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Firm Governance and Organizational Resiliency in a Crisis Context: A Case Study of a Small Research-based Venture Enterprise

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Abstract

Very small companies that are derived from research projects face numerous crises throughout their lifetimes. These crises are presented in the literature as negative setback situations for the growth of these companies. However, some recent studies emphasize the role that a crisis can play as an agent of change by undergoing a thorough analysis of what transpired and proposing new avenues to avoid repeating such errors. This new approach to crisis management suggests that the crisis period be considered as an outstanding opportunity to learn, along with organizational resilience. Our study is part of this new approach towards crisis management and seeks to study the impact of crisis management on the resiliency of very small research-based company. The results show that a process of learning and resiliency transpires during the post-crisis period and represents three types of governance: financial, managerial and strategic.

Keywords: crisis management, governance, very small company, resiliency

1. Introduction

These days, it seems that crises have become a normal event in the complex world in which we live (Riddell, 2012). Regardless of the activity sector, crises develop and continue to influence the functioning of organizations, both locally, nationally, and internationally. Considering major economic and financial indicators, the current crisis engulfing Europe, notably Greece, Portugal, and Spain, affects the very survival of the European Union. This crisis affects economic growth, employment, and investments. Large as well as small companies see their growth and investments affected by this European and world crisis (Libaert, 2009). More specifically, regarding small companies arising from research, the crisis, though obviously external, has very serious internal consequences on such companies which undermine their proper functioning and their objectives. In fact, when credit is quite rare and the return on investment is much longer and uncertain, the governance of small companies that arose as a result of research becomes mired in perpetual crisis management.

The recurrence of these crises leads us to reflect on the means by which organizations capitalize from these turbulent conditions. Accordingly, we propose that the organizational resiliency in such circumstances begins with a learning curve during the post-crisis stage (Riddell, 2012; Roux-Dufort, 2003). In order to study this highly strategic phenomenon, we have chosen to conduct an in-depth investigation on a very small technology company; namely, MLS, a firm that came about as a result of previous research. MLS Ltd. is an electronic company in the health field that offers complete health management applications, including via the Internet, offering medical oversight and reassurance to pregnant women in order to minimize any complications and avoid a potentially traumatising experience. The company is also a leader in research and development that aims to make computers more useful in improving the security of patients. The development of companies in the field of computerized health care systems requires important high risk financial investments that only capital risk investors can offer. Henceforth, starting here, MLS begins its adventure with its financial partners with successive crises and major impacts on its evolution and orientation. In fact, the challenges that the company must face include the selection of partners, managing its best interests, often contradictory such as scientific constraints versus financial constraints, and achieving a common objective with the development of the product. The results obtained were discussed in light of the analyses of two theoretical grids: the characteristics of an

organization in the learning phase (Lyle, 2012) and the characteristics in the post-crisis phase (Khodarahmi, 2009).

Before presenting the results and the discussion, we will begin by explaining the concept of a crisis according to a procedural approach. In this framework, we will emphasize the role of the crisis nexus in the post crisis process. Afterwards, we will explain, briefly, the principal elements pertaining to the learning curve in general, and, in particular, on its characteristics during the post-crisis phase.

Within a company, a crisis may be viewed with apprehension because of a lasting deterioration in overall results, a worsening risk assessment, and incoherence between different stakeholders (Lagadec, 1997). When incoherence ultimately affects the working relationship within the governance system, the crisis has become irreversible. The relationship between the company and its governance structure is studied from the angle of risk versus results (Roux-Dufort, 2003). It must be emphasized that the financial resources required by a company as seen by the governance structure is always accompanied by a risk. Hence, the investor expects a return on investment ROA in line with the risk he is undertaking. Accepting this point, it turns out that investors insist on increasing rates of return following an increase in risk while the managing directors are only interested in investments that are considered a risk if the aim is to increase profits. The company crisis is provoked by the freeing of the limits of the risk/result equilibrium. In such a situation, the managing directors and the governance structure enter a period of significant stress that can lead to naming a new management team or a new governance structure.

2. From Crisis to Organizational Resilience in a Very Small Research-based Venture Company

2.1 The Organizational Crisis

Each organizational crisis is unique with its own characteristics, context, and instigating factors (Khodarahmi, 2009). Certain authors analyse the crisis as a destabilizing phenomenon whose consequences are negative for companies (Riddell, 2012). Other authors, however, consider a crisis as the ultimate result of a series of dysfunctional phases. According to Libaert (2009), this phase represents an opportunity with a strong potential to evolve and to change the organization. The diversity of these ideas shows that mastering a crisis situation depends, above all, on the perceptions that decision makers may have of the crisis (Roux-Dufort, 2000). Faced with the diversity of crises situations, two approaches are generally proposed to analyse this phenomenon: the event and the process. In the first approach, the crisis is considered to be a result of many instigating factors. The ultimate objective is to analyse the exterior symptoms and to reduce their consequences (Roux-Dufort, 2005). The procedural approach, on the contrary, takes into account the origins of the crisis, its incubation, and its "developmental dynamics". In such a framework, the critical situation is no longer viewed as an unforeseen event whose signals were not identifiable. It is mostly analysed over a slower time interval in order to observe it as a situation comprised of significant events, actors, and casualties (Ouedraogo, 2007; Forgues, 1996).

Despite the approach to the crisis as an event, this concept remains very simplistic. As such, we perceive this phenomenon as a dynamic process characterized by three principal phases: the starting point or trigger, the doubts and questions, and the balance/change factor. By adopting this position, we therefore consider that crisis management is a dynamic approach throughout the entire complex process (Roux-Dufort, 2000; Fimbel, 2003). Without limiting ourselves to identifying the starting points, it would be useful to initiate methods to control each critical situation before, during, and after its development. For the first two phases, crisis management is primarily seen as a preventive mechanism. As for the post-crisis phase, developing organizational abilities to react appropriately to new crises by relying on its own in-house past experiences along with those of other organizations is essential (Baum & Dahlin, 2007). This approach paves the way for organizational resiliency. In fact, sound crisis management translates into the resiliency of those companies involved.

2.2 What Is Organizational Resilience?

According to different disciplines, resilience consists essentially of the ability of a person or of a system to recover from a major incident and to remain relatively stable despite a turbulent environment (Weiss, 2008; Pulley, 2004). Regarding organizational resiliency, researchers have difficulty agreeing on a common definition for the concept (Parsons, 2010) However, certain authors have emphasized the ability of a company to absorb, respond, and to capitalize on the perturbations resulting from changes in the environment (Pulley, 2004). In this perspective, we share the approach by) who identified three important dimensions of organizational resiliency: the capacity to absorb or resist, the capacity to renew itself, and the capacity to adapt and learn (Weiss, 2008; Coutu, 2002).

The capacity to absorb: This absorption or resistance capacity supposes that the company can ride the turbulence while avoiding a crash, which itself requires not only the existence of sufficient resources but also a strong desire to succeed by management. To resist the turbulence and to survive the ensuing consequences, the company must be able to mobilize different types of resources, all of which must be immediately available in a form of organizational slack or potentially available from outside sources. The existence of organizational slack allows a company to protect itself from environmental turbulence, and also favours innovation by having a capacity to redeploy resources wherever and whenever needed (Parsons, 2010). In the case of a very small company, this can mean relying on a support network. In this sense, resilience offers continuity: the sound reputation of a company allows it to obtain exceptional financial support and loyal partners who can provide assistance when needed. However, it is not only a question of being able to succeed; rather, it is a question of wanting the organization to succeed. In fact, the ardent desire by directors to succeed is essential since they are the ones who must mobilize the resources to finance the continuity and the renewal of the company.

The capacity to renew: Besides the capacity to resist, the company must be able to take action and imagine creative solutions when faced with unusual situations (Weiss, 2008). We refer to this as "renewal capacity", by which the company seeks to develop new activities or to rethink existing ones by experimenting with new ways of doing things. This renewal capacity allows us to emphasize a few key factors; namely: 1) being proactive in researching opportunities; 2) aspiring to rise above existing capacities; and 3) mobilizing their management team. These key factors require an optimal use of available resources and limiting risk taking, considering the precarious situation of the company. This now leads us to the capacity to adapt and learn.

The capacity to adapt and learn: In order to be completely resilient, an organization must be able to draw important conclusions from the turbulent events it had to face in order for it to learn and adapt. Pulley (2004) state that "learning from setbacks or failures signals an understanding of their contribution to the learning process rather than ignoring or refuting them". The awareness of the crisis and its impacts are essential to put into perspective the practices and routines: It is therefore possible to realize a "post-crisis learning" that will allow the company to better prepare for the future (Altintas & Royer, 2009; Pulley, 2004). Meanwhile, this third dimension of resilient capacity remains difficult to observe and to implement for a number of reasons. First, the learning curve requires a necessary period of reflection and taking a certain distance that directors often do not have the luxury of granting themselves when they are in the middle of a turbulent destabilizing crisis, or facing an emergency to decide and take appropriate action (Weick, 1993). Secondly, the experiences they lived through are themselves transformed and reinterpreted before being reintegrated and repeated in follow-up discussions about the participants and what they lived through. This is how the organizational memory will be passed on and repeated with the passage of time and in which other learned lessons, never observed, will be included for the record. We must therefore search in the historical "database", repeated and retold over time, to find the basic facts of past events written in the principles of management and culture that are the basis for operations in the company. The capacity to learn from past experiences, as painful as it may be for the organization, increases the capacity for resilience for the company. In the next section on methodology, we will apply ourselves to study the case of a very small research-based company and we will describe three organizational crises that the directors were confronted with in order to highlight the actions taken to succeed and rebound.

3. Methodology

This research is based on a case study of a small technology research-based venture company; namely, MLS Ltd. This methodological choice allowed us to analyse the processes at play within the organization while preserving the holistic and significant characteristics of the events (Yin, 2003). In so doing, we obtained a much deeper understanding of the characteristics of the crisis and subsequent analysis. This company was chosen, among other reasons, because it had to confront and experience multiple upheavals during the important events of the crisis. This study was conducted by using a qualitative approach based on the analysis of organizational crisis situations. This method allowed the authors to have a research framework based on the empirical data collected, detailed situations, and the problematic linked directly to the organization being studied (Chakravarty & Moyes, 2003). The exploratory research and analysis of the literature on the subject matter together aided researchers immerse themselves with the study at hand, which was done by using numerous types of theoretical reasoning (Hlady, 2002; Denzin & Lincoln, 2000).

3.1 Data Collection

To realize this study, data collection was divided into two principal stages:

a) Analysis of documentation: numerous media articles or published works.

b) Conducting a case study beginning with semi-structured interviews with senior company staff, members of the board of directors, and company employees. They were chosen as a function of their perspectives regarding the company's crisis management and organizational adaptation and learning. These interviews, based on theoretical references and documentary analysis, were realized in person in the company's offices. In order to guaranty anonymity and freedom of expression in our interviews, considering the sensitivity of the subject matter, we attributed letters to those interviewed as follows: chairman of the board (Expert A), vice-president of R&D (Expert B), former chairman of the board (Expert C) and the general manager of the company (Expert D).

3.2 Analysis of Data

By basing ourselves on documented research, interviews, and observations conducted during the investigative phase of this research, we were able to triangulate the data collected (Yin, 2003). This approach allowed us to improve the precision of both the measurement and the descriptive parameters, while concentrating on our main subject according to two complementary angles (Chakravarty & Moyes, 2003). As part of the exploratory framework, we based our work on the transcripts and the analysis of the interviews accorded, the organization and analysis of the data collected according to chronological order, as well as the identification, description, and analysis of the particularities of the crisis. To facilitate the comprehension, and in order to better illustrate certain points, we used substantial "verbatim" interview results.

3.3 The Case Study of MLS Ltd

MLS Ltd. is a small technology research-based venture company that was founded twenty years ago. Its history is intimately tied to a research project by Montreal's University that began during the 1991-1992 academic year. After numerous interrogations by students after undergoing a caesarean section during course delivery, and with many of answers found to be unsatisfactory by students, the professor of Obstetrics and Gynaecology decided to undertake a research project to understand the difficulties related to deliveries by caesarean and why specialists could not seem to anticipate this phenomenon. As she progressed, her queries turned into quite a surprise since the most renowned specialists in the world that she encountered at medical conferences were asking themselves the same questions. This reality reinforces her desire to do something and to bring parts or pieces of answers in order to ease the preoccupations and suffering of so many women. Her status as a woman and mother convinces her that the answers that she can find will be her contribution to research on caesarean deliveries. It is from this genuine willingness to help that she emerged as a pioneer dedicating her time to such a project that would become MLS Ltd. Since then, the company has seen rapid growth in R&D as well as weathering many existential crises.

4. Results

The particularities of managing a company like MLS are directly tied to the strategic objectives and orientations set by members of the board of directors. From the onset, the board was composed of two categories of members. One was comprised by the representatives of investors and the other by representatives of researchers. From this point onwards, the ingredients for an organizational crisis were already primed and ready.

4.1 Crisis 1: Liquidity Crisis and the Emergence of Institutional Investors

When the company initially began its start-up, the need for liquid assets for research purposes was so great that company directors decided on involving institutional investors, whose objective is a short-term return on their investment, a philosophy directly opposite to that of researchers who view prospects in the long term since scientific research is a process marked by progress and setbacks. Their positions become quickly entrenched since the representatives for the investors insist on results in the shortest possible time. Expert C remarks on the atmosphere at board meetings: There is still a difference between a member of the board, a shareholder, or an investor. The role of an administrator is to manage the funds and assets of shareholders and also to oversee the sound management of the company according to his vision and strategic planning. This is the first and theoretical objective of everyone in business. In actual fact, obviously, there are interventions and each member acts in accordance with previous experience and professional training. Hence investors react like investors and researchers react like researchers. She also remarks: In 1998, members of the board of directors were essentially representatives of investors and corporate institutional equity firms with a purely financial education and background. Among them, some were young businessmen who did not necessarily have large exposure or extensive experience with corporate management. Financial investments were met and the yearly cash flow was determined as a function of approved budgets. It seemed to me that there could have been more a little more flexibility on the decision making regarding the positioning of the company in the long term. However, because of inexperience, board members were more nervous. A small overspending per se on the budget was seen as an indicator of bad management and their reflex as financial delegates was to be on edge. Members of the board

should have had more confidence in the people around them, less prone to examine every detail, and working towards advancing the company. I think that all persons acted in good faith but investor representatives discouraged them and research work became more complicated.

A substantial injection of liquid assets by investors constitutes a strong motivation for continuing research. However, in a field in which MLS belongs to, expected results are not guaranteed. They are the end result of long and patient research work where uncertainty is a principal fact of life. The logic of medium and long term planning appears to be in contradiction with that of investors. The clinical work, tests, and experimentation are all research phases that are part of a continual process of scientific "trial and error" and, when required, starting over. As Expert C observes:

The head of the research team is constantly on watch; she wants to know if something is not working. She is the pure scientific type. She wanted to constantly reassure herself that all was well. As a clinical practitioner, she did not want to take the risk of having a product that looked very good, but when needed, did not work as intended. She refused to take such a risk for reasons of integrity.

Again, she adds: Expert B is very kind but she is also a clinical perfectionist. She gives the facts, and she knows how to say things, even the most difficult things. She has a way of expressing herself that enables us to accept and then digest things without taking it personally because she is a messenger capable of properly delivering her message. She is not afraid to speak up and call it as she sees it. This is the type of doctor that I would like to have. She is also a person who understands that there are different ways of working. She is capable of having a vision, values, and a game plan. She can reconcile divergent points of view. It is extremely comforting and reassuring but also very disarming for someone who is not used to it. For me, it was extraordinary. Nevertheless, the stalemate with investors turned into a crisis that necessitated changes to the membership and hence the alignment of the board of directors, one less favourable to the aforementioned leadership style.

4.2 Crisis 2: Management Crisis and the Emergence of Professional Management

With the membership of the board having changed, the company now needed a new management leader with extensive professional experience. The person chosen was Expert D who had an excellent reputation in the business community. For example, during his lengthy career at Andersen Worldwide, he had successfully participated in the recovery and turning around of numerous companies and his management expertise was well known by his peers. In November 1998, he returned from retirement to accept this offer because MLS piqued his curiosity. As soon as he arrived, he found the company in full crisis mode for lack of growth and a very unstable environment. Without any hesitation, he removed Expert B from all administrative responsibilities to allow her to concentrate exclusively on research. He notes as well that the market for the company's products was in full expansion. Competitors were still numerous even if some had been bought out. In fact, all the players that remained found themselves in a very different marketplace. A major strategic reflection is required due to the existence of a new technological environment that is revolutionizing communication and the exchange of information.

From a research standpoint, the clinical trials continue but no research member in the team is ready to publish their first conclusions, a common insecurity among researchers and members of the board. Expert D who brings his highly trained management experience "does not have the reflex of a financier is exactly what I was looking for", remarks Expert C. Hereafter, the board undergoes profound change and the company orients itself towards new product developments.

The reorientation of company objectives allows management to concentrate financial resources on their research in order to demonstrate the viability of their products. Expert D confirms that "the vice-president of R&D has hired a team of developers to program the formula/algorithm into the software and also has a marketing team to commercialize the product". Nevertheless, research is laborious and time consuming work. In 1998, when research was still far from being completed and tested, the company's treasury no longer had sufficient funds. Expert D summarizes the situation: In order to begin the clinical trials, we had thought that we would require a large administrative team to oversee the formula. It's as if Expert B had invented ABS brakes but we had to build the auto without having the means. A crisis is inevitable and simply put it is a race against the clock to find the financial backing or risk seeing the company go under. The general manager resumes his quest to find the few million dollars that he needs. He must hire a marketing team to commercialize the software and he must also have top notch programmers who are capable of incorporating all the data into this software.

It turns out that the new procedure experienced by obstetricians in delivery rooms is a joyous one thus showing investors that there is indeed a market that the company is quite capable of satisfying with its product. Hence, while continuing to develop the product, numerous establishments in the United-States and Canada accept to

participate in large scale clinical trials. According to Expert D, the results were "exceptional; the computer detected more precisely cardiac accelerations. We could save lives and help children born by caesarean section live normal lives."

4.3 Crisis 3: Development Crisis and Emergence of Visionary Leaders

Although the recovery of the company progressed to the satisfaction of the board, its international positioning required even more millions in investment. Expert D remarks: If my understanding is correct, the clinical trials are over and the results are satisfactory. It is perhaps a good time to provide investors with a return on their investment. We must aggressively engage the marketplace, and occupy it in the fastest and most positive way possible by finding the multiplying effect. Considering the extent to which management is working with hospitals that have a direct influence in their field, particularly in this specialty, I believe that we are on the right track. Once the few remaining problems that exist in our internal functioning are settled, all will be well.

Even if the company's recovery is now complete, preoccupations remain with the pace of development, considered essential, and investors are increasingly impatient. In order to develop international markets, management again requires a cash infusion so it once again seeks new investors which once again results in changes in the makeup of the board of directors. As underscored by Expert A, "our agreement to a cash infusion to the order of 2 million dollars came with conditions to respect a certain number of changes". He elaborates: "When investors came, we all sat at the same table and we examined the financial situation. It was catastrophic; we only had two months of liquidity left in our treasury.

As a member of the board and a member on all the committees of Bio-Capital, one of the initial investors, I knew that the company had good potential. I knew that on a structural level, it was in difficulty but that the general manager had corrected this in his strategic plan. I also knew that investors could not agree with one another. Therefore, I made a proposal that they could not accept but also could not refuse. By offering to invest 2 million dollars, I also insisted on becoming chairman of the board and to continue following the strategic orientations as planned to avoid sinking like the Titanic.

Expert A explains the changes he brings to the board of directors:

The 2 million dollars that I was investing were accompanied by one condition; namely, the representatives of Bio-Capital would leave and we would keep only two representatives from capital-risk investors. I was one of the two representatives.

These last changes at the board level brought a common vision and an identical path to follow. In this perspective, the board was more balanced since it was comprised by people from the business community, clinical practitioners, and researchers. As commented by Expert A, the general manager played a key role in choosing the administrators: With him in charge, all went well because he had the right names (people) as well as the expertise gained in the field during the last three years. We brought in other people but he was the one who turned around the company. Accordingly, we invested 2 million dollars, then another 6 million so as to enable us to borrow an additional 10 million later.

A new dynamic was installed in the members of the board. Meetings were conducted in a genuine atmosphere of willingness to work and share. Yet, even so, for the well being of the company, some changes occurred at the management level. The general manager had to let another who had the necessary experience and vision have his place to develop the next phase of the company.

5. Discussion

The results of our research highlight the primordial role of governance as an essential instrument of organizational resilience. They also show the importance of highly dedicated and passionate people advocating R&D. As for the successive crises that MLS had to confront, their resilience came not only from changes to the governance structure, but also from the perseverance and the passionate dedication of the person responsible for research. We will therefore discuss the parameters of organizational resilience according to the three dimensions suggested by Weiss, 2008 and Coutu (2002): the capacities to absorb, to renew, and to learn.

5.1 The Governance Structure as an Essential Element of Organizational Resilience

5.1.1 The Resilience through Financial Governance

After a number of unsuccessful attempts to develop his idea, the vice-president of Research and Development (Expert B) brings in a young woman from the United-States to help him finalize the mathematical formula that is the basis of the computerized informational surveillance system to oversee deliveries. The project begins to produce results and she then decides to establish her own company, MLS Ltd., and quits her university work to

concentrate all her energies on her venture. Her strong-willed style finally pays off and she senses a certain pride in being able to bring to term the project without ever abandoning hope. From the onset, obstacles seemed to be a hallmark and the company found itself short of financial capital to finance its development. When the crisis hit, they were obliged to seek financing from external sources. Banks and other financial institutions hesitated to take such a risk. The resilience came from capital risk venture firms who accepted to replenish the treasury but at a high cost: control of the board of directors (O'Connor & Rafferty, 2012). After fighting for years to form and manage her own company, the entrepreneur is now obliged to cede the governance of her company, or watch it collapse. After the new board of directors took over, relations between the institutional administrators and the vie-president of R&D began to deteriorate because of divergent viewpoints. There was a clear difference between a pure actuarial vision and a joint board-management partnership: the administrators desire a rapid return on their investment while the vice-president was far from obtaining solid scientific results. The scientific rigor bestowed is indispensible for at least two reasons. On one hand, the researchers of MLS work in the field of science, which in itself imposes a certain number of ethical rules and constraints; on the other hand, they work with people for which the least amount of haste may result in a fatal error. In such circumstances, the experience of the members of the board is vital to instill confidence and guide the actions of the company. Expert D explains: Support for this company by members of the board was always very strong because people were truly very motivated. There were perhaps moments when the board should have given more flexibility to management and the research team to do certain projects that finally were more important than financial management. The essential belt tightening was done. I feel that certain interventions were justified. It was this highly rationalistic vision held by a few that did not help the board.

5.1.2 Resilience by Management Governance

The company was in its starting phase and it needed stronger expertise in its field, especially since the conflict between the two opposing governing ideologies continued and thus precipitated a crisis of confidence by members of the board. In a final effort to save their assets, including their research work, representatives of the investors invited a renowned management expert. Thereafter, new negotiating partners took their place as members of the board. These new arrivals have numerous years of experience in the start-up of new companies and considerable knowledge of the health care and biotechnology sectors as well as financial expertise that integrate well with the board. For the first time, members of the board were able to discuss human resources, products, markets, and finance. Internal confidence is restored and so is the company's reputation. Internally, the team of researchers must be supported since the least discouragement can compromise the future of the company. Consequently, the general manager, contrary to previous members of the board, tries hard to understand the constraints and the concerns of the management team. After a few months, he succeeds in understanding the preoccupations of the research team and especially takes notice of the importance of anticipating the results. The company has evolved and is no longer the entity it was a short time earlier. Each post is filled by the most competent person available, all employees work with more effectiveness, and excellence is emphasized in many different ways. Hence, the salary of the vice-president of Research and Development, one of the founding members of the company, is increased and her participation in share-capital is increased to 10%. However, there is no longer any place for mediocrity as the vice-president for marketing is replaced by someone who fully understands the market since he worked for a competitor. Management style becomes less rigid and more user-friendly. Doors are now wide open and working hours are more flexible to accommodate employees.

By surrounding the team with highly qualified personnel, research work is thus accelerated. In this way, it serves as an interface between the research team and the members of the board, as suggested by theoreticians of governance by partnership (O'Connor & Rafferty, 2012). An atmosphere of confidence between members of the board and management, and between management and its employees ensures that the objectives for product development are achieved. The product which has already been used in many establishments and has been well received must be commercialized as soon as possible in order to repay the large sums invested.

5.1.3 Resilience by Strategic Governance

With the clinical trial results being conclusive, management must penetrate the international market as quickly as possible and position itself as a market leader. This new mandate requires some changes at the managerial level since the existing general manager, who was hired to urgently restructure, manage, and bring R&D to its full potential, had accomplished his mission. The company now needed a highly competent marketing executive to develop this new market. Expert A explains his position: Everything was in place. The board was ready. We were ready. When the general manager said that he wanted to leave, I agreed because the person who was to replace him was immediately available. He thought he would surprise me, but he was the one who was surprised.

We treated him respectfully and offered him a very generous severance bonus. Expert D was named general manager of MLS. She knew the company inside out since she chaired the board for a number of years. Having previously worked for IBM in marketing, she knew how to develop markets. In order to commercialize the company's products on the international stage and compete with the strong competition existing between different companies, she counted on the advanced technological merits of the product while doubling the sales force over the next three years.

The new chairman of the board (Expert A), who was quite aware of the future challenges, established priorities: From a marketing viewpoint, the penetration in the American marketplace is finished since we have already succeeded in the three main hospitals networks. In fact, the three have already accepted our products. Also, at this particular moment, the Quebec market is fully opened to our products. We have a Quebec distributor who is interested in selling the product across Canada. Wherever we present our product, we are asked for the cost and its structure. There is genuine interest. As the company becomes more and more attractive, a number of competitors are interested in acquiring it. The new chairman of the board (Expert A) is opposed to such a possibility. He explains: These people desire to invest so that we may create jobs but they do not have the necessary vision. We have invested 14 million dollars and we would like to sell it for 140 million, a ten-fold increase in three years. We would like to sell it to GE Medical in three years time and they will be happy to buy because of increasing profits and market share.

Although the company has advantages over the competition, it is not immune to changes that take place in its environment. Yet, even so, it has always been able to overcome difficulties by making changes to the board whenever the need arose, but also by recruiting highly qualified people to fill the key posts. It could also count on the passion of its vice-president of research and development.

5.2 The Passion of a Researcher as an Important Element of Organizational Resilience

Organizational resilience in very small research-based venture companies is based on governance, but it also relies on the passion that motivates the research team (Khatri et al., 2012). In the case of MLS Ltd., the face of that research is the founder and vice-president of research and development. Her name was synonymous with the company, as she was known in medical circles throughout the world when she was a gynecologist-obstetrician at the Montreal Jewish Hospital. For the general manager, the company owes its existence to the passion, enthusiasm, and perseverance of this scientific woman's heartfelt convictions; the company is her "baby" that she nursed throughout its development. Overall, MLS is intimately related to the image of its founder; besides, the employees themselves recognize that the company reflected her passion. Behind a respectful smile, lied a brilliant woman, passionate about her work, persevering, and always forging ahead despite setbacks. With an extremely honed scientific rigor, she never envisaged entering business. When faced by many questions by her students regarding birth deliveries by caesarean section and with answers not always satisfactory, she decided to undertake a research project to understand the difficulties related to this type of birth and why specialists could not succeed in anticipating this phenomenon. As she progressed, her questions tuned into surprises since the most highly respected specialists she met in scientific conferences were asking themselves the same questions. This reality reinforced her desire to do something to answer these questions in order to reassure the preoccupations and suffering of so many women. Her status as a woman and a mother convinced her that whatever answers she could find would be her contribution in the research on deliveries by caesarean. It is from this genuine desire to serve and to become a pioneer in a new field that this woman decided to dedicate her time and efforts to the project that would become MLS. As we have seen, in all the situations that required company resilience, passion, and perseverance at MLS, her contribution was overwhelming. From the initial days of the company, it took the persuasive skills of the founder to convince the institutional partners to finance the research activities. Later, during the management crisis, the founder briefly found herself as chairman of the board along with her regular duties as director of research. Again it was her who convinced the new administrators to wait until the clinical results were irrefutable. In short, since the company was created, its founder was passionate in defending all obstacles in the image and spirit of transformational leaders (Khatri, et al., 2012). Beyond the governance structure, the passion for research played an indispensible role in the organizational resilience of a very small research-based venture company.

6. Conclusion

This research has shown that a very small research-based venture company can live through a permanent crisis situation throughout its development stage. In fact, because of its nature, this company required substantial liquidity at the very beginning to face the challenges of research and development. Considering that it is impossible to find the necessary traditional financing from banks, company management was forced to turn to

capital-risk investors. It is from this point onward that the crisis will take hold and remain throughout the development stage. As our work shows, the successive crises threatened each time the very survival of the company. However, the company demonstrated an exceptional ability of resilience by means of successive changes to its governance structure. Moreover, when the liquidity crisis seemed bleak, resilience came from the investors of capital-risk firms. Unfortunately, with a lack of experience and a clear vision for long-term development of the company, these investors began to lose sight on the realities of managing a company in this field of activity. They began to favour short-term profitability to the detriment of developing the company for the long-term. Such an insistence led to a management crisis and a call to renew the governance structure as part of resiliency. The company then found stability and successfully finished its clinical trials and then finalized and prepared its most highly valued products. Afterwards, they then had to contend with market development and commercialization. This led to another crisis, that of growth, because of the company's inability to effectively market the product. Hence, another reorganization of the governance structure was required to apply the necessary changes in order to realize the potential growth of the company. The restructuring once again demonstrated resiliency.

All in all, our research has shown from a theoretical viewpoint that the successive crises that face very small research-based venture companies can be overcome by finding resilience in the form of adaptive learning and permanent governance restructuring. Even more important, the passion and the perseverance of the person responsible for research contribute in reinforcing this resilience. On the practical side, this research shows that those persons responsible for company growth must rely on the person responsible for research in order to increase their chances of survival. As for the limits on methodology, this research is based on a single case study. Even though an in-depth study of a unique case allows us to understand more fully the events, it still embodies one important limitation; namely, generalization. Nevertheless, as for future research, it would be useful to increase the size of our research sample by including numerous case studies of identical types of companies; namely, very small research-based venture companies. Such a project would open the opportunity for future research based on quantitative data.

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