

Entrepreneurial Ecosystems: Spanning the Institutional Gaps in Emerging Economies via Incubator Networks

Entrepreneurial networking is an important activity for accessing resources from personal and business networks. Current research shows that business incubators have a considerable influence on creating networks for novice entrepreneurs. A qualitative study was undertaken to evaluate the role of incubator networks in promoting and supporting entrepreneurial networking in emerging economies. Analysis showed that entrepreneurs actively use incubator resources to strengthen their ventures. An Intersection Model is proposed to build greater insights into qualitative study and it was found that interaction and networking with each other was as important to the entrepreneurs as interacting with incubation management and mentors.

The entrepreneurial ecosystem (EE) has garnered academic attention for some time now as an important input to the entrepreneurial activity (Roundy, Bradman, and Brockman 2017; Goswami, Mitchell, and Bhagvatula 2018; Isabelle 2013; Feld 2012; Isenberg 2010; Spiegel, Neck, Meyer, Cohen, and Corbett 2004). Zhao, Wu, and Luo (2010) define entrepreneurs as individuals who start small firms then run and manage them (Stam, Arzlanian, and Elfring 2014). The term ‘ecosystem’ was first used academically while referring to Silicon Valley’s success in creating a technology and innovation charged environment (Roundy et al 2018). This paper reviews literature on entrepreneurial ecosystems in general and incubators in particular and seeks to understand, through a qualitative study, how entrepreneurial networking affects venture survival and performance. It seeks to contribute to the International Council for Small

Businesses' (ICSB) pillar of providing 'evidence upon which decisions about small and medium sized enterprises (SMEs) and entrepreneurship can be made' (ICSB 2013).

Incubators as Facilitators of the Ecosystem

The U.S. based National Business Incubators Association, now called International Business Incubators Association (InBIA) defines the EE's role as 'creating jobs for the local community, fostering the community's entrepreneurial climate, building or accelerating growth of local industry and commercializing technologies' (Isabelle 2013). The entrepreneurial ecosystem (EE) includes the entrepreneurs, government authorities, educational institutions, investors, and accelerators/incubators (Goswami et al 2018; Feld 2012). The EE is made up of entities that interact with each other to create a complex adaptive system that support entrepreneurs (Roundy et al 2018). Feld (2012) theorises that EEs thrive when the entrepreneur plays a pivotal role in leading the ecosystem rather than governmental agencies or investors. To build a strong EE, Isenberg (2010) suggests connecting the entrepreneurs through formal and informal groups to entrepreneurial and diaspora networks. Spigel (2017) labels incubators, accelerators, and to a lesser extent co-working spaces as 'key nodes' within the EE, for the facilitating role they play in providing advice and networking support to entrepreneurs. Isabelle (2013) posits that incubators and accelerators are terms that are often used interchangeably and that entrepreneurs need to study the diversity of contacts and connections that the incubator/accelerator provides to the entrepreneur.

Business incubators are organizations that offer the use of an affordable office premise with shared administrative services (Fry 1987). 'Industrial Parks (Autio, and Klofsten 1998)', 'Science Technology Entrepreneurs Park' (STEP) in academic incubators in India, 'Networked Incubators' and 'Accelerators' (Hansen et al. 2000) among others are some of the words

synonymous with business incubators. At the first conference held at the United Nations Headquarters on May 12, 2018, Geralyn McClure Franklin, incoming President, ICSB, highlighted the importance of entrepreneurial ecosystems in developing small firms (ICSB 2018).

Entrepreneurial Networking Leading to Better Venture Outcomes

There is evidence that social capital ensconced in personal and business networks are key to giving entrepreneurs access to resources, information and knowledge (Dominguez, Mayrhofer, and Obadia 2017; Johanson and Vahlne 2011; Burt 2000; Portes 1998; Putnam 1995; Granovetter 1973). Granovetter (1973) posits that entrepreneurs regularly tap into their strong and weak ties for gaining information and resources. Coleman (1988) posits that a certain amount of solidarity and trust are required for mutual exchange to take place within a network and solidarity could exist only when certain norms are in place to facilitate mutual exchange. Adler and Kwon (2002) also emphasise the value of trust in the building of social capital. Stam et al.'s (2014) meta-analytic work found that while social capital embedded in the entrepreneurial networks was positively correlated to the small firm's performance, network diversity had the greatest relationship with performance. Aldrich and Ruef (2006; p. 69-72) point to strong ties, weak ties along with contacts as the key resource pool for entrepreneurs and identify network diversity and strength of ties as important inputs to development of entrepreneurial networks.

The entrepreneurs 'differential network positioning' impacts his access to resources and in turn his venture's performance (Hoang and Antoncic 2003). Mian (1997) reiterates that business incubators offer 'financial, human, and social capital through, managerial support and legal knowledge to the start-up.' Prior research states that incubators provide both intangible and

physical services which are important to incubatees in the idea and the early stages of the start-up. Madaleno, Nathan, Overman, and Waights (2018) believe entrepreneurs could reduce overdependence on strong ties by tapping into more weak ties through incubator networks. Business networking helps entrepreneurs gain resources that exist beyond the firm's boundaries (Ricciardi, 2014). Martinez and Aldrich (2011) posit that network stability combined with diversity and cohesion as well as 'brokers' who link entrepreneurs to resources together impact entrepreneurial outcomes. Stuart and Sorenson (2007) exhort more research on how entrepreneurs create networks, connect with well-developed networks, and make important connections before their rivals do. Key advantage of networking comes from gaining information and knowledge and entrepreneurs use it to reduce the risk associated with the enterprise as well as to seek important resources (Hoang and Antoncic, 2003).

Government Intervention in Entrepreneurial Ecosystem

Isenberg (2010) advises governments not to ape the Silicon Valley model which, he says, developed in exceptional circumstances that are difficult to imitate today, even by Silicon Valley itself and reports on the importance of governmental intervention in improving EE by pointing to the case of genocide hit Rwanda, a Sub-Saharan economy. Rwanda continues to be a shining light on how governments can nurture entrepreneurship by moving from 43rd spot in 2010 to the 29th spot for 2019 from and India takes the 77th spot on the Ease of Doing Business Index (World Bank, October 2018). EEs develop when governments drop draconian bankruptcy laws, involve private sector at an early stage, stop giving out doles to entrepreneurs and support organically grown entrepreneurial cluster rather than creating them from scratch (Isenberg, 2010). The Kauffman Early-Stage Entrepreneurship (KESE) Index point to four indicators i) rate of new start-ups, ii) opportunity rate of new start-ups, iii) start-up early job creation iv) start-up early

survival rate, to study entrepreneurial activity within an economy (Roberts, Desai, and Hermann, 2019).

The *Global Entrepreneurship Monitor 2017-18: India Report* found that for more than 45% of those interviewed in the Adult Population Survey (APS), in India, entrepreneurship is a ‘perceived opportunity’ and this is higher than any other BRICS economy. India’s total early entrepreneurial activity (TEA) stands at 9% and is much lesser than the Sub Saharan economies like Cameroon and Burkina Faso (GEM, 2018). Khanna (2018) points out how developing countries lack ‘ambient trust’ on account of the absence of a reliable legal system, unavailability of accreditation agencies and inability to enforce contracts that are important inputs to economic activity. Kuwabara et al (2018) report trust as being an important input to networking. Lack of ‘ambient trust (Khanna 2018)’ affecting networking outcomes (Kuwabara et al 2018) would in turn affect entrepreneur’s access to resources (Stam et al 2014). The National Experts Survey (NES) points to the key ecosystem gaps 1) governmental support, 2) insufficient resources, 3) impeding cultural and social norms (GEM 2018).

Howells (2006) talks about intermediaries as ‘informal information disseminators,’ that play a collaborative part in upgrading the technological and knowledge level of firms that they cater to, by being super imposing structures or organisations. Goswami et al (2018) posit that accelerators/incubators support the Indian ecosystem by playing the role of ‘informal information disseminators’ through 1) networking meets 2) cohort meets 3) workshops 5) parties 6) training 7) mentoring 8) informal chats.

The Indian government has been paying attention to the development of Indian ecosystem. Today India is third in the world with more than 270 incubators/accelerators, more than 14,600 start-ups as on December 2018, and the majority of the incubators are government backed and

have academic affiliations (DIPP 2018). The academic campus incubators are funded by the Atal Innovation Mission program which was started in 2015 by National Institution for Transforming India (NITI) to provide entrepreneurial push in the country (NITI 2018). Started in 2004, the government sponsored Indian Science and Technology Entrepreneurs Park and Business Incubator Association's (ISBA) main objective is 'To promote business incubation activities in the country through exchange of information, sharing of experience, and other networking assistance among Indian Business Incubators (TBIs), Science and Technology Entrepreneurs Parks (STEPs) and other related organizations engaged in the promotion of start-up enterprises' (ISBA 2016).

A number of private organisations also work closely by mentoring and building strategic alliances with academic incubators. Some examples are Intel, SAP, Amazon and DBS Bank among others. Biotechnology Industry Research Assistance Council (BIRAC) funds biotech oriented academic incubators (BIRAC 2019). The *Startup Blink Rankings Report 2019* which ranks 1000 cities and 100 countries on their ecosystem strength counts India at 17th place, up 20 places from the previous year (StartupBlink 2019).

Research Methodology

The external and internal networking scale by Wolff and Kim (2012) was modified to create a semi structured interview format for entrepreneurs. Teherani, Martimianakis, Stenfors-Hayes, Wadhwa, and Varpio (2015) posit that qualitative methods enable a study within natural surroundings so as to see events from the participants' perspectives. A qualitative approach entails voluminous collection of data on small sample sizes so as to study the participants' experiences (Willig 2013; p. 93). The trust scale questions of De Jong and Elfring (2010) were modified to understand trust within the incubator. Interviews of entrepreneurs based on different

identities, from different industries in the emerging economy of India (Stam et al 2014), commercial and social entrepreneurs (Austin, Stevenson, and Wei-Skillern 2006) were conducted.

Ucbasaran, Alsos, Westhead, and Wright (2008) categorise entrepreneurs into habitual and novice; novice being those who have just stepped into entrepreneurship and this study mainly focussed on the novice entrepreneurs' networking behaviour. Fauchart and Gruber (2011) categorised entrepreneurs based on their social identity into (a) Darwinian - functions for profit (b) communitarian - wishes to contribute to the community (c) missionary - wants to create a better world. Lastly (d) hybrid - would be those whose self-concept is a combination of two or more identities (Fauchart and Gruber 2011). Research on studies on entrepreneurial networking within Indian ecosystem has been sparse, with one qualitative study (Goswami et al 2018) looking at accelerators within only one geographic region of Southern India. This paper seeks to look at incubators based in diverse regions of India so as to gain a broader picture.

Research Methods

Semi structured interviews were conducted between January 2019 and February 2019 to with twelve entrepreneurs to gain insights into the role of incubator networks in helping entrepreneurs build their venture via incubator networks. The interviews were mostly administered within the incubator settings with some telephonic interviews as well. The interviews were conducted with mostly novice entrepreneurs and many were looking to raise capital via the incubators. While some were profit based ventures, some were social entrepreneurs. The industries the entrepreneurs belonged to, were varied ranging from food, agriculture, technology, education, etc.

The snowballing method was used to identify participants for the study, where each participant was asked to refer other entrepreneurs and some personal contacts of one of the researchers were also used. Most entrepreneurs were connected to more than one incubator and most were incubatees while few graduates were also interviewed (See Appendix A for description of surveyed firms).

All interviews lasted about one and half hours were conducted by one researcher and later transcribed, coded and NVivo analysis package was used to identify key themes and sub-themes (See Appendix B for thematic analysis). Entrepreneurial ecosystem was identified as the main category while other keywords generated were ‘incubators,’ ‘entrepreneurial networking,’ ‘trust’ and ‘entrepreneurial effort.’ Results have been checked by the other researcher in the team and for confidentiality purposes all the cases are coded (E1, E2, E3...E12).

For ***Research Findings***, Please refer to supplementary.doc

Implications for Practice

The qualitative analysis revealed that a) entrepreneurs access i) information, ii) knowledge, iii) resources through incubators networks b) incubators strengthen and support the entrepreneurial ecosystems of emerging economies c) trust is an important precursor to accessing resources through networking and d) the challenges faced by entrepreneurs are solved through internal networking and external networking.

In addition, the authors applied Intersectional analysis (Christensen and Jensen 2012; Correa, Hinsley, and De Zuniga 2010; Davidsson 2002) to explain the interplay between the players within an incubator so as to create a better understanding for ecosystem policy makers and incubation management and propose an Intersection Model. Friedman (1970) proposed that the value of any research is in its ability to predict. While it is difficult to apply precise statistical

techniques to qualitative data, the researchers were looking to gain an insight into how the variables interact with each other. The number of players within an incubator is finite though the layers of interactions are many. The researchers cross mapped incubator players (incubation management, mentors, peers) with second order themes (guidance, advice, information), creating an Intersection Table (see Appendix C), to see how the players were contributing to the incubator environment.

There is a surprise finding that the incubatees are interacting dynamically with other incubates as much as they are interacting with incubation management and mentors. The entrepreneurs within an incubator, network, seek guidance and information from each other. This was also observed by the researchers who found that incubatees, in incubators with higher number of incubatees, were more positive in their attitude about their incubator than incubatees, in incubators with lower number of incubatees. This is a contrary McAdam and Marlow's (2007) earlier findings that incubation may lead to plagiarism of ideas or unfair competition as one shares common space with other entrepreneurs and the view that external experts are preferred over incubatees for networking.

This could help incubation management to better plan enrolment and cohort sizes. Keeping groups small and exclusive may not be the best policy. This intersection model may work best when there a finite number of players but multiple areas of interaction between the players. More applications of the model in future qualitative research would lead to further fine tuning of the model.

Conclusion

Networking within and outside the entrepreneurial ecosystem helps the entrepreneur bridge the gap between his needs and what is available to him. Incubators provide information

and knowledge to the incubatees and access to resources. When such resources are easily available many more people would take on the mantle of an entrepreneur.

The findings from this research show that entrepreneurs are benefitting from being within an incubator and incubatees interact with incubation management, mentors and other incubatees actively. There is scant evidence of prior research linking networking and incubators in the Indian context. Policy makers in India could look at research for improving policy creation and policy implementation. Greater research on the role of entrepreneurial ecosystems in supporting entrepreneurs would benefit all emerging economies in general and India in particular. Providing better access to resources via incubator networks would help India convert its 'perceived opportunities' for entrepreneurship into successful entrepreneurial ventures.

Future research may also look at building comparisons between facilities provided by the incubators and the expectations of entrepreneurs from incubators. This study is limited in its scope by its geographical spread and small qualitative sample. This exploratory analysis hopes to build a foundation for a broader study on entrepreneurial networking within the entrepreneurial ecosystems of emerging economies.