Hyper-growth and sustainability in SMEs. The key figure of the strategic entrepreneur

for balancing dominant logic and strategic paradoxes.

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Abstract

High-growth SMEs are an asset for economic development of a region or of a country. Along the lines of Levie and Lichtenstein (2010), and through investigation by triangulation of a typical case of a high-growth SME, Chanut-Guieu, Guieu, Tannery and Dana propose to understand the creation of a strategy of hyper-growth as a function of four operations that combine dominant logic and paradoxical strategies: (i) sustaining high growth; (ii) spreading the firm's strategic space; (iii) configuring hyper-growth; and (iv) transforming the leader's strategic thought process. The manager, qualified as a strategic entrepreneur, plays a central role in this combination. Each operation required in the creation of a strategy of hypergrowth rests on two complementary levers: (i) the definition of a dominant logic to assure stabilisation; and (ii) the implementation of paradoxical strategies to regularly provoke destabilisation.

Debating points / questions relating the main issues discussed in the paper

- How can a SME maintain a high growth rhythm during several years?
- Why has dominant logic to be challenged by paradoxes to create a sustainable high growth trajectory?
- Why is the strategic entrepreneurship at the centre of this combination?

Introduction

Hyper-growth represents an exacerbated form of growth. Among the numerous definitions available, one can retain the fact that the firm experiencing hyper-growth doubles its size in four years. In 2002, the OECD conducted a cross-sectional study of SMEs in eight countries. High growth firms make up between two and ten per cent of all firms and are responsible for the creation of between forty and sixty per cent of jobs created; this is of interest to governments as well as to researchers in entrepreneurship and SME. Numerous works have taken interest of these particular enterprises because these combine entrepreneurial spirit with organisational structure.

A fast pace linked to hyper-growth causes the firm to create a tension upon its resources. In a firm's quest for customers, its financial requirements, human resource requirements, and innovation requirements are high. The management of the cumulative need for these resources assumes unique governance: the manager must simultaneously conserve the control of the orientation that he/she gives to his/her enterprise, all-the-while accepting to delegate, in order to reinforce growth. The enterprise must simultaneously reinforce the sale of its products in existing markets and plan expansion. A risk, resulting from these necessary stretches, is that the firm shifts away from its core competence or that discouragement overwhelms the entrepreneur at the centre of this process of creation.

Furthermore, the question arises of how a manager – in his/her role mostly of strategic entrepreneur – can create and maintain a strategy of hyper-growth for his/her firm. The answer to this question comes from an examination of the particular context of a medium-size enterprise that has already reached the limits of growth and has therefore experienced several

instances of tension on its resources. It differentiates itself from the small firm by the resulting number of employees, several product lines or service lines, often several locations and an increasing complex financial structure. This said, in contrast to the large company, it does not have the necessary scale for resources (notably financial and human resources) to come to the firm spontaneously.

In such enterprises, hyper-growth constitutes a radical inflection, continuous in the path taken. To create, and subsequently maintain this path of hyper-growth, the entrepreneur places his/her enterprise in a context of chronic instability. We shall here defend two consecutive ideas:

- The creation, and subsequent maintenance, of a path of hyper-growth passes by an ambidextrous management of the firm, combining the pursuit of stability (thanks to a dominant logic) and the simultaneous pursuit of disequilibrium (by means of paradoxical strategy practices).
- 2) This ambidextrous combination of dominant logic and paradoxical strategy practices can be broken down into four operations: (i) sustaining the rate of growth; (ii) spreading the space of strategic action; (iii) structuring the frame of action of hyper-growth; and, (iv) transforming the strategic thinking process of the manager.

To succeed with this double proposition, this paper will be structured as follows. In the first section, a literature review will define adopted concepts such as hyper-growth, dominant logic and paradoxes and will address their articulation. This examination will be mainly focused on the strategic entrepreneur, as opposed to the organisation. Thus, we will distance from the work of Brown and Eisenhardt (1997) who place continuous change at the level of the organisation. Secondly, we will present empirical findings and the longitudinal methods used.

Thirdly, we will dwell on key events along the hyper-growth path of a firm. Four successive stages led this firm (created in 1991) to develop into a group with more than 600 employees by the end of 2010. Finally, in our fourth section, we will present and discuss principal results.

1. Theoretical Framework

1.1. Hyper-growth of SMEs: the exacerbation of challenges of sustainable management

When a firm sustainably shows a very high rate of growth, the issues weighing upon it are exacerbated. In effect, much more than lower growth competitors, the hyper-growth SME must succeed in mobilising and articulating resources (financial, human, information, relational) in a short time-frame, must quickly reach objectives, must structure itself – and stay agile – in order to avoid a growth crisis. To date, works on hyper-growth have proposed explanations as a function of factors (Julien, 2002; Chan *et al.*, 2006; Wiklund *et al.*, 2009), or process models (Mustar, 2002; Delmar *et al.*, 2003). Sims and O'Regan (2006) critique research about high growth, too little inclined to propose a contextual understanding. Thus, a generic framework of the functioning of paths of hyper-growth has not yet been proposed.

Our thesis is that the path of hyper-growth – put into play by the manager acting in his/her role of strategic entrepreneur – holds onto the functioning of opposing relations between determinant logic and paradoxical strategies. The entrepreneur plays an active role in the creation, and subsequently the maintenance, of a strategy of hyper-growth. He/she thus combines dominant logic (stabilising the orientation of his/her firm) and paradoxical strategies, hence bringing contradiction to the ideology and practices in place.

1.2. Dominant logic, vector of the hyper-growth path

SMEs in hyper-growth face a major strategic problem that is directly linked to their rapid development. They can – more than other firms that are growing less swiftly – fail quickly given the multiple instabilities (financial, organisational, social, political, etc.) facing them. To contain these instabilities, as with the multi-activity or multi-national groups that structure themselves around a central logic that integrates different domains, we can consider that hyper-growth rests on a form of dominant strategy.

The strong risk of destabilisation results in practices that meet in all situations of creation of an opening in the field of possible options. This diversity requires the firm to have the capacity to sufficiently integrate with dominant logic and this assures the performance for diversification (Bettis and Prahalad, 1995; Prahalad and Bettis, 1986) and successful internationalisation (Culhane 2006).

At least, such is the common observation across different works that have underlined that hyper-growth was the fruit of a principal vector that oriented actions and activities (Mascarenhas, *et al.* 2002, Von Grogh and Cusamano 2001). Along this principal vector, it will become briskly impossible to bind together the organisational scaling and activities tied to hyper-growth. Here, we encounter the principle proposed by Miller (1993) according to which – in the face of strategic and organisational complexity – a simple architecture is needed to move ahead (Miller, 1993). The complexity, in the case of SMEs in hyper-growth, results from the path as well as from inherent tensions in the speed of transformation. It is a matter of creating a condition such that it is possible to absorb uncertainty and complexity of

operations. This condition rests on the capacity of the manager or of the team to conceive and create a dominant logic for the growth path.

The creation of such dominant logic assures a focus of attention (Ocasio, 1997) on the principal resources required for and by the path of hyper-growth of the SME, and on key questions around which the firm operates. The dominant logic acts like a filter or a lens that interprets the past environment and future as well as present operations (Von Grogh, et al., 2000) allowing for the actors to concentrate energy on growth. Moreover, this dominant logic appears to be central for the construction of the temporal perspective of action to a path of hyper-growth with actors that combine multiple time horizons simultaneously (Fischer, et al., 1997). The managers and actors concentrate at once on present events and on desired results for the future. In this way, at the present moment, strategy is open to the emergence and possible explorations of bifurcations when the desired results create a framework and fixed points in time for action (e.g., a given rate of growth in three years). As such, intervention in the management process contributes significantly to the construction of benchmarks in time. The dominant logic largely influences actors. Far from making them passive, hyper-growth quickly becomes a time-shared agenda among key stakeholders (customers, employees, managers) creating a congruence between the action and projects. However, this dominant logic may also generate excessive stability and rigidity (Deephouse, 1999; Leonard-Barton, 1992).

If a dominant logic is a necessary *a priori* condition for the creation of a path of hyper-growth in a SME, it is not sufficient; the small firm must work in a complementary way on the number of different events and the rapid pace of events to create a situation of hyper-growth in a small company. These rhythms, which provide the destabilisation necessary for hypergrowth, are created by a particular capability of strategic management, which consists of a multiplication of paradoxical actions. The next section is dedicated to the study of this second condition.

1.3. Paradoxical strategies, prods along the path of hyper-growth

As emphasised by Schreyögg and Kliesch (2007), when the momentum – either internal or external – is particularly strong, the main uncertainty involves a major difficulty in selecting and retaining development options based on established experiences. Everything happens as if chance played a central role. Such an explanation – denying the impact of the strategy – would *de facto* eliminate the problem: the path of hyper-growth would be nothing but a succession of stages resulting from randomness. This explanation is insufficient in face of the number of medium-sized enterprises that have contributed to job creation by means of this kind of path.

The path of hyper-growth calls for a capacity to configure and reconfigure permanently. This capacity requires managers to have a clear vision of this path, in such a way that they learn to maximise and incorporate resources. For this reason, the perception of the manager is clearly inscribed in his/her environment (Macpherson, 2005). He/she permanently practices experiences of thought, that aim to test capabilities to open and close systems of possibilities, to distinguish boundaries, to grasp the contours and the passages toward new forms of action and to proceed toward movements of truth to circumscribe the reference systems of different worlds possible (Denis and Tannery, 2008).

The momentum of hyper-growth can, in some considerations, appear pathological since it implies that the SME permanently and continuously develops and radically perturbs its conditions for action. Nevertheless, it is clear that SMEs can master the many tensions associated with this type of functioning. The theoretical framework centred on the concept of paradox, that features the multitude of tensions that traverses the firm, allows us to understand that hyper-growth is not pathological, but rather generator of its own development. In fact, the 20th century *Larousse* dictionary defines paradox as « une manière neuve de rendre une chose établie déjà, ou bien une façon très particulière de déterminer un principe certain au moyen d'arguments qu'on supposerait inconciliables » (p. 363), meaning "a new way to make something already established, or a very particular way to determine a certain principle by arguments which imply inconsistency." These elements appear absurd and irrational when present simultaneously (Lewis, 2000). Paradox can be first an idea judged as absurd, but that following analysis, or experiment, comes to contradict our habits of perception or thought. We can therefore define paradoxical management as the simultaneous existence of two states a priori incompatible, such as cooperation and competition, new and old, or innovation and efficiency. The cohabitation of these tensions generates situations at the limits of chaos. The management of this cohabitation is supposed to exploit tensions creatively capturing the benefits of each component of the paradox and capitalizing pluralism inherent in this duality (Eisenhart, 2000). The paradox is neither a compromise, nor a caesura between conflicting tensions, but rather a good appreciation of both (Lewis, 2000). The management of paradox then appears as a means to exploit tensions founded on the contradiction and the swirling of managerial practices. In fact, this exploration of opposing views leads managers to reduce their tendency to rationalise and synthesize excessively.

Fiol (2002) proposes an organisational reading of paradox: paradoxical tensions appear with time by uncovering the process by which the levels of new individual and organisational identity interact. The author defends the idea according to which it is more interesting to capitalise the paradox while taking head on rather than trying to ignore its existence or to attempt to resolve this by deparadoxification, termed "*Entparadoxierung*" (by Luhmann, 1991, cited by Fiol, 2002, p. 654). Situations of paradoxical management are not systematically synonyms of change. They can generate as much inertia – keeping a considered safe mode – as perturbations that will, instead, change the status quo by destroying pre-established systems (Czarniawska, 1997). The paradox is notably present at the time of new product development, which is often the case of enterprises in hyper-growth that expand their product and services offering in order to stay competitive. Now enterprises have core capabilities coupled with core rigidities that tends to stifle innovation. This leads to a paradox: how to take advantage of a core business and core capabilities of the firm, without being restricted by core rigidities? How do enterprises manage this duality, as much as they have a consciousness about this? Do they seek to suppress the duality or simply to direct it (Leonard-Barton, 1992)?

Lewis (2000: 761) considers that the notion of paradox is comprised of three important and interdependent elements, namely: (i) tensions; (ii) reinforced cycles; and (iii) the management policy that is undertaken. The tensions - embodied by Lewis (2000) as Yin and Yang - are in cognitively-constructed polarities fact "socially-constructed or that obscure the interrelatedness of the contradictions" (Lewis, 2000: 762). These tensions generate selfreinforced cycles which are a form of self-defence to reduce discomfort and anxiety vis-à-vis a situation, but which are actually crippling the operation of the business and have as final effect, to intensify the tensions. The only way out resides in the way of managing the paradox while launching attempts to explore positive tensions, capturing potential energy to bring out the intrinsic power of paradox and thus enable a major change. A form of single-loop learning as described by Argyris and Schön (1978) is established and then allows to face the new tensions with a watchful eye and to draw lessons from this in terms of organisational training.

1.4. The protagonist: the manager as strategic entrepreneur

Recent work by Levie and Lichtenstein (2010) highlights recurring dynamic states, thus modelling by simplifying traditional growth models that, most of the time, suggest development in stages. We record our analysis in this chance to understand development not as a succession of stages of growth, but as a model of dynamic states. Moreover, for Levie and Lichtenstein, this is the development of an organisation that is studied, and not a living organism. Like them, we do not inscribe ourselves in a biologic analogy, but in the study of one organisation. Subsequently, a central element of their proposition of dynamic states is dominant logic. We equally consider that this notion is a motor of growth (Chanut-Guieu and Tannery, 2009; Chanut-Guieu *et al.*, 2009). Finally, Levie and Lichtenstein suggest that the notion of dynamic state itself is an oxymoron, leading the interaction between stability and change.

2. Devices and research methods

A large portion of research about SMEs in hyper-growth has consisted of cross-sectional or instantaneous analysis. These studies are conducted by means of quantitative methods based on statistics (Mustar, 2002; Delmar, *et al.*, 2003; Betbèze and St-Etienne, 2006; Moreno and Casillas, 2007). They studied traits that are common across SMEs in hyper-growth, their contribution to macro-economic growth or factors (such as financing) assumed to inhibit hyper-growth. Studies classified as involving instantaneous analysis make up the majority,

the most numerous; these proceed by surveying a large sample or by studying a few cases and making a comparison to study the problem of managerial capacity of SMEs (Barringer, *et al.*, 2005), drivers of growth (O'Regan, *et al.*, 2006), the practice of strategic management as planning (Upton, *et al.*, 2001), the common and comparative characteristics between high-growth SMEs and others (Barringer and Jones, 2004; Chan, *et al.*, 2006; Chanut-Guieu and Guieu, 2010) or strategic options practiced by firms (Von Grogh and Cusamano, 2001; Mascenrenhas, *et al.*, 2002). There is a limit with these different above-mentioned approaches: little research focuses on the strategic functioning of hyper-growth firms. Recognising this limit, and following the recommendations of Siggelkow (2007), we are keen to do a case study of the total process of growth in a medium-sized firm in France. For this we rely on monthly interviews over several years, with the founding manager who is currently Chairman and CEO of the firm. While the interaction with this individual is on-going, our data collection and research study is partly retroactive, as the enterprise was created in 1991.

Our research is simultaneously longitudinal, given that we have been observing changes over the past three years; these changes (such as external growth, internationalisation, capital openings, new projects of innovation, etc.) prompt regular interviews with the managers. As well, the principal aspects requiring strategic questioning are identified: the process of development; the context and circumstances; the content of strategies for growth; and finally the pretexts and objectives pursued by means of growth. Over time, the closeness developed with the manager allows us to fully understand projects and their value.

One of the limits of our methodology is that the focus on the founding leader could cause us to partly ignore the actions of other key actors of the firm, such as branch directors or heads of subsidiaries. However, this limit is compensated by two means of investigation. On the one hand, other members of the Executive Committee and of the Board were met. On the other,

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the growth function currently relies on choices and preferences of the founding entrepreneur. He/she conceives the strategy and assures its implementation as well as coordination, since it has only been recently – less than three years – that a strategic development committee was created within the board, who include the executive committee and two independent directors who meet four times a year. At the same time, the executive committee – composed of the Chairman/CEO, the vice-CEO and the CFO – was formally constituted for the strategic follow-up during bi-monthly meetings. Our methodological approach is unique because of the temporality of data collection, in three phases: (i) a reconstructed history up to 2006; (ii) a case study about the evolution of the firm and development choices¹; and (iii) a year of more formal study to try to formalise the strategic options of the firm.²

Finally, a critical device for analysis is implemented and teamwork is essential here. One researcher is particularly implicated in discussions with the strategic entrepreneur, two slightly removed researchers are more critical about the analysis of processes, and finally one last researcher tests the plausibility of the proposed analysis. This mechanism requires multiple readings, which we deem to be particularly necessary in this case given that the firm under study is in a state of hyper-growth. The tension between involvement and detachment enriches our propositions in this paper.

¹ This case study was shaped by regular interviews every three weeks with the company chairman to discuss the history of the business as well as its current affairs. This period of analysis is centred on the chairman, since the meetings were systematic at the time of major events, such as purchases and strategic decision-making. Numerous data were thus collected, including the mood or state of mind of the chairman during moments when he/she faced questions about the future of his/her enterprise.

 $^{^2}$ These results were presented in managerial form, to the Executive Committee and the interpretations of the researchers were confronted in this context. The reflection, in terms of

3. Case presentation and key events

The enterprise on which we focus in for our research recently became one of the 4,000 midsize enterprises (called "Entreprises de taille intermédiaire – ETI") in France with almost 700 employees, 600 of whom are in France. Turnover in 2010 exceeded 70 million euro. For this paper, we will refer to this company by the name Electro. Since its creation, this firm has experienced hyper-growth with an average growth rate exceeding 20% annually since its creation in 1991, by three engineers. At the start, the firm's business consisted of conducting studies in the field of power electronics under stress. Eighteen years later, this enterprise became one of the principal first order sub-contractors for large groups like: Alcatel; Alstom; the European Aeronautic Defence and Space Company (EADS); Thalès; and Siemens. For example, among numerous developments, Electro conceives and manufactures electronic calculators installed aboard aeroplanes or high-speed trains to ensure their braking.

Electro has an integrative strategy, as its functions include: studies; the conception of an innovation; product development; project management; and finally industrial manufacturing. With four locations in France, the firm opened three more in China, Morocco and the United States. The company is organised along industrial lines (such as design and manufacturing) and addresses a wide range of sectors, including aeronautics, medical equipment, rail, telecommunications and urban public transport.

The quality of its developments allowed the firm to become recognised as a supplier of excellence by Microsoft. The firm invests itself fully in numerous French clusters such as

dominant logic and paradoxes, was then and there suggested and agreed upon by the

Lyon Urban Truck & Bus (LUTB), Minalogic, pôle mer, pôle SCS, and Tennerdis, in the framework of its numerous research projects and the design for which it benefits from regular financial support from the Oseo, a public enterprise that finances the growth of SMEs. Current projects, in France and elsewhere, are supposed to enable the company to pursue its rate of rapid growth. The current project of the CEO is to further transform the enterprise into an industry leader in its field, to face four or five companies of similar size and activity at the European level.

The Chairman and CEO was educated to be an engineer, having studied at one of the top technological universities in France, namely the University of Compiegne, that combines engineering with social science education; the attraction for social sciences remains strong, supported by readings - particularly in philosophy. Almost hyper-active, the Chairman and CEO is involved in sports several hours a week and also visits exhibits. Such curiosity is a trait among other members of the management team as well; this has recently been of value for the technical and quality director who happens to be the second largest shareholder after the Chairman and CEO, and was recently elected as President of the association of subcontracting corporations. The members of the management team share several common characteristics: launch in an entrepreneurial adventure shortly after tertiary education, openness to others with easy access, affective and family stability, concern about an advanced and progressive humanistic social policy. Moreover, although the firm anchors its development in technological knowledge, it recruits primarily graduates from engineering programs or intermediate schools rather than from elitist schools; this can contribute toward the quality of internal social dialogue and to the on-going effort of inventiveness. Furthermore, over time, the integration of new members into the management team – usually the result of take-overs or the departure of existing individuals – has always favoured people with a dual personality that combines a desire for development and innovation with a concern for social values.

Our case study of Electro shall serve as basis for analysis and interpretation to conceive how the leader of a SME can achieve a sustained momentum of hyper-growth. To model the required dynamics, a pre-requisite is to comprehend four main phases as explained below.

3.1. Building a business of electrical engineering (phase 1)

This phase, linked to the launch of the enterprise, allowed for rapid growth after creation in 1991; four years later, Electro employed 12 persons and had a business turnover of one million euro. The enterprise created by electronic engineers was integrated in a context that included supportive policy with regards to the growth and development of electronic applications in the industry.

The founders of Electro sought to create an office to study electronic engineering, including the transition from prototype to production. Rather than simply be typical, classic consultants assigning engineers to big accounts, Electro constituted itself as a sub-contractor, working according to specifications and taking in charge conception, feasibility studies and the creation of prototypes around a specific core competence: electronics in harsh environments. The identity and the heart of the firm's business was technical, in its double aspect of service and production.

3.2. The development of an industrial project (phase 2)

The industrial approach, which was adopted at the company's launch, was reinforced during the second phase. During this four-year period, until 1999, the firm multiplied its size by five in terms of staff, to 60 employees, subsequently attaining a turn-over of 3,500,000 euro. This period allowed to strengthen the structure of study and conception all-the-while establishing a strategic partnership with an enterprise having expertise in equipment and the manufacturing of electronic components. This partnership allowed Electro to develop products used simultaneously by large conglomerates like the Alstom group, for instance a combined electronic board for trains, for which railway companies are the major customers. Electro capitalised on its key competencies, notably power electronics. At the time, Electro institutionalised its double orientation, being simultaneously a design office and a manufacturer of prototypes. The firm's executives were clearly developing an industrial project by associating themselves with a manufacturing activity. While the trend of the times was to out-source, this firm acquired a competitive position of assembler (as well as planner/designer) particularly valued by customers and the market at large. This was the recipe for sustainable growth.

3.3. The extension of applications toward a diversity of sectors (phase 3)

The success of the second phase led the directors to ask themselves again about their operations. At the start, the firm focused above all on the railway sector. Instead of pursuing only this niche market, it was decided to spread risks and diversify; the managers decided to extend applications toward a variety of sectors, beyond railroads to aeronautics, medical equipment, naval equipment, road transport, and telecommunications. This option was fruitful such that in four years the firm doubled in size, to 140 employees in 2003, increasing its turn-over by 350% to 12,500,000 euro. Previous choices (planning and design office coupled with

assembly) were confronted and completed with a double principle: to operate across sectors, rather to be limited to one, and to integrate vertically in order to be a step ahead over competitors and to master process. It is a matter of being present at every pod of the product cycle (conception, study, manufacturing, maintenance during operations, product return) in multiple sectors. This logic was especially judicious, as the firm overcame market turbulence in the electronic market during the late 1990s.

3.4. External growth (phase 4)

The last inflection began in 2007 with various domestic and international growth operations that changed the company's profile. The pace is currently sustained and the company planned to have closer to 1,000 employees and approach a turn-over of 100,000,000 euro by 2015.

Several operations were carried out during this phase. Firstly, an office was opened in the United States in order to work with Microsoft. After two years, this office employed 15 people and had become first tier supplier for Microsoft's Windows Embedded. Subsequently, a joint venture was created with a Chinese partner in China, in response to the request of large groups in France, like Alstom, for Electro to conceive and manufacture electronic calculators for the Chinese market. As well, an entity was created in Morocco, as part of a GIE partnership, to help Electro with vertical integration of production studies. Finally, during this fourth phase, the firm consolidated with its principal partner in order to structure equipment project management service.

During this phase there was an extension of the firm's core, which hence had the means to propose to clients transactions involving equipment manufacturing. This fourth and last phase, that continues today with external as well as internal sources of growth, allows Electro to be definitely referenced as one of the major leading French sub-contractors in the field of electronics in harsh environments and power electronics.

4. Results

The presentation of results is along three stages that correspond to three levels of graduated abstraction. We first identify four combinations of dominant logic and paradoxical strategies, in the case of Electro. These four were necessary to maintain hyper-growth at Electro, for a period exceeding two decades. We then detail the conceptual articulation of each of these. Finally, we propose a general model of sustainable management of SMEs experiencing hyper-growth.

4.1. Four combinational dynamics at Electro

At Electro, the four dynamics of combination between dominant logic and paradoxical strategies are described in detail in Table 1. For each named dynamic, we describe the principal elements characterising dominant logic and paradoxical strategies.

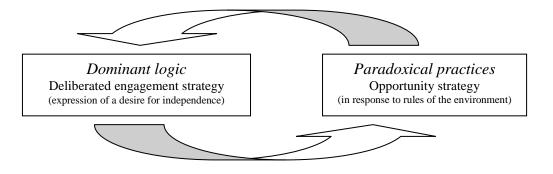
At Electro	Dominant logic	Paradoxical strategies
Maintaining rate	Desire for independence	Financial register
of growth	« on sera 1000, on veut rester sous-traitant de 1 ^{er} ordre » (We will be 1,000; we want to remain first tier sub-contractor) Obligation to grow to maintain independence. More we are stretched, more we grow.	Facing the desire for independence, permanent reinvestment requires an identical level of recruitment: therefore no pause. Everything was attempted (exploration of new financial tools and exploitation of known tools, such as self- financing). <u>Relational register (contextual)</u>
		Relations with numerous partners (clusters, universities,) that perturb dominant logic.
Expanding strategic space	Desire to multiply projects and innovations « faire des moutons à cinq pattes » (making rare birds)	Strategic registers of development Doing all at once, in rail, aeronautic, automobile sectors (simultaneous extension of markets, customers, technologies)
Configuring hyper-growth	Structuring the form of action by the will of conception and the deployment of an industrial project over time « ce qui nous intéresse, c'est cet aspect industriel, cette approche industrielle » (What interests us is this industrial aspect, this industrial approach.)	Organisational registersLevels of delegations that expand.« on y va à deux. Mais ons'aperçoit qu'on y est vite 100 »(We start as two but soon see weare 100)Integration – differentiationManagerial and cognitive registerAffirmation of specific culturaltraits: atmosphere, rites,reconfiguration of teams along thelines of expertise. But finally lessdelegation than perceived.CEO recognised by members of theexecutive team. The CEO throwsthe ball in several places and thensay « vous y allez tous » (you allgo). Organisational bazaar, butclear definition of fields of actionfor each member of theorganisation.
Transforming management's strategic thought process	Willingness and general practice of experimentation « Lancement de ballons d'essai » (Launch of trial balloons.)	Managerial and cognitive registers Combination of deductive and inductive characters.

Table 1 – Articulation of dynamics at Electro

4.2. Articulation of dynamics

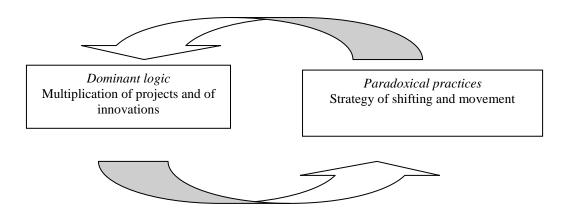
What can be the more generic translation of these local empirical results? In this section, we detail each dynamic in a schematic form. The first consists for the firm to sustain its pace of growth. The issue is to realise hyper-growth, to follow a marked path, to maintain the inflection made by the trajectory. Success holds on the maintenance of continuity in speed. To do this, the firm grabs opportunities to adapt itself and to benefit from openings in the environment, all while favouring the deliberation of action to frame the opportunities. The engine here is the intention-adaptation dialectic (Figure 2).





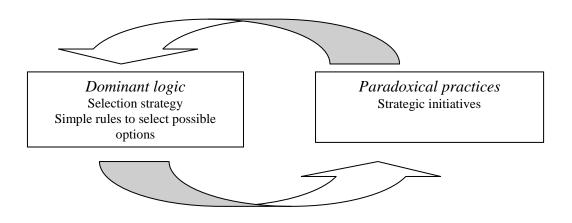
The second dynamic consists of the enterprise giving an action orientation. The issue is to have the desire to achieve hyper-growth, to expand the firm's space, to develop the potential to open possible fields. Success then depends on defining the playing field that gives limits to the general line of possible moves. To do this, the firm questions its own positioning by shifting and making moves. The engine for this is the dialectic position-movement (Figure 3).

Figure 3 – Dynamic 2 – Expanding the space for strategic action



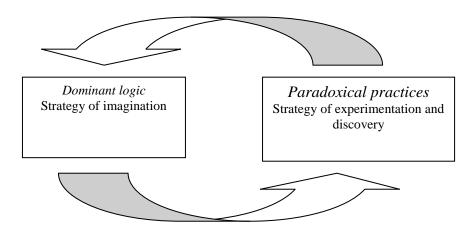
The third dynamic consists of the firm orienting itself toward action. The issue is having a dominant logic based of simple rules, on the principle of selection. In this framework set by simple rules, strategic initiatives arise. The engine for this is the dialectic rule-deviance, which consists of determining a rule to simplify the frame of action, while raising deviance and creating the possibility of strategic initiatives (Figure 4).

Figure 4 – Dynamic 3 – Configuring hyper-growth



The fourth dynamic consists in changing the mind-set of managers. The issue is to imagine the future along the path of hyper-growth. Success depends on the imagination making continuous inflexions, confronting hypotheses and testing these. Opposing each other are reality and potential invention. The engine of this dynamic is the dialectic of experimentationimagination (Figure 5).

Figure 5 – Dynamic 4 – Transforming management's strategic thought process



4.3. A general model of sustainable management of SMEs in hyper-growth

Finally, we shall generalise our elementary findings in a third level of abstraction, by formulating two central propositions, corresponding to two graphs. The creation of a sustainable strategy of hyper-growth relies on the combination of four dynamics combining dominant logic and paradoxical strategies: (i) sustaining the rate of growth; (ii) expanding the firm's strategic space; (iii) shaping hyper-growth; and (iv) transforming the thought-process of the manager (see Figure 6).

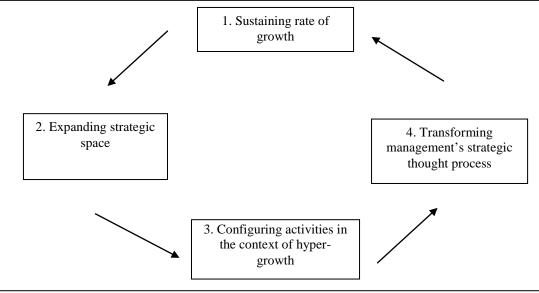
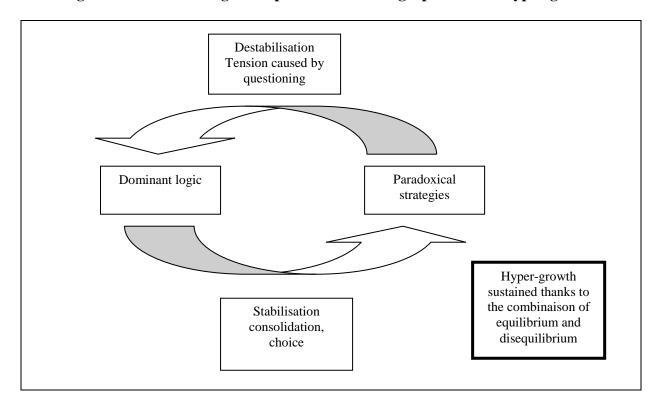
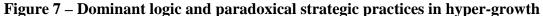


Figure 6 – Combining dynamics for hyper-growth

Each dynamic, that is necessary in the creation of a strategy of hyper-growth, rests on two complementary levers: (i) on one hand the definition of a dominant logic to assure stabilisation; and (ii) on the other hand, paradoxical strategy practices to allow frequent destabilisations (Figure 7). Each dynamic articulates opening conditions (that aim to displace boundaries) and conditions of closure (that aim to maintain boundaries). Thus, conditions allow continuation aiming to maintain hyper-growth, avoiding excessively large-scale disequilibriums and juggling immobility.





5. Discussion

The above-mentioned results yield three levels of graduated abstraction: (i) combination dynamics between dominant logic and paradoxical strategies in the case of Electro; (ii) conceptual articulation of the above; and (iii) finally the presentation of a general model of sustainable management in hyper-growth SMEs. These results appear to bring a contribution to three sets of literature: (i) the blend of dominant logic and paradoxical strategies; (ii) the strategic entrepreneur; and (iii) the theory of growth. Synthesising these contributions, we extend the work of Levie and Lichtenstein (2010).

In the first instance, Levie and Lichtenstein (2010) insist on the central role of dominant logic among founders and/or managers; this dominant logic is submitted to a tension of opportunity, largely generated by projections of growth made by the entrepreneur for his/her enterprise (2010, p. 332). We clarify this point by demonstrating that these tensions are in fact the result of paradoxical strategies that jeopardise dominant logic. For Levie and Lichtenstein (2010), the tension is the fruit of an opportunity that must be grabbed and for which organisational resources are put on the line toward the realisation of this opportunity that realises the aspirations of the entrepreneur. Our approach disassociates itself from extant literature as we propose that the paradoxical strategies create the tension that threatens dominant logic. The tension is therefore *not* tied to a void, an aspiration to realise, but to an opposition of logical order, partly emerging. This dialectic cleavage will be the lever used by the entrepreneur to generate and especially to renew rapid growth.

Secondly, we focus our proposition on the leading role of the executive whom we consider to be a strategic entrepreneur. The proposition of Levie and Lichtenstein (2010) considers the entrepreneur as being central, but defines little his/her action and his/her reflections in the formulation of the firm's dynamic state, and even less in the framework of transition from one state to another ("In some measure, in order to stay alive as a business, entrepreneurs and managers *must*³ make these changes" (2010, p. 333). Levie and Lichtenstein (2010) draw on the notion that the entrepreneur can reconfigure the dynamic state of his/her organisation and this generate new tension (Lichtenstein and Plowman, 2009). Nevertheless, this role is confined to the wish for the organisation to adapt to his/her aspirations and to his/her intuitions on the market. Here, we propose: (i) that the entrepreneur is sometimes surpassed by the tension between dominant logic and paradoxical strategies; (ii) that the dynamics go as

³ Emphasis by the authors themselves

far as to modify the entrepreneur himself/herself. The notion of strategic entrepreneur then takes all its meaning. By ascribing to the works of Ireland *et al.*, 2003; Ireland and Webb, 2007; Ireland *et al.*, 2009; Kuratko and Audretsch (2009); and of Kraus *et al.* (2011), we can define strategic entrepreneurship as a work of balancing exploration and exploitation, and of searching for value creation and continuous innovation. This definition – through the concept of balancing – allows to better explain the four forms of strategic entrepreneurship defined by Covin and Miles (1999): sustained regeneration; organisational rejuvenation; strategic renewal; and domain redefinition.

Finally, the theory of growth can find interesting extensions in our work. Specifying the propositions of Levie and Lichtenstein, growth (here in the exacerbated form of hypergrowth) is conceived as a process of integration, and not as the result of variables, like, to take an example from among the most accomplished, in the integrated model of Wiklund, *et al.* (2009).

Conclusion

Our research on hyper-growth of SMEs has a theoretical target as well as being empirical, since the phenomenon constitutes one of the major conditions of development allowing the emergence, followed by the maintenance of mid-size companies. Such firms carry the seeds to re-organise sectors and the economic territories of tomorrow. In effect, these assure radical innovations or sustainable job creation.

Beyond this first interest, hyper-growth among SMEs – as an extreme condition – also reveals central theoretical issues. In particular, it questions the conditions of self-created and self-directed dynamics. This momentum gradually creates the identity of the organisation around a rare capability to work in the space of actions and knowledge, on a scheme of generalised reflexivity. The firm can thus successfully extend boundaries, its ceiling and its limits for growth. To get there, and this is what requires to model hyper-growth, is a matter of permanently combining the accomplishment of performance with the potential of changing energies. The dynamic of hyper-growth becomes one of the major contexts to understand and conceive how to successfully open the field of possibilities and to renew the same conditions of action. During periods of crisis on multiple fronts (technological, economic, environmental, financial), it is well worth it.

References

- Argyris, C., and Schön, D. (1978). Organisational Learning: A Theory of Action Perspective. Reading, Mass: Addison Wesley.
- Barringer, B.R. and Jones, F.F. (2004). "Achieving rapid growth: Revisiting the managerial capacity problem", *Journal of Developmental Entrepreneurship*, vol. 9, n° 1, 73-86.
- Barringer, B.R., Jones, F.F., and Neubaum, D.O. (2005). "A quantitative content analysis of the characteristics of rapid-growth firms and their founders", *Journal of Business Venturing*, vol. 20, 663-687.
- Betbèze, J.-P., and Saint-Etienne, C. (2006). *Une stratégie PME pour la France*. Paris: la Documentation française, Conseil d'Analyse Economique.

- Bettis, R.A. and Prahalad, C.K. (1995). "The dominant logic: Retrospective and extension", *Strategic Management Journal*, vol. 16, n° 1, 5-14.
- Chan, Y.E., Bhargava, N., and Street, C.T. (2006). "Having arrived: The homogeneity of high-growth small firms", *Journal of Small Business Management*, vol. 44, n° 3, 426-440.
- Chanut-Guieu, C., and Guieu, G. (2010). "Les PME en hypercroissance sont-elles vraiment singulières?" In Lecointre, G., and Roubaud, J.-F. (eds) *Le grand livre de l'économie PME*, chapter 3 (part 3), p. 223-243. Paris : Gualino.
- Chanut-Guieu, C., and Tannery, F. (2009). "La stratégie d'hypercroissance des moyennes entreprises. Entre logique dominante et pratiques stratégiques paradoxales." Paper presented at the conference of the Association Internationale de Management Stratégique (AIMS), Grenoble, May.
- Chanut-Guieu, C., Guieu, G., and Tannery, F. (2009). "The strategy of hyper growth in the SME : Between dominant logic and paradoxical strategic practices." Paper presented at RENT XXIII (conference of the European Council for Small Business ECSB), Budapest, 20 November.
- Cohen, W.M., and Levinthal, D.A. (1990). "Absorptive capacity: A new perspective on learning and innovation", *Administrative Science Quarterly*, vol. 35, n°1, 128-152.
- Covin, J.G. and Miles, M.P. (1999). "Corporate entrepreneurship and the pursuit of competitive advantage", *Entrepreneurship Theory and Practice*, 23(3), 47–63.
- Culhane, J.M. (2006). "Applying the dominant logic construct to MNCS: An epistemic representation of the global firm", Academy of Management Best Conference Paper 2006 CMS: D1.

- Czarniawska, B. (1997). *Narrating the organization: Dramas of institutional identity*. Chicago: University of Chicago Press.
- Deephouse, D. (1999). "To be different or to be the same? It's a question (and theory) of strategic balance", *Strategic Management Journal*, vol. 20, n° 2, 147-166.
- Delmar, F., Davidsson, P., and Gartner, W.B. (2003). "Arriving at the high growth firm", *Journal of Business Venturing*, vol. 18, p. 189-216.
- Denis, J.P., and Tannery, F. (2008). "Que peut la stratégie ?", in Marchesnay M. and Payaud M.A (eds), Stratégies et pouvoirs Mélanges en l'honneur du professeur Alain Charles Martinet, Paris : Vuibert.
- Brown, S. L., and K. M. Eisenhardt (1997). "The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations", *Administrative Science Quarterly*, 42: 1–34.
- Eisenhardt, K.M. (2000). "Paradox, spirals, ambivalence: The new language of change and pluralism", *Academy of Management Review*, vol. 25, n° 4, 703-705.
- Fiol, C.M. (2002). "Capitalizing on paradox: The role of language in transforming organizational identities", *Organization Science*, vol. 13, n° 6, 653-666.
- Fischer, E., Reuber, A., Hababou, M., Johnson, W., and Lee, S. (1997). "The role of socially constructed temporal perspectives in the emergence of rapid-growth firms", *Entrepreneurship Theory and Practice*, vol. 22, n° 2, 13-30.
- Ireland, R. D., Covin, J. G. and Kuratko, D. F. (2009). "Conceptualizing Corporate Entrepreneurship Strategy", *Entrepreneurship Theory and Practice*, 33: 19–46.
- Ireland, R.D., Hin, M.A. et. al. (2003). "A Model of Strategic Entrepreneurship, the Construct and its Dimensions", *Journal of Management*, 29, 963-989

- Ireland, R.D., and Webb, J.W. (2007). "Strategic Entrepreneurship: Creating Competitive Advantage through Streams of Innovation", *Business Horizons*, 50, 49-59
- Julien, P.-A. (2002). Les PME à forte croissance : l'exemple de 17 gazelles dans 8 régions du Québec, Montréal : Presses Universitaires du Québec.
- Kraus, S., Marxt, C., Filser, M., and Guieu, G. (2011). "Strategic Entrepreneurship Analyse der Strukturen und Entwicklung des Forschungsfeldes", *Zeitschrift für KMU und Entrepreneurship*, vol. 59, n° 3, p. 203-228.
- Kuratko, D. F., and Audretsch, D. B. (2009). "Strategic entrepreneurship: exploring different perspectives of an emerging concept", *Entrepreneurship Theory and Practice*, 33(1), 1-17.
- Leonard-Barton, D. (1992). "Core capabilities and core rigidities: A paradox in managing new product development", *Strategic Management Journal*, vol. 13, 111-125.
- Levie, J. and B.B. Lichtenstein (2010). "A terminal assessment of stages theory: Introducing a dynamic states approach to entrepreneurship", *Entrepreneurship Theory and Practice*, March, 317-350.
- Lewis, M.W. (2000). "Exploring paradox: Toward a more comprehensive guide", *Academy of Management Review*, vol. 25, 760-776.
- Liao, J., Welsch, H., and Stoica, M. (2003). "Organizational absorptive capacity and responsiveness: An empirical investigation of growth-oriented SMEs", *Entrepreneurship Theory and Practice*, vol. 28, n°1, 63-85.
- Lichtenstein, B. and Plowman, D. (2009). "The leadership of emergence: A complex systems leadership theory of emergence at successive organizational levels". *Leadership Quarterly*, 20, 617–630.

- Luhmann, N. (1991). "Sthenographie und Euryalistik" In : H.U. Gumbrecht et K.L. Pfeiffer (eds.) Paradoxien, Dissonanzen, Zusammenbrueche. Situationen offener Epistemologie. Frankfurt: Suhrkamp, 58-82.
- Macpherson, A. (2005). "Learning how to grow: Resolving the crisis of knowing", *Technovation*, vol. 25, 1129-1140.
- Mascarenhas, B., Kumaraswamy, A., Day, D., and Baveja, A. (2002). "Five strategies for rapid firm growth and how to implement them", *Managerial and Decision Economics*, vol. 23, n° 4/5, 317-330.
- Miller, D. (1993). "The architecture of simplicity", *Academy of Management Review*, vol. 1, n° 1, 116-138.
- Moreno, A.M., and Casillas, J.C. (2007). "High-growth SMEs versus non-high-growth SMEs: a discriminant analysis", *Entrepreneurship and Regional Development*, vol. 19, n° 1, 69-88.
- Mustar, P. (2002). Les PME à forte croissance et l'emploi. Paris : OCDE.
- O'Regan, N., Ghobadian, A., and Gallear, D. (2006). "In search of the drivers of high growth in manufacturing SMEs", *Technovation*, vol. 26, 30-41.
- Ocasio, W. (1997). "Towards an attention-based view of the firm", *Strategic Management Journal*, vol. 18 (Summer Special Issue). 187-206.
- Prahalad, C.K., and Bettis, R. (1986). "The dominant logic: A new linkage hetween diversity and Performance", *Strategic Management Journal*, vol. 7, 465-501.
- Schreyögg, G., and Kliesch E. (2007). "How dynamic can capabilities be?" *Strategic Management Journal*, vol. 28, 913-933.

- Siggelkow, N. (2007). "Persuasion with case studies", *Academy of Management Journal*, vol. 50, n°1, p. 20-24.
- Sims, M. A., and O'Regan, N. (2006). "In search of gazelles using a research DNA model", *Technovation*, vol. 26, p. 943–954
- Upton, N., Teal, E., and Felan, T. (2001). "Strategic and business planning practices of fast growth family firm", *Journal of Small Business Management*, vol. 39, n°1, 60-72.
- Von Grogh, G., Erat, P., and Macus, M. (2000). "Exploring the link between dominant logic and company performance", *Creativity and Innovation Management*, vol. 9, n° 2, 82-93.
- Von Krogh, G., and Cusumano, M.A. (2001). "Three strategies for managing fast growth", *MIT Sloan Management Review*, vol. 42, n° 2, 53-61.
- Wiklund, J., Patzelt, H. and Shepherd, D.A. (2009). "Building an integrative model of small business growth", *Small Business Economics*, Vol. 32, N° 4, p. 351-374.