BUILDING STRATEGIC ALLIANCES IN NEW AND SMALL VENTURES: 
A REVIEW OF LITERATURE AND INTEGRATIVE FRAMEWORK

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Abstract

In order to reap the advantages associated with strategic alliances, entrepreneurial ventures need to develop an organization-wide capability to establish, structure and manage such alliances. Yet the entrepreneurship literature has developed separately from alliance research, leaving new and small ventures with little advice on how to develop and thrive through strategic alliances. To close this gap, we review the alliance literature by taking the perspective of entrepreneurial ventures operating in highly competitive and knowledge-intensive industries. While keeping the focus on new and small ventures, we develop our literature review in connection with the broader literature on strategic alliances, covering a total of 105 peer-reviewed articles. We organize the collected articles according to an input-process-output framework: After reviewing the antecedents and the outcomes of alliance formation in new and small ventures, we take a closer look at the processes entailed by involvement in the alliance itself (i.e., alliance structuring, alliance management, and capability building). Our primary contribution consists of consolidating research on strategic alliances in entrepreneurial ventures with reference to the broader literature on strategic alliances. From a managerial perspective, we elaborate on the key success factors of strategic alliances in entrepreneurial ventures, and provide a roadmap for new and small ventures to develop an alliance capability. We conclude by identifying research themes that need further exploration, and by suggesting theoretical perspectives that may be suitable for the exploration of such themes.

Keywords: Alliance formation, alliance structuring, alliance management, alliance capability building, new ventures, small ventures.
INTRODUCTION

New and small ventures are receiving increasing attention by both policy makers and researchers, since they represent a major source of economic growth and innovation (Acs, 2006; Wennekers & Thurik, 1999; Wong & Autio, 2005). However, entrepreneurial ventures have high failure rates due to a “liability of smallness” and a “liability of newness”, which involve scarcity of in-house resources, lack of reputation in the final market, and uncertainty about internal operations (Baum, Calabrese & Silverman, 2000; [Stinchombe, 1965]). The formation of strategic alliances may enable entrepreneurial ventures to overcome such liabilities, as well as to avoid the pitfalls associated with the earliest stages of venture development (Narula, 2004). As argued by Baum et al. (2000, p. 270), “By forming strategic alliances, start-ups can potentially access social, technical, and commercial resources that normally require years of operating experience to acquire”.

Yet strategic alliances are risky endeavors, and failure may be particularly consequential at the start-up stage, when in-house resources are stretched to the limit (Baum et al., 2000; Narula, 2004; Minshall, Mortara, Elia & Probert, 2008). To reap the advantages associated with strategic alliances, entrepreneurial ventures need to develop an organization-wide capability to establish, structure and manage alliances (Draulans, DeMan & Volberda, 2003). However, the entrepreneurship literature has developed separately from research on strategic alliances (Ariño, Ragozzino & Reuer, 2008; Das & He, 2006). The few publications discussing strategic alliances in entrepreneurial ventures are scattered across different theoretical perspectives, ranging from the resource-based view to the network perspective. Unavoidably, this leads to a fragmented picture of the challenges and experiences encountered by entrepreneurial ventures that set out to form, manage, and learn from strategic alliances.
In this paper, we contribute to bridging this gap, by reviewing the literature on strategic alliances from the viewpoint of entrepreneurial ventures operating in knowledge-intensive and high-technology sectors. From a search of business and management journal collections, we selected a total of 105 peer-reviewed articles, drawn from the literature on strategic alliances and the literature on entrepreneurial ventures. We organize the collected articles according to an input-process-output framework: After reviewing the antecedents and the outcomes of alliance formation in new and small ventures, we take a closer look at the processes entailed by involvement in the alliance itself (i.e., alliance structuring, alliance management, and capability building). From a managerial perspective, we elaborate on the key success factors of strategic alliances in entrepreneurial ventures, and provide a roadmap for new and small ventures to develop an alliance capability. We conclude by identifying five research themes that need further exploration, and by suggesting theoretical perspectives that may be suitable for the exploration of such themes.

Our primary contribution consists of consolidating research on strategic alliances in new and small ventures, by drawing connections with the broader literature on strategic alliances. In particular, our literature review makes an attempt not to compare theoretical perspectives, but rather to cull out research themes that cut across theoretical perspectives on strategic alliances in new and small ventures\(^1\). By so doing, we intend to suggest an agenda for future research and to provide a resource of intelligence for entrepreneurial ventures that wish to engage in strategic alliances.

**METHODOLOGY**

In this section, we define the central constructs of our review and outline the methodological approach adopted for gathering and analyzing articles on strategic alliances in entrepreneurial ventures. A “strategic alliance” is broadly defined as a collaborative
agreement whereby two or more companies team up in order to share reciprocal inputs, while maintaining their own organizational identities (De Man & Duysters, 2005). By the term “entrepreneurial venture”, we refer to new and small ventures that operate in highly-technological and knowledge-intensive sectors (Baum et al., 2000; Narula, 2004). With this definition, we wish not to make distinctions between new and small ventures, but rather to consider the two types of firms jointly. This is consistent with a literature tradition which “generally use ‘start-ups’ and ‘small start-ups’ and ‘entrepreneurial firms’ interchangeably, and use data collected from young and small firms in high tech industries to address entrepreneurial issues (Das & He, 2006, p. 120).

The strategic alliances undertaken by entrepreneurial ventures can be classified into three broad categories, based on the partner’s position along the industry value chain (Colombo, Grilli & Piva, 2006; Faems, Van Looy & Debackere, 2005; Forrest, 1990; George, Zahra, Wheatley & Khan, 2001). New and small ventures may constitute strategic alliances with downstream partners closer to commercial and marketing channels, with horizontal partners in a similar position along the value chain, or with upstream partners conducting basic or applied research. For example, a bio-tech start-up may undertake downstream alliances with pharmaceutical companies to leverage their brands, sales force, and distribution channels (Alvarez & Barney, 2001; Powell, Koput & Smith-Doerr, 1996); and at the same time pool resources with horizontal and upstream partners for exploring an untested research field (Baum et al., 2000). As our literature review will make clear, the distinction between downstream, upstream, and horizontal alliances brings along relevant implications for alliance management in entrepreneurial ventures.

In order to select articles on strategic alliances in entrepreneurial ventures, we performed an extensive search of electronic databases – ABI Inform, JSTOR, Science Direct, and Springer Link – looking for the keywords “entrepreneurial venture” (or synonyms) and
“strategic alliance” (or synonyms) in the title or abstract. As synonyms, we selected the keywords “new venture”, and “start-up”, followed by “partnership” and “inter-organizational collaboration” for “strategic alliance”. We performed crossed searches of the above said keywords, and limited results to scholarly journals included in business and management collections (29 articles). We then extended our literature search to include contributions on small enterprises (“SMEs”) that set out to form strategic alliances in highly-technological and knowledge-intensive sectors (18 articles).

Furthermore, we broadened our literature search to articles on entrepreneurial networks (8 articles), recognizing that the network perspective provides relevant insights for the study of dyadic alliances. As suggested by Inkpen and Tsang (2005), the value creation logic in alliance networks is conceptually the same as in dyadic alliances, although involving greater managerial complexity. As a result, we gathered a total of 55 peer-reviewed, scholarly articles on strategic alliances in entrepreneurial ventures (i.e., new and small ventures).

Given our intent to bridge the entrepreneurship and the alliance literature, we simultaneously made an attempt to get a picture of the state of the art as regards the broader literature on strategic alliances. To this end, we consulted literature reviews on strategic alliances (e.g., Barringer & Harrison, 2000; Ireland, Hitt & Vaidyanath, 2002) and screened the references of our literature collection in search for highly cited articles on strategic alliances (50 articles). These articles are relevant for representing the backdrop against which the literature on strategic alliances in entrepreneurial ventures develops. Furthermore, this extension of the literature search enabled comparing the development of the literature on strategic alliances in entrepreneurial ventures against the development of the wider literature on strategic alliances. As displayed in Table 1, we gathered a total of 105 articles, drawn from the entrepreneurship literature and from research in strategic alliances.
Following an inductive analysis of the articles collected, we identified four literature themes – *alliance formation, structuring, management, and capability building* – which can be organized within an input-process-output framework. The first theme covers the inputs and outputs of strategic alliances, whereas the remainder themes explore different processes entailed by strategic alliances. Research on alliance structuring and management is concerned with the relationship between the alliance partners, whereas research in alliance capability building shifts attention towards the internal processes of the alliance partner. In Figure 1, we provide an overview of the four literature themes, which will be deepened in the remainder of the paper.

The advantage of adopting an input-process-output framework is twofold: First, this framework cuts across theoretical perspectives, therefore enabling the classification and integration of articles scattered across a variety of theoretical perspectives. For example, our review of alliance formation synthesizes results from the resource based view, transaction cost, and social network perspectives. Second, the input-process-output framework is applicable to all types of organizations, and is therefore useful to facilitate comparisons between the literature on strategic alliances in entrepreneurial ventures and the broader literature on strategic alliances. At the same time, the classes are of a broad nature and hence do not suppress the organizational specificities that are discussed within each literature stream.
ALLIANCE FORMATION IN NEW AND SMALL VENTURES

This literature stream is concerned primarily with understanding the antecedents of strategic alliances (inputs), while also outlining the relative consequences in terms of advantages and disadvantages (outputs). As suggested in Table 1, the theme of alliance formation is covered extensively by the broad literature on strategic alliances, and receives considerable attention also within the narrower perspective on entrepreneurial ventures. While the general literature provides an overarching framework for understanding alliance formation, the entrepreneurship literature sheds further light on the distinctive motivations, advantages, and challenges for new and small ventures engaging in strategic alliances.

Inputs for Alliance Formation in Entrepreneurial Ventures

According to several scholars (Colombo et al., 2006; Freeman, 1991; Gomes-Casseres 1997; McGee, Dowling & Megginson, 1995; Shan, 1990), entrepreneurial ventures facing adverse environmental conditions are especially inclined to establish strategic alliances. As pointed out by Eisenhardt and Schoonhoven (1996), new and small ventures in highly competitive markets suffer from vulnerable strategic positions, because the margins are low and product differentiation is difficult. In this context, the incentive to alliance making is particularly high, since “strategic alliances can reduce the likelihood of competitive threats … and offer a mechanism for exploiting new market opportunities” (Park, Chen & Gallagher, 2002, p. 528).

However, entrepreneurial ventures vary considerably in their resource endowment, therefore presenting a different ability to tap into inter-organizational networks and to sustain long-term performance (Baum et al., 2000). Ahuja (2000), Eisenhardt and Schoonhoven (1996) and Park et al. (2002) have shown that new and small ventures with valuable
resources – in terms of technology, manufacturing, and finances – are better able to bring about alliances in highly volatile markets. On the contrary, resource-poor ventures are less likely to secure alliances, even though they would profit the most from tapping into a network of external resources (Stuart, 1998). In this case, the very condition which provides an incentive to form alliances – i.e., resource scarcity – acts as a barrier against the ability to form alliances. Eisenhardt and Schoonhoven (1996, p. 137) note the “fundamental irony of alliancing”, observing that strategic alliances are set up to access external resources, yet internal resources are needed to set up strategic alliances.

Besides resource endowment, the social capital of a new venture – defined in terms of the network ties of the founding team – was found to facilitate alliance making (Eisenhardt & Schoonhoven 1996; Shan, Walker & Kogut, 1994, Vanhaverbeke, Beerkens & Duysters, 2007; Walker, Kogut & Shan, 1997). A study by BarNir and Smith (2002) on small ventures showed that the social ties of senior executives account for a substantial amount of variance in the formation of horizontal and vertical alliances (11 and 22% respectively). Elfring and Hulsink (2003, 2007) further showed that alliance formation is best supported by a mix of strong and weak ties. On the one hand, strong ties (i.e., close relationships) are associated with the exchange of tacit knowledge, and with the provision of crucial resources on the part of actors close to the founding team. On the other hand, weak ties (i.e., loose relationships) provide access to innovative knowledge combinations, while also offering connections to contacts outside of the entrepreneur’s close network (BarNir & Smith, 2002; Chung, Singh & Lee, 2000; Hoang & Antoncic, 2003).

In summary, the foremost inputs for the formation of strategic alliances in new and small ventures are a combination of i) environmental conditions, ii) technological resources and iii) social capital. Whereas environmental conditions provide the strategic rationale for new and small ventures’ engagement in strategic alliances, technological and social capitals
represent the primary enablers of alliance formation. In the next section, we turn to the outputs of alliance formation, by taking a closer look at the advantages as well as the disadvantages that strategic alliances pose to entrepreneurial ventures. In effect, alliance formation has uncertain effects on venture development, since the characteristics of entrepreneurial ventures amplify both the benefits and the risks that are entailed by strategic alliances.

**Outputs of Alliance Formation in Entrepreneurial Ventures**

**Favorable Outputs**

A wide body of research suggests that the formation of strategic alliances has the potential to sustain the development of entrepreneurial ventures (Chen & Li, 1999; Lee, 2007; Shan et al., 1994; Stuart, Hoang & Hybels, 1999; Van Gils & Zwart, 2004; Willoughby & Galvin, 2005). As we will review below, strategic alliances can deliver a number of favorable outcomes to entrepreneurial ventures, by reducing the economic cost of operations, providing access to knowledge assets, and enhancing their reputation and expansion in international markets.

The economic advantages of alliance formation are particularly beneficial for new and small ventures confronted with resource constraints in high-tech and hyper-competitive sectors (Narula, 2004). To a certain extent, strategic alliances provide the security of a reversible investment, since limited damage is inflicted to the primary operations of a partner company, in case of project failure or alliance dissolution. At the same time, strategic alliances can lower the risks inherent to large projects, by spreading costs across a number of partners, while also securing funding to bring forth the innovation process. Teaming up with competent partners might also result in a reduction in lead times, an aspect of particular
relevance in high-tech sectors with a shortened product life-cycle (Faems et al., 2005; De Man & Duysters, 2005).

In addition to providing economic advantages, alliance formation enables new and small ventures to sustain innovation and new product development by accessing, absorbing, and creating knowledge. A specific reason why alliance formation fosters innovation consists in the provision of a ‘radar function’ for accessing knowledge in the external environment (De Man & Duysters, 2005). Such function is particularly germane to entrepreneurial ventures – permitting to scan the alliance network for relevant knowledge, without incurring the cost of investing in a particular technology or infrastructure (Narula, 2004). Alliance formation also enables new and small ventures to absorb knowledge from the partner company, and therefore to further reduce the newcomers’ disadvantage (Faems et al., 2005; Lane & Lubatkin, 1998; Simonin 1999). Such a process of knowledge absorption, in turn, sustains the creation of new knowledge within the scope of the collaborative venture (Baum et al., 2000; Muller & Välikangas, 2002).

Besides providing access to knowledge assets, strategic alliances can enhance the reputation of new and small ventures, by providing status transfer from prominent partners (Baum et al., 2000). By leveraging the reputation of alliance partners, an entrepreneurial venture can improve its position in the competitive domain and attract capital for its investments (Stuart et al., 1999). This is especially the case in high-tech sectors, where scientific uncertainty about a product’s viability leads investors to assess a venture by looking at its network relationships (Shane & Cable, 2002; Stuart et al., 1999; Baum et al., 2000). In particular, Baum and Silverman (2004) found that formation of downstream (rather than upstream) alliances is positively correlated to the obtainment of financing from venture capitalists. Downstream alliances, in fact, are an indicator of a venture’s access to commercial channels, and signal the confidence of established firms in the technical
soundness, and commercial viability of its products. Conversely, venture capitalists may interpret upstream alliances as an indication that the venture lacks critical resources and remains in an exploratory phase far from product commercialization. In this regard, upstream alliances may be subject to ambiguous interpretation on the part of venture capitalists, despite providing access to cutting-edge knowledge essential for new product development.

A further advantage of alliance formation consists in the possibility of improving an entrepreneurial venture’s position in the global market, by expanding operations across geographically dispersed locations (Hara & Kanai, 1994; Leiblein & Reuer, 2004; Kuemmerle, 1999; Yli-Renko, Autio & Tontti, 2002). As suggested by Narula (2004), international alliances permit to overcome barriers to foreign market entry and to leverage the market expertise of local partners for product adaptation and commercialization. Moreover, international alliances enable to access location-specific assets, and to tap into technological systems located in the most innovation-intensive regions of the global industry (Colombo, Grilli, Murtinu, Piscitello & Piva, 2009). However, resource constraints make new ventures less capable than large companies to take advantage of international relations (Leiblein & Reuer, 2004; Narula, 2004). In effect, the formation of international alliances involves complex coordination and demands substantial commitment in terms of financial, managerial, and administrative resources.

**Unfavorable Outputs**

Since they bring along considerable challenges for both established and new ventures, strategic alliances are often dissolved without achieving the desired results (Das & Teng 2000b; De Man & Duysters, 2005). Alliance failure brings heightened risks for small and new ventures, which often lack the financial resources to recover from economic losses and find alternative partners (Draulans et al., 2003; Zineldin & Dodourova, 2005). While a
number of factors contribute to the instability of strategic alliances, the primary reason for failure is the lack of binding mechanisms, combined with the presence of both performance and relational risks. Whereas relational risks pertain to the relationship between the partners (e.g., opportunistic behavior), performance risks encompass intrinsic difficulties in achieving the objectives of the alliance (Das & Teng, 2000b).

As “incomplete contracts” (Anand & Khanna, 2000, p. 295), strategic alliances often lack a clear definition of responsibility allocation, and of the property rights associated with the collaborative outputs. Due to the lack of binding mechanisms, alliance partners may fear opportunistic behavior from the counterpart, and hence withhold resources at the expenses of the collaboration (Das & Teng, 2000b). For example, fear of helping a competitor in developing a new technology may be an incentive to hold back in the alliance, by protecting research results or hiding the best people (De Man & Duysters, 2005). Ultimately, intra-alliance rivalry may deteriorate into a “learning race”, where the partners attempt to absorb external knowledge as much as possible, while divulging internal knowledge as little as possible (Baum et al., 2000, p. 271). New and small ventures are particularly vulnerable to the risks of a learning race, possessing a limited technological portfolio, while also lacking the financial resources to enforce control mechanisms (Colombo et al., 2006; Narula, 2004). The phenomenon of learning races is fiercest in horizontal alliances, since partners with similar positioning are more likely to reduce knowledge transfer in order to prevent competition (Baum et al., 2000; Silverman & Baum, 2002). In turn, the negotiation, contractual, and administrative costs incurred for dealing with appropriation concerns in horizontal alliances can be overwhelming for new and small ventures (Colombo et al. 2006).

Even when alliance partners do not engage in learning races, their collaborative activity may face severe barriers, as the process of integrating knowledge across organizational boundaries is fraught with inherent complexity. On the one hand, knowledge
transfer may be obstructed by substantial differences in terms of knowledge bases, organizational cultures, and operational infrastructures\(^2\). On the other hand, knowledge recombination may be prevented by the inability to successfully retain and exploit the knowledge transferred by the partner company (Szulanski, 1996; Willoughby & Galvin, 2005; Baum et al., 2000). The retention barrier may represent a major challenge for entrepreneurial ventures, which usually lack previous expertise in absorbing knowledge from partner companies. Absorptive capacity, in fact, is enhanced by repeated involvement in collaborative relations, which expose the firm to a broad repertoire of experiences (Anand and Khanna 2000; Lane & Lubatkin, 1998).

**PROCESSES OF ALLIANCE MAKING IN NEW AND SMALL VENTURES**

Having synthesized the literature on the inputs and outputs of alliance formation, in this section we take a closer look at the contributions that outline the processes involved in strategic alliances. As suggested in Figure 1, we have identified three processes of alliance making and corresponding literature streams – i.e., alliance structuring, management, and capability building. While alliance structuring is concerned with defining the structural design of strategic alliances (Das & Teng, 2000b), alliance management deals with governing day-to-day alliance relationships (Ireland et al., 2002). Finally, the literature on alliance capability building shifts attention towards the internal processes of alliance partners, arguing for the need to build up an organizational-wide capability to manage strategic alliances (Draulans et al., 2003).

**Alliance Structuring**
This research stream covers the foremost stages of alliance making, when a company sets out to define the overall structure of a strategic alliance. Alliance structuring involves the selection of suitable partners, the design of governance mechanisms, and the definition of the temporal horizon for the strategic alliance. As visible in Table 1, this theme has received considerable attention in both the alliance and the entrepreneurship literatures, even though the focus on new and small ventures could be further developed.

The selection of an appropriate partner is considered to be the foremost requirement for realizing the potential benefits of a strategic alliance (Bierly & Gallagher, 2007; Hitt, Dacin, Levitas, Arregle & Borza, 2000; Hoffmann & Schlosser, 2001; Holmberg & Cummings, 2009). In selecting partners, new and small ventures should be even more careful than established ones, since they have fewer possibilities to eventually recover from alliance failure (Narula, 2004). The most suitable arrangement is between partners with complementary competences, compatible objectives and a cooperative attitude (Baum et al., 2000; Brouthers, Brouthers & Wilkinson, 1995; Hitt et al., 2000). Lane and Lubatkin (1998) add that alliance partners should present relatively similar knowledge bases in order to effectively integrate knowledge. In fact, sharing a common ground fosters the alliance partners’ capability to recognize, assimilate, and ultimately deploy the combined knowledge.

As a confirmation of the importance of partner selection for entrepreneurial ventures, it is worth noticing the development of a stand-alone research stream discussing the viability of strategic alliances with larger companies (Das & He, 2006). According to Brouthers et al. (1995), strategic alliances work better when the partners present a ‘symmetric configuration’ in terms of organizational dimensions, financial resources, and managerial style. By contrast, more recent research has revealed that ‘asymmetric partnerships’ may deliver considerable advantages to entrepreneurial ventures (Alvarez & Barney, 2001; O’Dwyer & O’Flynn, 2005; Minshall et al., 2008). A strategic alliance with a large company, in fact, may provide an
entrepreneurial venture with the resources necessary to bring its technology to the market, and may eventually increase its reputation via status transfer.

Yet such advantages are achieved at the price of heightened risks. Often, most of the economic value created by the strategic alliance is appropriated by the large company, with severe threats for the survival of the entrepreneurial venture. To a large extent, such a disparity in wealth appropriation is caused by a difference in the learning rate, with the large company being in a position to absorb knowledge at a faster pace. A further reason lies in the ease of appropriation of the different competences: While the organizational competences of an established company are usually embedded within organizational routines, the technology developed by the entrepreneurial venture is embodied in discrete processes – and as such is made accessible through the alliance itself. After learning about the entrepreneurial venture’s technology, the large company has an incentive to under-invest in the relationship, by shifting resources towards alternative activities (Alvarez & Barney, 2001; Das & He, 2006).

The literature advises new and small ventures to put in place protective measures, by performing due diligence on the large firm under consideration, and by carefully crafting the alliance contract (Minshall et al., 2008; Minshall, Mortara, Valli & Probert, 2010). Above all, entrepreneurial ventures should pursue a diversified technology development strategy, by bringing a bundle of potentially valuable technologies to the strategic alliance. As pointed out by Alvarez and Barney (2001, p. 147), “the inventive capability – a capability that large firms usually value but cannot develop or imitate – makes it possible for entrepreneurial firms to create value and appropriate wealth through alliances with large firms”. Das and He (2006) further advise entrepreneurial ventures seeking established partners to outline compatible objectives for the alliance, to secure access to manufacturing and marketing functions, to involve middle managers of both firms from the very beginning, to create a dedicated task force and to define detailed plans of action.
After conclusion of the partnering process, the next task of alliance partners consists of defining governance mechanisms for the strategic alliance (Barringer & Harrison, 2000; Das & Teng 1996, 2000b; Gulati, 1998; Ireland et al., 2002). This involves making choices among a variety of arrangements, ranging from non-equity to equity arrangements (Lorange & Roos, 1993). On the one side, non-equity alliances entail a loose interaction among partners and result in a flexible framework allowing to control risks, limit commitment, and exit easily. On the other side, equity alliances formally lay out the relationships among partners and provide the vertical integration necessary to enforce control, align incentives, and distribute residuals. As such, equity alliances are more likely to be observed when a cooperative attitude cannot be taken for granted (Das & Teng, 1996) and partners face greater ambiguity in codifying knowledge – as is the case in research-intensive collaborations (Anand & Khanna, 2000; Mowery, Oxley & Silverman, 1996). While defining governance mechanisms, the alliance partners must concurrently align their perceptions and expectations regarding the time horizon of the strategic alliance (Das & Teng, 1996, 2000b; Joskow, 1987; Kogut, 1991). A short-term orientation (i.e., exploitation propensity) provides assurance against failure risks, enabling an incremental approach to the collaborative engagement, and avoiding excessive burdens on corporate partners. Conversely, a long-term orientation (i.e., exploration propensity) contributes to align the partners’ incentives, by providing a base for a durable relationship and discouraging opportunistic behavior.

The definition of governance mechanisms therefore depends on the scope of the strategic alliance (Lorange & Roos, 1993), the risks entailed by the collaborative relationship (Das & Teng, 1996), and the temporal horizon of the alliance itself (Das & Teng, 2000b). While these factors determine the initial design of governance mechanisms, the dynamic nature of strategic alliances inevitably involves a need of adapting such mechanisms over time (Ariño et al., 2008; Ireland et al., 2002).³ Ex-post contractual renegotiations are
necessary in order to accommodate for unexpected requirements from alliance partners, as well as to correct the inefficiencies generated by governance misalignments – occurring when excessive control is enforced for relatively undemanding collaborations, or scarce control is put in place for commitment-intensive alliances. In a study of alliance dynamics, Ariño et al. (2008) found that entrepreneurial ventures are less likely than established companies to adapt alliances in the face of changing conditions. The lack of collaboration expertise, financial resources, and administrative capabilities for contractual renegotiation explains new and small ventures’ low responsiveness to governance misalignments. Furthermore, entrepreneurial ventures often fail to add safeguard mechanisms in their contractual agreements, when making transaction-specific investments in strategic alliances. As a result, they are subject to the risk of alliance lock-in, since transaction-specific assets cannot be easily put to other uses in case of alliance breakdown (Ariño et al., 2008).

Alliance Management

This literature stream takes a dynamic perspective on strategic alliances, by shifting attention from the alliance structure to the on-going relationship between the alliance partners. Besides aspects of relationship building, particular attention is paid to managing the knowledge bases of the alliance partners, as well as to addressing the relational and performance risks that are entailed by strategic alliances. As suggested in Table 1, the alliance management perspective still needs to gain momentum in the entrepreneurship literature, even though a few authors have started discussing the unique challenges encountered by new and small ventures.

As a foremost consideration, this literature stream suggests that the appropriate structuring of a strategic alliance does not provide – by itself – a direct way to success (Ireland et al., 2002; Lane & Lubatkin, 1998; Nicholls-Nixon & Woo, 2003). As pointed out
by Standing, Standing and Lin (2008, p. 789), “complementarity, compatibility and relational capital are the basis for forming an alliance … but after an alliance has been formed, a key issue is managing and guiding the alliance through the various stages of its lifecycle”. Yet, small ventures tend to underestimate the amount of managerial effort required to make the alliance work (Beecham & Cordey-Hayes, 1998).

According to various scholars, one of the main reasons for alliance failure can be found in the managers’ inability to address relational problems arising after the contractual agreement (Anderson, Christ & Sedatole, 2006; Das & Teng, 1996, Doz, 2002; Kelly, Schaan & Joncas, 2002, Vlaar, Van den Bosch & Volberda, 2006). As put by Beecham and Cordey-Hayes (1998, p. 194): “the initial agreements emphasize strategic complementarity as a source of value for the partnership, but take subsequent strategic convergence as given. Cultural distance, uncertainties and misunderstandings as well as hidden agendas make such a convergence difficult, unless it is truly desired by the top management of both partners and is actively managed”.

Recognizing that such challenges may be particularly threatening for new and small ventures, Larson (1991) and Senker and Sharp (1997) advise their executives to envision a trial-and-error phase in alliance management. The trial period ensures the reversibility of decisions, by providing the occasion for the alliance partners to renegotiate their contractual agreement in the case that unforeseen circumstances hinder collaboration progress. During this period, the alliance partners set up the relationship, and concurrently lay out rules, norms and procedures for interaction. At the end of the trial period, trust should be established as a guiding principle for the collaboration, and the partners can accordingly move on to the operating phase of the strategic alliance.

While the trial stage involves an incremental process of relationship building, the operating stage is characterized by a steady investment in the collaboration, and entails a tight
integration of the partner organizations (Larson, 1991). To ease the operational stage, the collaborating parties may set up an alliance management team in charge of coordinating information, resources, and tasks across organizational boundaries (Standing et al., 2008). The appointed team should act as boundary spanning agents between alliance partners, take responsibility for the implementation of the alliance operations, and manage to resolve emerging conflict (Huiskonen & Pirtillä, 2002).

This literature stream also points to the importance of managing knowledge assets, which represent the foremost source of competitive advantage for entrepreneurial ventures (Colombo et al., 2006; Lane & Lubatkin, 1998). As mentioned above, strategic alliances are a mixed blessing, providing an occasion to access knowledge in the external network, while at the same time posing the threat of losing proprietary knowledge. The management function is thus required to reconcile divergent objectives, namely to protect partners against unintended knowledge spillover, while also ensuring knowledge sharing within the scope of the strategic alliance.

As regards the objective of preventing knowledge spillover, Faems, Janssens and Van Looy (2010) identified three management strategies that entrepreneurial ventures could possibly adopt. Firstly, partners can reduce the need to share sensitive information by partitioning the alliance activities in partner-specific task domains and working at the interfaces between the diverse modules. Secondly, partners may subdivide the intellectual property rights in different knowledge domains, which reflect their technological competence. Thirdly, partners may agree to exploit the knowledge developed within the alliance in different commercial domains, so to avoid the hazard of future competition. Yet these strategies are not without constraints: In fact, the definition of partner-specific tasks may lead to duplications and at the same time hinder the possibility of jointly solving unexpected problems. Moreover, the definition of knowledge and commercial domains is
possible only if the partners operate with different technological focuses, and if the product can be exploited in different domains.

As regards the objective of sustaining knowledge sharing, Yli-Renko, Autio and Sapienza (2001) suggest investing in the development of relational capital – defined in terms of goodwill, trust and reciprocal obligations between the alliance partners. Brachos, Kostopoulos, Soderquist and Prastacos (2007) underscore the relevance of creating a ‘social space’ between alliance partners in order to foster reciprocal trust, and increase individual motivation to share knowledge. Social activities such as visits to the partner’s facilities help build a solid relational foundation, and motivate engagement in a fine-grained interaction conducive to knowledge transfer (Faems et al., 2010). Slowinski, Seelig and Hull (1996) showed that the buildup of relational capital between alliance managers ensures greater continuity in asymmetric alliances with established companies. A trustworthy relationship in fact is more effective in deterring opportunistic behavior than contractual agreements (Deeds & Hill, 1999; Larson 1991, 1992).

Yet, Yli-Renko et al. (2001) found that relational capital may inhibit the process of knowledge sharing in the alliance itself, since a very high level of trust may subtly instill the expectation that the partner will provide information when needed. In their words, “as relationship quality or trust reaches a very high level, the perceived need to monitor diminishes, decreasing the level of conflict and of intense processing of information … While lowered monitoring and bargaining may reduce the cost of knowledge exchange, they may also lower the amount of new knowledge acquired” (Yli-Renko et al. 2001, p. 607-608). In addition, excessive trust may subjugate the entrepreneurial venture to the threat of competitive abuse from the partner organization, even though the investment in relational capital was initially intended to deter opportunistic behavior. The over-commitment to a strategic alliance in fact involves the risk of relational dependence, and leaves the
entrepreneurial venture with few possibilities of considering exit strategies or forming other alliances (Miles, Preece & Baetz, 1999; Standing et al., 2008). Particularly in asymmetric partnerships, failure to leave the door open to alternative alliance options may put the entrepreneurial venture into a weaker negotiating position with respect to the partner.

In other words, investing all resources into a single relationship entails excessive risk for new and small ventures, given the high instability and failure rate of strategic alliances (Das & Teng, 2000b). Uzzi (1997) added that close ties with the alliance partner bring along the risk of ‘overembeddedness’ with respect to the wider network of external relationships. While acting as conduits of knowledge sharing within the dyadic relationship, close ties may in fact insulate the entrepreneurial venture from external sources of knowledge. Thus, new and small ventures are advised to manage their dyadic alliance in connection with the broader network, by developing a diversified portfolio of collaborative relationships (George et al., 2001). Yet this recommendation raises the critical issue of how entrepreneurial ventures with constrained resources can set out to successfully manage a constellation of network relationships, while being involved in a dyadic alliance.

Maurer and Ebers (2006) advise entrepreneurial ventures to pursue specialization in alliance management, with each member of the management team cultivating diverse alliances within the firm’s network. For example, a manager in a biotech start-up may specialize in strategic alliances with venture capitalists, research laboratories, or business consultants. In turn, such specialization requires the entrepreneurial venture to devise integrating mechanisms (such as formal meetings) whereby managers can share information and know-how flowing from the diverse alliances. While posing additional challenges, coordinating network alliances provides a safety net against the relational risks involved in dyadic alliances, and exposes the new venture to multiple sources of knowledge (BarNir & Smith, 2002; Maurer & Ebers, 2006).
Alliance Capability Building

This literature stream shifts attention towards the internal processes of alliance partners, suggesting the build-up of an “alliance capability” as a way of increasing the likelihood of alliance success. As visible in Table 1, alliance capability is a growing research stream, but has not yet received substantial attention from alliance scholars focusing on entrepreneurial ventures. This literature gap is surprising, since companies with limited experience of strategic alliances – such as new and small ventures – tend to be less successful in alliance management (Anand & Khanna, 2000).

Alliance capability is broadly defined as the capability to effectively establish, structure and manage strategic alliances (Beugelsdijk, Noordehaven & Koen, 2003; Draulans et al., 2003; Walter, Auer & Ritter, 2006). Rothaermel and Deeds (2006) argue that the development of an alliance capability is crucial for entrepreneurial ventures, given their limited resources to cope with alliance failure. In particular, new and small ventures need to develop different capabilities in order to address the requirements posed by upstream and downstream alliances. Upstream alliances with research laboratories demand a large amount of knowledge management capabilities, given the tacitness, ambiguity and complexity of the knowledge being shared (Rothaermel & Deeds, 2006). Downstream alliances with larger companies mainly require relationship management capabilities to deal with substantial differences in the organizational structures of the alliance partners (Alvarez & Barney, 2001).

An organization’s ability to manage alliances is suggested to be path-dependent – i.e., it is expected to increase gradually with repeated engagement into strategic alliances (Anand & Khanna, 2000; Heimeriks & Duysters, 2007; Rothaermel & Deeds, 2006; Standing et al., 2008). However, learning-by-doing has inherent limitations (Hoang & Rothaermel, 2005; Draulans et al., 2003), particularly for entrepreneurial ventures lacking initial experience in
alliance management (Rothaermel & Deeds, 2006). A study by Deeds and Hill (1996) on biotech start-ups, in fact, showed that engagement in strategic alliances has a positive impact on new product development, but the relationship exhibits diminishing returns as the number of alliances increases. From a study of 86 semiconductor start-ups, Almeida, Dokko & Rosenkopf (2003) concluded that even larger start-ups may not be mature enough to learn from their strategic alliances.

As suggested by De Man (2005, p. 316) “learning-by-doing is the first step for building an alliance capability, [but] it is not sufficient. Companies also need to focus on mechanisms that formalize lessons learned and transfer alliance best practices inside companies”. Taking a disciplined approach to capability building in fact creates a platform for repeatable success, enable managers to proactively respond to unforeseen circumstances and eventually leads to superior growth via strategic alliances (Brockelman & Cucci, 2000; De Man, 2005; Draulans et al., 2003; Harbison & Pekar, 1997; Kale & Singh, 2007; Kale, Dyer & Singh, 2002; Heimeriks & Duysters, 2007; Heimeriks & Reuer, 2006; Mascarenhas & Koza, 2008). The need to systematically invest in building up an alliance capability is even more prominent in new and small ventures: “[alliance] management capabilities may be limited in small innovative firms which are focused on turning science and ideas into a usable product. This creates the need to increase management’s business acumen or acquire additional management resources” (Standing et al., 2008, p. 789). The literature on capability building suggests various techniques to institutionalize alliance-related knowledge within the firm, such as training in alliance management, the implementation of alliance evaluations, the use of frameworks for alliance management, and the appointment of an alliance specialist (within or outside the firm).

Draulans et al. (2003) showed that training in alliance management does foster alliance performance, with companies adopting such a technique outperforming the non-
adopters by 10% in their alliance success rate. Taught either by in-company specialists or external consultants, training courses are particularly useful to new and small ventures lacking previous experience in alliance making (Harbison & Pekar, 1997; Heimeriks & Reuer, 2006; Heimeriks, Klijn & Reuer, 2009). Minshall et al. (2008) found that high-tech start-ups are able to learn from the others’ experience through participation in multi-company workshops, involvement in a community of practice, and access to web-based reading materials. In an action research project, Minshall et al. (2010) documented best practices in the management of asymmetric alliances, and accordingly disseminated results among start-ups in the Cambridge high-tech business cluster. The research project concluded with the development of a public website (www.managingpartnerships.net) for broader dissemination of background knowledge on asymmetric alliances.

In combination with alliance training, the evaluation of previous alliances contributes to develop an alliance capability by providing an occasion to learn from experience, and to cull out lessons of wider applicability (Draulans et al., 2003; Harbison & Pekar, 1997). Draulans et al. (2003) draw a distinction between individual, and crossed alliance evaluation – the latter requiring the comparison of multiple alliances. Whereas alliance-experienced companies take advantage of crossed evaluations, alliance-inexperienced companies benefit the most from individual evaluations. For alliance-inexperienced companies, even simple evaluation methods contribute to the build-up of alliance know-how (while complex evaluation methods may be cumbersome to apply). The rate of alliance success in inexperienced companies increases significantly when individual alliance evaluation is applied with respect to a number of evaluation criteria, ranging from relationship quality to financial performance (Draulans et al., 2003).

Furthermore, use of alliance frameworks – such as process-support guidelines, decision-support protocols, and performance-evaluation templates – was found to facilitate
the management of day-to-day alliance operations (De Man, 2005; Heimeriks et al., 2009). In general, an alliance framework contains codified knowledge related to different stages of the alliance life-cycle, thus supporting the alliance manager along with the evolution of the collaborative relationship. According to Standing et al. (2008), alliance tools are particularly useful to entrepreneurial ventures, providing clear guidance to alliance managers with limited first-hand experience. Standing et al. (2008) further developed a holistic framework for biotech start-ups to manage diverse aspects of alliance making, ranging from partner selection, to product development, to virtual teamwork. Minshall et al. (2010) found that high-tech start-ups benefit from the use of technology roadmaps whereby they can document non-confidential aspects of their business models for communication with potential partners. Used in the context of face-to-face meetings, technology roadmaps also enable the partners to identify opportunities to jointly develop technological innovations (Duysters, Kok & Vaandrager, 1999).

In addition to the techniques mentioned above, the appointment of an alliance specialist significantly increases the success rate of strategic alliances (Draulans et al., 2003; De Man, 2005). The designation of such an alliance specialist, however, is a difficult and risky task for entrepreneurial ventures, as resources and know-how are scarce and most efforts must go into product development and customer relations. Nevertheless, new and small ventures may implement this important function by taking advantage of business angels, start-up incubators or venture capitalists as part-time alliance specialists (Steier & Greenwood, 2000). Davenport, Davies and Grimes (1998) further suggest that governmental institutions may act as “honest brokers” of strategic alliances for high-tech ventures, while also supporting the development of alliance management capabilities. For example, *Europe Innova* is a collaborative policy program of the European Union providing high-tech start-ups with specialized expertise in the set-up of technology alliances for innovation development.
DISCUSSION AND DIRECTIONS FOR FUTURE RESEARCH

Critical Success Factors for Strategic Alliances in Entrepreneurial Ventures

In this section, we further elaborate on the reviewed literature with a view of formulating managerial recommendations for new and small ventures to thrive by engaging in strategic alliances. To this end, we propose a conceptual diagram (Figure 2) which suggests a course of action for entrepreneurial ventures to address the many challenges encountered in structuring, managing, and learning about strategic alliances. This conceptual diagram provides a synoptic overview of managerial recommendations, and concurrently makes an attempt to connect the research streams on new ventures and strategic alliances.

*Insert Figure 2*

The cyclical pathway describes the course of action that entrepreneurial ventures should follow to succeed in strategic alliances, while the edged shape represents the factors which act against this endeavor. The three stars represent supportive activities (i.e., manage network relations, strengthen internal capabilities, and connect with start-up incubators) that new and small ventures should carry out at all stages in order to increase chances of success.

Ideally, it is possible to envision a learning trajectory, by which entrepreneurial ventures first gather general information via alliance training, and subsequently enter a number of strategic alliances. As suggested by the starting point in Figure 2, entrepreneurial ventures should first acquire basic knowledge about strategic alliances, by engaging in training programs. The training activity will establish the ground for alliance structuring, by providing practical guidance on selecting partners, defining governance mechanisms, and
aligning perspectives. In turn, the accurate structuring will guide alliance management, which requires a critical and proactive approach to building up the relationship with the alliance partner, creating the conditions for knowledge sharing, and dealing with multiple risks.

New and small ventures’ managers should undertake an individual assessment of any concluded alliance in order to derive managerial lessons of wider applicability. At the time when practical experience will have produced a basic alliance capability, the management team should further invest in formal approaches to alliance learning. For example, entrepreneurial ventures may acquire a tailored toolset to support the diverse stages of alliance making. In this way, they should be able to gradually scale up in alliance capability according to their learning curve, and to accommodate for other developmental necessities.

Our review of literature revealed that relational dependence, overembeddedness and knowledge appropriation represent the most severe risks for entrepreneurial ventures involved in strategic alliances. While being engaged in a dyadic alliance, new and small venture should simultaneously manage their broader network of relationships, in order to take advantage of multiple ties and to avoid the risk of relational lock-in. The business network of an entrepreneurial venture – defined as a set of strong and weak ties – will expose the new venture to innovative combinations of knowledge, and at the same time provide the milieu for the formation of new strategic alliances.

Besides looking at the broader network of relationships, a new venture should invest in the development of internal capabilities, and expand its technological portfolio in order to profit the most from inter-organizational collaboration. In fact, technological competences interact with external linkages in determining the economic performance of a new venture (Lee, Lee & Pennings, 2001) and are of essence to attract valuable partners (Eisenhardt & Schoonhoven 1996) as well as to mitigate risks in asymmetric alliances (Alvarez & Barney, 2001). In addition, technological competences – together with collaborative linkages –
influence a new venture’s ability to pursue expansion in highly competitive global industries (Leiblein & Reuer, 2004).

As a means to overcome impediments to successful alliance making, new and small ventures may request the support of business incubators. A prominent role is emerging for incubators to train tenants in alliance making, and to facilitate the identification of suitable partners (Baum et al., 2000; Europe Innova, 2008). First, incubators may act as sources of expertise, by providing entrepreneurial ventures with the knowledge and resources necessary for building up an alliance capability. In this view, incubators are expected to disseminate knowledge, by providing alliance consultancy, training courses, and evaluation frameworks to large communities of new and small ventures. Second, incubators may act as linking devices, and foster the constitution of successful alliances by means of connecting ventures with complementary competences and resources. In the long run, incubators may build up an international forum whereby tenants get access to innovation systems located in other countries, thus meeting the challenges of internationalization.

Nevertheless, the support activity of incubators encounters considerable barriers, since the available research is relatively under-organized, and ultimately fails to provide actionable advice on building strategic alliances in the start-up phase. As recognized in a review on incubator policies in European countries, strategic alliances represent a priority issue for new and small ventures, yet a practical methodology is lacking to guide tenants in the constitution, management, and evaluation of collaborative relationships (OECD, 2002). The following section thus highlights the current gaps in the literature in order to provide a starting point for future research to be carried out in the domain of alliance making in new and small ventures.
**Directions for Future Research**

As suggested in our literature review, research on strategic alliances in entrepreneurial ventures is relatively underdeveloped, and lags behind the broader literature on strategic alliances. While providing some insights into the formation and structuring of strategic alliances in new and small ventures, the reviewed literature fails to develop a focused outlook on the ensuing processes of alliance management and capability building. This gap is surprising, since entrepreneurial ventures direly need to become skilful in alliance management, having fewer possibilities to recover from alliance failure. Therefore, researchers should advance the exploration of strategic alliances while taking into consideration the unique features of entrepreneurial ventures. In this section, we identify research themes that have been discussed only marginally in the reviewed literature, and suggest theoretical perspectives that are suitable to begin the exploration of such themes.

**Dyadic versus Network Level**

The literature streams on dyadic and network alliances have developed separately, although considerable benefits may derive from an integrated perspective (see Inkpen & Tsang, 2005). In our literature review, we have favored a dyadic perspective on alliance formation, while also making an attempt to understand how dyadic alliances should be managed within the broader network. Future research should take this agenda a step further, by exploring in greater detail the managerial practices emerging at the interfaces between dyadic alliances and the broader network. As an example, a prospect study may attempt to uncover whether network ties give shape to the dyadic alliance, by exerting an influence on the strategic choices of the alliance partners. Previous research in business-to-business networks suggests that a business affects and in turn is affected by the network of business relations in which it is embedded (Håkansson, Ford, Gadde, Snehota & Waluszewski, 2009).
However, the nature of mutual influences between network ties and strategic alliances has not yet been studied systematically, either in the general literature on strategic alliances or in the literature focused on entrepreneurial ventures.

**Micro Level of Analysis**

Current research on strategic alliances favors a macro perspective of analysis, to a large extent neglecting the interpersonal relationships involved in alliance management (Stock, 2006). Still most knowledge processes take place in interpersonal groups – such as alliance management teams – formed at the intersection between the alliance partners (Soekijad & Andriessen, 2003). This is particularly the case in new and small ventures, where the management style tends to be informal and based on relational aspects. In such ventures, the success of a collaborative endeavor is likely to rely heavily on communication exchanges taking place at the interpersonal level (Nonaka & Takeuchi, 1995; Szulanski, 1996; Brachos et al., 2007). Nevertheless, communication barriers arising in interpersonal relationships may hinder knowledge sharing between alliance partners. Team members may encounter considerable difficulties in conveying complex insights to each other, especially when different cultures, expertise, and backgrounds are at play. When they lack motivation, trust, and learning orientation, team members may engage in defensive routines, therefore limiting their efforts in providing, or receiving knowledge (Mengis & Eppler, 2008). Future research should adopt an interactionist or communicative perspective, in order to uncover the dynamics underlying knowledge sharing and development in the social space between the alliance partners. In doing so, it should be possible to uncover the micro-processes of alliance making, and to accordingly derive workable advice on creating a fertile context for knowledge sharing and development. The emergent literature on knowledge communication may provide a promising perspective, focusing on improving communication dynamics for
facilitating knowledge processes (Mengis & Eppler, 2008). In such a close-up approach to strategic alliances in new and small ventures, one should not neglect consideration of the role of industry factors, of the national context, and of the scope of the strategic alliance – which in turn give way to other future research areas.

**Industry Factors**

As indicated at the outset of the article, this literature review is focused on knowledge-intensive industries and high-tech ventures operating in highly competitive markets. However, entrepreneurial ventures and their proneness to form strategic alliances may differ substantially based on the network structure of their core industry (Eisenhardt & Schoonhoven, 1996). Some industries may consist of highly connected players, as is the case of the information technology industry where private equity firms can act as bridge builders between entrepreneurial and established ventures. Other industries may be configured by a set of isolated players and thus require a more autonomous approach to alliance structuring, management and learning. Furthermore, entrepreneurial ventures operating in sensitive sectors such as military technology may have to take secrecy requirements into consideration and accordingly face a higher path dependency in their alliance learning. Another aspect that is related to industry characteristics is the ease at which alliances can be formed and dismissed. Whereas some industries such as the business-to-consumer service industry may allow for rapid strategic alliance formation and discontinuation in case of failure, other industries, such as the biotech, pharmaceutical or medical devices sectors, may require more careful and thus lengthy strategic alliance deliberations (also due to regulatory demands).

**Cultural and National Factors**
Next to the industry logic, national and cultural factors may also affect the alliance making attitudes of new ventures (Baker, Gedajlovic and Lubatkin, 2005). In some countries with high uncertainty avoidance and low social capital (generic trust), strategic alliance formation may require a less frequent approach, as it contains many uncertain eventualities (Hofstede, Hofstede & Minkov, 1997). Cross-national, comparative research in this area could thus be a further promising research area. A cultural perspective may also lead to insights regarding international alliances of entrepreneurial ventures that are ‘born global’ (Knight & Cavusgil, 2004).

CONCLUSION

The primary contribution of this literature review consists of organizing, integrating, and consolidating the literature on strategic alliances in new and small ventures, in connection with the broader literature on strategic alliances. We have gathered a relatively large collection of articles, and adopted an input-process-output framework to integrate the findings of the two literature streams. We have then offered a synopsis of current research on the inputs and outputs of alliance formation in entrepreneurial ventures, as well as on the associated processes of alliance structuring, management and capability building.

Future research should intensify research on strategic alliances in new and small ventures, while also beginning the exploration of different lines of inquiry: firstly, to integrate the dyadic and the network perspectives; secondly, to explore patterns of interaction and communication; and, thirdly, to derive tailored recommendations for entrepreneurial ventures to manage and build up an alliance capability. Such recommendations should take into consideration factors related to the industry, as well as the cultural and national context of the strategic alliance. Formulating evidence-based, tailored and pragmatic advice is a key
requirement to unlock the innovation potential of entrepreneurial ventures through strategic alliances.
NOTES

1 For excellent reviews of theoretical perspectives on alliance making, see Barringer and Harrison (2000), Ireland, Hitt and Vaidyanath (2002), and Street and Cameron (2007).

2 This is particularly relevant in international alliances, where cultural diversity may prevent reciprocal understanding, and eventually result in inter-partner conflict over values, beliefs, and norms (Kumar & Andersen, 2000).

3 The dynamic perspective on contractual negotiations represents an original contribution within the strategy literature, which usually favors a static perspective on alliance making.
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\textsuperscript{a} Articles focusing primarily on new ventures

\textsuperscript{b} Articles focusing primarily on small ventures

\textsuperscript{c} Articles with a network perspective
Figure 1

Input-Process-Output Framework of Strategic Alliances in Entrepreneurial Ventures

Alliance formation

Inputs
- Environmental conditions
- Technological resources
- Social capital

Outputs
- Cost reduction
- Knowledge access
- Reputation enhancement
- International expansion
- Knowledge loss
- Learning races
- Relational dependence
- Economic loss

Alliance structuring
- Partner selection
- Governance mechanisms
- Temporal duration

Alliance management
- Relationship management
- Knowledge management
- Network management

Alliance capability building
- Training courses
- Alliance evaluation
- Alliance tools
- Part-time specialist

Alliance processes
Figure 2.

Critical Success Factors for Strategic Alliances in Entrepreneurial Ventures

1. Continuous and incremental capability building
   Systematically invest in:
   - Alliance Training (A) ☠
   - Alliance Toolset (T)
   - Alliance Evaluation (A)

Lays the ground for...

New and Small ventures' liabilities
- Resource constraints
- Limited experience
- Narrow tech-portfolio
- Lack of formalization

Informs...

2. Detailed and consistent alliance structuring
   Carefully structure the alliance:
   - Select suitable partners (A)
   - Define accurate governance (A)
   - Align temporal perspectives (A)

Guides...

3. Critical and proactive alliance management
   Take a realistic approach to:
   - Relationship management (A)
   - Knowledge management (A)
   - Risk management (A)

** Starting point
* Supportive activities
A Activity
T Tool

New and Small ventures' liabilities ☠

Manage network relationships
Strengthen internal capabilities
Connect with incubators