# COMPLETING THE JIG-SAW PUZZLE: TODAY'S ENTREPRENEUR AND THE ROLE OF FACILITATING ORGANIZATIONS

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#### **ABSTRACT**

This paper describes a conceptual framework for analyzing the success of organizations that are designed to promote entrepreneurship. The framework recognizes the essential role of a viable, diverse social network and its associated social capital to the successful entrepreneur. Entrepreneurship requires a diverse portfolio of effective connections, where "effective connections" are defined as links in the entrepreneur's social network over which resources can be accessed. The connections must bring the funding, means of production, technology, suppliers and customers within reach of the nascent firm. Organizations that facilitate entrepreneurship are to be examined with two criteria. Do they facilitate the appropriate structural connections to the potential entrepreneur, and do they facilitate successful transactions across their networks?

# **Collecting All the Pieces**

This paper describes the conceptual framework that a group of Hawaii-based academics are using to analyze entrepreneurial networks and the relative success of facilitating organizations. Data collection for this research effort started in February 2006.

## One entrepreneur observed:

A high-technology venture is like a jig-saw puzzle. Each of the pieces is unique and must fit together perfectly if you want the venture to be a success. So the chase in which everyone is involved – be it the entrepreneur, the venture capitalist, the management team candidate or whoever else is in the game – the search for those perfect "matches" that will help put the puzzle together. [1]

This observation reflects the two essential network functions of the entrepreneur: first, the entrepreneur must create the network associations required to bring the essential resources within proximity of the firm (collecting the pieces); and second, the entrepreneur must utilize those network linkages to draw the resources into concerted deployment (fitting the prices together). Organizations that seek to facilitate entrepreneurship must encourage both functions.

Stevenson and Jarillo [2] argue that a useful way to define entrepreneurship is "a process by which individuals – either on their own or inside organizations – pursue opportunities without regard to the resources they currently control." They do not define the resources of interest, the pieces of the jig-saw puzzle, but the required pieces consist of a "sufficient set" of resources that enable the newly-formed business to create value for its customers and capture part of that value as profit.

Thus the initial task in forming a new venture is that of building a network structure for the nascent firm. Linkages must be created by the entrepreneur to connect the new entity to each of the required resources that are necessary for it to prosper [3]. Those resources may be capital, customers, suppliers, human resources, technology or simply business ideas. The linkages must be such that all required resources are within easy reach of the venture. In this sense, the successful entrepreneur might be expected to have structural connections to a greater variety of resources than the non-entrepreneur – who may very well succeed with connections to a less diverse set or even a single type of resource linkage. Julien, Andriambeloson, and Ramangalahy [4] make a similar argument when they studied an entrepreneur's need to use a variety of information sources to develop their strategy and to gradually organize their environment. They found the most important sources of information to be clients (3.32), suppliers (3.32) specialists publications (2.67), brochures and catalogues (2.65) and subcontractors (2.57) for SMEs in the land-based transportation equipment sector where the numbers are means with a range of 1 to 4.

Then, after the network structure is established, a second task is essential for the newly developed firm to commence successful operations, a task that consists of utilizing that network structure to draw those connected resources into a coherent product or service. Once structurally connected to a resource node, the entrepreneur must be able to "pay" for access to the resource – either with money (real capital), or with chits (social capital). The entrepreneur needs sufficient monetary and social capital to enable access to the necessary resources. Social capital can come through group membership, and social capital can facilitate access to resources as a substitute for monetary resources. Social capital makes a major contribution to the entrepreneur's ability to be effectively connected. Hence, the entrepreneur must be both structurally connected to resources, and have reserves of capital (monetary and social) to effectively use those connections.

Given the widely held belief that networks can be developed to encourage new business startups, a fair amount of community resources are allocated to facilitating network connections between potential entrepreneurs and the resources that are needed for success. Many universities, for example, have centers dedicated to bringing technology and capital together to form "spinouts." Many communities have specific development groups designed to encourage entrepreneurship within narrow bands of interest, such as technology or life-sciences – and they have periodic meetings to encourage group members to get to know each other and work on common problems. But, with all of these organizations and resources bent on developing network ties that will foster entrepreneurial ventures, it is painfully evident that some efforts are more effective than others.

## THE NETWORK ORGANIZATIONAL FORM

For technology based firms, Bodde [5] argues that the launch pad for a new venture is the recognition that customer value can be created and some of that value can be retained by the entrepreneur. To release the economic value inherent in the technology requires a complete venture which must include:

- Market insight-how using the technology confers on customers some advantage that they are willing to pay for;
- A business model that packages technology and market insight to build a structural, defensible

- competitive advantage; and
- An effective organization that implements the business model, delivers the service, and collects a fair price for it.

Most start up firms and their founders lack at least some of the above and so must fill voids by connecting to others. These voids are increasingly filled by creating networks that link the necessary resources.

# Don Tapscott [6] argues:

For decades, the starting point for strategic thinking has been the stand-alone, vertically integrated corporation. These powerful companies do everything from soup to nuts and dominate the competitive landscape. We think of them as intrinsic to the economy, and they provide the context for theories about competitive strategy. Companies prospered with this model of production because it was cheaper and simpler for them to perform the maximum number of functions in-house, rather than incurring the high cost, hassle, and risk of partnering with outsiders to execute vital business activities. This is no longer true.

Our networked world has caused business leaders to talk about "business models." Adrian Slywotzky [7] defines a business model as "the entire system for delivering utility to the customers and earning a profit from that activity." Gary Hamel [8] argues that most organizations have few individuals who can think holistically and concretely about new business concepts. Unrestrained by existing organizational boundaries, demands, expectations, and relationships, the entrepreneur can think and act more expansively and holistically. Business history, thus, is replete with entrepreneurs who created new business models – FedEx, Amazon.com, and eBay.

Today's entrepreneur is not confined to the traditional, nor fixed, bricks and mortar core firm architecture. He or she may deploy resources fluidly inside and outside of the traditional firm boundaries. As Oliver E. Williamson [9] explains, initially the theory of the firm was described in technological terms as a production function. If firms are mainly technological entities, then their boundaries are defined by economies of scope and scale. However, we know that firms extend beyond these natural limits. This theory was broadened by Herbert Simon who explored decision processes and coalition formation. This led to transaction cost economics which approaches the economic organization differently. It describes firms and markets as alternative modes of organization. The main purpose and effect of economic organization is to minimize transaction costs within the firm or between firms.

In the context of this paper, the entrepreneur's social network is comprised of the individuals and organizations around the globe, in a variety of sectors, with which the start up has the potential of a relationship – from loose connection or referral capacity to partnership or strategic ally. The strength of the network depends most on the strength of its relationships rather than on the strength of the firms and individuals within the web. Like the structure of the World Wide Web in which everyone communicates with everyone on a basis of shared standards, the entrepreneur's social network sees wide, open communication based on shared values.

Influencing the shape of the network are degrees of separation, connectivity (direct and indirect ties), social value of the product, communication of vision, understanding of and familiarity with funding resources, nature of supply and supply channels, nature of production -- inclusive of location, the interface of distribution channels and branding opportunities, customers, protection of intellectual property, logistics – nature of payment channels.

This is the structural requirement of network formation for an entrepreneur. All of the essential connections must be put into place as a precursor to business operation. However, the structure is not the only requirement. The startup must also be able to transact across the necessary network connections to actually bring the required resources together for business execution.

#### NETWORK TRANSACTIONS

As the entrepreneur builds the requisite network of relationships, the appropriate incentives to transact with the new and unknown startup must be engendered. The ever increasing flow of information, resources, channels, funds and products allows the network of entrepreneurs to successfully compete with firms of larger scope and scale because its network has scope and scale. It can take advantage of: location economies, incentives offered by governments to reduce or avoid capital costs/taxes, expertise available through varied academic and government-science institutions, and regional brand leaders through whom the start up can piggyback to develop global brand equity. At the same time, the network affords the start up to focus on its core business, to grow organically, to build its sustainable competitive advantages, and to improve its key processes.

The entrepreneur creates functions that can be done at a minimal cost within the firm and contracts for functions outside the firm that others can do more cheaply. We see this phenomenon in the businesses that surround us. When we walk through a grocery store, we see the store employee stocking the vegetables while the bread is being placed on the shelves by the bakery's employees. The store management has decided that the transaction costs for stocking vegetables is cheaper if in-house and the converse for stocking bread.

The Internet dramatically reduces search, coordination, contracting and other transaction costs. It allows the firm to concentrate on its core competencies and let partners do the rest [6]. By outsourcing functions, today's entrepreneur uses other peoples' money and resources to create utility for customers in a cost minimizing manner. As appropriate suppliers/partners become known and available, he or she constantly reforms the network to provide the best cost efficiencies. This creates a flexible network form of organization.

One of the most successful companies in the 1990s was General Electric. Jack Welch [10] reflects "the boundaryless company that I saw would remove all the barriers among the functions: engineering, manufacturing, marketing, and the rest. It would recognize no distinctions between "domestic" and "foreign" operations. ... A boundaryless company would knock down external walls, making suppliers and customers part of a single process." For a giant organization such as GE, creating a boundaryless organization takes time and perseverance; using small acts, symbols, course corrections, coaching and celebrations [11]. It involves the spanning of four boundaries; hierarchical levels (the tyranny of vertical, status-driven boundaries): interunit divisions driven by specialization, expertise and socialization; barriers between the customers, suppliers and firm; and boundaries between global markets and cultures [11]. Today's entrepreneur can create such an organization from its establishment, providing a competitive edge over an "old school" organization, being able to deploy the success factors of speed, flexibility, integration and innovation [11].

The challenge is the management of the contracts [12]. No contract, especially those written across international boundaries, is contractually complete. The entrepreneur forms relations with partners who include customers, suppliers, channelers, collaborators and competitors. The partners are forced to cooperate in a foresighted manner, according to the economic conditions and potential hazards that the

partners perceive in the future. In addition to the cooperative nature of the relationship, the partners must adapt to each others' needs and business models with incentives, administrative control and contracts [12]. A start up firm can not afford a large legal staff to enforce every agreement it has with its stakeholders, and it does not possess the resources of the complete value chain of its industry. This challenge of legal enforcement and resource limitations is acute once the firm crosses international boundaries. In part, the need for cooperation is met by building social capital, and the adaptive need is satisfied by interlocking business models.

To attract organizations to be part of the network, the startup must acknowledge that each of the organizations with whom it has a relationship, also has a business model which is different than the start up's business model. The partners' organizations must perceive that being part of the start up's network assists in the partners' delivery of utility, reduction of friction, earning of profit or all of the aforementioned. Reducing friction refers to realizing economies of scale that arise when business units are no longer dependent on internal networks that may or may not be well-defined and supported. Profit refers to financial gain, social capital gain, or societal improvement.

In many circumstances, monetary payment alone may be insufficient motivation for an organization to participate with the startup in a new business venture. Small businesses may have difficulty obtaining the "best" legal counsel simply because a lawyer is preoccupied with larger, more consistent clients. A supplier may only be willing to accept the nuisance of shipping small quantities to a new and unknown customer because of the hope that the customer relationship will eventually develop into one that is profitable. Or, customers may only be willing to place an order – even at a discounted price – if they believe that the supply of product will be consistent and long term. In those situations where monetary payment alone is not sufficient to justify participation in a new venture, we invoke the concept of social capital as the required lubricant.

If social capital is squandered, or is non-existent, many of the marginally economic transactions associated with business startup cannot occur. The business owner that has failed numerous times may be unable to muster the "goodwill" required to overcome barriers with suppliers or customers commonly referred to as opportunity costs.

Perron [13] finds that the small firm network can be deliberately created which encourages trust. He finds that small firm networks have characteristics that are more likely to generate trust than the self-interest-maximizing behavior in a group of firms. Those characteristics are:

- Sharing and discussing information on markets, technology, pay scales and profits of firms.
- Sufficient similarity in processes and techniques among firms so that one can understand and judge each others behavior.
- Experience of getting helped by another firm.
- Long-term relationships.
- Little difference among firms by size, power or strategic position.
- Rotation of leadership is required to represent a collection of firms.
- Similar financial rewards to the firms and the employees within them.
- Firm collectively experience the economic advantage of increased sales and profit margins.
- An awareness of a bounded community of fate generated by trade or professional associations, municipal service groups, unions and the like.

### **ROLE OF SOCIAL CAPITAL**

Firms have three forms of capital: physical, human and social. Physical capital's and human capital's intellectual heritage rests in the disciplines of economics and sociology respectively. Social capital is a relatively young concept. It arose because neoclassical economics can only explain 80% of economic activity; the remaining 20% is explained by individual human nature and behavior [14]. There are a number of different definitions of social capital. An overview may be seen in Adler and Kwon's [15] "Social Capital: Prospects for a New Concept." For this paper, we will use Cohen and Prusak's [16] definition, "the stock of active connections among people: the trust, mutual understanding, and shared values and behaviors that bind the members of human networks and communities and make cooperative action possible."

Fukuyama [17] asserts it is possible to form successful groups with a high level of formal coordination mechanisms and their associated transaction costs. However, informal norms greatly reduce these costs and facilitate a higher level of innovation and group adaptation. For fledgling entrepreneurs, with a lack of physical and human capital, a stock of social capital allows them to create the network needed for survival in the chaotic world of business.

Robert Coase argues that when transaction costs are zero, social regulatory norms will arise out of self-interested interactions of individuals and do not have to be mandated through law or formal institutions [18]. Unfortunately, transaction costs for most businesses are never zero. It is usually costly for individuals to work out fair agreements with each other, particularly when one is richer or more powerful than the other. Yet, when transaction costs are low, economists have been able to identify a number of intriguing cases of self organization, whereby social norms have been created through a bottom-up process -- the creation of social capital within a network. They include sharing of driftwood on English beaches, conflicts between nineteenth century whalers, and agreements between farmers and ranchers in California [17].

This becomes especially important with the increasing complex informational requirements of today's business. Cross, Davenport and Cantrell [19] describe how the most effective knowledge workers cultivate networks that are an optimal blend of professional and personal. They found that knowledge workers use three tactics; establishing personal connections, following through, and actively reciprocating. As entrepreneurs establish a governance system, they realize that modern governance requires exponentially increasing information. No leader can master all the technological expertise, so one must rely on technical experts. The entrepreneur must limit expenditures on paid consultants, so the expertise must come from within the existing network [17].

The entrepreneur's challenge is coordinating the players in the decentralized organization while keeping the transaction costs low. If the network is to be truly productive, it must depend on informal, spontaneous norms forming in place of the formal organizational controls – in other words, on social capital [17].

Social capital is created through a network of social relationships which are different than market relationships or hierarchical relationships in four ways (see table 1 from [15]). Before the entrepreneur creates a firm, the reservoir of social capital must be filled in order to draw that which provides the fledgling firm with benefits arising from cooperative actions. To draw on the network of social ties, there must be opportunity, motivation and ability at each tie. The entrepreneur may incorporate members of a social network into the startup firm, thus creating internal ties that provide the opportunity to act together. Those from the social network that remain outside the firm provide the opportunity for leveraging of

contacts' resources. The quality and configuration of the social network impacts the ability to benefit. For each set of ties, the quality is affected by the frequency, intensity, multiplexity of the contacts. The configuration addresses both direct and indirect contacts. Direct network ties provide access to people who can provide direct support while as indirect ties lead to resources mobilized though the contact own network ties [15].

Table 1 Market, Hierarchical, and Social Relationships			
Aspect	Market Relations	<b>Hierarchical Relations</b>	<b>Social Relations</b>
What is exchanged?	Goods and services for money or barter	Obedience to authority for material and spiritual security	Favors, gifts
Are the terms of exchange specific or diffuse?	Specific	Diffuse	Diffuse
Are the terms of exchange made explicit?	Explicit	Explicit	Tacit
Is the exchange symmetrical?	Symmetrical	Asymmetrical	Symmetrical (with the time horizon not specified or explicit)

Organizational behaviorists have known for years that third-party endorsements are critical to a young firm's success. Burt's [20] a theory on structural holes accentuates the role of the third party. Structural holes are the gaps between two persons who are not yet connected through a third party. Such holes are opportunities for third parties to serve as brokers to fill the "gaps" where information and resources are needed. From the network literature, we see that networks allow for trust building and reduce opportunistic behavior in the individual. Coleman [21] said that building strong ties between two parties are helped by a third party who can provide insights on their trustworthiness.

Monica Higgins and Ranjay Gulati [22] present strong evidence that whom you know can be just as important as what you know when trying to offset the uncertainty inherent in backing a high-risk startup. They state "Our work suggests that the functional backgrounds or experience levels of the top management team — the CEO, CFO, and chief scientific officer, in particular — aren't really the deciding factors for investment bankers, ... It's these executives' professional ties and company connections, their access to information and resources — what we call social capital — that matter most when they are trying to raise money." Social ties serve as a conduit for information resource needed for an entrepreneurial decision. For example, referrals could assist nascent businesses to obtain financial assistance, which otherwise they would have been difficulty securing [23]. Investors tend to accept endorsement from someone they already know. Most funded proposals are made through referrals [24].

The power of indirect ties becomes apparent when we consider Stanley Milgram's classic work on six degrees of separation. Though not proven, the urban legend of six degrees is well accepted and intriguing. "It suggests that, despite our society's enormous size, it can easily be navigated by following social links from one person to another -- a network of six billion nodes in which any pair of nodes is on average six links from each other [25]."

Once opportunity exists, then there needs to be motivation. The exchanges are made without an explicit, immediate, or certain return. Social capital requires shared norms and high levels of trust that a favor today will lead to favors in the future of unknown content and timing. The required, deeply internalized norms may be engaged through socialization or by experiencing a shared destiny. This may be "enforced trust" where obligations are enforced on both parties by the broader community [15].

Alongside motivation and opportunity, abilities must be present. The social network must contain the competencies and resources to provide the needed favors for the cooperative action. A study of high performing knowledge workers found that the high performers maintain and leverage personal networks that tap large, diversified mega-networks that are rich in experience and span all organizational boundaries [19].

Social capital increases with use. The more it is employed, the more it regenerates. It is a self-reinforcing, dynamic force. The reciprocity that generates from social capital increases connectedness; in turn the increased connectedness allows for increased trust and confidence as well as the capacity to grow and/or innovate.

The immediate benefits and risks of social capital can be discussed in terms of information, influence and solidarity [26]. Increasing social capital facilitates the access to information. Burt [27] shows how social capital enables brokering activities from other actors to the focal actor. The entire network benefits from the diffusion of information. Uzzi [28] found that fined-grained information among firms helps them all to better forecast future demands and anticipate customer preferences. Hansen [29] showed that weak links can assist product development teams [15]. On the down side, social capital requires considerable investment in establishing and maintaining relationships. As with any investment, it may not be worth it. Hanson [30] showed that strong ties caused product development teams to take longer than teams with weak ties. The weak ties provided the information without the high maintenance cost.

Influence, control and power are a second benefit with a balance of associated risk. The entrepreneurs that act as bridges between disconnected groups accrue power because they have a say in whose interests are served by the bridge. They can negotiate favorable terms and hence become powerful actors [20]. Ahuja [31] argues that if more contacts are gained to increase information, the power with individual contacts is less than an actor with fewer direct contacts [15].

Social capital can cause strong social norms and beliefs that encourage compliance to local rules and customs leading to a reduced need to formal controls. This solidarity will grow from a blend of weak and strong ties. The solidarity may over embed the actor in the relationships and reduce the flow of new ideas thus reducing the innovation and creativity of the group. Portes [32] notes that social capital may create free riding problems and hinder entrepreneurship. He also noted that individual freedom and business initiative is stifled when individuals are compelled to conform to the shared norms [33]. Florida, Cushing and Gates [34] showed that communities with high levels of social capital were low of creativity and innovation.

## **Facilitating Organizations**

Based on the above, we have begun a study of entrepreneurial networks. In our study, we plan to analyze networks at three levels. First, we will map the structure and attributes of an entrepreneur's personal network. Second, we will study the network of the entrepreneur's firm, including both internal and external ties of the key individuals that comprise the firm. Finally, we will study a network at a larger,

more societal level, to learn whether or not the efforts of facilitating organizations, whose primary purpose is to foster ties between individuals and organizations organized in a specific industry, is effective. This third level of analysis concerns this paper.

To study entrepreneurs' networks at the individual, organizational and societal level, we focus our research on networks developed by and among entrepreneurs in Hawaii, within a limited scope of development (biotechnology firms less than five years old having obtained their first round of investment capital and having qualified under the same section for tax-code treatment). We chose Hawaii primarily because we live and work there, but also because it is an excellent example of a small, isolated community with relatively few resources, little history in biotechnology, and limited exposure to national and global markets. We chose biotechnology firms because they are generally regarded as highly dependent on dense inter-organizational networks that provide access to state-of-the-art information and ideas [35]. It is also an industry for which an ad hoc organization has recently been organized in an effort to strengthen connections between principle actors within Hawaii.

We are currently in the middle stages of our research. We began by developing a questionnaire designed to map and measure a number of characteristics of entrepreneurial networks. The questionnaire will be given to the founding entrepreneur and all principle employees of the firm. Our goal is to include 10-15 qualifying firms in the study. Each person who completes the questionnaire will be asked to identify up to twenty people on whom they rely to provide information or resources they need to successfully do their work, or to help them think about complex problems posed by their work. These would all be considered direct ties.

After developing the questionnaire, we contacted the president of a facilitating organization that serves the biotechnology community to get a list of firms that meet our criteria. The president of the organization is sending a letter to all organizations on the list with her endorsement, as well as a letter from us that explains the nature of the study. This will be followed by a phone call to the founding entrepreneur of each organization and a personal interview for those who show an interest in participating. During the personal interview, we will explain the study in depth and seek information about the firm, including the nature of its business, organization, financing and measures of firm success. After the personal interview, all principle employees of the firm, including the founding entrepreneur, will complete the questionnaire. Data will then be compiled and analyzed, which will complete the first major phase of our study. A follow-up stage will include contacting network partners identified in the questionnaire to determine their perception of their relationship with the original participants, and to extend the network so that we can map indirect ties and bridges between ties.

We will analyze the network at three levels mentioned above: the individual entrepreneur, the entrepreneurial firm, and the system comprising all of the firms in the study. We will identify connections between principles, both within and between firms, as well as intermediaries that principles identify. Examples of intermediaries are facilitating organizations, private placement capital investors, tax attorneys, accountants, intellectual property experts, university faculty and staff, and government officials. We are particularly interested in identifying certain types of individuals in the network, such as central connectors, boundary spanners, information brokers and peripheral people. At the individual level, we will compute such structural measures as degree (number of connections), density, heterogeneity, effective size, constraint, closeness, betweenness and eigenvector. At the organizational and system level, we will compute measures of group cohesion, such as density, average distance, and homophily. At the organizational level, we will compute group centrality measures such as group degree, group closeness and group betweenness.

Several types of state, university, business and civic organizations seek to facilitate entrepreneurship by the creation of networking opportunities. We are interested if these organizations will show up in the entrepreneurs' networks and are adding value to the industry. Incubators, for example, try to draw early-stage startups into common office space and to assist in the delivery of professional services; state-sponsored business development organizations may offer monthly luncheons to members of a targeted business community; and technology development offices try to bring capital and university researchers into proximity. These facilitating organizations achieve varying degrees of success. Our research will explore the reasons for the success and the failures of these facilitating organizations. Our analysis will follow from the structural and the transactional views developed above.

Some organizations do not effectively facilitate entrepreneurship because they do not provide the entrepreneurs with the right sort of structural. Facilitating organizations often fail to provide a sufficient diversity of structural connections, giving the entrepreneur many connections which are too similar in nature – this, in contrast with the diverse set of resources that are required for successful business startup. The type of connections provided may be only to one or to two sorts of resources (e.g., only to other entrepreneurs, or only to a single type advocacy group). The facilitating organization may be inadvertently creating "silos" of connections rather than a cross-connected structure that brings the required variety of resources within reach.

Some organizations do not effectively facilitate entrepreneurship because they do not provide means for entrepreneurs to acquire adequate social capital to facilitate resource access, even though structural connections may exist. These organizations may bring the requisite parties into close proximity, but they do not create the shared values, the trust or goodwill required to effectively open access to the needed resources within the ostensibly connected community. Too passive a membership in a group that is devoid of communication among parties might result in just such a dysfunctional facilitating organization. Instead of building the requisite social capital to facilitate resource access, some organization may destroy it by creating too transparent competition or even loathing or envy among group members.

An example of an organizational type that encourages and facilitates entrepreneurs is found within the university. Licensing fees from university-based research has become a major source of funds for some "entrepreneurial" universities and their researchers. Dai, Popp and Bretschneider [35] point out that those universities that create an applied research focused culture are able to attract government and industry funding which lead to more patients and licensing funds. Nicolaou and Birley [36] likewise argue that it is the structure of the network that facilitates successful university spinouts and that social capital is instrumental in creating a career trajectory for academics with a propensity for creating spinouts. These arguments support the idea promoted by Gargiulo and Benassi [37] that network structure is a critical variable in the successful exploitation of a social network.

This framework for analyzing entrepreneurship-facilitating organizations is a topic of research for the authors of this paper. We examining the structure of the networks created by these organizations, and by looking at their effectiveness in creating the social capital required to facilitate transactions on these networks, we will be able to identify and understand reasons that some of these organizations are ineffective. We expect that this line of enquiry will lead to concrete prescriptions that will enable these organizations to more effectively build networks that facilitate entrepreneurship.

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