

The relationship between prior start-up experience and social ties in transnational entrepreneurship

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Abstract

We explore the relationship between prior start-up experience and social ties in influencing and enabling transnational entrepreneurs (TEs) to form transnational ventures in their home country. Our study is based on face-to-face interviews with 30 Indian TEs who founded their ventures in Silicon Valley, California. The entrepreneurs are unique in that they are serial entrepreneurs who founded multiple ventures, including most recently, transnational ventures. Our findings indicate two broad patterns in the use of TEs' social ties in the founding of their transnational ventures in the home country based on their prior start-up experience in the host country. TEs with prior start-up experience in the US are more likely to use professional ties; those with no prior start-up experience use personal, family ties in founding their transnational venture in the home country. These findings contribute to the entrepreneurship and immigrant entrepreneurship literatures.

1. Introduction

Human and social capital of migrant entrepreneurs is important for understanding their strategies, and hence performance of their ventures (Yang and Chang, 2012). However, we know little about *how* migrant entrepreneurs use human and social capital in founding their ventures across borders. In this paper, we explore the role of prior start-up experience and social ties in forming transnational ventures in TEs' home country.

Transnational entrepreneurs (TEs) are defined as “individuals that migrate from one country to another, concurrently maintaining business related linkages with their former country of origin, and currently adopted countries and communities” (Drori, et. al., 2009, p. 1001). TEs' affiliations with two geographic areas provide them with unique advantages and insights, and enable them to identify and exploit opportunities, that are unavailable to entrepreneurs operating in a single geography. TEs may be heterogeneous in their use of social ties in venture founding based on the nature of their prior start-up experience in the host and home countries. They may rely on industry ties in one or both countries if they have previously founded a venture. They may exploit personal ties they already possess or go beyond friends and family to build new ties based on how their prior experience relates to the business opportunity for their venture.

Entrepreneurs returning home are an innovative source of new jobs and skills, particularly in emerging economies (Thite et al., 2009). The transnational linkages of TEs (Autio et al., 2005) may supersede conventional international business relationships for transferring knowledge or personnel across national borders (Saxenian and Hsu, 2001). An understanding of prior experience and social ties of TEs in the formation of their transnational ventures is particularly important in a scenario where temporary and cross-border flows of personnel are replacing more permanent forms of migration, and knowledge flows in a network configuration (Gupta and Govindarajan, 1991) are becoming more prevalent. However, the role of prior start-up experience in identifying and exploiting business opportunities across geographies remains unclear. Therefore, we address the following research question: how do TEs' prior start-up experience and social ties in the host and home countries impact transnational venture formation in the home country?

We focus on Indian TEs in the US. US-based Indian immigrant entrepreneurs have made a significant contribution to the creation of new businesses, especially in high tech sectors in Silicon Valley (Fairlie, 2008; Hart and Acs, 2011; Liu et al., 2014; Wadhwa et al., 2012). Many

of these entrepreneurs have taken Silicon Valley entrepreneurial models back to India, while continuing to maintain connections with the US (Saxenian, 2006). Others have continued to live in the US and used their knowledge of the US and India to found cross-border ventures. The transnational ties of Indian entrepreneurs in developed economies facilitate the development of entrepreneurship in India (Nanda and Khanna, 2007; Saxenian, 2002; 2005). Although research has focused on the attributes of Indian small business owners and drivers of start-up activity in developed host countries (Basu and Altinay, 2002), the issue of TEs of Indian origin has received limited research attention. An understanding of TEs' prior start-up experience and social ties in the formation of their transnational ventures in India may help comprehend the role of 'bottom-up' measures for stimulating indigenous entrepreneurship (Goldfarb and Henriksen, 2003) in a context where an understanding of entrepreneurship is limited (Kiss, Danis and Cavusgil, 2012) and policy initiatives are dominated by 'top-down' measures for creating clusters of entrepreneurial activity (Bresnahan, Gamberdella and Saxenian, 2001).

Our findings show heterogeneity in TEs use of social ties in transnational venture founding in the home country based on their prior start up experience in the host country. These findings contribute to the entrepreneurship and immigrant entrepreneurship literatures.

2. Literature Review

Prior start-up experience, social networks, and new venture creation

The impact of prior experience and social networks on new venture creation is consistent with resource-based theories, which emphasize the value of unique resources in gaining competitive advantage (Barney, 1991; Wernerfelt, 1984; Chen and Tan, 2009). Prior experience helps entrepreneurs gain tacit knowledge or 'know how' that helps in subsequent decision-making (Davidsson and Honig, 2003; Politis, 2005; 2008; Sarasvathy, 2001). The lessons learned from prior experience can be an asset to entrepreneurs launching new ventures (Politis, 2005; Reuber & Fischer, 1999). They may therefore be regarded as adding to the entrepreneur's human capital. Furthermore, prior startup experience helps establish a track record and reputation, which can provide access to tangible resources like capital and labor, as well as intangible resources in the form of social networks and social capital (Shane and Khurana, 2003; Starr and Bygrave, 1991). Eisenhardt and Schoonhoven (1996) suggest that entrepreneurs leverage prior experience to draw on more diverse networks and individuals, which enable them to consider a wider range

of strategic options. However, our knowledge of how entrepreneurs apply the lessons learned from past experience in the process of starting subsequent new ventures remains limited (Ucbasaran et al., 2008).

Entrepreneurship theory has also emphasized the importance of social networks and social capital in enabling entrepreneurs to create new ventures (Davidsson and Honig, 2003; Hoang and Antoncic, 2003; Slotte-Kock and Coviello, 2010). Social networks refer to relationships or ties among individuals. Social capital refers to actual and potential resources that exist within, and may be leveraged from, the network of relationships possessed by an individual or social unit (Davidsson and Honig, 2003; Nahapiet and Ghoshal, 1998). The resources provided by social networks include access to information that helps identify opportunities (Elfring and Hulsik, 2003), knowledge (Presutti et al., 2007), and talented individuals who could be employees or team members (Hoang and Antoncic, 2003; Patel and Conklin, 2009).

A distinction is drawn between strong and weak ties (Granovetter, 1985). Strong ties, such as those between close family and best friends, are the result of repeated interactions over a long period of time. By contrast, weak ties refer to one-off or occasional interactions with individuals who belong to other networks. Social network theories emphasize the role of strong ties arising from past dealings in contributing toward greater support and access to resources at startup (Uzzi, 1996). Regular interactions or past dealings with individuals belonging to the same group or industry are likely to build trust and lead to stronger ties (Casson and Della Giusta, 2007; Davidsson and Honig, 2003). At the same time, Granovetter (1985) cautions that individuals with strong ties would have had so many common experiences over time that they would share the same limited knowledge. Weak ties, with individuals who are bridges with other networks, are more likely to be conduits of new information that would be valuable in identifying new business opportunities, especially in the high tech industry (Granovetter, 1985; Hoang and Antoncic, 2003).

Social ties and immigrant entrepreneurship

Studies of immigrant entrepreneurship have acknowledged the significance of co-ethnic ties for providing access to a local market, credit, and a co-ethnic labor pool for entrepreneurs (Light et al., 2003; Waldinger et al., 1990). Recent studies in immigrant entrepreneurship have also examined the role of social networks in the context of immigrant firms' foreign market entry decisions. These studies suggest that foreign market entry decisions are positively related to

ethnic ties of their owners or managers (Chung and Tung, 2013; Zaheer, Lamin and Subramani, 2009). Due to unique local market knowledge and understanding, ties of ethnic owner-founders of internationalizing firms in developed markets act as a bridge between host and home countries, enabling them to leapfrog stages (Bell, 1995) and engage in high resource commitments at home at the outset (Chung and Tung, 2013). In home countries with volatile political and legal environments, ethnic ties of migrant owner founders provide expeditious access to resources in the absence of government or institutional support (Rauch and Trindade, 2002; Wright, Liu, Buck and Filatotchev, 2008), and help forge greater understanding and trust, making it easier to establish and enforce contracts (Jean, Tan and Sinkovics, 2011).

The role of non-ethnic ties as a source of economic value in an international context is mainly discussed in the context of international new ventures (INVs) in the IE literature (Oviatt and McDougall, 1994). Ties based on common educational background or work experience enable owner-founders of INVs to gain access to existing networks, assemble resources (Oviatt and McDougall, 2005; Zaheer, Lamin, and Subramani, 2009), and overcome liabilities of newness and foreignness (Autio et al., 2000) in target markets. Social ties, based on prior education or professional work experience, also act as bridges to other network resources, for example, clients abroad.

In sum, social capital of immigrant entrepreneurs enables them to overcome institutional constraints in the conduct of business in their home country, especially in an emerging economy context (Kiss et al., 2012). However, this evidence is mainly based on existing firms and relates to the impact of social capital of ethnic owner founders on aspects of internationalization strategy such as choice of location (Zaheer et al., 2009) or mode of entry (Chung and Tung, 2013) in the home country. Research on the actual nature or role of immigrant founders' prior start-up experience or social ties in determining home country entry decisions in venture founding is lacking. The concept of transnational entrepreneurship focuses on the value of immigrant entrepreneurs' cross-border ties. Drori et al. (2009) distinguish between three types of networks available to transnational entrepreneurs: networks of origin, networks of destination, and industry networks. While networks of origin and destination refer to networks of family and friends in the home and host country, respectively, industry networks are typically professional ties not associated with any specific ethnic group, culture or country. Empirical research suggests that family and kinship networks help TEs gain entry into their home country (Mustafa and

Chen, 2010; Saxenian, 2006). However, these studies do not consider the role of prior startup experience in building social ties in the host or home country, or how those networks affect the subsequent formation of new transnational ventures. Thus, we explore the nature and role of TEs' prior start-up experience and social ties in the formation of transnational ventures in the home country.

3. Methodology

We adopted a case study approach, as frequently used in this type of research (Eisenhardt, 1989). As we focus on TEs' use of networks in venture creation, semi-structured face-to-face interviews were considered most appropriate for gathering responses. We conducted face-to-face interviews with 30 Indian TEs in Silicon Valley to explore the formation of their transnational ventures and role of their prior entrepreneurial experience and social ties in this process. The interviews provided a unique opportunity to establish a dialog with our respondents, and to clarify any ambiguities.

The sample is unique, in that all TEs were serial entrepreneurs, engaged in operating their second, third, and in one case, their sixth startup, at the time of research. Large samples of serial entrepreneurs are typically difficult to find and study. Since the study focuses on TEs of Indian descent with multiple startups, the sample is purposive in that it considers only those entrepreneurs who meet these basic characteristics. Respondents were identified from one of the authors' close contacts with members of TiE (The Indus Entrepreneurs), the world's largest global network of entrepreneurs headquartered in Silicon Valley. TiE was founded in 1992 by a group of successful technology entrepreneurs of Indian origin based in Silicon Valley. Most of its members belong to the Indian and South Asian diaspora.

Sample profile

Twenty-eight of 30 TEs in our sample were male (Table 1). All respondents were born in India and migrated to US from India. While a majority (19) first entered the US for higher education, one-third (9) arrived as employees, and two came with their respective families. All TEs were highly educated. All had Bachelors degrees in Engineering or the Sciences from institutes of technology or universities in India, and all except two had at least one Masters degree. Twenty-five of 30 TEs obtained their MSc or MBA, or both, degrees from US universities. One TE had a PhD in Computer Engineering. Thus, even though some arrived as

employees, they decided to gain higher educational qualifications in the US. The individuals in our sample were employed for 11 years on average before launching their first startup in the US. They founded businesses in a broad range of sectors within the high tech industry. These sectors ranged from fashion to financial technology, cloud computing to data analytics (Table 2).

The TEs launched three ventures on average, the least number being two and maximum being eight. Although the respondents' current ventures were transnational, with operations in US and India, seven entrepreneurs launched their first startup in the US without any links to India. Others decided to set up operations in their home country, India, immediately at the time of their first startup. All 'exited' their previous startup before launching their next venture. Several achieved the 'ideal' textbook exit of selling their last startup to a larger company. Those who founded more than four startups also experienced another type of exit at least once when their startup closed down.

4. Findings

We present a background of TEs in terms of first start-up prior to the founding of their current transnational venture. We then outline the role of prior start-up experience and social ties in the formation of transnational ventures in the US and India.

Background: First Start-up

Most entrepreneurs in our sample identified new venture opportunities for the first time while employed at a large company or startup in the US. Several respondents always wanted to be entrepreneurs, but had to seek employment in the US after completing their higher education, either because they needed financial support or Green card to stay in America. Others were inspired to launch their own venture after witnessing fellow Indians who had graduated from the same educational institutions as themselves, successfully starting companies in Silicon Valley. Pat got the idea of launching a startup in financial tech via a friend from India, with whom he reconnected in the US. Rajan met with his mentor through a close friend. Several respondents referred to the valuable role played by TiE Silicon Valley in helping them connect with seasoned entrepreneurs, who were willing to spend time listening to their ideas and mentoring them.

Even after identifying a startup idea, the respondents typically spent six months to over a year thinking through their idea. Manish said he organized a "kitchen sink cabinet", which involved inviting a group of people to meet every Saturday to brainstorm and test ideas. It helped

him to identify co-founders and eventually make the decision to quit his job to formally launch his startup. Murli said he would “sell-design-build-sell, or SDBS” every idea for six to eight months: he would run the idea by potential customers, and if they sounded interested, he would design and build a prototype, to validate it with potential customers and users. Rajan gained valuable experience by working at three startups prior to starting his first company: “while I didn’t get much money, what I did get was the first hand experience of starting a company”.

The entrepreneurs’ strong ties with close friends and former work colleagues, as well as ties with Indian alumni in the US, also played a key role in implementing startup ideas. Most respondents co-founded their first start up with former colleagues. Jayan said he “joined four other friends of mine to start a company”. All but one of the ‘friends’ had been colleagues and worked together at their previous employer in the US. Others teamed up with former classmates or alumni from India. Even if they were not close friends with those alumni, it was easy to find common friends to verify the competencies and skills of those individuals. Many of the entrepreneurs had graduated from one of the Indian Institutes of Technology (IITs), which served as a signaling effect given the institution’s rigorous screening process: “When someone is from IIT, I can scope them out very quickly. I can very quickly find five [people] who knew them [to ask] hey, what was he like in third year? Is this the guy people trusted in?...Was he an ambitious guy? So you can scope people out very quickly through the common networks” [Ujjal]. Altogether, prior work experience and social ties in the US played an important role in influencing first time venture creation in the US.

Motivations for forming transnational venture in India

The motivations for setting up India operations were, typically, emotional or economic (pragmatic). Several interviewees spoke of personal reasons to build connections or make a contribution to their home country. Chandra, Rajan and Sai said that they decided to set up operations in India because they wanted to have a connection with their home country. Even though Chandra had no immediate family in India, his wife went there frequently, and he “wanted to have a connection with India...a reason to go there”. Rajan said his reasons were emotional: “My vision was to do cutting edge work in India...not grunt work”. Although Chandran’s first startup was US-based, he decided to set up his second startup in India after observing the “24x7 service operations culture, blended with strong technical and analytical skills” in India.

A large majority said that their reasons were purely business-related or economic, namely, the availability of a large engineering talent pool at a much lower cost than in the US, and the ability to leverage time zone differences between US and India. As Jitendra said, “getting engineers here [in the US] you would either have to give an incredible amount of equity or a lot of money, and we didn’t have that, so India...seemed like a good option. We knew that we could get talent...with the IIT connections”. For a few (like Vas), their advisors or investors recommended that they leverage their knowledge and connections in India to start operations there.

Prior start-up experience in US and transnational venture formation in India

Most entrepreneurs with prior start-up experience took a break after their first startup to recover from the relentless pressures of managing a startup, mull over new ideas, and identify opportunities. Identifying the ‘right’ idea was no easier than first time. Most respondents considered many different ideas before selecting the one to pursue. Murli said that when his first startup was acquired, he joined the larger company that acquired them. “Towards the end of 2006, [two years after working for the larger company] we realized that we wanted to move onto something else so we spent about six months going through....dramatically different ideas” to validate each of them and determine what idea to pursue.

TEs gained both tangible and intangible resources from their prior start up experience. A successful sale or acquisition had the advantage of enabling the entrepreneurs to accumulate financial capital. Additionally, TEs gained human capital via hands-on experience, and social capital via deeper and more extensive social ties from exiting their previous ventures. The social networks TEs developed during their previous startup played an important role in helping them brainstorm and identify new ideas. In several cases, they started their next venture with the same co-founders. Prem’s co-founder for his transnational venture in India had previously founded a venture with him in the US. Prem reminisced about “Mukesh, an IIT Madras guy, whom I met through the IIT alumni network....the fact that he is from IIT helped a lot in assessing his capabilities. There is a stamp of approval, you can do due diligence on the person easily...the fact that he was IIT and he worked for me at XX co. , he was Director of Engineering when I was the VP General Manager. So I got to know him well. He [became] my cofounder”. Prem’s co-founder took the lead in taking the startup to India when they identified key personnel in India for heading the India office. As Prem recounted: “My co-founder, his family was from

Bangalore. His father was in the military and they lived in the Cantonment Area, which is why we chose Bangalore as our R&D place’.

Prior start-up experience also helped TEs secure customers, investors, and employees. Murli started to grow a team in India for his first start-up in the US after it was acquired. Murli, who joined the company that acquired his former start-up in the US, was responsible for India operations until he left two years later. In two years, he developed many connections and an understanding of how to manage operations in India. He was also able to recruit people for his transnational venture in India from the team he had grown for his prior start-up: “a company here [in the US] that went out of business had an arm in India, and that whole team heard about us [via industry networks], approached us, and said.. we would like to join you. So we literally doubled the size of the company by hiring this team in Hyderabad. The team did R&D work”. Padman recruited one of his former employees from his first startup in the US for his transnational venture in India, “who wanted to go back to India. I made him an offer, gave him some equity, and created a company in India. He is General Manager of India operations”.

In a few cases, however, TEs could not draw on the same people they had hired for their former startup. This was either because those individuals were employed elsewhere and no longer available, or the transnational venture needed individuals with different skillsets, as in case of Manish’s case. In such cases, TEs relied on online platforms and professional networks in India to identify and vet suitable candidates.

No prior start-up experience in US and transnational venture formation in India

For TEs who had no prior start-up experience in US, the ability to establish India operations was related to access to family members with business connections in India. Namrata’s husband already had a business presence in India. Rajan’s brother-in-law gave him office space, and his father’s reputation and connections as chairman of a leading public sector corporation were helpful. Rajesh and Sai had families with business connections in India. Chandra decided to set up operations in Chennai because his parents-in-law lived there, and their social ties enabled him to identify a manager for his India operations.

Others launched their first startup as a transnational venture with India operations without relying on family networks. Jitendra relied on his strong alumni network in India to identify and recruit three engineers who were recommended to him and were willing to work for him in Bangalore (not his hometown). In Manish’s case, a former colleague, known to him and his

cofounder, “wanted to move back to Delhi, so we ended up talking to him” and hiring him to lead their India operations. In Vas and Ujjal’s case, their respective cofounders leveraged their networks to set up India operations.

For TEs who started out as transnational, the structure and function of their organization evolved as they gained experience of managing employees and operations in India. As Rajan mused, “looking back, it was premature to be doing [R&D] stuff in India in the 1990s. What has evolved since 1991 are...Number one, I myself have become more sophisticated about what can and cannot be done [in India]. How to manage operations, just age doesn’t give you experience. The second is you have better communications infrastructure, even office infrastructure in India than I had in 1991. I also have a group of people who have worked with me in multiple startups, so I have a much deeper network on which I can draw upon both technically and business. What has not changed is the crappy legal and power infrastructure in India. Those are the two major negatives.”

These TEs also seemed to be moving away from strong, personal family ties to newer, weak ties in India over time. Sai slowly diluted his family’s involvement in India, since he did not want the business serving the family. Instead, he drew on weak ties with local organizations for identifying and hiring talented people who could not move out of India, for his India office. As Rajan observed, “at this stage in my career, the family is not at all important in starting companies...the [professional] networks I have built are the most important.” The individual he hired as Junior Engineer in his first startup, “has worked with me through 2-3 startups and now GM, almost co-founder in the latest startup”. Ujjal conceded that operating in India was “very tricky”...especially for those “who had never lived there or worked there. In hindsight, ...you need somebody that you can trust and somebody who knows how to operate in India”. His co-founder helped Ujjal set up those connections in India for his first venture. Since his second startup, however, was with a different set of co-founders, those professional and family connections were no longer available to them.

When TEs formed subsequent transnational ventures in India, their ventures witnessed a shift in the nature of value-chain activities that were carried out in India. Many of these TEs delegated testing or support services for their first transnational venture in India. Gradually, they moved product development and R&D to India for their subsequent ventures. They, therefore, needed a dedicated India team to work for them. In his first venture, Shrinath did product

development through a third party in India, since the arrangement had the flexibility of being scaled up or down without too many resources. However, it was not feasible for his current venture, which needed selling in the Indian market. Similarly, Ravi initially executed projects in India by partnering with a former colleague. However, he was not satisfied with this arrangement because of the hidden costs of insufficient control and communication. So, he decided to move to ‘in-sourcing’ by investing in training fresh graduates in the US to leverage resources, prior to establishing a direct presence in India.

5. Discussion

Our findings suggest that TEs are motivated to launch transnational ventures because of both economic and pragmatic factors, and emotional factors. Prior start-up experience and social ties play a key role in the formation of transnational ventures. However, we find two broad patterns in TEs’ use of social ties in the formation of transnational ventures based on prior start-up experience. For TEs that have prior start-up experience in the US, prior start-up experience enhances TEs’ “muscle memory”. It strengthens TEs’ professional networks and provides access to co-founders, employees, customers, and investors for the formation of transnational ventures in the home country. For TEs that have previously established transnational ventures in India, but have no prior experience of starting up in US, strong family ties in India substitute for the lack of relevant professional ties in the US in the formation of transnational ventures.

These findings contribute to the entrepreneurship and immigrant entrepreneurship literatures. First, we extend prior studies on the interaction between human and social capital in the entrepreneurship literature. Prior studies examine the differential contribution of various forms of human and social capital to venture creation (Davidsson and Honig, 2003). Human capital is an important antecedent to social capital, Entrepreneurs with prior business ownership experience are more likely to build professional ties (Mosey and Wright, 2007). However, an understanding of *how* human capital influences the use of social ties for entrepreneurs crossing borders, is limited. In our focus on how prior start-up experience of TEs, as a type of migrant entrepreneur, influences the formation of their transnational ventures, we contribute to this literature. Our findings suggest that TEs’ prior *start-up* experience *in the host or home countries* influences the structure of TEs’ social ties in venture founding in the host and home countries. Where TEs have previously founded a venture in the host country, they mainly draw on

professional ties based on this experience in the founding of their transnational venture; however, where they have no such experience, they substitute strong family ties for the lack of professional ties to start a transnational venture in the home country.

Second, we extend the migrant entrepreneurship literature on the role of social ties in new venture creation. Prior studies (e.g. Deakins et al., 2007) investigate the role of personal or ethnic ties in venture founding by EEs in their host country. In line with previous studies like Bagwell (2007), Chung and Tung (2013), Mustafa and Chen (2010), and Zaheer et al. (2009), our findings suggest that the decision to set up operations in India is related to entrepreneurs' ethnic affiliations to their home country. Strong family (and other personal, ethnic) ties in India are instrumental in the case of some entrepreneurs becoming transnational where they do not have prior start-up experience to build relevant professional ties in the host country. These findings also contradict prior studies such as Mustafa and Chen (2010).

Our findings suggest several directions for further research. Our findings show that prior experience in India helps to create and build operations, and develop relationships with employees and partners in India. Moreover, TEs with prior experience of founding transnational startups are likely to remain transnational in their subsequent ventures. Further research is needed to investigate whether TEs that found a venture in their home country without prior start-up experience in the host country are more likely to form multiple transnational ventures in their home country compared to those who have entered India after formerly starting up in the host country. Insights from our interviews also revealed the role of several different types of social ties for TEs. TEs leverage existing ties in some cases. In other cases, they seek new ties to acquire key local personnel that have specific social capital that they require (Loane and Bell, 2006). Further research is needed to examine the relationship between different type of ties based on their newness, and the social capital that they provide for transnational ventures. Finally, it may also be interesting to understand the way TEs and their Indian managers apportion responsibilities and build social capital in a situation of commitment to two different work units in the host and home countries (Harvey, Novicevic and Garrison, 2005), issues that may also extend research in the area of virtual teams in the IHRM literature (Collings et al., 2009).

6. Conclusions

We examined the role of prior start-up experience in the formation of transnational ventures in India. Our findings suggest heterogeneity in the way TEs use social ties in forming transnational ventures in the home country based on prior start-up experience in the host country. These findings contribute to the entrepreneurship and immigrant entrepreneurship literatures.

Although unique, our sample is small. Therefore, our findings are exploratory. They offer opportunities for future research via a larger, questionnaire survey to generalize the insights gained from this study. The survey could focus on an exhaustive study of Indian TEs or a comparative study of immigrant entrepreneurs in Silicon Valley and elsewhere such as the UK. We asked respondents to recall their intentions and behavior, which is always problematic (Kruger et al., 2000).

Despite these limitations, aspiring TEs may draw some lessons from this study. Those wishing to become TEs, the most valuable experience they can gain would be working at one or more startups in Silicon Valley. This would provide them with experience and connections they need to start a transnational venture in their home country. However, they would need strong family ties in India, and would need to acquire necessary higher educational skills, preferably, from one of India's leading technology institutes like the IITs, before coming to study or gain work experience in the US, if they wish to found transnational ventures in India without prior start-up experience in the US.

References

- Autio, E., H. J. Sapienza., and J. G. Almeida. (2000). Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, 43 (5), 909-924.
- Autio, E., Sapienza, H. J., & Arenius, P. (2005). International Social Capital, Technology Sharing, and Foreign Market Learning in Internationalizing Entrepreneurial Firms. *Advances in Entrepreneurship, Firm Emergence and Growth International Entrepreneurship*, 8, 9-42.
- Bagwell, S. (2007). Transnational entrepreneurship amongst Vietnamese businesses in London. *Journal of Ethnic & Migration Studies*, 41 (2), 329-349.

- Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17 (1), 99-120.
- Basu, A., & Altinay, E. (2002). The Interaction between Culture and Entrepreneurship in Londons Immigrant Businesses. *International Small Business Journal*, 20 (4), 371-393.
- Bell, J. (1995). The Internationalisation of Small Computer Software Firms: A Further Challenge to “Stage” Theories. *European Journal of Marketing*, 29 (8), 60–75.
- Breshnahan, T., A. Gamberdella., and A. Saxenian. (2001). Old economy inputs for new economy outputs: Cluster formation in the new Silicon Valleys. *Industrial Corporate Change*, 10 (4), 835-860.
- Casson, M., & Giusta, M. D. (2007). Entrepreneurship and Social Capital: Analysing the Impact of Social Networks on Entrepreneurial Activity from a Rational Action Perspective. *International Small Business Journal*, 25 (3), 220-244.
- Chen, W. & Tan, J. (2009). Understanding transnational entrepreneurship through a network lens: theoretical and methodological considerations. *Entrepreneurship Theory and Practice*, September 2009: 1042-2587.
- Chung, H. F. L. and R. Tung. (2013). Immigrant social networks and foreign entry: Australia and New Zealand firms in the European Union and Greater China. *International Business Review*, 22, 18-31.
- Collings, D. G., H. Scullion., and P. J. Dowling. (2009). Global staffing: A review and thematic research agenda. *The International Journal of Human Resource Management*, 20 (6), 1253-1272.
- Davidsson, P. & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18, 301-331.
- Deakins, D., M. Ishaq., D. Smallbone., G. Whittam., and J. Wyper. (2007). Ethnic minority businesses in Scotland and the role of social capital. *International Small Business Journal*, 25 (3), 307-326.
- Drori, I., Honig, B. & Wright, M. (2009). Transnational entrepreneurship and global reach. *Special Issue of Entrepreneurship Theory and Practice*, 33, 1001-1022.
- Eisenhardt, K. (1989). Building Theories from Case Study Research. *Academy of Management Review*, 14, 488-511.

- Eisenhardt, K. & Schoonhoven, C. B. (1996). Resource-based view of strategic alliance formation: strategic and social effects in entrepreneurial firms. *Organization Science*, 7, 136-150.
- Elfring, T. and Hulsink, W. (2003). Networks in entrepreneurship: The case of high-technology firms. *Small Business Economics*, 21 (4), 409-422.
- Fairlie, R. W. (2008). Estimating the contribution of immigrant business owners to the US economy. SBA Office of Advocacy.
- Goldfarb, B. and M. Henrekson. (2003). Bottom-up versus top-down policies towards the commercialization of University intellectual property. *Research Policy*, 32 (4), 639-658.
- Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal Of Sociology*, 91 (3), 481-510.
- Gupta, A. K., and V. Govindarajan. (1991). Knowledge flows and the structure of control within multinational corporations. *Academy of Management Review*, 16 (4), 768-792.
- Hart, D.M. & Acs, Z.J. (2011). "High-tech immigrant entrepreneurship in the United States", *Economic Development Quarterly*, 25 (2), 116-129.
- Harvey, M., M. M. Novicevic., and G. Garrison. (2005). Global virtual teams: A human resource capital architecture. *The International Journal of Human Resource Management*, 16 (9), 1583-1599.
- Hoang, H., & Antoncic, B. (2003). Network-based research in entrepreneurship: A critical review. *Journal Of Business Venturing*, 18 (2), 165.
- Jean, R. B., D. Tan., and R. R. Sinkovics. (2011). Ethnic ties, location choice, and firm performance in foreign direct investment: A study of Taiwanese business groups FDI in China. *International Business Review*, 20 (6), 627-635.
- Kiss, A. N., W. M. Danis., and S. T. Cavusgil. (2012). International entrepreneurship research in emerging economies: A critical review and research agenda. *Journal of Business Venturing*, 27 (2), 266-290.
- Krueger, N.F., Reilly, M.D. and Carsrud, A. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15 (5-6), 411-32.
- Light, I., Bhachu, P., and Karageorgis, S. (2003). Migrant networks and immigrant entrepreneurship. In Light, I. and Bhachu. (Eds.), *Immigration and entrepreneurship* (pp. 25-49). New Brunswick, NJ: Transaction Publishers

- Liu, C.Y., Painter, G., and Wang, Q. (2014). *Lessons for U.S. Metro Areas: Characteristics and Clustering of High-Tech Immigrant Entrepreneurs*. Kauffman Foundation, March.
- Loane, S., & Bell, J. (2006). Rapid internationalisation among entrepreneurial firms in Australia, Canada, Ireland and New Zealand. *International Marketing Review*, 23 (5), 467-485.
- Mosey, S., and M. Wright. (2007). From human capital to social capital: A longitudinal study of technology-based academic entrepreneurs. *Entrepreneurship Theory and Practice*, 31 (6), 909-935.
- Mustafa, M., and Chen, S. (2010). The strength of family networks in transnational immigrant entrepreneurship. *Thunderbird International Business Review*, 52 (2), 97-106.
- Nahapiet, J., and S. Ghoshal. (1998). Social capital, intellectual capital and the organizational advantage. *Academy of Management Review*, 23 (2), 242-266.
- Nanda, R., & Khanna, T. (2007). Diasporas and Domestic Entrepreneurs: Evidence from the Indian Software Industry. *SSRN Electronic Journal*.
- Oviatt, B.M. and McDougall, P.P. (1994). Toward a theory of international new ventures. *Journal of International Business Studies*, 25 (1), 45 - 64.
- Patel, P. C. & Conklin, B. (2009). The balancing act: The role of transnational habitus and social networks in balancing transnational entrepreneurial activities. *Entrepreneurship Theory and Practice*. September 2009: 1045-1078.
- Politis, D. (2005). The process of entrepreneurial learning: A conceptual framework. *Entrepreneurship Theory and Practice*, 29 (4), 399-424.
- Politis, D. (2008). Does prior start-up experience matter for entrepreneurs learning? *Journal of Small Business and Enterprise Development*, 15 (3), 472-489.
- Presutti, M., Boari, C., & Fratocchi, L. (2007). Knowledge acquisition and the foreign development of high-tech start-ups: A social capital approach. *International Business*, 16 (1), 23-46
- Rauch, J. E., & Trindade, V. (2002). ETHNIC CHINESE NETWORKS IN INTERNATIONAL TRADE. *Review Of Economics & Statistics* 84 (1), 116.
- Reuber, A. R., & Fischer, E. (1999). Understanding the consequences of founders' experience. *Journal of Small Business Management*, 37 (2), 30-45.

- Sarasvathy, S.D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, 26 (2), 243–263.
- Saxenian, A. L. (2002). Transnational communities and the evolution of global production networks: The case of Taiwan, China and India. *Industry and Innovation*, 9 (3), 183-202.
- Saxenian, A. L. (2005). From brain drain to brain circulation: Transnational communities and regional upgrading in India and China. *Studies in Comparative International Development*, 40 (2), 35-61.
- Saxenian, A. (2006). *The New Argonauts: Regional Advantage in a Global Economy*, Harvard University Press, Cambridge, MA.
- Saxenian, A-L. and J. Hsu. (2001). The Silicon Valley-Hsinchu connection: Technical communities and industrial upgrading. *Industrial and Corporate Change*, 10 (4), 893-920.
- Shane, S., & Khurana, K. (2003). Career experience and firm founding. *Industrial and Corporate Change*, 12 (3), 519-544.
- Slotte-Kock, S., & Coviello, N. (2010). Entrepreneurship Research on Network Processes: A Review and Ways Forward. *Entrepreneurship: Theory & Practice*, 34 (1), 31-57.
- Starr, J., & Bygrave, W. (1991). “The assets and liabilities of prior start-up experience: An exploratory study of multiple venture entrepreneurs”, in Churchill, N.C., Bygrave, W.D., Coven, J.C., et al. (Eds.), *Frontiers of Entrepreneurship Research*, Babson College, Wellesley, MA, pp. 213-27.
- Thite, M., Srinivasan, V., Harvey, M., & Valk, R. (2009). Expatriates of host-country origin: 'coming home to test the waters'. *International Journal Of Human Resource Management*, 20 (2), 269-285.
- Ucbasaran, D., Westhead, P., & Wright, M. (2008). “Habitual entrepreneurs”, in Casson, M., Yeung, B., Basu, A., Wadson, N. (Eds.), *The Oxford Handbook of Entrepreneurship*, Oxford University Press, Oxford, UK, pp. 461-483.
- Uzzi, B. (1996). The Sources and Consequences of Embeddedness for the Economic Performance of Organizations: The Network Effect. *American Sociological Review*, 61 (4), 674-698.

- Wadhwa, V., Saxenian A., & Siciliano, F.D. (2012). *America's New Immigrant Entrepreneurs: Then and Now*, Kauffman Foundation Report, Kansas City, MO.
- Waldinger, R.D., Aldrich, H. and Ward, R., (1990). *Ethnic entrepreneurs: Immigrant business in industrial societies* (Vol. 1). Sage Publications, Inc.
- Wernerfelt, B. (1984); 1989. A resource-based view of the firm in Foss, N. J. 1997. (ed.) *Resources, Firms and Strategies: A Reader in the Resource Based Perspective*, Oxford, Oxford University Press.
- Wright, M., X. Liu., T. Buck., and I. Filatotchev. (2008). Returnee entrepreneurs, science park location choice and performance: An analysis of high-technology SMEs in China. *Entrepreneurship Theory and Practice*, 32 (1), 131-155.
- Yang, X., Ho, E. and Chang, A. (2012). Integrating the resource-based view and transaction cost economics in immigrant business performance. *Asia Pacific Journal of Management*, 29, 753-772.
- Zaheer, S., A. Lamin., and M. Subramani. (2009). Cluster capabilities or ethnic ties? Location choice by foreign and domestic entrants in the services offshoring industry in India. *Journal of International Business Studies*, 40 (6), 944-968.

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Table 1: Sample Profile of Respondents

Name	Highest Academic Degree	Country where obtained most recent degree	Purpose of first entry into US	Years of work experience prior to the first venture	Number of ventures founded (including current venture)
Bobby	BSc Electronics	India	Employment	10	3
Chandra	MSc/ MBA	USA	Immigrated with family	11	6
Chandran	MSc Computer Science	USA	Study	15	2
Dev	MSc CS MBA	USA	Study	20	3
Jagadeesh	MSc Computer Engineering	India	Employment	12	4
Jayan	MSc Computer Engg	USA	Employment	11	8
Jega	MSc Industrial Engg	USA	Study	8	2
Jitendra	MBA	USA	Employment	11	3
Manish	MSc CS/ MBA	USA	Study	15	2
Murli	MBA	USA	Study	15	3
Namrata	MSc Computer Engg	USA	Study	6	2
Padman	MSc Industrial Engg/ MBA	USA	Study	14	2
Pat	MBA/ MSc Eng PhD,	USA	Employment	11	2
Prem	Computer Engg	USA	Study	8	2
Prosenjit	MSc Applied Materials	USA	Employment	7	3
Rajan	MSc	USA	Study	10	5
Rajeev	MBA	India	Employment	16.5	2
Rajesh	BSc Electrical Engg	India	Employment	7.5	7
Ramneek	MSc CS	USA	Study	12	3

Raju	MSc CS	USA	Study	10	2
Ravi	MSc Engg	USA	Study	8	2
Sai	MSc	USA	Study	7	2
Samba	MSc Engg	USA	Study	14	3
Saumitra	MSc	India	Employment	12	4
Shrinath	MSc Engg Systems	USA	Study	5	3
Sujatha	MSc Engineering	USA	Sponsorship through spouse	11	2
Ujjal	MSc Electronics Engg/MBA	USA	Study	20	2
Vasudev	MSc Physics/ CS	USA	Study	14	6
Vijay	MSc chip design	USA	Study	10	3
Vikas	MSc CS	USA	Study	11	3

Table 2: Current Transnational Venture of Sample TEs

Name	Industry/sector of current venture	Year Founded	Industry/sector of previous venture(s)
Bobby	Mobile/Advertising/location-based ecommerce	2009	Cloud application to real time collaboration
Chandra	Automation technology	1999	Technical business tools
Chandran	Sales analytics tech.	2004	SaaS tools for businesses
Dev	Virtual Reality/Mobile app	2012	Mobile advertising
Jagadeesh	Computer networking	2011	Communication, Networking, virtualization
Jayan	Collaboration Software	2015	Business tools, networks
Jega	Large data analytics	2013	Freight/ Transportation
Jitendra	Big data analytics	2015	Social media marketing for Restaurants
Manish	Fashion tech	2011	Ecommerce shopping
Murli	Data Services	2015	Data storage
Namrata	Chip verification software	2010	Chip design
Padman	Logistics & supply chain	2009	IT services
Pat	Healthcare IT services	2006	Software for Healthcare, Insurance
Prem	Call center infrastructure	2004	VoIP
Prosenjit	Fashion tech	2010	CRM tools, ecommerce marketing
Rajan	Cloud infrastructure startup accelerator	2012	Online media
Rajeev	Education	2009	Mortgage lending
Rajesh	Online communications platform	2006	Inter-company tech tools
Raju	IT Product development	1993	IT services
Ramneek	Online services for small business	2015	Wireless data services, mobile services
Ravi	Cloud based collaboration tool	2012	Enterprise software in compliance; video advtg
Sai	Enterprise data management	2002	Technology
Samba	Big data & computing	2002	Computing, business dev.
Sarvesh	IT	2000	Computer software
Saumitra	Marketing agency	2008	CRM tools, communications
Shrinath	IT, smart mobility networks	2008	Automotive systems; computer software
Sujatha	Inventory management	2006	Computer software
Ujjal	Customer analytics	2014	Digital advertising
Vas	Predictive analytics SaaS platform	2012	R& D outsourcing; mobile messaging platform
Vijay	Venture capital	2016	Wireless IoT, VoIP
Vikas	IT management solutions	2015	Network & Server management