz., in-depth case studies of four small software firms in Bangalore.[3]

Small software firms are renowned for leveraging network relationships, such as ties with customers, suppliers, government agencies - and also family and friends. This behaviour is motivated by the emphasis such firms place on innovation (which is often more easily accomplished by two or more firms pooling complementary resources) as well as their relative dearth of resources (compared to large firms). This resource-poverty is usually more strongly felt in developing countries. Not surprisingly, therefore, network relationships often have a strong influence on the internationalization of small software firms through such benefits as information (such as trade leads), advice (for instance, on when would be a good time to enter a foreign market) and opportunities (for example, through repeat business).[4] This phenomenon of valuable resources accruing from network relationships indicates the leveraging of social capital. Sumantra Ghoshal and a colleague defined social capital as "the sum of the actual and potential resources embedded within, available through, and derived from, the network of relationships possessed by an individual or social unit."[5]

I found that, often, small software firms' network relationships are valuable, and do make a difference to their internationalization efforts. One entrepreneur, a computer engineer who had returned to Bangalore after a decade in the USA, ran his company during its first year exclusively on business from former American clients. For another entrepreneur, his former employer (a multinational corporation) was instrumental in creating his company's first international business opportunity. So, social capital is certainly useful for internationalization. However, my study also revealed that not all network relationships resulted in internationalization opportunities, at times to the (unpleasant) surprise and disappointment of the entrepreneurs I spoke to. In some cases, former colleagues failed to respond to requests for help or ended up doing much less than anticipated. In other words, social capital has its limits. My research suggests three useful lessons for entrepreneurs and managers seeking to leverage networks to win globally:

- Recognize the heterogeneity of networks;
- Actively leverage local networks; and
- Generate knowledge within networks.

Heterogeneity of networks[6]

One of the clearest findings from my research is that not all network relationships are the same. As a corollary, it also emerged that small software firms in India do not recognize this all the time. An important distinction exists between *bonding* and *bridging* social capital.[7] Bonding social capital arises from network relationships that are socially homogenous, while bridging social capital arises from socially heterogeneous network relationships. For an individual, parents would typically constitute a source of bonding social capital, while an acquaintance at work could be a source of bridging social capital. For a small Indian software firm, relationships with other local small software firms could be a source of bonding social capital while ties with multinational subsidiaries in India (e.g., Microsoft India) could yield bridging social capital. Bonding social capital is more accessible and likely to yield *timely* information; bridging social capital can however yield *new* information. Both bonding and bridging social capital have their virtue.

My research indicated that firms enjoyed the benefits of both types of social capital. Bridging social capital accrued typically from foreign clients through whom trade leads or referrals were received, leading to further contacts that may not have otherwise arisen. However an interesting case of bonding social capital that was widely reported may be termed "ethnic social capital" - i.e. social capital from ethnic network relationships abroad. A diaspora of highly successful Indian professionals and entrepreneurs can be found in Western economies, notably in the Silicon Valley region. Small software firms in India are evidently able to leverage their ties with fellow-Indians abroad - which are characterized by bonding on the dimension of ethnicity - to gain international business. For instance, one entrepreneur in Bangalore whom I interviewed was invited to submit a proposal to a company in Texas because his cousin was an employee there and had recommended the entrepreneur to a decision-maker in the Texan firm. Moreover, networking organizations such as The Indus Entrepreneurs (TiE), originally started by successful Indians in Silicon Valley and now with many chapters in India, have the potential to facilitate the "flow" of ethnic social capital back to the motherland, which Indian organizations - including small software firms - can leverage to their advantage.

The firms that I studied did not, however, always have success in leveraging social capital, ethnic or otherwise. A key problem was the absence of a sufficiently nuanced understanding of social capital - involving, for instance, a distinction between bridging and bonding social capital. In one case, an entrepreneur faced great frustration when an American contact of his (who was not an Indian) let him down (in his perception) and did not create as many opportunities as he'd hoped for, or as quickly. It seems to me that part of the problem lay with the entrepreneur's expectations. He was expecting the type of timely assistance that is more likely to accrue from bonding, rather than bridging, social capital. On the other hand, another entrepreneur seemed to expect too much new information from his network of similar local firms; it appeared that he expected bridging benefits from bonding ties. It is acknowledged that the bridging/bonding distinction is not always an easy one to make and certain ties seem to be characterized by both aspects. However it can be a very helpful starting point in recognizing differences among one's network relationships; this will enable firms to manage efficiently and have realistic expectations from their network relationships.

Leveraging local networks[8]

Another key finding of my research is that an important source of network relationships for firms is their immediate surroundings. This is however not always readily recognized, and for some firms the instinct seems to be to first look elsewhere - typically abroad. The idea that local networks are significant is consistent with prior research, emphatically in the case of innovative milieus or regional clusters (e.g., Silicon Valley), where knowledge is strangely embedded and "sticky", attracting other firms to it like a magnet. Small firms within regional clusters - and also those that are not - have the opportunity to utilize their local networks by, for instance, engaging in joint activities that help to promote the local region, in general, or a specific alliance of firms within it, in particular; this in turn can facilitate the firms' international expansion. A study of SKIFs in Christchurch, New Zealand, indicated that small firms engaging in such collective action did indeed internationalize more effectively than those that did not.[9] Clusters also provide the opportunity for small firms to engage with a host of dissimilar firms, which may be a source of bridging social capital.

Bangalore exhibits many encouraging characteristics to suggest that it is, or has the potential to be, a leading-edge cluster. Despite its practically accidental origin through the setting up of defence laboratories, the emergent pool of technical talent has been well utilized both by indigenous firms (such as Infosys and Wipro) and multinational subsidiaries (such as those of Motorola and Texas Instruments). Positive benefits were experienced by the firms that I studied. One entrepreneur felt that, when he travels abroad and meets with prospective clients, “half the battle is won” when he says that he is from Bangalore. This indicates the benefit of *reputation* that can be gained from a local network. Another entrepreneur emphasized how (relatively) easy it was for him to find support services that dealt with his specific software-related requirements. For example, if he needed suitably designed office space, he could get it with far less difficulty in Bangalore than another Indian city where he had a branch office. Such infrastructure facilitates greater *quality* in firms' outputs. Additionally, at least one firm did business with a company in the USA through the recommendation of the latter's Indian subsidiary based in Bangalore. Thus firms can potentially gain *access to foreign networks* through local networks.

There is clearly, however, scope for firms to do more in terms of leveraging their local networks. Supplementary research involving expert interviews that I conducted in Bangalore painted a somewhat less positive picture. Academic experts whom I spoke to suggested that Bangalore-based small software firms are leveraging benefits from their local networks passively rather than *actively,* as they should. They felt that only a minority of small software firms are truly seeking to engage with other firms; many do not participate in collective action owing to a secretive attitude or lack of trust. The extent to which this may be true cannot be verified based on my case-study research, but this much is clear: if indeed small software firms in India - in Bangalore or otherwise - are failing to utilize their local networks comprising firms that are small and large, Indian and foreign, then they are wasting an important resource that is “right under their nose”. It is in the interest of small Indian software firms to engage - with sincerity and a healthy dose of realism - with other local firms, independently or through a forum such as The Indus Entrepreneurs, to achieve mutually beneficial ends.

Generating knowledge within networks[10]

The creation and management of knowledge is today a matter of considerable importance to firms. Knowledge is considered by many management thinkers today to be a firm's most vital resource. The noted Swedish scholars Jan Johanson and Jan-Erik Vahlne have asserted that the “development, integration, and transfer of knowledge should be regarded as a critical aspect of (the) strategic management of internationalization.”[11] One of the chief reasons that social capital has come to be of interest to organizations all over the world is that it can be an important source of knowledge.[12] Social capital may lead to the creation (through collaborative research, for instance) or the acquisition (through learning from an alliance partner, for instance) of knowledge. Both of these outcomes are desirable for internationalizing SKIFs in the domain of *technological* as well as *market* knowledge, as prior research indicates that the technological and market knowledge that a firm possesses - and builds upon through social capital - is a key driver of international growth.

In my research I could find evidence for social capital yielding knowledge. One firm, which had developed a product offering, was able to re-engineer some portions of it to a higher standard through its interaction with a key (and demanding!) customer, gaining technological knowledge in the process. Another firm, whose entrepreneur was educated and had network relationships in the USA, had clearly gained knowledge about dealing with the British market through dealings with a client there, which led him to subsequently approach the latter market with confidence. Thus social capital can yield both technological and market knowledge. On reflection, however, I found that the generation of knowledge was often not focused upon very much at all. Instead, the emphasis was on seeking international business opportunities - tangible qualified leads or repeat business, for instance - and often this led to disappointment, when such expectations were not met. There is of course nothing wrong in seeking these opportunities. However, an undue emphasis on seeking such opportunities, at the expense of knowledge-generation, can be misplaced. One entrepreneur put it well when he said of a particularly valuable relationship, “If I gain a new business contract because of this relationship, then it is like being given a fish and I will be hungry tomorrow. But if I gain knowledge about how to do business well (through this relationship), then it is like being taught how to fish.”

This is not to say that social capital does not also influence internationalization directly. It certainly does. But, as has been seen, social capital has its limits in terms of generating international business. The more knowledge a firm possesses the more its ability and confidence to strike out on its own and achieve further international expansion. This is as much relevant for technological knowledge as it is for market knowledge, although my observation is that small software firms in India tend to, if at all, focus more on the latter. This is disturbing in light of the perception from my interviews with industry experts that small software firms in India are not all highly knowledge-intensive. Social capital is an important means of firms enhancing their knowledge-intensity. One of the entrepreneurs I interviewed indicated that from the inception of his firm, he had built strong relationships with professors at the Indian Institute of Science in Bangalore, which had provided useful input to his efforts at developing technologies in the area of biometric security. This illustrates both the importance of utilizing local networks and of generating knowledge through networks. It is an example worth emulating.

Conclusion

The globalization of technology has brought in its wake tremendous opportunity for small software firms in India, but also considerable challenge. I have argued that a key means of succeeding in this environment is through the utilization of social capital arising from network relationships. Leveraging networks effectively can substantially enable such firms to take advantage of the opportunities while mitigating the challenges. Entrepreneurs and managers in small Indian software firms would do well to recognize the differences among networks and deal with social capital types appropriately, leverage local networks that are "right under their nose", and have the right objective(s) when leveraging networks, especially that of seeking the generation of knowledge, which in turn will be a powerful driver of international growth.

However, succeeding at effectively leveraging networks is a challenge in itself; here are a few suggestions to deal with it.

First, be acutely conscious of the difference between the *potential* and *actual* benefits of networks; real benefits normally result from proactive and sustained efforts to harvest the benefits of networks.

Second, understand that leveraging networks is a capability in its own right; as with any other capability, practice makes perfect and the specific style adopted by an entrepreneur or manager should be suited to their particular personality and tastes.

Third, strive to remain genuine while interacting within networks; insincere or phoney behaviour is generally seen through sooner or later and can only lead to the erosion of social capital.

Fourth, be sensitive to cultural differences; one of the most challenging cross-cultural situations can, paradoxically, involve interactions with fellow-Indians abroad, especially second-generation emigrants.

Fifth, be patient; one entrepreneur who established contact with a company in New Zealand experienced a tangible benefit from the relationship only after five years of keeping in touch consistently and persistently.

Today's global knowledge economy is an exciting - but perhaps daunting - place for a small knowledge-intensive firm to be in. How well such firms leverage their networks in this environment - appropriately enough also referred to as the network economy - can often decide the difference between success and failure. Clearly, both knowledge and networks are of vital importance, and managing the interplay between them is one of the key challenges for entrepreneurs and managers in the twenty-first century.

Acknowledgements

I am deeply thankful to the CEOs of the four firms that I studied for generously sharing with me their stories and their time, as also to numerous industry experts whose views were very illuminating. One of them, my friend Srividya Goplalakrishnan, also connected me with two of the four firms I studied; another friend, Nidhi Bassi helped me much in the preparation of the qualitative research instruments, and I greatly appreciate both of their contributions.

Finally, I express my gratitude to Raghu Viswanath and his colleagues at Vertebrand Management Consulting, my base while I undertook fieldwork in Bangalore, for an intellectually stimulating environment.

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