A Conceptual Model of the Incubation of New Technology-Based Ventures: a Social Capital Perspective

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Abstract

Technology incubators are newer organizational forms that are created to support and accelerate the development and success of affiliated ventures, particularly new technology-based ventures. Current literature regarding incubators has suggested that an understanding of the incubation process is important when seeking to understand how affiliated ventures develop and grow. However, very little is known about the incubation process, particularly the incubation of technology-based ventures. Prior literature suggests that technology-based ventures develop in terms of both business and technological development and that the incubation process varies along these dimensions. Thus, understanding the incubation of technology–based ventures must consider the differing but simultaneous dynamics of business and technological development. Drawing from the social capital, entrepreneurship, incubation, and organizational learning literature, a conceptual model of the incubation of new technology-based ventures within technology incubators is presented.

Keywords: *incubators, new technology-based ventures, entrepreneurship, innovation*

JEL classification: M13, O31, O33

Introduction

Technology incubators are newer and popular organizational forms that are created, often through economic development agencies, to support and accelerate the development and success of affiliated ventures, particularly new technology-based ventures (NTBV's) (Hansen, Chesbrough, Nohria, & Sull, 2000; Mian, 1996). The success of these new ventures is important to economic progress (Low & MacMillan, 1988) since they can serve a critical role in the development of local, regional, and national economies through the creation of jobs and the generation of profits (Reynolds & White, 1997; Birch, 1981) and innovations (Acs

& Audretsch, 1992). While preliminary research suggests that technology incubators can enable affiliated venture success, there is no clear consensus on how incubators can provide optimal support to new technology-based ventures (NTBVs) (Mian, 1996). Specifically, a better understanding of the incubation process is needed to understand how incubators can enable the development of affiliated ventures (Hackett & Dilts, 2004)

Drawing from the entrepreneurship, incubator, organizational learning, and social capital literature, a conceptual model of the incubation of technology-based ventures is presented.

Theory and hypotheses

Social Capital as a Network Benefit

Social capital is the goodwill or benefit (or risk) available to actors within a social network or collectivity (Adler & Kwon, 2002). Social capital is unique from other forms of capital in that it resides within the relationships among networking actors, not within individual actors (Coleman, 1988; Adler & Kwon, 2002). Social capital has been associated with a host of network benefits at both the individual and collective level of analysis such as employment opportunities (Granovetter, 1973), manager performance (Burt, 2001), firm knowledge acquisition (Yli-Renko, Autio, & Sapienza, 2001), and regional productivity (Putnam, 1993; Helliwell & Putnam, 1995) and risks such as excessive trust (Yli-Renko, Autio, & Sapienza, 2001) and gang membership (Portes & Landolt, 1996).

Social Capital Activators

Social capital theory suggests that actors must have the opportunity, motivation, and ability to activate benefits from a network or collectivity (Adler & Kwon, 2002). Opportunity allows actors to access a network, motivation reflects the desire of the actor to gain benefits from the network, and ability allows the actor to gain value from the social capital benefits (Schulman & Anderson, 1999).

Opportunity can be derived from the direct contacts that an actor has or through indirect contacts made available to the actor through a third party (Adler & Kwon, 2002; Granovetter, 1973; Coleman, 1988). Indirect contacts often serve as the primary source of new networking opportunities, particularly in sparse networks where redundancy among direct and indirect ties is limited (Burt, 2001).

The desire of actors to gain benefits from the network emerges through generalized reciprocity or instrumental needs (Adler & Kwon, 2002). Generalized reciprocity can be based upon norms or trust within the network (Alder & Kwon, 2002; Putnam, 1993). Actors may also take an instrumental approach and exploit the network to advance themselves without any willingness to reciprocate. Finally, the ability of the actor will affect the extent of benefits provided and received from a network (Adler & Kwon, 2002).

Sources of Social Capital

The social capital literature suggests that social capital within networks can be created in three different ways: the evolution of social capital through historical ties, the enabling of social capital creation through institutional or organizational facilitation, and the creation of social capital through the shared pursuit of common goals in the absence of historical ties and facilitation (Scillitoe & Chakrabarti, 2005a).

Historical Ties

The evolution of social capital through historical ties was first presented in Putnam's (1993) seminal work describing the productivity of Italian communities. Social capital within these communities evolved over time, through natural extensions of work, school, and play interactions, among individuals within the community and could be traced back in time for as long as a century (Schulman & Anderson, 1999; Putnam, 1993). The social capital generated through these historical ties was evident in greater civic engagement, which led to greater institutional performance and citizen satisfaction (Helliwell & Putnam, 1995). As a result, communities with greater endowments of social capital through these historical ties exhibited greater productivity than communities that had lesser endowments of social capital (Putnam, 1993).

Institutional or Organizational Facilitation

Alternatively, the creation of social capital can be enabled through institutional or organizational facilitation when social capital within a social network is weak. While scholars agree that social networks endowed with more social capital are fertile environments for additional institutional support to generate greater social capital, in networks where social capital is weak, institutions or facilitating organizations can be created and designed to enable the creation of social capital by facilitating the creation of beneficial collaborative partnerships (Warner, 2001).

Institutions or facilitating organizations that can enable the creation of social capital include macro level institutions such as government, political, and legal institutions and organizations such as community development organizations, cooperative extensions (Warner, 2001), large firms (Saxenian, 1994), and incubators (Hansen, et. al., 2000). These institutions or organizations facilitate the creation of collaborative partnerships through paternalistic interactions (Schulman & Anderson, 1999). Paternalistic interactions involve hierarchical patron-client interactions between the institution or organization and the network actor (Schulman & Anderson, 1999). The client will seek the assistance of the patron to access beneficial collaborative partnerships. Thus, the patron serves as the hub of networking opportunities for the client. Research suggests that while paternalistically gained social capital does not create as great an endowment of social capital as historical ties, it does create a safety net for actors who would have

difficulty accessing beneficial social capital otherwise (Schulman & Anderson, 1999).

Shared Pursuit of Common Goals

In addition to historical ties and institutional or organizational facilitation, social capital can be created through trust-based shared pursuit of common goals among network actors who lack historical ties (Cohen & Fields, 1999) nor rely on institution or organizational facilitation for beneficial collaborations (Saxenian, 1994). Similar to historical ties, these ties are horizontal in nature where actors are in similar network positions, not hierarchical (Cohen & Fields, 1999). In the absence of hierarchical and historical ties, firm networks create a social milieu of cooperation and competition based upon trust that results in productive interactions (Cohen & Fields, 1999; Wolfe, 2002).

When generating social capital through this shared pursuit of common goals, network actors freely collaborate together to pursue a common goal such as innovation, competitiveness, or commercialization (Cohen & Fields, 1999). Network actors can include institutions such as research universities and the government, established industry firms, venture capital firms, law firms, business consultants, and entrepreneurial ventures (Cohen & Fields, 1999

Social Capital and the Incubation of NTBVs

The Importance of Networks for NTBV Development

External networks are important for new ventures because these ventures seldom have sufficient internal resources needed to successfully meet an identified opportunity (Cockburn, Henderson, & Stern, 2002). External networks play a significant role in the founding process of a new venture, enabling access to needed resources, markets, and opportunities (Hitt, Ireland, Camp, & Sexton, 2001). In particular, early access to quality resources such as technological know-how, financial capital, business expertise, and external legitimacy are important for venture success (Aldrich, 1999; Reynolds & White, 1997; Cockburn, et. al., 2002). Gaining early access to these resources enhances the competitive advantage and subsequent success of new ventures (Low & MacMillan, 1988; Cockburn, et. al, 2000).

Technology incubators are newer organizational forms that seek to support the accelerated development and success of affiliated NTBVs through networking activities (Stevenson & Wetterhall, 2001; Rice, 2002; Hansen, et. al, 2000). Technology incubators provide both technical assistance and non-technical or business assistance, distinguishing themselves from other forms of incubators. While all incubators typically offer business assistance, incubators that support technology ventures also offer technical assistance (Mian, 1996). Non-technical or business assistance includes access to needed resources such as shared administration support services, marketing, management, and general legal expertise, office space, financial capital, and firm legitimacy (Smilor & Gill, 1986;

Hansen, et. al., 2000). Technical assistance includes access to university research activity and technologies, laboratory and workshop space and facilities (Mian, 1996; Bakouros, Mardas, Varsekelis, 2002), industry contacts (Hansen, et. al., 2000), and intellectual property protection. Business assistance helps the development of the business side of the firm while technical assistance helps the technological development of the firm. This duality of assistance is important for NTBVs since the technologies of the firm must co-develop with the business side of the firm (Cockburn, et. al., 2002) matching business savvy with technological competitive advantage. Figure 1, summarizes the conceptual model.

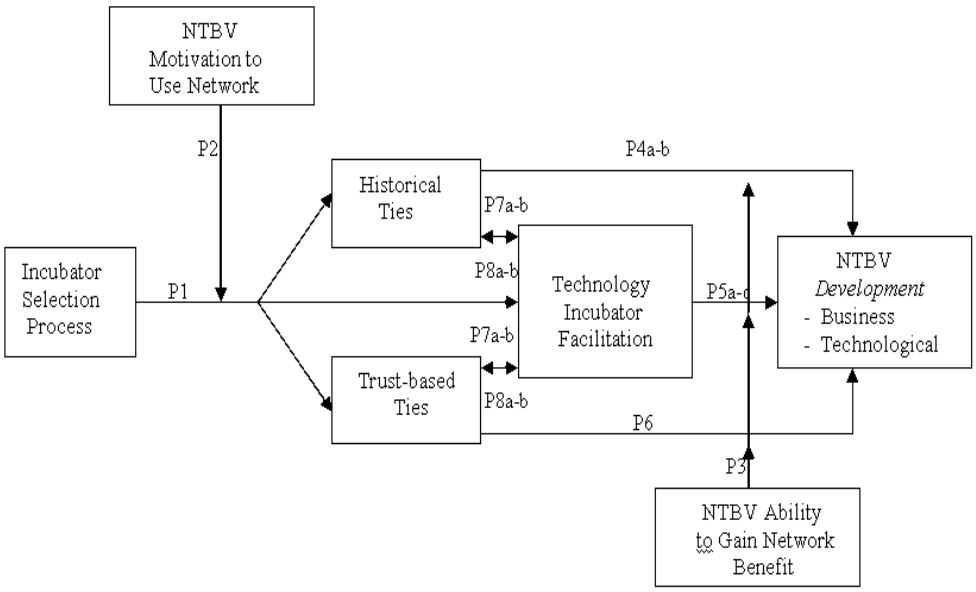

Figure 1 Model of NTBV incubation within technology incubators

Activation of Social Capital within the Technology Incubator Network

Activation of social capital within networks occurs through the opportunity to access network ties, the motivation of the actor to seek benefits from the network, and the ability of the actor to gain the network benefits (Adler & Kwon, 2002). By gaining affiliation with the technology incubator and being motivated and able to gain benefits from the incubator network, NTBVs will activate social capital benefits.

Selection Process

The selection process plays a key role in whether an NTBV is able to secure affiliation with the technology incubator and subsequent opportunity to access the assistance associated with the incubator. Technology incubators seek NTBVs that have adequate resources and skills, such as financial capital, business understanding, technological diversity, and the potential for fast growth (Smilor &

Gill, 1986). These requirements result in the selection of NTBVs with entrepreneurs that have sophisticated technical and managerial knowledge and skills, advanced education, and work experience in comparison to non-affiliated ventures (Columbo & Delmastro, 2002).

Financial capital includes a historic ability to meet operating expenses (Smilor & Gill, 1986, Rice & Matthews, 1995). NTBVs must also have some management and marketing understanding in order to develop a quality business plan, although the incubator will also provide some assistance (Smilor & Gill, 1986)

The NTBV must also fit with the technological goals of the incubator (Smilor & Gill, 1986). Finally, incubators seek ventures that have a potential for growth. Indicators of growth potential are typically expected entry into a growth orientated industry and entrepreneurial talent such as drive, tenacity, dedication, and hard work (Smilor & Gill, 1986).

Ventures that meet the selection criteria and become affiliated with the technology incubator are afforded the opportunity to access the associated network, supplementing their existing network of contacts. The selection criteria of technology incubators create a selection bias where the most prepared and promising ventures are chosen (Mawson, 1999). Thus,

> **Proposition 1:** *NTBVs selected for affiliation with the technology incubator will have existing strengths and capabilities that will influence the extent of benefits needed from the technology incubator network for NTBV development.*

NTBV Motivation

Motivation describes the desire of the NTBV to gain access to the social capital benefits associated with the network of the technology incubator.

The motivation of the NTBV to seek benefit from the technology incubator network can affect both the business and technological development of the venture. The extent ventures take advantage of counseling and networking opportunities through incubators affects the value of assistance gained (Rice, 2002). Ventures focused on learning and innovation exhibit greater market breadth and innovative product design capabilities in comparison to less innovation-focused firms (Kim & Lee, 2002). Learning that promotes this innovative activity can be attributed to learning from external sources such as universities, research institutes, government agencies, and technological experts (Kim & Lee, 2002).

Motivation of NTBVs to gain benefits from the technology incubator network can be inhibited or enhanced by the founding team. A founding team that believes existing resources and knowledge within the NTBV is sufficient will perceive new resources and knowledge as illegitimate and discount their value (Zietsma, Winn, Branzei, & Vertinsky, 2002). The endorsement of the founding team to gain new knowledge, whether based upon instrumental or reciprocity-based needs (Adler & Kwon, 2002), can promote venture learning (Zietsma, et. al., 2002) and enhance the development of the firm (Kim & Lee, 2002) by encouraging

the creation of social ties to gain new information from the external environment (Zietsma, et. al., 2002, Nonaka & Takeuchi, 1995). The founding team create a climate that encourages and values the free flow of information within (Ortenblad, 2002) and beyond the organization (Nonaka & Takeuchi, 1995). Thus,

> **Proposition 2:** *A greater extent of motivation by the NTBV founding team to seek benefits from the technology incubator network will positively influence NTBV development.*

NTBV Ability

The internal abilities of an actor will affect the extent of benefits received from a network. The ability of NTBVs to gain benefits from the incubator network can be influenced by the size of the NTBV workforce, the education and experience of employees, and the ventures combinative capability. Smaller firms, due to lesser human resources, tend to have less external ties than large firms (Almeida, Dokko, & Rosenkopf, 2003). In addition, smaller firms tend to use human resources to develop informal networks where large firms tend to use more formal mechanisms such as alliances (Almeida, et. al., 2003).

The education and experience of the founding team and workforce represent the intellectual capital that resides within the venture. While social capital can enable the creation of intellectual capital (Nahapiet & Ghoshal, 1998), the discovery of new knowledge requires a foundation of intellectual capital (Locke, 1999). Discovery involves observation and integration within an individual before combination and communication among individuals can occur (Locke, 1999). Also, the venture needs combinative capability to derive value from the social capital within the incubator network. Combinative capabilities are needed to take advantage of social capital within a network and combine disparate information or ideas gained to new, innovative ones (Hargadon & Sutton, 1997; Adler & Kwon, 2002). To promote successful development, the NTBV needs to complement gained resources or knowledge with their existing resources or knowledge. Thus,

> **Proposition 3:** *Greater abilities of the NTBV will positively influence the benefits gained from the technology incubator network, enhancing NTBV development.*

Sources of Social Capital in Technology Incubators

Understanding the source of social capital within technology incubators aids in understanding how NTBVs will tap social capital benefits.

Drawing from the social capital literature regarding the sources of social capital, beneficial social capital within technology incubators can be a result of historical ties associated with the incubator, the facilitation of collaborative interactions by the technology incubator, and trust-based collaborations among actors within the technology incubator network. Technology incubators are created to provide a nurturing environment that links entrepreneurs with technology, capital, and know-how to accelerate the development of the new technology based ventures (Mian, 1996).

Incubator Historical Ties

NTBVs can access social capital within technology incubators through historical ties. These historical ties can include both historical network ties of the technology incubator and historical ties NTBVs have with the technology incubator (Scillitoe & Chakrabarti, 2005a).

The historical ties of the technology incubator can affect the portfolio of network contacts that the incubator develops and maintains in advance of client venture needs and enable affiliated ventures to gain quick access to the network when needed (Hansen, et. al., 2000). This network portfolio of the technology incubator can include a variety of contacts such as business consultants, law firms, venture capitalists, angel investors, university researchers and administrators, government agencies, and industry firms.

A technology incubator that has been in existence for a longer period of time is able to develop a larger and more diverse portfolio of network contacts. The technology incubator management is able to spend more time identifying needed contacts and developing and maintaining a rapport with these contacts to enable preferential access to these contacts by current and future affiliated NTBVs. A larger and more diverse network portfolio will enhance the NTBVs opportunities to gain benefits. A larger network enables new ventures to gain a greater number of tie contacts that potentially offer new information or opportunities (Granovetter, 2000; Burt, 2001). Diverse network ties provide new ventures with the benefit of a wide range of valuable information such as potential markets, technologies, and innovations (Aldrich, 1999). These network ties offered by the technology incubator supplement the ties within the NTBVs existing network (Hansen, et.al, 2000). Thus,

> **Proposition 4a***: Technology incubators that have been in existence for a longer period of time will have greater stocks of network social capital that will positively influence NTBV development.*

The historical ties NTBVs have with the technology incubator can also serve as a source of beneficial social capital. An NTBV that is affiliated with a technology incubator for a longer period of time can take greater advantage of the portfolio network of contacts and participate in available activities of the technology incubator that enable greater interactions with incubator network actors.

As NTBVs develop, their needs change overtime. An NTBV may seek to identify complementary technologies or gain financial capital during early stages of development and may seek to protect intellectual property created later in the development process. An NTBV that is affiliated with a technology incubator for a longer period of time will have a greater need for network contacts overtime and can gain greater benefit from the portfolio of network contacts available.

Also, technology incubators offer seminars, training, social activities, and common areas to encourage interactions among actors in the incubator network. Seminars and training often involve content that is applicable to many affiliated ventures such as financing, business planning, legal issues, intellectual property

protection, human resource management, and market analyses. Thus, seminars and training sessions offer opportunities for new ventures to interact with one another as well as the trainer. Social activities and common areas are organized and designed to encourage interactions as well.

Social capital theory suggests that social capital can emerge through historical interactions that are extensions of work, school, and play (Schulman & Anderson, 1999). The longer a NTBV is affiliated with a technology incubator, the greater the opportunity the NTBV will increase interactions with actors within the technology incubator network through changing developmental needs, training opportunities, social activities, and informal interactions in common areas, enabling NTBV development. Thus,

> **Proposition 4b**: *A greater amount of time NTBVs are affiliated with technology incubators will positively influence NTBV development.*

Incubator Facilitation

Prior research suggests that NTBVs seek to become affiliated with technology incubators to gain benefits (Mian, 1996; Vedovello, 1997; Rice; 2002, Hansen, et. al, 2000). The predominant benefit to NTBVs is access to the incubator management and their portfolio network of contacts that would not be available to the NTBV otherwise (Hansen, et. al, 2000). However, affiliation of the NTBV is not automatic upon application but subject to a selection process by the technology incubator (Smilor & Gill, 1986). In exchange, NTBVs report their progress to the technology incubator management at regular intervals. This exchange can be described as paternalistic or patron-client interactions that NTBVs use to access network contacts through the incubator management. In exchange for the support of the technology incubator, the NTBV must provide detailed information regarding their progress to the technology incubator management. Thus, the technology incubator serves as an organizational facilitator, serving as a source of social capital for affiliated NTBVs in exchange for monitoring and evaluating the progress of the NTBVs. The technology incubator enables collaborative interactions through direct or counseling interactions and referrals from their portfolio of network contacts. Access to the network portfolio of the technology incubator will increase the opportunity for the NTBV to access needed knowledge and resources. NTBVs will be able to access a greater number and more diverse pool of contacts to supplement their own network.

However, prior research suggests that the form of organizational facilitation, counseling or networking ties, can provide different benefits. Counseling ties, based upon direct assistance of the incubator management, offer greater business assistance to promote the business development of a venture while networking ties, based upon access to contacts of the incubator management, offer little benefit for business development (Rice, 2002). Conversely, counseling ties offer little benefit to the technological learning of NTBVs while networking ties offer significant benefit (Scillitoe & Chakrabarti, 2005a, 2005b). This suggests that

when organizational facilitation serves as the primary source of social capital, there are differences among business and technological development. Thus,

> **Proposition 5a**: *Counseling facilitation by the technology incubator management will positively influence the NTBV business development.*

> **Proposition 5b:** *Networking facilitation by the technology incubator management will positively influence the NTBV technological development.*

Furthermore, prior research suggests that when venture founders spend time with incubator management, business assistance from counseling ties are greater (Rice, 2002). However, when venture founders spend a greater amount of time with incubator management, technological learning is impeded (Scillitoe & Chakrbarti, 2005b). This suggests that NTBVs that seek business assistance may do so at the expense of networking facilitation benefits. Thus,

> **Proposition 5c**: *NTBVs that seek business development benefits from counseling ties with technology incubator management will exhibit slower technological development through the technology incubator than NTBVs that do not seek business development support.*

Trust-based Shared Pursuit of Incubation

According to social capital theory, social capital can also be created through the shared pursuit of common goals among actors that trust one another (Cohen & Fields, 1999). This trust-based shared pursuit of common goals has been found to mostly exist when historical ties and institutional or organizational facilitation do not exist (Saxenian, 1994). In this case, institutions or large organizations may exist within the network but predominately serve as network actors, not facilitators of networking (Cohen & Fields, 1999).

Affiliation with the technology incubator provides ventures with an opportunity to develop trust-based collaborations with other actors associated with the incubator network. These actors can include other ventures, anchor tenants, consultants, established firms, universities, and financial entities who interact with affiliated ventures. Through these trust-based interactions, affiliated NTBVs are able to access new resources and knowledge from the network.

Overembeddedness and reduced monitoring among interacting firms, result in negative consequences such as limited knowledge acquisition (Yli-Renko, Autio, & Sapienza, 2001). Overembeddedness results when firms preclude alternative choices by working with familiar partners (Uzzi, 1997). Interacting firms that limit the monitoring of one another decrease the extent of beneficial challenges and the subsequent intense sharing and processing of valuable information (Yli-Renko, et. al., 2001). Thus, firms that trust one another tend to believe that their partner is acting in their best interest and will provide needed resources without challenges, limiting the perceived need for monitoring. Thus, an NTBV that continues to interact with an actor that they trust may generate

excessive trust that will preclude opportunities to interact with new network ties and restrict their ability to challenge existing network ties to create intense sharing and processing of resources and knowledge. Thus,

> **Proposition 6:** *The extent of trust-based interactions that NTBVs have with actors associated with the technology incubator network will have a curvilinear relationship with NTBV development. Moderate amounts of trust will enhance NTBV development while excessive amounts of trust will inhibit NTBV development.*

Predominance of Incubator Network Facilitation

Social capital theory posits that when organizational facilitation exists as a source of social capital, the influence of historical or trust-based ties diminishes. This is due to the ease of utilizing organizational facilitation as a source of social capital. NTBVs that are provided with valuable and willing network contacts through the technology incubator can save the time and effort required to develop historical or trust-based ties. The development and maintenance of ties takes time and effort (Granovetter, 1973). In addition, facilitation by the technology incubator includes all NTBVs that desire networking support. Incubator facilitated networking will allow a greater number of ventures to have access to the beneficial social capital embedded within the incubator network. However, since incubator facilitation can include both business and technological development, the predominance of incubator facilitation will likely only occur for the type of development provided. Thus,

> **Proposition 7a:** *When facilitation through the technology incubator management is utilized by NTBVs for business development, beneficial social capital accessed by NTBVs through historical ties and trust-based interactions for business development will diminish.*

> **Proposition 7b:** *When facilitation through the technology incubator management is utilized by NTBVs for technological development, beneficial social capital accessed by NTBVs through historical ties and trust-based interactions for technological development will diminish.*

However, when incubator facilitated networking does not exist or is not utilized, NTBVs must resort to historical ties or trust-based interactions for development. Thus,

> **Proposition 8a:** *When facilitation through the technology incubator is not utilized by NTBVs for business development, beneficial social capital for NTBV business development will be accessed through historical ties or trust-based interactions.*

> **Proposition 8b:** *When facilitation through the technology incubator is not utilized by NTBVs for technological development, beneficial social capital*

for NTBV technological development will be accessed through historical ties or trust-based interactions.

Conclusion

This paper offers a conceptual model of incubation, drawing from a social capital perspective, to describe the development of NTBVs through technology incubators. An understanding of the incubation process of incubator affiliated ventures is limited, particularly for NTBVs (Shane & Venkataraman, 2003). Thus, the model presented in this paper offers value in to the literature regarding the incubation process of NTBVs.

A key issue considered is that NTBV development includes both business and technological development, distinguishing the impact of technology incubators from other forms of incubators (Mian, 1996). This duality of development is important since the technologies of the NTBV must co-develop with the business side of the firm (Cockburn, et. al, 2002) matching business savvy with technological competitive advantage for greatest success.

The model presented suggests that activators of social capital must be present for the NTBV to access and gain social capital benefits through the technology incubator network. These activators include the selection process of the incubator, motivation of the NTBV founding team, and ability associated with the NTBV. The selection process dictates what NTBVs will have the opportunity to access the network. Motivation of the founding team highlights the important role the founding team plays in endorsing resource exchange and learning by encouraging new social ties and a climate of open collaboration. The ability of the NTBV reflects the number of workers the NTBV has to access the network and the intellectual capital and combinative capabilities needed to understand and create value from network gains.

Once an NTBV becomes affiliated with the technology incubator and is motivated and has the ability to gain benefits such as resource and knowledge acquisition or learning, how the NTBV accesses the network depends on the source of social capital within the technology incubator and the type of assistance needed. Social capital associated with the technology incubator can be created and accessed through historical ties, trust-based interactions, and facilitation by the incubator management. However, all three forms of social capital will not necessarily coexist. In addition, a venture may utilize one form of social capital for business development and another form for technological development. For example, when facilitation by the incubator management is available and utilized for business, the use of historical ties and trust to access incubator social capital may diminish for the technological development of the venture. When relevant incubator facilitation is not available for business or technological development, historical ties or trust-based interactions with actors associated with the incubator network or the network ties gained by the venture will serve as valuable sources of NTBV social capital for the developmental needs of the venture.

Regardless of whether business or technological development is being considered, the activators and sources of social capital presented in this model are the same and relevant. However, it remains unclear what the dynamics of incubation are for NTBVs, particularly for their business versus technological development. Since NTBVs do develop the business and technological sides of the firm in tandem, analysis of both forms of development is necessary to understand the incubation process of these ventures. This conceptual model seeks to help clarify the relevant concepts in the analysis of NTBV incubation, offer insights regarding expectations of beneficial incubation processes based upon prior literature and theories, and can serve as a springboard for much needed future theoretically grounded research on this topic.

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This research was graciously supported by Tekes, the National Technology Agency of Finland, the National Science Foundation, the Technology Management Center of Rutgers University, and Helsinki University of Technology. Without the support of these organizations, this research would not be possible.