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Business related education and inertia in the entrepreneurial team: Effects on organizational performance

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Abstract

Using a data set of 64.032 organizations founded in Denmark between 1980-2006 by entrepreneurial teams we demonstrate how team members who hold business related education influence organizational growth in the short and long run. Also, we show that inertia (i.e. no exit by any member of the team within the first three years after founding) positively impacts on growth. Our findings have implications for: strategic management of small and young organizations concerning, for example, 1) who to team up with in order to set up a robust and growing organization and 2) to what extent team inertia is important for growth. We believe our results are useful for scholars interested in how path-dependent initial decisions made by entrepreneurial teams influence subsequent performance, and finally our findings provide additional information that allows venture capitalist to identify the most promising businesses for investment.

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Business related education and inertia in the entrepreneurial team:

Effects on organizational performance

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INTRODUCTION

Research demonstrates that founding and growing a new organization is a venture riddled with liabilities (Stinchcombe, 1965; Freeman, Carroll, & Hannan, 1983; Wasserman, 2012). Handling the liabilities of novelty and smallness the entrepreneur is typically understood as a single individual able to recognize, evaluate and exploit opportunities to create value by using a generalist skill set (Lazear, 2005; Shane & Venkataraman, 2000). However, it is increasingly recognized that many small and young organizations are initiated by a team of individuals who band together through integrating their skills, visions and resources (Davidsson & Honig, 2003; Ruef, 2010). Yet, despite that research shows a robust association between above-average performance and start-ups initiated by teams (Eisenhardt & Schoonhoven, 1990), and that team-based start-ups often outperform and have earlier access to venture capital than organizations founded by single individuals (Cooper & Bruno, 1977, Kamm et al. 1990: 7-8) theorizing and empirical investigations have still little to offer for a sound understanding of how the composition and dynamics of teams influence collective action into entrepreneurship (Cooney, 2005; Steffens, Terjesen & Davidsson; 2012). And, let us not forget that entrepreneurial teams (ETs) have a track record which can be traced back to the start of the industrial revolution, for example, Siemens AG, while recent cases include: Hewlett Packard, Apple, and Google.

Organizations keep a significant amount of their founding characteristics as they age and move through the organizational lifecycle (Aldrich & Ruef, 2006). Boeker (1989) argues that founding imprints have consequences for the organization's strategy and further development. Thus, members of the ET constitute the key resources for creating a new organization (Westhead & Wright, 1998) - they are the ones who initially set up, populate and effectively run the organization in its founding year (Beckman, 2006) - and the combination of their motivation, abilities and knowledge comprise the main factor shaping the organizations future strategy (Delmar & Shane, 2006). Therefore, activities and decisions made by the ET in the new organization's infancy should stimulate subsequent outcomes (Kim et al.

2005). As Low and MacMillan (1988:153) argue: "*Short time frame studies are simpler to design and easier to execute but clearly lack the richness of insight that results from studying a phenomenon over a longer time period. For entrepreneurship research this is extremely important, since new firms are extremely fragile and experience many changes within short periods of time. Often the seeds of future problems are sown in the early stages. Only wider time frame studies will allow us to study the development problems faced by new firms and to pursue the objective of causal inference*"

Controlling for age, gender, income etc. we investigate how the composition of formal and informal experiences among individuals of the ET influences organizational growth. In particular, we are interested in the significance of *business related education* (BRE) within the ET. Also, we question if ET composition exercise *different* effects over time on the growth of the start-up. Second, we focus on the importance of *inertia* in the ET (i.e. the team's ability to remain intact) in its early stages to support organizational growth. For example, a low degree of exit from the original ET may be important in the early phases of starting up to further integration of different knowledge bases. Hence, we are interested in how human resource inputs into ETs affect their organizational growth but also how these initial resources need time to jell in order to provide performance benefits.

Systematic variation in performance (e.g. organizational growth) (Birch 1979) among new and small organizations is often attributed to organizational level mechanisms. According to evolutionary economics (Nelson & Winter, 1982) or knowledge-based view of the firm (Grant, 1996) these include ways in which knowledge are created and shared via routines, structure, and strategy (Teece et al. 1997; Kogut & Zander, 1992). However, in a young start-up organizational level mechanisms are not yet present or developed (Shane & Khurana, 2003) which may however accord them some flexibility in a dynamic environment (Katila & Shane, 2005). Researchers have therefore focused attention towards functional and demographic variation among the *individuals* composing the ET. These are the individuals who jointly over time establish and enact the initial strategy, structure and routines of the new organization and thus constitute the antecedents for latter organizational level explanations (Felin

& Foss, 2005). Yet, we still know little about the part that organizational members play to explain the variance in performance and persistence among such small and young organizations (Baker & Pollack, 2007).

Since the impact of the ET on the lifecycle of the emerging organization continues after the initial founding (Aldrich & Ruef, 2006; Hannan, Burton & Baron, 1996) we launch two arguments to explain the short and the long-term growth probabilities. First we focus on the average characteristics of the individuals composing the ET (e.g. education) (Colombo & Grilli, 2005) and second we ask: if stability during the early phases of founding (i.e. team inertia) of original ET (Kim, Aldrich & Ruef, 2005, Boeker & Karichalil, 2002) matters for the probability of organizational growth.

Extant research shows that formal education as well as context-based experience matters for growth. That is, a substantial literature shows how, for example, tenure, industry experience, prior joint work experience, and prior entrepreneurial experience positively influence the probabilities for success of teams engaging in entrepreneurship (Beckman, 2007; Dahl & Reichstein, 2007; Roure & Maidique, 1986; Delmar & Shane, 2006; Ucbasaran el al. 2003; Cooper, Gimeno-Gascon & Yoo, 1994). An important sub-category for these human capital arguments is established in a literature concerned with how organizational growth are influenced by members of the ET who holds particular knowledge associated with business. In general, such *knowledge* is achieved both formally as well as through experience. Chandler and Jansen find that (2002:233): "…because education and previous experience temporally precede the founding of the business, it suggests that a business education and general managerial experience probably contribute in some degree to founder competence and venture success." Yet, the entrepreneurship literature focused on education attainment (i.e. years) and experience tends, however, to ignore the importance of possessing a certain *type* of education[1] (Robinson & Sexton, 1994). We are particularly interested in the presence of *business related education*

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[1] But see: (Iversen, Malchow-Moller & Sorensen, 2011)

(BRE) among the human resources constituting the ET and how this impacts on organizational performance over time. BRE is achieved formally by completing an academic education (M.Sc.) within the specialized fields of business or economics (Coad & Timmermans, 2012). Our contribution is to elaborate and extend prior research by offering insights pertaining to BRE that complement the well-established benefits of having technical, scientific, engineering or medical expertise in the ET when initiating a venture (Colombo & Grilli 2005).

Research has pointed out how the structure of employment contracts may impact the development of start-ups over time (Hannan et al, 1996). Nevertheless, for organizational growth, it is of importance if the ET stays involved and intact in the initial years after start up (Kim, Aldrich & Ruef, 2005) - or phrased differently: if the ET experiences early exits from initial members challenges arise (Boeker & Karichallil, 2002). One strand of research demonstrates that lasting ties and hence, staying related and together for some time creates room for the process of knowledge integration to initiate and optimize (Uzzi, 1997; Hellerstedt et al., 2007; Dahlander & McFarlan, 2013). While we agree that stable self-selected teams may face some degree of conflict research indicates that coordination and communication work better for intact teams than teams with a high exit rate (Kim et al. 2005; Katz, 2001). And thus teams with initial *inertia* provide room for increased focus on the aim and activities of the start-up rather than spending valuable resources on resolving internal conflicts and discussion about direction. We complement novel research by demonstrating that a high degree of ET inertia exercise positive effects on organizational growth for start-ups (Steffens, Terjesen & Davidsson, 2012).

Finally, our research is motivated by inconclusive results provided by prior studies on education, experience, team inertia and organizational performance of ETs (Delmar & Shane, 2006). This may be because of variations in research designs and empirical specifications. First, most studies in this field theorize based on a relative small and oftentimes cross-sectional samples. Second, some of these studies sample only on surviving organizations and are therefore riddled by selection bias. Finally, despite that we know that initial decisions exercise path-dependent impact on emergent organizations over time, research on ETs and performance too often employ short-term data sets (for example, 3-5 years). Thus, it provides little help for theorizing about how important early decision are relative to, for example, the composition of the ET and what the consequences are of early team exit for organizational growth.

We draw on a matched employee–employer data set from the Danish Integrated Labour Market data (IDA) from 1980-2006. We theorize and empirical test our arguments using a full population dataset of 64,032 start-ups in the Danish economy that were established by an ET of 2 to 4 individuals in the years1981 to 1996. By exploiting the information in this unique dataset forwards (to 2006) and backwards (from 1980) in time we construct a set of explanatory and contextual variables, which we use to provide new insights on effects that the composition of ET experiences and ET inertia exercise on subsequent (short- and long-run) organizational growth. Moreover, by investigating ETs we exclude self-employment activities from our dataset.

Our study contributes to several literatures. First, we provide fresh insights to the emerging research on entrepreneurial teams as we represent new longitudinal results on team composition of human resources as well as on initial team dynamics, and their growth implications. This is important since team-based entrepreneurship appears to be a rising trend and hence of importance for future start-ups as well as economies (Wasserman, 2012). Second, we offer a new and intriguing way forward to understand the ET without being biased by founder characteristics only but instead focusing strongly of the outcomes of the entire resources configuration of the initial entrepreneurial team. Finally, we believe our study delivers input for furthering the debate about strategic entrepreneurship (Hitt, Ireland, Camp & Sexton, 2001) and thus for thinking strategically about how and with whom to found small and new start-ups to successfully create jobs.

THEORY AND HYPOTHESES

Entrepreneurship is subject to a variety of theoretical lenses applied to improve our understanding of antecedents, behavior and outcomes of the entrepreneurial process (Low & MacMillen, 1988; Klein, 2008). This variety of approaches provides an arsenal of performance variables, which also include variables for team-based entrepreneurship. Eisenhardt & Schoonhooven (1990) emphasize how time to market for new products was dependent upon characteristics of the founding team while others examined survival of new organizations to measure performance by ETs (Delmar & Shane, 2006).

In agreements with the increasing interest in team-based entrepreneurship (Cooney, 2005; Harper, 2008) we adopt the approach from Ruef (2010:7) which builds on the idea that team-based entrepreneurship is one dominant form of collective action where entrepreneurs are: "defined by their intention to form a social group." Still, with regards to our main question (i.e. dependent variable) we follow the influential work of Gartner (1985), Birch (1979) and Reynolds (1987); that entrepreneurship concerns the creation, survival and *growth* of new organizations in order to create jobs.

Most studies of ETs share kinship with the demographic approach to top management teams (Hambrick & Mason, 1986). They argue that organizational outcomes are products of the cognitive bases and values of the powerful agents in any organization. And thus they study how homogenous vis a vis heterogeneous successful teams should be composted and along which dimensions to integrate resources (Beckman & Burton, 2008; Ancona & Caldwell, 1992). Likewise research on ETs focuses on the qualities of the initial condition and composition of the founding individuals: their prior experience, education, gender, age, etc. (Steffens, Terjesen & Davisson, 2012). As specified by Hambrick (1994) the quality and composition of the leading team is a critical determinant of organizational performance. However, the upper-echelon literature emphasis the role of top managers in large incumbent firms while in the setting of new and small firms the role of the top management is different. We argue that for start-up organizations the complete group of individuals who are engaged very early on in the start-up impacts on the particular path that lay the foundation for future possibilities (Baron, Hannan &

Burton, 1999). Therefore, early key employees matter as much as the single founder/owner for survival and growth potential of the new and small organization. Also, even without shared financial risk individuals involved in the early stages of the start-up invest a significant amount of 'sweat work' and thus place their bet for current and future work within the new start-up rather than seek more certain and secure employment in an incumbent firm. Hence, the full ET and not only the lead entrepreneur serves as the initial architect of the emergent organization's strategy and structure as two or more people join together knowledge, resources, insights, capital, and managerial expertise to create an organization.

As such our view draws from a human capital and resource-based perspective (Colombo & Grilli, 2005; Castanasias & Helfat, 1991) as each member of the ET brings valuable human, social, and financial capital to the team which creates the resource portfolio of the ET. Teams engaged in start-up activities are identified as more or less homogenous (Ruef et al. 2003) but still represent unique combinations of knowledge relationships, skills, and finance. It follows from these arguments on access to different knowledge resources that larger ETs are superior to small teams from the outset. Eisenhardt & Schoonhoven (1990) address how large team size is positively correlated with organizational growth due to accrued resources as well as to supply knowledge heterogeneity to accommodate for solving complex and non-rudimentary tasks. Taking inspiration from Cohen and Bailey (1997) we refer to an ET as consisting of two to more individuals who shares a commitment to an emergent organization and are involved in the very early stage of the start-up. Also our definition is aligned with research that underline that the entrepreneurial team may not be intact from day one of the organizational founding (Kamm et al, 1990) and it is therefore possible for an individual to enter into the ET in the very early stages of founding to help establish the start-up (Kaiser & Müller, 2013).

Inspired by the behavioral view of the organization we reason that all individuals involved in the very early life of the business are essentially taking part in laying the foundation for subsequent routines,

practices, ways of integrating knowledge, etc. more or less regardless of the initial tasks and thus both

founder, managers and early employees engaged in the organization in its founding year is part of the entrepreneurial team that serves as the dominant coalition negotiating the pursued goals, recognition of opportunities and general ways of working in the new and small organization (Cyert and March, 1963). In line with this argument Dahl and Sorensen (2012:30) recently contemplated: "Though both practitioners and academics would generally agree that the success of startups depends in large parts on the quality of its early employees, relatively little systematic research has been done of this issue (for important exceptions, see Ruef et al. 2003; Ruef 2010; Timmermans 2010, 2012)".

Hypotheses

Our explanations for growth of start-ups concentrate on two levels of analysis: one concerned with the aggregated level of human resources of members of an ET - and the second aimed at dynamics at the team level. With regards to the individual level we theorize on different forms of human capital as explanations for organizational growth: Human capital is developed through both formal education and from contextual factors such as prior experience in entrepreneurship, in industry, etc. As such, we support the view that if an individual earlier in her career, for example, has worked in a particular industry or started up a business she is able to transfer some of the lessons learned from one setting into another and thus let this experience influence her work as a member of an ET (Delmar & Shane, 2006).

On the team level we focus on inertia between the founding members of the start-up. This has to do with the amount of time how the initial ET that stays together after founding influence their joint experiences, which will affect the integration of different knowledge bases held by various team members. But also joint experiences create trust and routines in coordination and communication among the members of the team (Kim, Aldrich & Ruef, 2006).

The impact of education and experience on entrepreneurial teams

Different from demographic features like, for example, age, gender and ethnicity human capital are based on experience or achievements. It reflects the investment an individual has made in education, experiences, etc. and how such investment over time accumulates into cognitive skills and productive knowledge to generate returns (Becker, 1964).

We test a well-known idea from in the literature on entrepreneurship, namely that both formal and informal human capital exercise an effect on organizational growth (Cooper et al. 1994). Numerous studies show that different types of experience as well as years of formal education provide robust support for growth of emergent organizations (Dahl & Reichstein, 2007; Delmar & Shane, 2006; Gimeno et al. 1997). What we offer here is to transpose these findings from the individual level to the aggregated team level and suggest that the same set of findings hold when tested on this level of analysis. For example, industry experience is defined as previous work in the industry in which the new organization operates. If this experience is held by just one member of the team it still provides the team access to crucial information about industry rules and norms, customer and supplier networks, and employment practices.

Still, we accept that different types of experiences and education may not be equally important for growth at different stages of the organizational lifecycle (Delmar & Shane, 2006). Early on in the organizational lifecycle technical finesse, functionality and originality in offered products and services have great impact on performance while at later stages the organization may become increasingly complex and thus excel also because it is properly run by management (Jayaraman, Khorana, Nelling & Covin, 2000). Therefore, in an organization where management expertise exists among early team members - or at the time of founding – team members hold other forms of knowledge related to business – these members make their mark on the routines, strategy and structure of the organization (Boeker, 1989). Despite that most studies on the impact of human capital on entrepreneurial

organizational growth apply relative short term data sets we conjecture that the findings are robust also in a longer time frame and that they actually increase in influence. Consequently, most of the hypotheses below are stated for two time scenarios. Hence, we posit that:

H1(a): *Years of formal education and informal types of experience averaged for the members of the entrepreneurial team have a positive effect on the likelihood of growth of new ventures in the short term time perspective (e.g. 1 to 5 years from founding year)*

H1(b): *Years of formal education and informal types of experience averaged for the members of the entrepreneurial team have a positive effect of the likelihood of growth of the newly founded organization in the long term time perspective (i.e. 10 years after the founding year)*

Presence of business related education in the entrepreneurial team

As a start-up evolves it is important to have knowledge and vision about business and business processes onboard the ET for managing issues such as sales, hiring, strategizing and leadership rather than only ability to handle technical product/service issues or production aspects (Dencker et al. 2009). Hence, we now turn to a particular form of human capital investments (generic) that provide individuals *business related education*. Prior studies in entrepreneurship demonstrate strong results for the association between educational attainment of the founder and organizational survival (Gimeno et al, 1997). Yet, Chandler and Jansen (2002:233) emphasize that: "…it appears that it is not [only] the amount of education [years] that makes a difference [for venture performance], but the type of education". Furthermore, our focus on educational type is supported by the empirical analysis of Chandler and Jansen (2002) since they find no positive association between start-up performance and alignment to the managerial role by founders (i.e. business knowledge gained from experience). In addition, Dahlin et al. (2005) show that educational diversity among team members holds a robust impact on the team's use of information and thus potentially associated with entrepreneurial growth opportunities of the team. Other studies support that educational type of founders matters for performance of new ventures (Colombo & Grilli, 2005; Almus & Nerlinger, 1999). Yet, these latter studies mainly focus on the effect of individual founders rather than teams, and on technical and

science-based education rather than business education. So, while we agree that knowledge associated to decision-making in business may be achieved from prior managerial experience of running an organization we focus herein on knowledge generate from formal education achieved from successfully finalizing a five year university degree in the fields of business or economics. A Master degree in business or economics not only offer individuals to learn skills and vision for developing and running a business such as insight into sales, accounting, HRM, strategy, and leadership but additionally provides them with an ability to identify with the role being a professional manager-entrepreneur[2].

With regards to knowledge related to business we build our argument on 'layman stories' from venture capitalists whom repeatedly underline that they decide to fund new organizations based on various types of qualities, for example, education and age among the founding team members rather than based on the novelty and quality of the idea/value proposition in isolation (Hall & Hofer, 1993).

Chandler and Jansen (2002:233) further highlight that the most successful individual founders perceived themselves as competent in the entrepreneurial, managerial and technical-functional role and this perception connects to individuals holding a business education.

Finally, not only may presence of a thorough business understanding among members of the ET effect growth opportunities but may also provide more severe evaluation of the survival opportunities for a given start-up and hence provide the ET early information and clarity as to decide to terminate a start-up that does not build on an idea, set-up, or a market for long life. Alternatively, having BRE may influence a team member's choice options. Building on the idea of opportunity costs well-educated individuals with a business or economics Master degree are likely to get alternative job offers and thus they may seek to terminate the new organization and accept the offer if the upside potential of the

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[2] This argument draws on insights from sociology where Becker et al. (1961) shows how students in medical schools become en-cultured into their profession and the following norms – an argument that also resonates with social identity theory (Tajfel & Turner, 1979).

start-up is limited or uncertain (Gimeno et al, 1997). If they decide to stay in the ET, they may, however, have a stronger incentive to grow the organization.

In sum, as organizations evolve over time (Aldrich & Ruef, 2006) and initial factors beyond the core technology and value proposition are decided upon - business skills and knowledge may increase in importance as aspects of management impact raise during the life-cycle of the organization with regards to strategy for production, distribution, prizing, collaboration, etc. (Kimberly, 1979). We therefore suggest that:

H2(a): *Presence of business related education within the entrepreneurial team positively influences the odds for the newly founded organization for growth in the short term time perspective (e.g. 1 to 5 years from founding year).*

H2(b): *Presence of business related education within the entrepreneurial team positively influences the odds for the newly founded organization for growth in the short term time perspective (i.e. 10 years after the founding year).*

Team inertia

Prior literature highlights how a particular type of inertia hampers incumbent firms from change due to rigidities in routine structures and resources configuration (Gilbert, 2005). Yet, much less is known about the role played by inertia among individuals in team-based start-ups.

When little formal hierarchy exists, neither dominant culture nor identity is established and formal rules and routines are lacking to resolve potential conflicts in the initial ET (Katila & Shane, 2005). Hence, the ET is the legacy of the organization and thus become responsible for creating, embedding and policing the initial ways of doing things 'right' in the organization. The ET serves as the antecedent for a formalized strategy, structure and routines of the organization. Therefore, inertia - while different here than used in the organization ecology view (Hannan & Freeman, 1984) - is at work to keep the ET intact during the crucial but messy process of starting the organization. Such type of inertia may help to off-set confusion and initial conflicts. Uzzi (1997) explained carefully in his study of the New York

garment industry how trust and hence, increased coordination was achieved through continued social interactions. Hence, staying together as a team provides time for members to coordinate tasks better as well as learn about each other's strengths and weaknesses (i.e. communication, trust). Using the notion of "team familiarity" as a measure of how closely team members know each other Huckman, Staats, and Upton (2009) find that a high level of team familiarity results in better performance. This argument is aligned with the idea that inertia in ETs provides opportunities for the involved individuals to develop such familiarity and thus improve coordination, task partitioning as well as reduce the negative impact of disagreements (Steffens et al., 2012).

While we do not disregard neither the creative spark that churn among individuals may create in entrepreneurial teams nor that teams that stay together can have serious incidents of conflict, we believe that integrating different knowledge-bases and visions among the members of the ET may take time to blossom and a certain amount of time together is thus needed for the team to reap beneficial synergies of combining various types of education and experiences (Katz, 2001). Recently, Hackman (2011) argued against the traditional misconceptions of successful teams. Building on more than 30 years of research on team performance in diverse settings he underlines that: *"The longer members stay together as an intact group, the better they do. As unreasonable as this may seem, the research evidence is unambiguous. Whether it is a basketball team or a string quartet, teams that stay together longer play together better"*[3] Building on these arguments we conjecture that:

H3: *Inertia among the members of the entrepreneurial team of the new organization positively effects the survival and growth of the newly founded organizations in the long term time perspective (i.e. 10 years after the founding year)*

DATA AND METHODOLOGY

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[3] The quotation is from an interview with Professor Hackman ("Six Common Misperceptions about Teamwork") related to the launch of his book. The full interview can be found at: http://blogs.hbr.org/cs/2011/06/six_common_misperceptions_abou.html

We test our set of hypotheses using the Danish IDA dataset. This is a register-based matched employer-employee database constructed by Statistics Denmark. The dataset contains information about all companies (including start-ups) and all employees in Denmark from 1980 to 2006. Because companies and individuals have unique identifiers they can be matched and traced over time. This implies that we can identify start-ups as companies that exist in year t but not in year t-1[4] and we can identify the employees how enter such start-ups.

Our unit of analysis is the founding entrepreneurial team of a start-up and the size distribution of such teams (measured by the number of individuals involved)[5] identified in our data is presented in Figure 1. The mode of the distribution is focused on one founding entrepreneur but the distribution shows that many organizations are established by ETs. These teams are relatively small and few teams have more than ten members. While ETs of all sizes could enter our analysis we conjecture that the dynamics in small and large entrepreneurial teams may be different (Eisenhardt & Schoonhoven, 1990). To avoid mixing-up underlying small and large team dynamics our focus is on the smallest of the entrepreneurial teams: teams with two to four members involved within the year of founding.

Using the register data we can determine the characteristics of the ETs.[6] That is, if a new venture is started in year t then by using register data from year t we establish the age, gender, education, etc. composition of individuals in the ET. We also use data from year t to identify if household members work together in the new venture, if all employees in the entrepreneurial team are native Danes, and by using the detailed information on education we can establish if particular types of educations – such as a business or economics educations – are present in the team. In addition, we use data dating t-1 and back to determine the entrepreneurial team's labor market experience (experience data is available back to 1964) and if the members of the entrepreneurial team were coworkers in their prior employment, if they have managerial, entrepreneurial or industry specific experience, their level of past income and to what degree they were unemployed in the year before entering the new venture.

Insert Figure 1 around here

Our research design is illustrated in Figure 2. Data is available from 1980 to 2006. To estimate the effects of entrepreneurial team composition (and team inertia) on growth we use information from the period t-1 and t (the year of start-up) to describe the team and then we have an observation period that spans t to t+k. In year t+k we observe if the firms has survived and its size (conditional on survival).[7] In estimations we allow k to take the values 1, 5, and 10 and to make results comparable we let k = 10 determine our sample period. That is, in our sample we include new ventures established between 1981 and 1996 - all of which can be described using data from t-1 and t and be traced in the data for up to ten years, i.e. t+k with k = 10. In the data we have 64,032 such ventures with entrepreneurial teams sized two to four.

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[4] The firm ids are unique while firms are in operation, but if a firm is closed the id may be reused in later years. To overcome potential issues related to this practice we clean the data by removing all firms with ids that are used repeatedly. For example, if a start-up is observed with id X in year t and after a few years - say year t+k - the start-up dies then the id X is not observed in the data for a period of time dated t+k+1 onwards. However, if in a later period a new start up is allocated id X then id X will reappear in the data. In this case we delete both the original and the new start-up firm from our sample. Because firm ids are assigned randomly this selection does not cause a problem for our analysis.
[5] A small caveat is that our data does not allow us to include unpaid family members who may participate in the start-up. Also, the data does not allow us to include individuals working for the start-up organization outside Denmark in its founding year – that is, individuals who do not pay tax in Denmark.
[6] A detailed description of all variables used in our study is given in the Appendix.

[7] In our data firms have unique firm identifiers. A firm can in principle consist of many workplaces and these are also identified with unique ids. In our study where focus is on entrepreneurial activity 99.7 percent of start-ups consist of one workplace. When we look at survival we focus on whether or not the firm, i.e. the firm id, survives up to time t+k. This approach implies that firms are considered "not to survive" if they close down or if they are acquired by other companies, i.e. the firm id ceases to exist but the workplace id survives. In the appendix we investigate to what extent our results are sensitive to this approach by excluding acquired firms from regressions and reassuringly find that the changes in the parameter estimates are neglectable.

Insert Figure 2 around here

To empirically test Hypothesis 1(a), 1(b), 2(a) and 2(b) we follow the research design in Figure 2 and explicitly account for the fact that those firms surviving to time t+k are unlikely to be a random set of firms. For this reason, we apply a two-stage Heckman procedure to account for this selection. First, we estimate the Probit selection (survival) equation:

$$\Pr(Survival_{t+k} = 1) = \Phi(C_t{'}\delta + \rho BRE_t + X_t{'}\beta + Z_t{'}\gamma), \quad (1)$$

where the variable $Survival_{t+k}$ takes on the value 1 if the firm survived to t+k and 0 otherwise. C_t is a matrix containing information on formal informal types of experience averaged for the members of the ET (i.e. average years of education, age and experience together with dummies indicating the presence of entrepreneurial[8], managerial and industry experience in the ET). BRE_t is the variable for business related education, i.e. an indicator for whether or not at least one team member has a business or economics Master degree. X_t is a matrix of controls intended to capture contextual effects. We include team size at startup as a control because Eisenhardt and Schoonhooven (1990) argue that it has a positive effect on organizational growth. We also include standard deviations of formal education and informal types of experience in the team in recognition of the fact that it may not only be the average of these variables that influence growth but also the dispersion in these measures. Additional dispersion measures included as control are: the gender composition in the team, the proportion of Danes in the team and a dummy indicating that the new firm is located in one geographical location. We also want to capture the effect of prior labor market attachment of the team members and hence we include the

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[8] In some of the regressions (see Appendix Table A3) we control for the presence of entrepreneurial experience during the last three years among ET members. There are two reasons why this variable is not included in our preferred specification. First, the variable is insignificant in the main (size) regression (it is significant in the survival (selection) equation). Second, it requires data from four time periods to construct this variable and hence it significantly reduces our sample size to control for this variable.

unemployment propensity and average salary of the team members in the year prior to start-up. Finally, we include year dummies, detailed industry dummies (9) and municipality dummies (279) as controls. While we control for these variables in all the regressions presented in this paper we do not report their coefficients. Z_t is a matrix of instruments. Following Gimeno et al. (1997) who theorize that the two sets of drivers for organizational survival and growth are only partially overlapping and that variables reflecting psychic income from entrepreneurship such as entrepreneurial experiences in the family belongs in the survival (selection) equation but not in the main (growth) equation, we use the two variables: "presence of former coworkers in the ET" and "presence of family members in the ET" as instruments. Finally, δ, ρ, β, and γ are parameter vectors.

Second, the main (growth) equation is:

$$Size_{t+k} = C_t{'}\delta + \rho BRE_t + X_t{'}\beta + \gamma_\lambda \lambda + \varepsilon, \quad (2)$$

where the variable $Size_{t+k}$ is the size of the firm at time t+k, $\gamma_\lambda \lambda$ is the correction factor and its coefficient and ε is an error term.

We find support for Hypothesis 1(a) and 1(b) if $\delta > 0$ in (2) and support for Hypothesis 2(a) and 2(b) if $\rho > 0$ in (2).

The test of Hypothesis 3 builds on the set-up in Figure 2 and is illustrated in Figure 3. The focus now is on team inertia during the first years of start-up operation. The structure of the research design from Figure 2 is maintained but to capture the effects of inertia we need to allow for a period of inertia building that follows the startup date and precedes the observation period. In our preferred specification we allow inertia to build up for three years. This implies that we take our original sample of 64,032 entrepreneurial teams and condition on their survival for three years, which results in a regression sample with 35,643 observations. Our observation window then extends to t+10, i.e. 10 year after startup.

Insert Figure 3 around here

We test Hypothesis 3 using models similar to (1) and (2) augmented with a dummy variable "*Inertia*" which takes on the value 1 if the ET stays intact during the first three years the firm is in operation; and 0 otherwise.[9]

We test Hypothesis 3 by estimating:

$$\Pr(Survival_{t+k} = 1) = \Phi(C_t'\delta + \rho BRE_t + \eta Inertia + X_t'\beta + Z_t'\gamma), \qquad (3)$$

and

$$Size_{t+k} = C_t'\delta + \rho BRE_t + \eta Inertia + X_t'\beta + \gamma_\lambda \lambda + \varepsilon. \qquad (4)$$

Support for Hypotheses 3 is obtained if $\eta > 0$.

Descriptive statistics

In Table 1 we present descriptive statistics on the survival and growth of the new ventures. The 64,032 new ventures in our sample have an average size of 2.65. The year after start-up 81 percent of firms have survived and those who have survived have an average size of 3.41. In year five after start-up 42 percent of firms have survived and the average size conditional on survival is 4.9. In year ten only 26 percent of firms are still in operation and they have on average 6.03 employees. In terms of employment this implies that even though almost 170,000 individuals were engaged in the start-up activities of the 64,032 new ventures, ten years later only 100,000 individuals are employed in the 16,650 surviving firms.

Descriptive statistics for the ETs are presented in Table 2. The average size for the entrepreneurial teams is 2.65 and team members have an average income in the upstart year of (real 2000-prices) DKK 143,000 ($\approx$ € 20,000). In the year before joining the new venture average income was as low as DKK 94,000. If we focus on a particular year, e.g. 2000, average income in the ETs was DKK 182,564 and in comparison average income in the Danish private sector was DKK 238,082. So, incomes in the ETs are low both before and during start-up. Part of the explanation is that the average unemployment propensity is 48 percent for individuals who enter entrepreneurial teams.[10] This is to be contrasted to an unemployment rate ranging between 7.4 and 11.9 percent in the period 1981 to 1996.

Insert Table 2 around here

Members of entrepreneurial teams are on average younger, have less experience and have less schooling than the average employee in the private sector. Further, the prevalence of women in ETs exceeds that observed in the private sector. To be precise, the average age in the ETs is 31.48 years whereas the average employee in the private sector in 2000 was 36.77 years old. This also results in a lower level of experience in the teams. Average experience is 12.73 years in the private sector in 2000 and only 7.11 years in the ETs. When looking at education levels it is revealed that the average employee in the private sector in 2000 has 11.49 years of education (where high school equals 12 years of schooling). Members of ETs on average have tree-fourth of a year less education.

The ETs consist predominantly of Danes and only eight percent of the teams include an individual with a non-Danish background. Many teams build on prior work relationships. As such 46 percent of

teams have members that were coworkers in the year preceding the startup and 8 percent have members that live in the same household. Another feature is that new venture teams have a high prevalence of industry experience as 58 percent of the teams have a member who worked in the same industry in the previous year in which the start-up is operating. We also observe that only 17 percent of the teams have a member who worked as a manager in the previous year. Finally, the prevalence of BRE (i.e. ET members with a five year business or economics M.Sc. master degree) in the new organizations is low as only one percent of teams include a member with such educational background.

RESULTS

The results used to test hypotheses 1(a), 1(b), 2(a) and 2(b) are presented in Table 3. Hypothesis 1(a) states that formal education and informal types of experience averaged for the members of the ET have positive effects on the likelihood of growth of new ventures in the short term time perspective.

The second column of Table 3 contains the results from the main (Size) regression. When assessing the impact of average education, experience and age together with the presence of industry and managerial experience in the ET it is revealed that they all have insignificant (at the five percent level) effects on the companies size one year after startup. These insignificance effects are obtained despite the considerable sample size of 64,032. Hence, even though we have a sample size that should allow us to pick up small effects (if present) we find no significant consequences of formal education and informal types of experience on growth in the very short run of one year. The picture is somewhat different if we take a five year perspective (see column 4, Table 3). These results show that formal education now has a positive effect on organizational growth whereas the effect of age is negative. Hence, the expected positive effects of education have time to materialize when we take a five year perspective. Thus, the empirical results provide some support for Hypothesis 1(a) as the average years of formal education in the ET is established to have a positive consequence for growth.

The selection model presented in the first column of Table 3 also provides some interesting empirical findings. We find that the average level of formal education in the ET has a positive and significant effect on survival. It is also established that average experience is important for survival whereas average age in the ET has an insignificant effect. Further, industry experience in the ET is important and the coefficient on the dummy indicating the presence of industry experience is highly significant and positive. In contrast, teams that possess managerial experience have a higher probability of closing.

The selection (survival) equation contains the two instrument variables: "presence of prior coworkers in the ET" and "presence of family members in the ET". Empirically, we find that the two instruments are positive and significant (which is the case in all the selection regressions included in this paper). We also find that the lambdas are positive and significant. Hence, (unobserved) factors that make survival more likely tend to be associated with higher employment growth.

Hypothesis 1(b) takes a long-term perspective of ten years (k=10). All the results from the five year perspective carry over to the ten year perspective. The notable difference is that the education effects which we saw materialize between the one and five year perspective is significantly *strengthened* in the ten year perspective. Hence, our empirical findings also provide some support for Hypothesis 1(b).

In Hypothesis 2(a) we move beyond years of education and informal types of experiences and look at business related education (BRE) in the ET and its effects on growth. The empirical results show that BRE is insignificant in the very short run, i.e. k=1, but that it materializes into a positive and significant effect in the five year perspective. As such there is strong support for Hypothesis 2(a) when we move beyond the one year perspective. Of additional interest is that BRK has a moderately negative to no effect on organizational survival.

Hypothesis 2(b) takes a long-term perspective of ten years. Again, the results from the five year perspective carry over to the ten year perspective and the magnitude of the coefficients in the growth regression has increased. Hence, our findings provide support for Hypothesis 2(b).

Hypothesis 3 states that inertia in ETs positively affects the growth of the new organization in the long term time perspective. Evidence for this hypothesis is provided in Table 4. In column two we establish a positive effect of one-year inertia in the ET on size in the ten year perspective. That is, conditioning on the large set of covariates used in previous regressions we obtain a highly significant pointe-estimate on the newly introduced *Inertia* variable. When we substitute the one-year inertia variable with a three-year inertia variable (column four) we confirm the positive effects of team inertia, and in this case the point-estimates are even higher than before. Thus, there is strong support for Hypothesis 3 in the data. It is also interesting to note that inertia is important for organizational survival.

Sensitivity analysis

We have established that BRE and inertia are important for organizational growth. Because we evaluate our main hypothesizes based on these findings we perform a set of sensitivity analyses to show the robustness of our finding.

First, up to this point we treated inertia as an indicator – either your team has it or it does not. We now take a less parsimonious view and focus on the *degree of inertia*. For instance, if an ET with four members loose one member during the inertia building period then the degree of inertia would be 3/4, and if two team members are lost then the degree of inertia would be 1/2. That this consideration is empirically important is illustrated in Figure 4 where the degree of inertia is illustrated for all ETs and for ETs of a particular size. For instance, out of the ETs of size two that survive three years the degree of inertia is one (intact ET) for 24 percent, 1/2 for 44 percent and 0 (completely dissolved ET) for 32 percent.

Insert Figure 4 around here

The effects of the degree of inertia on growth are presented in Table 5. In Panel A we show results for the selection (survival) model. The first column uses the indicator for inertia and is a replication of the result in column 3 of Table 4. In the second column we include dummies for each degree of inertia and identify a clear and increasing effect of the degree of inertia on the likelihood of survival. To make sure that this result is not driven by ETs of a particular size (after all the degrees of inertia are due to its discrete nature constrained in part by the initial ET size) we present results separately for each ET size. In all cases we observe a monotonically and increasing effect in the degree of inertia on the survival probability. Hence, we conclude that inertia is important for survival and so is the degree of inertia.

Insert Table 5 around here

In Part B of Table 5 we present results for growth. As before we start out by presenting the effect of the inertia indicator variable on size (i.e., replicate the result from column 4 of Table 4). In the next column we show the effects of the detailed dummies for each degree of inertia on growth and establish that the effect is monotonically increasing. When moving to the regressions for each of the ET sizes, the monotonically and positive effect of the degree of inertia on growth is confirmed. Thus, we conclude that the degree of inertia of the ET has a positive and highly significant effect on employment growth which is *increasing in the degree of inertia*.

Despite controlling for industry one concern pertaining to our tests is that our results may be driven by, sector specificity, for instance, the high-tech sector. It is easy to imagine that the positive effects of inertia and BRE are valid only if they are complemented with the need of product innovation, highly technical, complex and non-rudimentary processes, extensive knowledge sharing etc. For this reason, we construct a subsample of all firms operating in the high-tech sector and estimate a model similar to the one presented in the last two columns of Table 4.[11] As conjectured the high-tech sector benefits highly from inertia and BRE (see Table 6 column 2 which shows the results for the main (growth) regression). It is also revealed by our investigation that the benefits of inertia is important primarily in high-tech manufacturing whereas BRE is crucial for high-tech business and financial services and "other" high-tech firms.

Turning focus to organizations that do not operate in the high-tech sector we also establish a positive and significant effect of ET inertia, but the effect of BRE in the ET is insignificant. Hence, for startups outside the high-tech sector only inertia plays an important role.

DISCUSSION (to be developed)

The purpose of our study is to provide a fine-grained understanding of how the composition of specialized experiences - in particular business related education - and team dynamics such as inertia among members of entrepreneurial teams exercise distinct effects on organizational growth over short and long time periods. We believe our work contributes to the intersection between the entrepreneurship literature and the research on strategic management.

Our theorizing and empirical tests support the initial idea of transposing explanations of human capital and entrepreneurial performance from the individual level to the average ET level. Developing and testing our next set of hypotheses demonstrated how novel explanations exist for predicting growth

success of ETs. Unlike prior studies we find strong support for the existence of differences in the way human capital and educational type, in particular - and team dynamics of inertia all drive organizational growth. And that these effects are not unison in their influence on growth over time. In general our predicted effects of BRE and inertia are significantly strengthened as an explanation for growth as the time period from founding extends. For research this indicates that we need to focus attention beyond parameters such as years of education for team-based start-up but also need include the type of education in research on growth of ET.

For practitioners our results underline that short-term evaluation may be underestimating the effects of type education is an important parameter to include in decision making about predicted opportunities of growth for a random start-up at least in the case in Denmark.

Furthermore, in our sensitivity analysis we show that the effect of our explanations varies with industry (high-tech vs. low-tech and even within the high-tech sector). Our findings therefore suggest that researchers in entrepreneurship with a particular interest in ETs need a more nuanced view on how both *composition* and *dynamics* of ETs impact performance outcomes which accommodates the differential effects across industries and time frames. Naturally this puts serious demand on the quality of the longitudinal data used for analysis.

Our results hold implications for research and practitioners with an interest in team-based start-ups and early strategic management in small and new organizations. For example, we point to the importance that individuals with entrepreneurial aspirations should seek to include individuals with business education into their initial team to pave the way early on for sound practices and routines for how to design and manage particular business issues related to, for example, hiring and firing, accounting, strategy, organizational design, etc.

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[11] We use the following NACE codes to identify the high tech sector: 24, 29 to 35, 61, 62, 64 to 67, 70 to 74, 80, 85 and 92.

Additionally, our findings may shed light on how venture capitalists could better evaluate ETs and make sure that a certain type of education (i.e. competence) exists in ET in particular in industry settings like high-tech manufacturing while venture capitalists also should support founding teams to stay intact over time as this feature increases the probability for growth success.

Our study does not come without limitations. For example, we cannot from our data know if any of the ETs we examine have received additional assistance in their start-up period. This could be support from public or private schemes, for instance, from incubator activities. While we control for co-work and family relations we have little chance to estimate if individuals forming ETs have had long prior social relationships. Moreover, we believe that future research should aim to unpack the growth potential of adding particularly skilled new employees to ET beyond the founding year. This type of research would yield important advise for strategic management of small and new organizations about who and how many to hire in the early stages of a start-up.

In sum, our study shows that competences in terms of formal and informal human capital – in particular as business related education as well as team inertia exercise strong effects on organizational growth. We also establish that the impact of those components grow in importance over time. This provides two important lessons: First, researchers, policy makers and investors should refrain from evaluations of efforts and potential of ET based only on short terms and second, to enhance chances of job creation by new ventures nascent entrepreneurs should aim to form start-up teams that include at least one person with sound understanding of business as well as seek to keep the initial ET together over the first bumpy years after the initial founding of the organization.

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FIGURES & TABLES

Figure 1. Entrepreneurial team size distribution, 1980-2006.

Note: The distribution does not contain the 5 percent largest firms
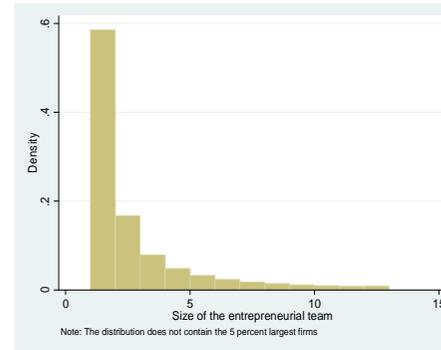
Figure 2. Sample selection and research design
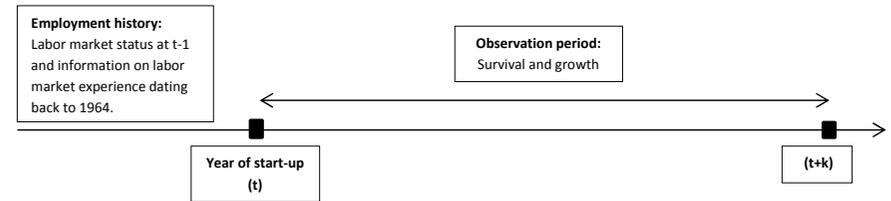
Figure 3. Research design for testing Hypothesis 3

	Launch of venture (t)	One year time horizon (t+1)	Five year time horizon (t+5)	Ten year time horizon (t+10)
Average size	2.65	3.41	4.90	6.03
Survival rate	1	0.81	0.42	0.26
N (conditional on survival)	64,032	51,592	27,142	16,407
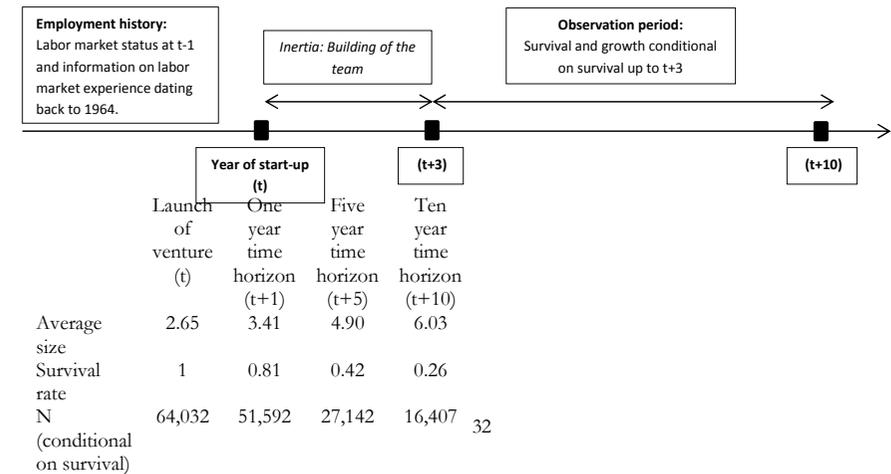
Figure 4. The degree of inertia in the entrepreneurial team after three years

Note: Based on a three year inertia building period
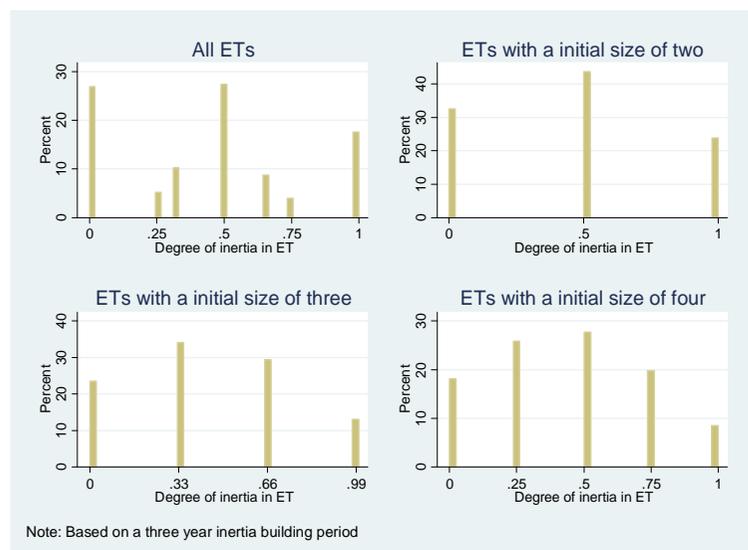
Table 1. Survival and growth of new ventures.

	Launch of venture (t)	One year time horizon (t+1)	Five year time horizon (t+5)	Ten year time horizon (t+10)
Average size	2.65	3.41	4.90	6.03
Survival rate	1	0.81	0.42	0.26
N (conditional on survival)	64,032	51,592	27,142	16,407

Table 2. The entrepreneurial team

	Entrepreneurial team
Size of the entrepreneurial team	2.65
Average income (2000-prices and in 100.000s DKK)	1.43
Average income lagged (2000-prices and in 100.000s DKK)	0.94
Unemployment propensity lagged	0.48
Average years of education	10.75
Average years of experience	7.11
Average age	31.48
Std. dev. of years of education	1.21
Std. dev. of years of experience	4.69
Std. dev. of age	8.34
Proportion of women	0.42
Exclusively Danes	0.92
Presence of family relations	0.08
Presence of prior coworkers	0.46
Presence of industry experience	0.58
Presence of management experience	0.17
Presence of business related education (M.Sc. economics or business)	0.01

Note: The sample contains 64,032 entrepreneurial teams.

Table 3. The effects of entrepreneurial team characteristics on the survival and growth of the firm

	One year ahead		Five years ahead		Ten years ahead	
	Survival	Size	Survival	Size	Survival	Size
ET characteristics:						
Presence of business related education (BRE)	-0.22**	-0.28	-0.08	1.96**	-0.09	2.73**
	(0.085)	(0.572)	(0.074)	(0.810)	(0.078)	(1.171)
Average years of education	0.03***	0.07*	0.05***	0.39***	0.06***	0.69***
	(0.005)	(0.036)	(0.004)	(0.057)	(0.005)	(0.085)
Average years of experience	0.01***	-0.01	0.01***	-0.00	0.01***	-0.03
	(0.002)	(0.012)	(0.002)	(0.019)	(0.002)	(0.027)
Average age	-0.00	0.00	0.00	-0.03***	-0.00	-0.05***
	(0.001)	(0.006)	(0.001)	(0.009)	(0.001)	(0.013)
Presence of industry experience	0.16***	0.05	0.17***	-0.07	0.17***	-0.10
	(0.015)	(0.119)	(0.014)	(0.169)	(0.015)	(0.249)
Presence of manager experience	-0.10***	-0.22*	-0.14***	-0.23	-0.13***	-0.12
	(0.019)	(0.130)	(0.016)	(0.196)	(0.017)	(0.281)
Presence of family relations	0.24***		0.29***		0.31***	
	(0.024)		(0.019)		(0.020)	
Presence of prior coworkers	0.10***		0.14***		0.12***	
	(0.013)		(0.011)		(0.012)	
Lambda		4.65***		5.78***		7.88***
		(1.226)		(0.854)		(1.108)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	64,032	64,032	64,032	64,032	64,032	64,032

Note: *** $p < 0.01$, ** $p < 0.05$ and * $p < 0.10$. In all the regressions we control for an extensive set of covariates (see the data description).

Table 4. The effects of entrepreneurial team inertia on the survival and growth of the firm

	Ten years ahead		Ten years ahead	
	Survival	Size	Survival	Size
Level effects:				
One year inertia dummy[1]	0.29***	2.88***		
	(0.013)	(0.434)		
Three year inertia dummy[2]			0.34***	4.11***
			(0.019)	(0.776)
Presence of business related education (BRE)	-0.03	3.08**	-0.05	2.74*
	(0.084)	(1.277)	(0.095)	(1.538)
Average years of education	0.05***	0.76***	0.04***	0.81***
	(0.005)	(0.098)	(0.006)	(0.126)
Average years of experience	0.01***	-0.03	0.01***	-0.03
	(0.002)	(0.030)	(0.002)	(0.036)
Average age	-0.00***	-0.07***	-0.00***	-0.10***
	(0.001)	(0.014)	(0.001)	(0.017)
Presence of industry experience	0.14***	0.01	0.10***	0.09
	(0.016)	(0.277)	(0.018)	(0.343)
Presence of manager experience	-0.12***	-0.29	-0.08***	-0.25
	(0.018)	(0.315)	(0.021)	(0.377)
Presence of family relations	0.22***		0.16***	
	(0.021)		(0.025)	
Presence of prior coworkers	0.08***		0.05***	
	(0.013)		(0.015)	
Lambda	11.54***		17.24***	
	(1.726)		**(3.185)**	
Controls	Yes	Yes	Yes	Yes
Observations	51,592	51,592	35,643	35,643

Note: *** $p < 0.01$, ** $p < 0.05$ and * $p < 0.10$. All regressions contain the same set of controls as in Table 3. [1] The one year inertia dummy takes on the value 1 if the ET is intact after one year and 0 otherwise. [2] The three year inertia dummy takes on the value 1 if the ET is intact after three years and 0 otherwise. The number of observations in each regression is determined by the research design, see Figure 3.

Table 5. The effects of the degree of entrepreneurial team inertia on the survival and growth of firms

			ET's by initial size		
PANEL A: Survival	All ETs	All ETs	Size = 2	Size = 3	Size = 4
Three year inertia dummy (I3)[1]	0.34***				
	(0.019)				
Level of inertia after three years					
Inertia = 1 (*Intact ET*)		0.55***	0.46***	0.71***	0.83***
		(0.023)	(0.029)	(0.049)	(0.074)
Inertia = 3/4		0.54***			0.75***
		(0.041)			(0.058)
Inertia = 2/3		0.44***		0.50***	
		(0.028)		(0.039)	
Inertia = 1/2		0.23***	0.17***		0.48***
		(0.019)	(0.023)		(0.052)
Inertia = 1/3		0.19***		0.24***	
		(0.026)		(0.035)	
Inertia = 1/4		0.13***			0.30***
		(0.036)			(0.050)
Inertia = 0 (*Dissolved team*)		-	-	-	-
Observations	35,643	35,643	17,846	10,642	7,155

			ET's by initial size		
PANEL B: Growth	All ETs	All ETs	Size = 2	Size = 3	Size = 4
Three year inertia dummy (I3)[1]	4.11***				
	(0.776)				
Level of inertia after three years					
Inertia = 1 (*Intact ET*)		8.49***	6.60**	7.97**	11.17***
		(2.268)	(2.744)	(3.671)	(3.651)
Inertia = 3/4		7.84***			9.30***
		(2.303)			(3.297)
Inertia = 2/3		6.96***		6.44**	
		(1.887)		(2.713)	
Inertia = 1/2		3.34***	1.94*		6.24***
		(1.076)	(1.154)		(2.310)
Inertia = 1/3		3.08***		3.45**	
		(0.989)		(1.471)	
Inertia = 1/4		1.32			3.40**
		(0.987)			(1.591)
Inertia = 0 (*Dissolved team*)		-	-	-	-
Observations	35,643	35,643	17,846	10,642	7,155

Note: *** p < 0.01, ** p < 0.05 and * p < 0.10. The models have the same specification as in the last columns of Table 4 with the exception that the three year inertia dummy is replaced by detailed dummies for each level of inertia. All regressions contain the same set of controls as in Table 3.

Table 6. The effect of entrepreneurial team inertia on growth by sector

	Not High tech	High tech	High tech		
			Business and financial services	Manufacturing	Other
Three year inertia dummy (I3)[1]	3.74**	3.82**	2.51	5.24**	-0.07
	(0.797)	(1.781)	(1.784)	(2.324)	(0.794)
Presence of business related education (BRE)	-1.40	4.41*	4.31*	-	24.37***
	(2.337)	(2.299)	(2.254)		(3.326)
Average years of education	0.76***	0.76***	0.93***	0.97	-0.13
	(0.130)	(0.288)	(0.323)	(0.810)	(0.157)
Average years of experience	-0.07**	0.06	0.03	-0.40	-0.06
	(0.036)	(0.095)	(0.125)	(0.314)	(0.063)
Average age	-0.08***	-0.12***	-0.14**	-0.36**	-0.06**
	(0.018)	(0.035)	(0.054)	(0.180)	(0.026)
Presence of industry experience	-0.27	1.07	-0.92	0.19	-1.75**
	(0.309)	(1.387)	(1.245)	(2.216)	(0.813)
Presence of manager experience	0.01	-1.22	-0.75	1.84	1.53**
	(0.398)	(1.095)	(1.071)	(2.490)	(0.640)
Observations	27,116	8,527	4,691	897	2,939

Note: *** p < 0.01, ** p < 0.05 and * p < 0.10. The models have the same specification as in the last columns of Table 4. [1]The three year inertia dummy takes on the value 1 if the ET is intact after three years and 0 otherwise.

Table A1. Description of variables

Size of the entrepreneurial team	The size of the ET reflects the number of salaried employees
Average income (100.000s DKK)	The average salary for the members of the ET
Average income lagged (100.000s DKK)	The average salary for the members of the ET in the year prior to joining the new venture
Unemployment propensity lagged	The average unemployment propensity for the members of the ET in the year prior to joining the new venture. The variable is constructed using detailed information about the proportion of the year the individuals' were unemployed
Average years of education	Average years of education in the ET is calculated using information on completed education
Average years of experience	Average years of experience in the ET is calculated based on experience data dating back to 1964
Average age	Average age in the ET is calculated from information on individual team members' ages
Std. dev. of years of education	Std. dev. of the average years of education variable
Std. dev. of years of experience	Std. dev. of the average years of experience variable
Std. dev. of age	Std. dev. of the average age variable
Proportion of women	The proportion of women in the ET
Exclusively Danes	Dummy variable taking on the value 1 if only native Danes are present in the ET; otherwise 0
Presence of entrepreneurial experience in the ET during the past three years	Dummy variable taking on the value 1 if at least one member of the ET has been part of a startup during last three years; 0 otherwise
Presence of family relations	Dummy variable taking on the value 1 if at least two members from the same household are present in the ET; otherwise 0
Presence of prior coworkers	Dummy variable taking on the value 1 if at least two members of the ET worked together in the same firm in the year prior to joining the new venture; otherwise 0
Presence of industry experience	Dummy variable taking on the value 1 if at least one member of the ET worked in the industry in the year prior to joining the new venture in which the new venture is operating; 0 otherwise
Presence of management experience	Dummy variable taking on the value 1 if at least one member of the ET worked as a manager in the year prior to joining the new venture; 0 otherwise
Presence of business education (cand.merc or cand.oecon)	Dummy variable taking on the value 1 if at least one member of the ET has a completed cand.merc or cand.oecon degree. These degrees are five year specialized university degrees in business and economics
Same Municipality	Dummy variable taking on the value 1 if all members of the ET work in the same geographical location; 0 otherwise
Sector dummies	Dummies constructed from the first digit of the NACE code (9 dummies in total)
Municipality dummies	Dummies constructed from information about workplace location (279 dummies in total)
Year dummies	Dummies indicating the year of startup

Table A2. Sensitivity analysis (excluding acquired firms)

	Regressions using all companies		Regressions excluding acquired firms	
	Similar to the model in Table 3			
	Ten years ahead		Ten years ahead	
	Survival	Size	Survival	Size
ET characteristics:				
Presence of business related education (BRE)	-0.09	2.73**	-0.14*	2.52**
	(0.078)	(1.171)	(0.080)	(1.164)
Average years of education	0.06***	0.69***	0.07***	0.70***
	(0.005)	(0.085)	(0.005)	(0.084)
Average years of experience	0.01***	-0.03	0.01***	-0.03
	(0.002)	(0.027)	(0.002)	(0.027)
Average age	-0.00	-0.05***	-0.00	-0.06***
	(0.001)	(0.013)	(0.001)	(0.013)
Presence of industry experience	0.17***	-0.10	0.22***	0.03
	(0.015)	(0.249)	(0.015)	(0.254)
Presence of manager experience	-0.13***	-0.12	-0.17***	-0.24
	(0.017)	(0.281)	(0.018)	(0.284)
Presence of family relations	0.31***		0.30***	
	(0.020)		(0.021)	
Presence of prior coworkers	0.12***		0.16***	
	(0.012)		(0.012)	
Lambda	7.88***		7.49***	
	(1.108)		(1.016)	
Controls	Yes	Yes	Yes	Yes
Observations	64,032	64,032	57,480	57,480

Note: *** p < 0.01, ** p < 0.05 and * p < 0.10. In all the regressions we control for an extensive set of covariates as in the models presented in Table 3.

Table A3. Sensitivity analysis (Prior entrepreneurial experience)

	Regressions using all observations 1981 to 1996		Regressions using startups between 1984 and 1996		Regressions using startups between 1984 and 1996	
	Similar to the model in Table 3					
	One year ahead		Five years ahead		Ten years ahead	
	Survival	Size	Survival	Size	Survival	Size
ET characteristics:						
Presence of entrepreneurial experience in the ET during the past three years					-0.08***	-0.12
					(0.017)	(0.275)
Presence of business related education (BRE)	-0.09	2.73**	-0.11	2.28*	-0.11	2.29*
	(0.078)	(1.171)	(0.080)	(1.247)	(0.080)	(1.246)
Average years of education	0.06***	0.69***	0.06***	0.70***	0.06***	0.70***
	(0.005)	(0.085)	(0.005)	(0.092)	(0.005)	(0.092)
Average years of experience	0.01***	-0.03	0.01***	-0.02	0.01***	-0.02
	(0.002)	(0.027)	(0.002)	(0.030)	(0.002)	(0.030)
Average age	-0.00	-0.05***	-0.00	-0.06***	-0.00	-0.06***
	(0.001)	(0.013)	(0.001)	(0.015)	(0.001)	(0.015)
Presence of industry experience	0.17***	-0.10	0.17***	0.01	0.17***	0.01
	(0.015)	(0.249)	(0.016)	(0.28)	(0.016)	(0.28)
Presence of manager experience	-0.13***	-0.12	-0.15***	-0.39	-0.15***	-0.38
	(0.017)	(0.281)	(0.019)	(0.317)	(0.019)	(0.317)
Presence of family relations	0.31***		0.31***		0.31***	
	(0.020)		(0.022)		(0.022)	
Presence of prior coworkers	0.12***		0.13***		0.12***	
	(0.012)		(0.013)		(0.013)	
Lambda	7.88***		7.89***		7.88***	
	(1.108)		(1.206)		(1.218)	
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	64,032	64,032	51,162	51,162	51,162	51,162

Note: *** p < 0.01, ** p < 0.05 and * p < 0.10. In all the regressions we control for an extensive set of covariates (see the data description).