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The paradox of resilience and
change: imprinting processes
in Permasteelisa S.p.a.

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“Life is like riding a bicycle. To keep your balance, you must keep moving.”

— Albert Einstein, *Letter to his son Eduard*, 1930

ABSTRACT

Recently there has been a growing interest in management and entrepreneurship research on the determinants of firm persistence and resilience. The concept of imprinting has often been related to the topic, as an explanation to why firms survive and successfully grow thanks to replication over time of founders' mindset and way of acting, even after their departure. By now researchers have centred their attention around the content of the imprinting process -such as organizational characteristics, business procedures - without entering into the details of the processes and mechanisms that characterize the transmission of the imprinted elements (Immelmann, 1975; Stinchcombe, 1965). Moreover, a somewhat static definition of imprinting posits that it is a process that happens once and for all -namely at the outset of a firm- while many evidence point towards the fact that firms, when exposed to periods of environmental turbulence, are often reimprinted: they find ways to answer uncertainties and often elaborate "recipes" that are passed on the organization. By carrying an empirical investigation on an existing multinational firm operating as a world-leader in the business of architectural envelopes and internal systems the study tries to identify its distinctive characteristics and cognitive frames, objects of imprinting processes. A conceptual and analytical framework is used to conduct a qualitative research on the processes underlying the persistence of founders' way of interpreting the business. The study then focuses on the new cognitive frames imprinted by the new management teams during two consequent sensitive periods and on the instruments and processes entailed in their replication and persistence.

INTRODUCTION

The purpose of this dissertation is to deal with the concepts and theories of imprinting by analyzing the processes that contribute to the creation and persistence of imprinting in specific organization. The first chapter is entirely dedicated to the existing studies on the imprinting theme; it starts from a general definition of imprinting (Marquis, Tilcsik, 2013) and it reviews the main studies carried in the field of imprinting and entrepreneurship. It focuses in particular on the importance of the role played by social actors with their continuous interactions and strategic actions (Johnson, 2007). The second chapter introduces to the case study reviewing the story of Permasteelisa group and explaining in details the main episodes that characterized its evolution (Moretti, Garzia, 2004). The third chapter continues with the analysis the case study from an imprinting point of view. A new process-oriented dynamic model (Finotto, Moretti, 2014) is the conceptual framework with which the different results of a qualitative research are combined with corporate materials, by focusing in particular on the dynamics that characterize the three main sensitive periods that impacted on the group. In particular the research tackles questions related to the mechanisms that characterize the persistence of structures and practices that distinguish the core of the organization by focusing on contributions of the founder and 3 senior managers of the group. The dissertation concludes with a personal consideration regarding the evolution of the group combining the contents of the different semi-structured interviews with the imprinting theory.

CHAPTER 1: DEFINING IMPRINTING

1.1 From ethological sciences to deployment in management and organizational studies

The origin of the concept of imprinting comes from studies in animal behavior. The first definition dates back to Konrad Lorenz (1930s) who theorized the phenomenon following the 1873 studies of the British biologist Douglas Spalding. At the basis of the study was the tendency of domestic birds to follow the first-seen object, affecting their subsequent exposition to other moving objects separated from the first. In other words, birds learn from the external environments in their early days after birth and internalize and retain those elements permanently for their entire life.

This tendency has two general characteristics: imprinting occurs during the lifetime of an organism who exhibits high vulnerability to environmental influences and it represents a persistent influence on behavior, despite the shortness of the “sensitive period” during which the animal is influenced (Immelmann, 1975).

The topic of imprinting had proved to be of interest among bioecologists, who subsequently documented this tendency in different animal behaviors, such as sexual and food preferences, aggression, and the selection of a home area (Flanagan, 1999; Hess, 1959; Immelmann, 1975).

The first researcher who then introduced the topic into organizational field is Stinchcombe (1965). On his study “Social Structure and Organizations” he described how firms internalize characteristics coming from elements of the surrounding environments at time of funding and then keep those learning even after many years. Although Stinchcombe never used the term “imprinting” in his essay, the term soon became associated to his work. After that, the phenomenon has been the focus of many empirical studies at different level of analysis. Industries, organizational building blocks and individuals have been examined from the imprinting point of view, by looking at the impact that different sources of imprinting can have on them. In particular, the impact of technological and

economic conditions, institutional factors and individuals. Their effects on these entities are the objects of a series of studies that contributed to take the concept of imprinting to an important level of analysis. Marquis and Tilcsik's paper (2013) offers a basic framework to order this large body of work.

1.2 A general definition of organizational imprinting

The extant literature offers different definitions of imprinting, defined with specific reference to a particular phenomenon or study. There is a general consensus on the definition of imprinting as the phenomenon whereby a focal entity develops some characteristics after an exposition during a short period of high sensibility. The particular traits developed during this period continue to persist inside the entity over time.

With the bioecological studies and Stinchcombe's essay always in mind, we try to underlie some basic features of imprinting which takes into consideration the fact that organizations are a complex set of different individuals:

- the environment in which the firm operates is important and powerful in shaping its structure, but more is the interpretation and view that social actors have about it, having an active role in choosing the proper strategy to deal with its complexity;
- the persistence of the characteristics developed during the sensitive periods require a dynamic process of continuous reinforcements and confirmations;
- an organization is formed by a set of individuals which, through social interactions, are able to shape its evolution and make some elements persist or fade.

Considering the fact that an entity can experience multiple sensitive periods over its lifetime, different external environments can exert a power of influence on organizations. During these short sensitive periods "individuals are particularly susceptible to influence...because of the great uncertainty regarding role

requirements” (Ashforth and Saks, 1996). During such periods, individuals are more motivated to reduce uncertainty and tend to experience cognitive “unfreezing”. Entrepreneurs and managers play a particular role by selecting the specific features of their historical context that then become a lasting part of the organization (Baron, Hannah & Burton, 1999; Johnson, 2007).

In these sensitive periods individuals become especially open to environments (Schein, 1971) and are as a result more likely to adopt new behaviors, cognitive models and norms during these times. As Johnson noted, “imprinting processes emerge from intersections of multiple conditions” (2007): organizations are in an economic and technological environment characterized by norms, regulations and cultural forces. At the same time, influences of founders, managers and peers act in shaping organizational settings.

During each transition from one sensitive period to the other the basic elements of a cognitive model need a continuous process of reinforcement and confirmation to survive and persist over time. Different social actors play an active and continuous role in shaping the boundaries of the organization. Beyond the founder, other agents’ actions may lead some imprints to decay over time, to the benefit of those that persist, or to new ones. This possibility of multiple sensitive periods opens up venues of research in the field of imprinting: so far the imprints that are formed during these subsequent periods of transition have received little attention. This dissertation focuses on the mechanisms and processes that enable imprinted elements to survive at different times, by adopting a dynamic perspective.

For this purpose the issue of social interaction and strategic action needs to be taken into account seriously: entrepreneurs and managers, by taking actions and steps in order to influence their organizations, mobilize resources, frame contests and create political negotiations, as a way to contribute to the reproduction and persistence of their imprinted elements (or the ones imprinted at founding).

As Johnson herself warrants (2007): we still lack of “the role of social actors in the operation of these mechanisms” (that account for the persistence of structure and practices that distinguish an organization).

Despite the dynamic characteristic of the imprinting process, we have to consider that history matters: we might view organizations as layers of imprints (Marquis,

2013), reflecting the fact that it is a social phenomenon and that observation is needed to disentangle the multifarious, history-laden influence of management teams, entrepreneurs and employees on a firm. There is in fact a potential interplay between different layers of imprints that stay upon one another, with the old ones that could survive despite subsequent new sensitive periods. This discussion opens up many possibilities for research other than the ones around the founding periods.

1.3 Imprinting is a phenomenon: observation is needed

So far, the majority of studies on imprinting have focused on successful firms, which survived and grew being able to replicate the founders' way of thinking and acting, even after their departure. This view implies the "absolute" nature of the phenomenon, which exists as long as some organizational characteristics can be observed. Nevertheless, both the nature of observed elements and the length of the period of observation are left in the hands of the researchers' interpretation. Citing Gieryn (2009), "nothing of interest to organizational scholars exists without a history". We can say that is not just a matter of history importance, but more of how it is important. The imprinting is a lens that helps us to understand how past influences the present. With the aim of reducing the variety of "observed" imprinted elements we center our definition of imprinting around the so-called "schemata of interpretation", a concept taken from research in entrepreneurship (Barreto, 2011; Kor, Mahoney, and Michael, 2007; Zander, 2007; Witt, 2007).

At the same time during this dissertation I try to contextualize the dynamics at the basis of the persistence of founders' frame inside a conceptual framework that emphasizes the importance of social aspects and of mobilizing practices. The fact that several sensitive periods can exist implies that there is room for managerial actions beyond the founding period; such agency will take place only during specific times in the history of the firm and within specific context.

1.4 Overview of studies so far in the field of imprinting and entrepreneurship

The imprinting phenomenon has been the object of different studies that followed the path opened by the work of Stinchcombe. These studies have been carried out without truly exploring the imprinting hypothesis: most of these focused on the agents' social interaction, especially centering on the role of the founder in shaping the future structure of its firm. Marquis and Tilcsik Multilevel work on imprinting (2013) offers a basic framework that provides an order on the stream of literature that exists around the imprinting concept. They analyzed the effect that three different sources of imprinting (economic and technological conditions, institutional factors, particular individuals) have on industries (organizational collectives), organizations, organizational building blocks and individuals. For simplicity, I report here the studies around the effects of action taken by individuals at the organizational and individual levels.

The effects of individual founders' action on organization are among the most studied. For example, in 2008 Beckman and Burton showed specifically how the ability of experienced founders to attract experienced management team results in a future complex functional structure that follows the instructions given by the founder at the foundation, showing a high similarity to founders' traits.

Ten years before, Harris and Ogbonna in 1999 studied how founders' strategic vision is able to shape the future of the firms by acting on the organizational culture. They showed that the degree of flexibility of the founders' vision is a determinant for the ability of the company to appropriately respond to environmental changes. The more flexible the vision, the higher is the chance that managers are made able to guide the company in the future in front of changing environment conditions.

More recently, in his analysis of the persistence of particular behaviors in the German optics maker Zeiss, Becker in 2012 showed how entrepreneurs shape organizations through "appropriate stimulus or context". These act on the habits of the employees, intended as acquired behaviors; become a sort of guideline for the organization and at the same time influence the development of future routines.

Johnson carried another interesting investigation in 2007. As reported earlier during the dissertation, she wrote around the topic of imprinting, by devoting her attention to the Paris Opera. She warrants that important is the role of social agents in the selection and combination of elements coming from the environment, in particular during the founding phase. The entrepreneurs and management teams have an active role during the dynamic process that is continuous and ongoing, rather than a discrete event. The imprinting is a socially embedded process (Finotto, Moretti, 2014) in which relevant stakeholders deeply influence the selection and combination of the environmental elements, by actively participating to the entire process.

Apart from the last mentioned research effort of Johnson, the other studies took only in small part from the literature on entrepreneurship. Among this literature, of interest for the study is the work on interpretive frameworks of Steyaert, 2007. Interpretive frameworks are the result of a combination of different elements derived from subjective interpretations of the environment. Entrepreneurs and managers create these frameworks for their organization as a solution to uncertainty. By imposing their subjective view, they try to guide actions of their company according to rationalistic assumptions. Differently from other studies, such as the one of Shane (2000), flows of data and accumulated experience are not the determinant of entrepreneurial actions, but rather a justification for them. It is more a process characterized by hypothesis development, through the creation of sets of alternatives.

Another study that dealt with the concept of interpretive frames and cognitive frameworks is the one of Loasby (2007). He described the organization as the entity, which is able to create a “generative interpretive system”.

This gives “orientation to the business and perception of the environment to which that orientation is meant to correspond”; the major instrument to take decision is thus given by the entrepreneur who is able to bundle together the interests and interpretive frames of the different actors inside the organization.

Then, according to Witt (1998), only if this framework is shared and accepted by the other relevant stakeholders of the company, this can emerge and be successful.

These agents are indeed the ones who guide actions of the company in accordance to the entrepreneurs' framework.

Another important stream of research on imprinting is around the social transmission that individuals exert on their peers. In 2012, McEvily et al. carried a study of the legal industry. They found out that the first years of lawyers' careers are the most instructive, as these expose them to learning provided by their mentors who pass most of the practical knowledge that new lawyers will use in their future when contributing to the growth of the firms in which they end up working. McEvily developed the concept of "imprinting ties", defined as those ties that link employees to more experienced mentors during their early career formative stage.

On this domain, an important contribution is the conceptualization of "social influence" (Azoulay et al. 2011) that is exerted after a partially deliberated matching between actors.

In other words, when individuals agree with their peers on a set of variables, they end up by being exposed to waves of social influences that characterized the other peer, thus opening up to their attributes and possibly end up adopting these new ones in their domain in the long run.

Citing Lounsbury & Ventresca (2002), organizations and individuals operate in a "richly textured n-dimensional space"; by now, however, the imprinting research lacks of explanation regarding how different environmental forces and sensitive periods act together. One of the last concepts developed could help the studies on this direction. It is the notion of second-hand imprinting (Tilcsik, 2012). Linked to the phenomenon of social transmission, it describes the process whereby an agent follows an imprinted path created by a previous agent, by taking on some of its aspects. If we talk for example about peers, it may result in a newcomer who follows norms and routines of a more experienced colleague, who herself acts by reflecting the basic behaviors provided by the organization in the past.

The newcomer's learning is thus influenced by previous workers' experiences. We can interpret agents as "carriers of intersecting imprints", being them exposed to different environments, different sensitive periods or secondhand imprinting.

1.5 Imprinting practices and mechanisms

We agreed during the previous pages on the relevance of the social dimension in the imprinting process, in which different relevant agents are involved (partly citing Johnson, 2007). According to Sarah Kaplan (2008) "actors attempt to transform their own cognitive frames into the organization's predominant collective frames through their daily interactions". By now, as already mentioned, the existing literature addressed only marginally the processes by which the key actors transfer their cognitive frames.

Important starting points are the studies of framing processes (Kaplan, 2008; Nelson and Winter, 1982; Scott and Meyer, 1994). These consider the importance of social actors and agency issue, as a particular way to study around the processes and practices, which let agents to make their own frame prevail.

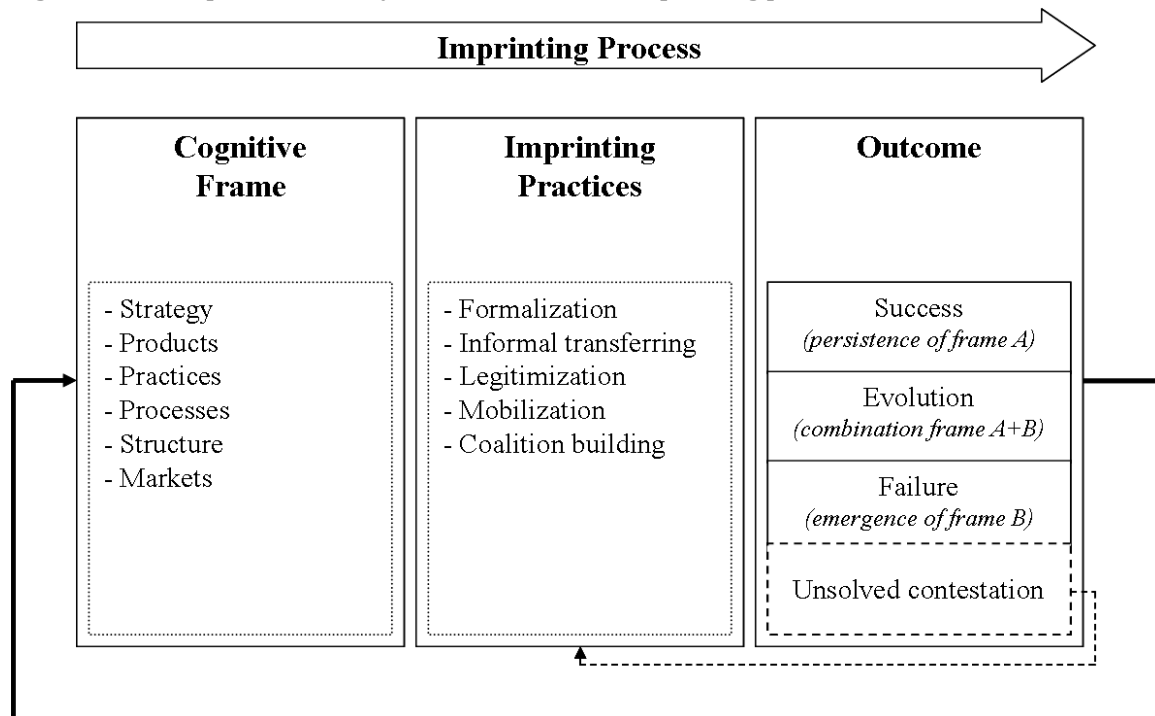
So far, current knowledge on the imprinting topic relies on theories on institutionalization and the phenomenon of structural inertia. Existing investigations have in other words examined the content of imprinting practices, linking them to different factors, such as organizational distinctive characteristics, dispositions and habits, cognitive frameworks. As warranted by Johnson in 2007, management students and organizations should instead try to answer to opened questions related to the mechanisms accounting for the persistence of structures and practices that distinguish an organization. Tackling these gaps could benefit the research field but also managers, entrepreneurs and policy makers, in their struggle for firm's persistence.

A more in-depth understanding of these dynamics requires the employment of a theoretical framework, like the process-oriented and analytical one developed by professors Finotto and Moretti in 2014. This emphasizes the importance of social interactions and mobilizing practices and "aims at understanding the dynamics that enable the preservation of founders' frame". By using this framework to analyze a real imprinting case we could try to conceptualize the process and better

explain the reason of success, or failure, of its transmission. This analytical tool enables us, by reducing the wide range of observable imprinting elements, “to align different existing approaches in the literature within an unique and inclusive framework” (Finotto, Moretti, 2014).

1.6 A dynamic view of imprinting processes and practices

Figure 1 - Conceptual and analytical framework of imprinting process



(Source: Finotto, Moretti, 2014 p.22)

The picture above summarizes the framework developed by professors Finotto and Moretti in 2014. The tool starts from the cognitive frame as object of the imprinting process. According to their study, this concept, taken from studies in entrepreneurship and social movements, is defined as the entrepreneur’s “schemata of interpretation” that describes the different dimensions which characterize her vision, such as strategy, products, practices, processes, organizational structure and markets. As discussed earlier in the dissertation, by considering the entrepreneur an active actor, her cognitive frame could be interpreted as an “assessment of the solutions” (Kaplan, 2008) she defines in order to answer to the questions coming from the external environment.

The framework then moves to the imprinting practices, described as the possible ways in which the different elements characterizing the cognitive frame could be transferred to the rest of the organization. “Imprinting practices are those actions enacted by entrepreneurs both at firm foundation and during firm evolution aimed at transferring his/her cognitive frames to the organization, and at assuring their persistence over time” (Finotto, Moretti, 2014). The framework lists five examples of imprinting practices. These constitute a basic set of practices to guide the research on the imprinting field, but the framework is adaptable for the contribution of different practices. Formalization, the first example, could be described as a codified system of rules that reflects entrepreneurs’ cognitive frame. Standard procedures, codes of conduct, mission, etc. could formalize entrepreneurs’ ways of thinking and binding subsequent members of the organization to act according to formal rules. Informal transferring goes on the opposite direction of formalization; sharing of cognitive frames is carried through repetition and informal interactions among members of the organization. The result of this mechanism is often referred to as organizational culture (Lounsbury and Glynn, 2001; Swidler, 1986). Legitimization and mobilization are then two imprinting practices characterized by their social point of view, according to which entrepreneurs try to “mobilize and recombine, according to their power, interests, and positions, resources of all kinds as they strive to create new organizations” (Johnson, 2007), and “it also becomes a matter of actively mobilizing resources and labour to perform the necessary work” (Zander, 2007). Finally the role of coalitions has to be considered with particular attention, for their potential influence on other relevant actors of the firm. Considering the fact that some actors may not completely agree with the cognitive frame and follow the founder, resistance and opposition to change has to be taken into consideration seriously.

A peculiar consequence of the structure of this framework is the extended analysis that can be carried on the imprinting process, not only considering successful or unsuccessful cases of the transmission, but also including the evolution of previous imprinting frame and the cases of unsolved situations. Differently from other research, the framework considers in fact the dynamic of evolution, meaning for

instance that the original entrepreneur's frame has been transmitted only in part, having been influenced or combined with other frames during the time, or that only some characteristics of the frame survived while others have been substituted by new ones. The other difference is represented by the consideration of the other outcome, named "unsolved contestation", defined as the situation in which the new imprinting elements are rejected either because an existing imprinting framework is already in place, or because none frame is able to prevail on the other.

CHAPTER 2: THE STORY OF PERMASTEELISA GROUP

Introduction

While the first chapter of this dissertation focuses on the main studies carried around the imprinting theme, this part starts with the a description of the story of Permasteelisa group, object of the case study that analyzes the evolution of the group from an imprinting point of view. Chapter 3 then contextualizes the mechanisms that characterize the creation and transmission of the imprinting elements inside the conceptual framework introduced in chapter 1 by focusing in particular on the dynamics that characterize the sensitive periods that impacted on the firm. The choice comes from a work experience of 3 months I had at the company from April to June 2014. The evidences of this qualitative research were collected by means of semi-structured interviews directed to relevant stakeholders of the group.

The foundation of Permasteelisa group dates back to 1988. The chapter explores the main sequences of events of an entity that started as a small artisan laboratory until becoming a leading global company nowadays. A general description of the sector of curtain walling solutions introduces to the different phases that characterize the story of the group. The different sequences are grouped into five decades that passed since the foundation of I.S.A.¹ in 1974 (the original firm that evolved in Permasteelisa in 1988).

2.1 The industrial sector

The first adoptions of curtain walling technique date back to the beginning of the 19th century, when the city of Chicago experimented the first implementations. The curtain wall was introduced as a substitute of the classic concrete wall and the commercial buildings firstly took advantage from its implantations.

¹ I.S.A. (Industria Serramenti in Alluminio) is the first company founded by Massimo Colomban in

Until the Second World War, the new technique was mainly diffused in North America, driven by the tendency towards vertical growth in construction. Only some years later the technique debut in Europe. Differently from U.S.A., in the

Figure 2 - Installation of a modular panel



(Source: Permasteelisa, 2013)

European continent were present several limits imposed on construction and the different architectural schools preferred different types of buildings to skyscrapers. Starting from the Fifties, the aluminum substituted the iron in the realization of external façades, favored by architects for its lightness and better mechanical properties for construction purposes.

A remarkable contribution to the business of curtain wall came from the realization in the Sixties of the Sidney Opera House, in Australia, designed by the Danish architect Jorn Utzon. The Australian firm Permasteel realized the external façades.

2.1.1 The technology

At the basis of the curtain wall is a modular panel, which has progressively substituted the traditional construction technique based on beams and pillars. A window and a framework of aluminum are the basic elements of the panel, which is directly hooked at the building frame. The solution enlarges the freedom of expression of architects and is convenient in terms of transportation, installation and inventory costs. The diffusion of the modular technique started from the second half of the 80s when in USA, Hong Kong and Singapore *high tech*²

² The origin of the *high-tech architecture* dates back to the Eighties, when American and European architects like Norman Foster, Richard Rogers and the SOM partners (Chicago) began to make use of technologically advanced components, processes and designs. The *high-tech architecture* technique adopts mainly curtain walling solutions as architectural envelopes. Later also Renzo Piano, Kenzo Tange and Jean Nouvel realized different works included in the front of the *high-tech architecture*.

architects' pursue for innovative and complex solutions meets developers' needs for time and costs reduction.

What differentiate curtain walling from the traditional technique is the absence of mechanically secured systems, which are substituted by the use of silicone. A synonymous of curtain wall is structured façade: windowpanes are glued directly to frameworks as a way to highlight the continuity effect. In addition, the use of silicone has the advantage of being a better protection against atmospheric agents and it guarantees more elasticity.

2.1.2 The market

Differently from the private domestic sector of residential solutions, where wood and PVC fixtures have a larger share with respect to those made out of aluminum, the commercial sector registers a higher adoption of aluminum architectural envelopes, reaching a share of the 45% (Garzia, 2000a e b).

The demand for architectural envelopes and curtain-walling solutions is influenced by the trend of the markets of constructions and of real estate. Two main markets that differ for their size and degree of competition characterize the sector of construction: domestic and global markets.

Table 1 - Structure of market of construction

Characteristics	DOMESTIC	GLOBAL
NUMBER OF FIRMS	1 million	150
AVERAGE REVENUES	€ 30.000 – 45.000	€ 500.000 – 20 billion
AVERAGE NR. EMPLOYEES	< 50	> 200
COUNTRY OF ORIGIN	Any	EU, USA, JAPAN mainly
VULNERABILITY TO MKT	High	Low
CHOICE OF SUPPLIERS	Driven by prize	Driven by quality

(Source: Garzia, 2013, personal elaboration)

The domestic market counts more than 1 million firms that generate revenues between 30 and 45 thousands euros and on average count less than 50 employees. These firms operate mainly in the private domestic sector. For this reason they are

particularly exposed to the cyclical fluctuations of real estate market, which periodically hit each country.

Considering the global arena, 150 international leading contractors compete in the non-residential segment of construction. A contractor is defined as a firm that generates revenues between 500 thousands and 20 billion euros, by employing more than 200 employees and having a complex organizational structure. These companies operate at a global level by establishing different operational units abroad. In this way they reduce their exposition to fluctuations of domestic demands, by moving their investments in other markets. The origins of the top 150 contractors are mainly USA, EU or Japan (100 out of 150) and their main markets are developing countries like Africa, South America and Middle East, where domestic firms are of small dimensions and not enough technologically developed. Beside the top 150, some big domestic contractors exist, particularly located in China and Korea.

Another key difference between the domestic and global market is in the selection of suppliers involved in the construction process (Hillerbrandt, Cannon, 1994). In domestic and residential markets clients and contractors often coincide and suppliers' selection is mainly driven by prize, as the level of technology and complementary services is homogeneous. Different is the situation in the global and commercial market where the choice of suppliers becomes articulated together with the increasing complexity of the project: primary interest of client is the value of her investment in the long-term, so its quality; the establishment of a good relationship among architects, contractors and suppliers is the key to success in this way and to increase productivity level.

2.1.3 Structure of Supply

Architectural envelopes are the output of a labour intensive production in which manufacturing costs hold for 25% of total costs.

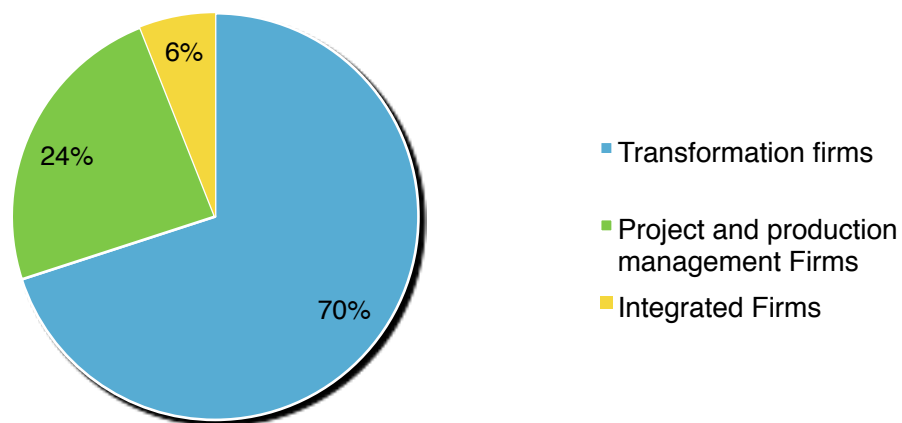
The procurement of extrusions holds on total cost for a part that varies from 15% to 35%, depending on the degree of vertical integration of producer. (Garzia, 2000a; 2003c)

The attempts towards an automatized production have failed for different reasons; customers' preferences guide the realization of customized architectural envelopes and therefore standards for shapes and dimensions do not exist. In addition, the final step of the production process, the installation, takes place in remote locations that are often far from the original production plant.

A differentiation based on business activities distinguished producers of architectural envelopes:

- Firms which assembly extrusions produced by specialized suppliers, who also offer technical and project assistance (called "transformation firms").
- Project and production management firms realize envelopes from extrusions produced by specialized suppliers that follow specific project requirements. Differently from firms of transformation, they externalize the realization of extrusions according to their design developed in-house.
- Integrated firms project and produce extrusions and then realize architectural envelopes by using a vertically integrated production process.

Figure 3 - Structure of supply of architectural envelopes



(Source: Garzia, 2003a)

Envelopes' industry is extremely fragmented because of absence of entry barriers: the majority of firms is small-sized and depends on extrusions' producers.

The 70% of the global revenues of the sector is generated by small firms which on average employ between 6 and 40 workers with revenues that vary from 200 thousands to 5 million euros, serving the share of the market of residential domestic solutions mainly through the supply of windows. Competition is based on price with consequent reduction of margins.

A different situation characterizes those firms that project and produce envelopes internally, which account for 24% of global revenues of the sector. Their revenues reach values of more than 5 million euros, employing at least 40 employees and serving mainly the segment of commercial buildings through supply of external façades. Their clients are international contractors asking for personalized technical and technological products. Their ability to operate at a global level makes them neutral to the cyclical economic trends.

The few integrated companies existing are based mainly in USA and Japan. These are big sized firms with revenues of more than 50 million euros and which produce external façades and offer contract solutions. Big investments in machineries are often causes of issues during negative economic periods of the domestic markets where these firms operate (Garzia, 2000a; 2003c).

2.2 The Seventies: the birth of I.S.A.

Figure 4 - The Founder, Massimo Colombari



(Source: venetouno, web)

As a consequence of the Economic Boom of the Sixties in Italy, a mounting demand for low cost residential solutions favored the diffusion of construction made out of reinforced concrete in the second half of the Seventies. During those years metal began to substitute wood and iron in the realization of fixtures, as a

consequence of its cost advantage. The foundation of I.S.A. dates back to 1974, when Massimo Colombari started his business activity by employing 10 employees in a small laboratory with few machineries needed for production of metal doors and windows. Since the foundation the founder was guided by the vision that

windows made out of aluminum were not the best solutions for residential buildings, but for commercial ones. He guided his company towards project and production management of curtain wall systems, specifically for the commercial sector. Immediately after he set up a sub-unit for projection and realization of interiors solutions. Technology and prize of the offer were comparable to those of the major European players of the sector, operating internationally.

From 1974 to 1977, revenues increased from 400 thousands euros to 1.5 million euros, with a share of 40% of production dedicated to export. Starting from the end of the 80s the company then adopted a strategy of differentiation, by allowing architects and clients to personalize their design solutions based on Permasteelisa products.

With this choice I.S.A. became one of the leading European firms in the curtain wall industry, thanks to its innovative solutions taken to the market through aggressive commercial moves. The company share in the European market grew at a constant rate, until reaching revenues for more than 8 million euros in 1982, employing around 100 employees and exporting more than 60% of total production.

2.2.1 The management partnership

The nine years of work experience that Massimo Colomban had at the IALF S.p.a.³ before founding his own firm, impacted on his personal view of organizational design. He observed that, despite an increasing trend in size and revenues, main responsibilities were always concentrated around the same people. Many valid individuals left the company as a result, while others lost their identification and motivation with the values of the company.

By learning from the bad example, he set up a system to distribute company shares to its closer partners and employees since the foundation of the company, guided by the purpose to progressively leave the entire company in the hands of his managers after his exit.

He assigned specific geographic area of responsibility to top managers: some were appointed at the head of commercial sub-unit operating in foreign countries.

³ IALF S.p.a was a medium-sized firm based in San Vendemiano (TV), operating in the business of doors and windows' production

A peculiarity of the system was the possibility for employees working in lower levels of the organizational structures to become partners as well. Colomban evaluated their performances by looking at profit they were able to generate for I.S.A. or for the sub-unit they were leading.

2.2.2 The technology

Colomban and the I.S.A. began to operate in the segment of curtain walling between the 70s and the 80s in Italy. Few specialized firms offering low cost solutions characterized the structure of supply of extrusions. Their lack of those specific competences needed to develop curtain wall solutions pushed Mr. Colomban to start an internal technology development process; he acted in first person as the guide towards continuous product innovation demonstrating a hardly comparable pace with respect to its main competitors which were vertically integrated and, differently from I.S.A. they had to absorb costs of big investments for machineries needed for the in-house production of extrusions. I.S.A. on the contrary relied on external strategic suppliers that enabled the company to shift easily from one design to another, without incurring in costs and loss of opportunities.

In 1982 the company completed its first acquisition by buying shares of PM Design S.r.l., a company specialized in the furniture business and on interiors for commercial solutions. With the operation the company was perceived by the market like a complete high quality solution, able to satisfy exteriors and interiors requirements of any kind. The acquisition did not alter the structure of the company, which remained characterized by a high degree of flexibility. Fixed costs were kept low through the implementation of a single assembly line. Every time orders increased, a group of small close suppliers were the strategic key to be able to satisfy the extra demand.

External partners handled shipments and local installations: teams of specialized workers were recruited in the foreign countries directly and guided by some a supervisor taken from Italy. Special training was provided to those workers who

were more specialized. Training and building simulations took place directly in Italy at I.S.A., where they simulated the installation of curtain walls.

2.2.3 The internationalization strategy

The choice of focusing on curtain wall solutions guided the company to address its business towards export to foreign countries. At the beginning, networking came by word of mouth. At the end of the Seventies the majority of main construction firms moved to the Middle East, as the rate of development of the European area slowed down. Abroad they entered in competition with American contractors.

I.S.A. did not find a trustworthy industrial partner in the area and decided to not invest there. With the support of his closest partners, Mr. Colomban looked for solid partnerships in the European markets, opening offices in Belgium, United Kingdom and Germany.

2.3 The Eighties: the born of Permasteelisa

Around the first half of the Eighties, the scenario in the Middle East became unstable: drop of oil prices, the worsening of the war between Iran and Iraq and the affirmation of radical religious movements compromised the economic equilibrium in the area. The growth slowed down and business of construction experienced a loss of investments moved to international financial markets.

The drop of investments in construction business amounted to 45 billion euros in 1986. At the same time, margins of the sector decreased as new contractors from Turkey, Korea and Japan entered the market and caused the American and European contractors to leave the area.

The competitive scenario had consequences even in Italy, where suppliers of materials and components for construction incurred big losses; these dynamics dictated by the increasing power of international contractors pushed the management of I.S.A. to increase even more the internationalization process.

The attention of the group shifted in particular to the Far East area, where cities like Singapore and Hong Kong were demanding for advanced commercial buildings solutions.

The 1982 is an important year for the decade: the company signed an important partnership in Australia with Permasteel⁴, one of the main competitors of I.S.A. in a bad financial position as a consequence of low internal demand. The deal granted the Italian management of I.S.A. to gain the control of Permasteel and to reach an option of takeover. During the Eighties different Asian countries, such as China, Singapore, Malaysia, Korea and Taiwan experienced their economic development; the growth of commercial constructions followed the explosion of urban areas and several financial districts were built on the European and American examples of London and New York. Exploiting the boom Permasteel and I.S.A. increased their turnovers, being chosen for the realization of numerous projects in the Pacific area, becoming the leader in Australia and Singapore.

Four years after the signature of their agreement, in 1986 I.S.A. acquired the majority of Permasteel and 1988 is the year of foundation of Permasteelisa. Total revenues increased from 24 to 77 million euros in 1992.

2.3.1 The network

The period from 1985 to 1990 proved to be critical for the further development of Permasteelisa. The increasing complexity of projects shed lights on the structural and management weaknesses of the company. To increase its responsiveness to market demand, the company put in place a system to exploit temporary associations with local firms abroad. The strategy let Permasteelisa to:

- minimize investments in machineries and production plants
- overcome eventual administrative problems with customs
- reduce risks from clients' insolvency
- reduce expenses of bank guarantees emission
- increase reputation and credibility towards clients

⁴ Permasteel was an Australian company founded in Sydney in 1949. It produced external facades and architectural envelopes generating a total turnover of 7 million AUD. Around the Sixties, the company developed its business by exploiting the intense internal demand, pushed by government's direct action aimed at stimulating the market of construction.

Local firms were not necessarily expert or leading firms but had the right knowledge of local markets, which was among the priorities for Permasteelisa when moving its first steps abroad. An option of acquisition characterized the business partnerships, leading local entrepreneurs to try to perform at their best, guided by the benefit to be part of the group.

This idea of network creation was in a sense complementary to the management partnership: local entrepreneurs, like managers, were evaluated on the basis of their performances and they were eligible to become part of the group as well.

The entry of private equity investors in the Nineties boosted the group expansion (their shares amounted to 40% of total shares in 1992)⁵.

New manufacturing sites and research and development centers were built in Italy and Australia. By the end of the Eighties, the productive capacity increased by three times with respect to 1985 and reached 300.000 sq. meters of façades per year.

Other two acquisitions at the end of the Eighties enlarged the business of Permasteelisa: Steelbenetton, specialized in production of doors and windows made of iron and bronze, and Marca Più, specialized in the design of machineries for production and installation of façades.

2.3.2 Product and Process Innovation

By the end of the Eighties, Japanese firms held almost 50% of the share of Far East Market of commercial constructions.

Japanese contractors invested on an integrated offer by signing long-term successful relationships with local suppliers: façades producers, iron and concrete producers, but also suppliers of floor solutions and installations were more strategic partners than simple suppliers.

The aim of the Permasteelisa was to be perceived by the market not only as a supplier of curtain wall solutions, but as a firm able to put together the best European offer of external façades with a high quality logistic service.

⁵ Private Equity funds: Credipa-Sanpaolo IMI, SOFIPA, Euro Synergies Investment Sca, Defi-Development Finance Holding S.A., Hambro European Ventures Ltd. Partnership.

The integrated offer of Permasteelisa combined the installation of the “Channel Floor”⁶ in its “Quaternario System”⁷, a floor solution that enabled more operational freedom on the structure of the building, adding more flexibility with respect to the normal installation.

Regarding process innovation, Permasteelisa set up a globally coordinated operational system to better manage projects all over the world together with one that gave the entire group a set of common rules and procedures to be followed.

Of particular interests are some personal messages the owner posted in different manufacturing sites to his employees, to motivate them and to increase their sense of participation. Some of the more significant examples of these messages are, for instance: “Do it right, the first time”, “Now we work for the total quality”, “The brand is a signature and a signature is a guarantee”, “Your colleague is your client”. On his conviction, operative excellence was the real key for the company to win the race for the best projects: he protected innovations with global patents, but with the understanding that only expertise and operative excellence could create competitive advantage *vis a vis* competitors.

The acquisition of Cad Ware⁸ was another important step towards the lead of the market. The three main research centers of Permasteelisa (Singapore, San Vendemiano and Sydney) were able to use the same tool creating an advantage for the company working simultaneously on the same projects without loss of time from three different time zones. The projects also benefited from the existence of Nord Engineering, the central engineering center of the group, based in Italy. This was responsible to carry all the structural engineering calculations.

2.4 The Nineties: The Globalization Process

In 1992 the company won the race for the realization of UOB Plaza, the tallest tower in Singapore, designed by the famous architect Kenzo Tange. Projects of

⁶ Channel floors are adopted mainly in commercial buildings. They enable wirings and tubes to pass under the floor in dedicated spaces, leaving more freedom and time to better manage the realization of the building. In case, it is easier to fix the damages.

⁷ The *Quaternario System* was an innovative integrated system of external facades, internal partitions and interior design solutions combined together with floor solutions.

⁸ Cad Ware was a software house based in Padova that specifically designed personalized software solutions for Permasteelisa.

these kinds let Permasteelisa to increase its visibility and empower its brand, while entering in contact with big contractors such as Nishimatsu, Hyundai and SSangyong⁹.

Between 1993 and 1994 revenues increased in just one year with a rate of 35%, reaching the value of 110 million euros realized with the help of around 400 employees in the world.

Despite the good performances in the South East, which arrived to generate 55% of total group revenues, Permasteelisa moved its interests to the European market, where cities like London, Paris and Berlin began to express the first interests towards commercial constructions. Permasteelisa was selected for some of the most important projects of the time, like the European Parliament in Strasbourg, Galeries Lafayette in Berlin, Tour du Midi and Tour Pleiad in Bruxelles and the world famous Guggenheim Museum in Bilbao, designed by starchitect¹⁰ Frank Gehry, completely covered in titanium.

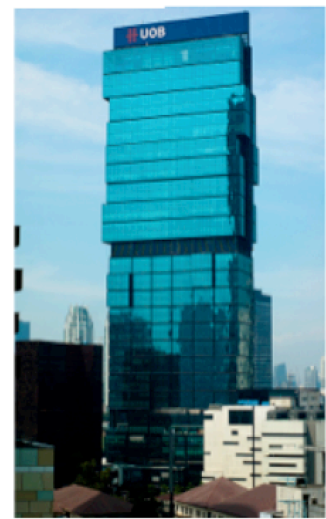
In 1995 Permasteelisa succeed to buy its Dutch competitor Scheldebouw¹¹. After the operation and the enlargement of the network, new commercial branches were opened in France, Poland, Spain and Hungary.

⁹ Nishimatsu, Hyundai and SSangyong were three of the biggest contractors at that time, from Japan (Nishimatsu) and Korea (the other two).

¹⁰ The term starchitect is used to describe architects whose celebrity and critical acclaim have transformed them into idols of the architecture world and may even have given them some degree of fame amongst the general public. A key characteristic is that the architect's designs are almost always "iconic" and highly visible within the site or context.

¹¹ Scheldebouw was founded in 1875 in The Netherlands and was among the first firms operating with bespoke aluminum solutions in the thirties.

Figure 5 – Four Permasteelisa’s realizations in the nineties



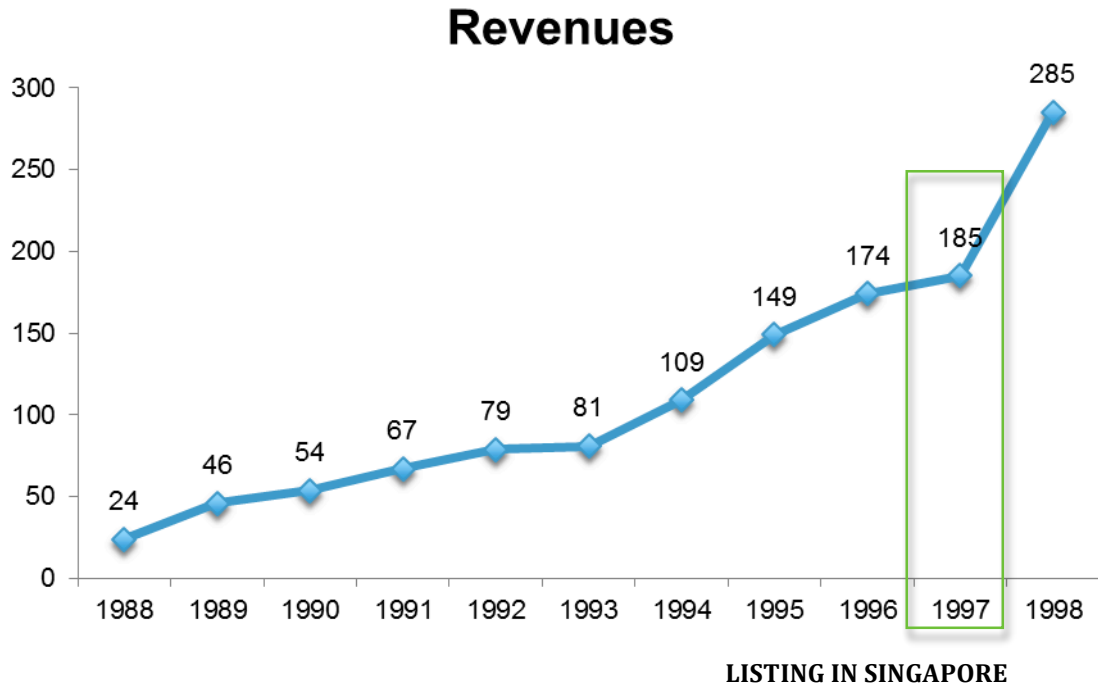
(Source: different websites)

An important partnership with the eyewear company Luxottica for the realization of its stores took Permasteelisa in North America in 1996, where it opened its American branch. Other commercial branches followed in China, Taiwan, Thailand and Hong Kong by the end of the nineties.

From 1990 to 1996 the group saw its revenues growing by almost four times: from 54 million euros in 1990 to 174 million euros in 1996.

By the end of the end of the Nineties Mr. Colomban arrived to hold around 20% of total shares, while distributing the rest of his part to managers, following his management partnership plan. Private equity funds held the remaining 30%.

Figure 6 - Evolution of Permasteelisa revenues



(Source: Permasteelisa, personal elaboration)

Between 1996 and 1997 partners acquired back this part, with the aim of going public by listing the group in the Singapore stock exchange.

2.4.1 The Evolution of the Company Structure

By opening the holding of the group to external investors, Permasteelisa had to put in place an organized system of management and financial control. The group appointed as head of financial and administrative unit Mr. Enzo Pavan, a senior manager with several years of experience in Electrolux Zanussi group¹². Among his first initiatives, he set up a group organizational structure articulated around three macro levels in which San Vendemiano got the role of global headquarter.

Different regional headquarters were distributed in every continent along with key branches located in the more strategic states.

¹² Zanussi is a leading brand for domestic kitchen and cleaning appliances. Exported from Italy since 1946, Zanussi is widely recognized for the quality of its innovative products and distinctive modern design. The company became part of Electrolux group in 1984.

The role of regional headquarters was the coordination of the different branches. These were of commercial, production and support type and were run by administrative and technical managers. During those years Mr. Pavan created a new role inside the hierarchy. Any manager operating in a regional headquarter was eligible to become associate by owning shares of headquarter she belonged to. Partners instead were eligible of holding shares of the parent company Permasteelisa S.p.a. In order for managers to become partners, the intermediary step of associate was needed.

With this rewarding system the group continued on the strategy of his founder as a way to stimulate an entrepreneurship approach on its employees: partners and associates were at the same time managers and shareholders of the company they were running; the possibility to become shareholders was a consequence of proven ability in managing projects (a request for project managers), the branch (for the area managers) and in managing support activities (for the factory managers, the site managers and the contracts financial managers). A successful entrepreneurship approach was measured in term of profitability; in this way a high level of commitment at different levels was guaranteed.

This move took place among the years 1995 and 1997 and reinforced the relationship between Colomban and Pavan. When some years later the founder recognized that a strong operational leadership was needed for the group he appointed Mr. Pavan as company CEO and soon after also as president, confident he was the right person able to implement different mechanisms of management, guaranteeing a certain degree of control to managers.

The majority of the partners accepted Enzo Pavan with shared skepticism. His managerial experience on administration, finance and management control and the lack of a technical background differentiated himself from most of them, who instead grew developed specific knowledge of the sector from within the group. It is given this premises that the strong experience of Pavan convinced Colomban to left the lead of the company he personally founded.

2.4.2 The Crisis of the Asian countries and the answer of Permasteelisa

During 1997 the 21,4% of Permasteelisa Pacific Holding¹³ was successfully listed on the Singapore stock exchange: a total demand for shares 5 times higher than the offer was registered.

A crisis of the financial markets hit the Far East Asia the same year. Japanese banking system was experiencing difficult times and Indonesia political turmoil contributed to exacerbate the climate. The GDP growth rate of all the far Far East area slowed down.

In this situation, Permasteelisa took advantage of its global structured presence to move its focus to China, India and Malaysia, where the fast development of new urban areas was offering huge business opportunities. In the area of Shanghai in 1998 Permasteelisa won a project to build six of the tallest commercial buildings in the world, for a total supply of curtain wall solutions of 1.2 billions euros.

During the same years Colombaro strengthened business relationships with North American and European contractors and signed collaborations with American universities of Harvard and MIT for the realization of specific projects of research around the theme of sustainable engineering¹⁴.

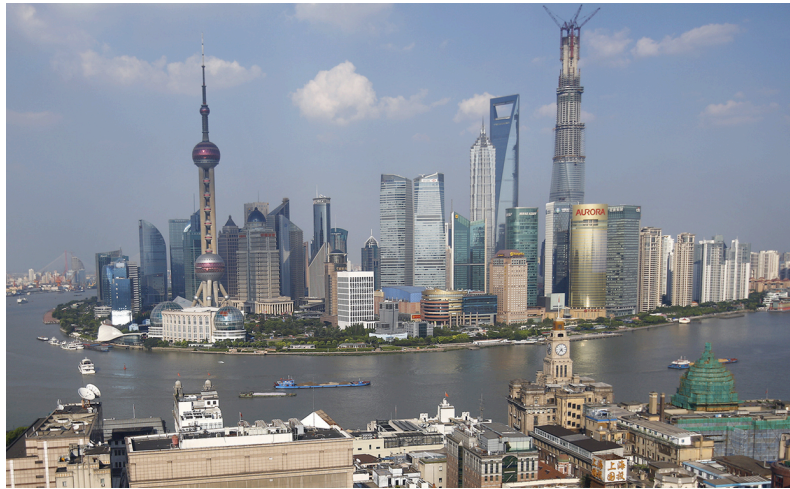
The ability of the group to exploit its global network took total revenues to grow from 185 million euros in 1997 to 285 million euros one year later, in 1998.

¹³ Permasteelisa Pacific Holding is a sub holding of the group for the Asian Area.

¹⁴ The website buildingenvelopes.com, realized with the collaboration of the Harvard School of Design and the Faculty of Architecture of the Massachusetts Institute of Technology, is supported by companies operating in the business of curtain wall. The website collects the largest database of materials related to architectural envelopes and construction techniques.

2.5 The 21st century and the transformation of the sector

Figure 7 – Shanghai, 2013



(Source: Wikipedia)

Big transformations characterized the sector of curtain walling in the second half of the 90s. Global players like Permasteelisa drove the biggest changes in technology and increased average size of the projects together with the importance of logistic integration. Competition was based on the capacity to offer flexible solutions to architects, who contributed to push the limits even further by asking for continuous innovation in construction techniques.

External façades became a critical part of commercial buildings: superior technology and personalized design together resulted in an increase of average project amount (over 100 million dollars). To limit the increase of variable costs, logistic optimization acted as an important tool for the biggest players operating in the construction business: by letting different suppliers to work on the building at the same time, total costs were reduced.

Those firms operating with businesses of transformation and project management were forced to leave the market at a global level. A new group of curtain wall producers took the control of the market: 40 major firms (mainly European, American and Japanese) with average revenues of 100 million euros operating at international levels. They created a market of “high-tech façades” that reached a value of 3.5 billion euros at the beginning of the 2000.

Despite the positive trend, Permasteelisa kept on looking for new solutions to increase its financial sources. The company simplified its structure, by letting associates to become shareholders of the parent company Permasteelisa S.p.a. In 1999 37% of the parent company shares were listed in the Italian stock exchange in Milan. Like in Singapore, demand reached 51 million euros of value, *vis a vis* an initial public offer of 10 million euros.

2.5.1 The growth strategy by acquisitions

The listing on the Italian stock exchange generated for the group an amount of liquidity of about 26 million euros. The cash facilitated different investments dedicated to the consolidation of the commercial presence in Europe and USA, an update of machineries with acquisition of highly automatized tools and a reorganization of research and development structures.

The group increasing size and its continuous attention for innovation were the strong pillars of the group. The only possible way to further expand the already large commercial presence of Permasteelisa was through acquisition of the German competitor Josef Gartner GmbH & Co., which took place at the end of the 2000. The company was the biggest producer of aluminum doors and windows in the world, leader in Germany (a country having a market second in Europe just after the United Kingdom) and with fully integrated production capabilities able to guarantee a continuous supply to the German market of independent small companies operating in the sector.

The operation gave birth to a group of companies with over 1 billion euros of revenues and more than 3.000 employees, global leader in the sector of curtain walling and five times bigger its major Japanese and European competitors.

Mr. Colombari guided the acquisition with the role of honorary president. This was the final ring of an incredibly long chain of successful moves he personally guided. In March 2002 he left the company founded 14 years before, by transferring his remaining shares to his managers.

The company was left in the hand of the management guided by Mr. Pavan, who further consolidated the leadership of the group through two other acquisitions of its competitors in the following years. In 2003 Permasteelisa took over the

American Glassalum Holding Corporation, an important company operating in the American market, which expanded the commercial presence of the group in the country.

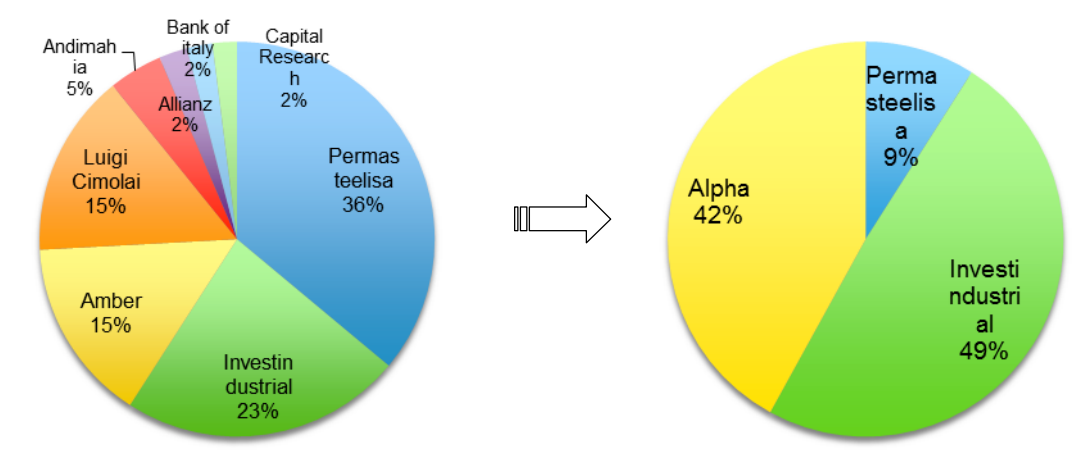
Enzo Pavan guided the group through different years of economic and financial crisis, which impacted in particular on the business of construction and real estate. Between 2005 and 2006 the value of group shares experienced important losses on the stock exchange, as direct consequence of bad project management performances; during those years the group reached an overall value of customer portfolio without equal in the past. The problem existed in reduced marginality and consequently on decreasing profits, as a number of projects took the group to close the 2005 financial year with debit for 25 million euros.

In 2007 major investors voted for replacement of the CEO Enzo Pavan with Nicola Greco, former CEO of Technip Italy S.p.a., a company operating in the Engineering & Contracting sector, both in the industrial and in the infrastructural fields.

Davide Croff (former president of BNL) followed the CEO as new president the same year. The new guide introduced a reorganization of the group structure and tight control procedures on management processes and project selection.

2.5.2 The evolution of the capital in 2009

Figure 8 – Composition of Permasteelisa capital in 2009



(Source: Il Sole 24 Ore, 2009, reworked version)

Different dynamics characterized the evolution of the composition of the capital as external investors acquired stakes of the group consequently of the listing on the Italian stock exchange. Among the larger investors in 2009 was the private equity fund Investindustrial, having the control of 23% of total company shares, followed by the fund Amber (with the 15%) and the private contractor Luigi Cimolai (15%). Other investors held smaller part of the capital: Andimahia (4,39%), Allianz (2,26%), Capital Research (2,17%) and the Bank of Italy (2%).

In September 2009, Investindustrial and Alpha acquired a 61.5% stake of Permasteelisa in a deal that valued the business at € 353m, matching the share value on the stock exchange (that was equal to € 12,9) through the financial support of different banks, for a total loan equal to € 140 million.¹⁵

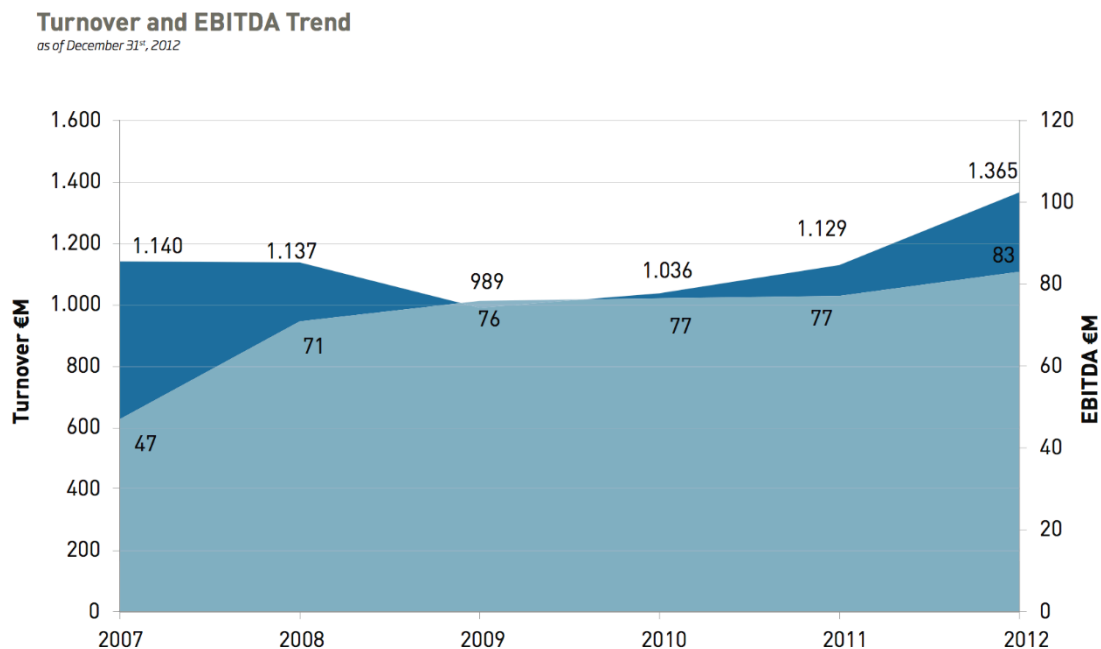
The two buyout-houses then launched a mandatory takeover offer at the same price for the remaining share capital, which was completed in February 2010.

At that point Investindustrial held 49% of the share capital, Alpha had 42% and the management retained the remainder. As a result of the operation, the group was delisted from the Italian stock exchange in 2009, as consequent liquidation of the other part of the investors.

¹⁵ Il Sole 24 Ore, September 1, 2009.

2.5.3 Entry of Japanese investors

Figure 9 – Evolution of Permasteelisa turnover and EBITDA from 2007 to 2012



(Source: Permasteelisa, 2012)

Despite the changes in the equilibrium of the company structure, the group continued on improving its financial performances, reaching the turnover level of pre-crisis period. In 2011 revenues amounted to € 1.1 million, with an increasing part of the business oriented towards interior and contract solutions and profitability level around € 80 million.

On December of that year Lixil Corporation (Tokyo, Japan), a comprehensive manufacturer of building materials and housing equipment, acquired all shares in Permasteelisa S.p.A., for approximately € 575 million.¹⁶

With the operation Permasteelisa became a wholly owned subsidiary of Lixil. Nicola Greco was confirmed as CEO of the group, becoming responsible for all Lixil's curtain wall business. The acquisition, the largest of a Japanese group in Italy, ensured a new global approach to Lixil, able to exploit the international characteristic of Permasteelisa in its operation abroad. The two companies are not

¹⁶ Lixil Corporation website, 2011.

competitors but complementary of each other. “Our main business is to make projects while they are manufacturers of different products” synthesizes the CEO Greco, “With the acquisition they work for entering in a new business sector. They are taking over us with a development plan for new synergies and increasing levels of efficiency.”¹⁷

2.6 Permasteelisa today



PERMASTEELISA GROUP

Permasteelisa Group has evolved until becoming the worldwide leading Contractor in the engineering, project management, manufacturing and installation of architectural envelopes and interior systems. The Group is able to bring its Know-How and expertise to all projects, in particular when dealing with Special Features Buildings, beginning with the design development phases all the way to the successful completion, achieving the customer’s expectations.

With a global presence in four continents, it operates with a transnational global approach with a network of over 50 companies in more than 30 countries and producing in 11 different production plants. This network lets the group to move resources and organizations quickly and flexibly wherever new markets develop; by using an adequate mix of local, regional and overseas knowledge, tools and resources the group is able to fit the needs of any project. This group structure generates a total turnover of around 1.4 billion euros a year employing more than 6.300 employees worldwide.

2.6.1 Mission and Philosophy

The mission of the Permasteelisa Group is to design and build innovative and avant-garde architectural works alongside the world greatest in contemporary architecture, by using advanced technology and eco-sustainable solutions.

The quality of the architectural envelopes and interiors the group use to create high-performance buildings is ensured by the rigorous quality control system that is adopted and is constantly improved through R&D in new design and construction technologies and with the use of innovative materials.

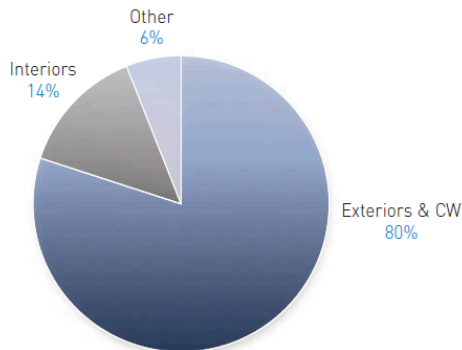
Permasteelisa's ultimate goal is to provide design and construction solutions that meet its clients' most varied needs, by working closely with architects and designers from the earliest planning phase.

Thanks to solid and lasting partnerships with its suppliers, the technologies the group uses continue to gain added value. The use of environmentally friendly materials and eco-sustainable processes, and the group commitment to saving energy, protect the environment and make the buildings themselves livable.

When talking about philosophy, the group states: "providing world-class service to the architect/designer and to the client is the defining value of our philosophy."¹⁸

2.6.2 Three Brands and three Business Units (BUs)

Figure 10 - Permasteelisa turnover by product



As business of construction has become more and more complex and demand for advanced technological solutions has increased the overall costs, Permasteelisa has expanded its business through important acquisitions and through diversification on different business segments.

(Source: Permasteelisa. 2012)

Today the group operates globally with three brands: Permasteelisa, Gartner and Scheldebouw. Each brand can deal with different products and work with each business unit located in any of the HUBs. Each brand is characterized by a particular perception towards architecture and construction and is able to offer a peculiar variety of solutions. This heterogeneity enables the group to suit with all

¹⁸ Permasteelisa website, 2013

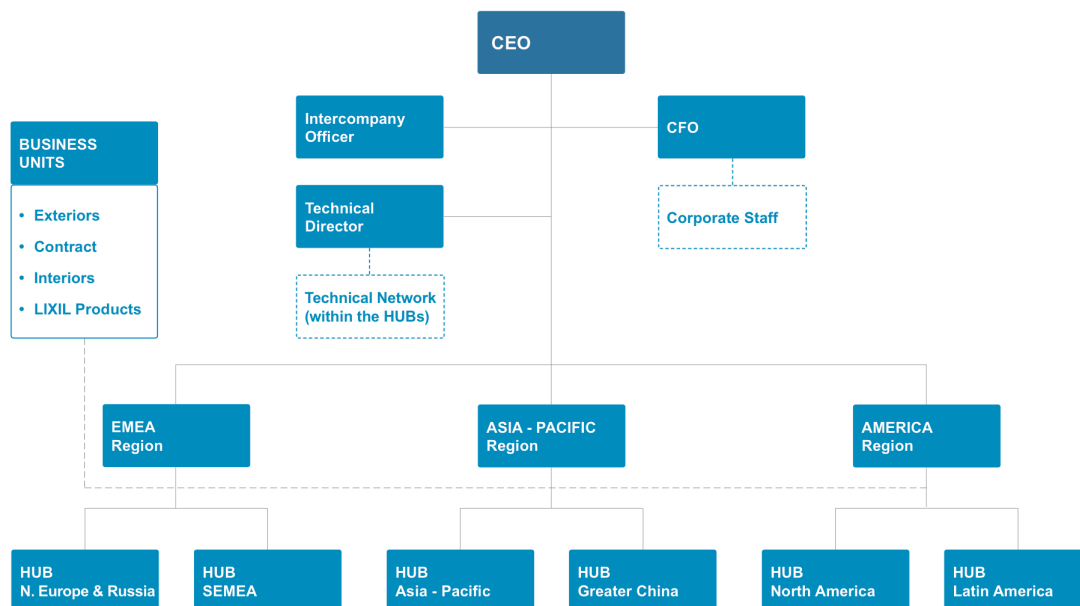
the possible requests coming from different markets all over the world: in the last 20 years the goal of Permasteelisa has been to expand its products range through acquisitions and Gartner and Scheldebouw are among the biggest two. Their know-how have taken added value to the company and contributed on its way to consolidate the market leadership.

The concept of the brand is neither geographic nor identified in a single Affiliate (Gartner, Scheldebouw): every HUB of the group might host projects executed under one of the group brands.

The three brands operate in three different business segments. Originally started in the business of exteriors and curtain wall solutions, the group expanded into interiors and contract businesses, giving birth to dedicated units inside the group (HUBs). The interiors and the contract business units have benefit from the global size of Permasteelisa Group in the interaction with international clients on a wide variety of projects, from unique custom showpieces to comprehensive commercial undertakings.

2.6.3 Current group organization

Figure 11 – Group organizational structure



(Source: Permasteelisa, 2012)

Through the years, the organization of the group has evolved together with the market, until the adoption a decentralized “network based” approach in 2007¹⁹. The adoption aimed at increasing the responsiveness of the group with respect to fast-paced changes that take place at a global level, according to the following principles:

- highly decentralized, networked group structure
- wide delegation of powers to the strategic units (HUBs)
- very limited extent of centralized common services
- rigorous set of common rules

The Strategic Units of the Network (HUBs) are 6 basic elements of the Network aimed at grouping, coordinating and supervising all the affiliates in a particular sub-Region. They have management responsibilities when dealing with all the activities of all the different business units, companies and brands. They are defined according to geographic criteria to better face the development of the Global Market. At a higher level, HUBs are grouped within 3 Macro Regions (Region EMEA, Region AMERICA and Region ASIA-PACIFIC): each region leads the HUBs’ activities towards relevant objectives and at the same time it strictly monitors the full compliance of HUBs’ management and operations with respect to group strategies and rules. The limited number of regions ensures a better coordination and control chain between the Corporate and the network. They have not an operational structure, as they have neither projects nor operations to execute; they are coordination and supervision entities and their management is limited to people who are directly responsible to fulfill their task, being them regional leaders and regional CFOs.

¹⁹ The reorganization of the group is one of the first changes implemented by Greco in 2007, after his arrival in the group.

CHAPTER 3: ANALYSIS OF THE CASE STUDY FROM AN IMPRINTING PERSPECTIVE

3.1 A qualitative analysis

As discussed earlier in chapter 1 of this dissertation, the analysis of the case study adopts a dynamic imprinting perspective. In the following chapter I focus on the processes and mechanisms that contributed to the survival of the imprinted elements along the history of the group.

Imprinting literature agrees on the importance of the actions by relevant actors, such as entrepreneurs, managers and employees who are able to impact on the evolution of a firm. These actions contribute to the reproduction and persistence of their different imprinted elements. This perspective implies that these actions have to be observable, together with the effects on other individuals and on the group as a whole.

In the case study, many actors have substituted others through time. It could be interesting to describe the dynamics behind the change of management that took place at different times inside the group.

This chapter reports the contents of a qualitative analysis that combines evidence of four semi-structured interviews with data and information from corporate materials and the observation of the daily practices and routines within the firm for a period of three months. The choice of Permasteelisa S.p.a. as company case study comes from a three-month-work experience I had at the company from April to June 2014 as part of my postgraduate degree. I directed semi-structured interviews to four relevant stakeholders of the group:

I devoted particular attention in selecting employees who had had a long-term career inside the company. During the interviews, I raised the issue of imprinting definition and tried to collect their evidences inside the structure of the conceptual framework of Chapter 1.

On average interviews lasted one-hour. Each was centered on a series of key

questions here reported, which tried to extract valuable evidences to help in the analysis of the case study from an imprinting point of view:

- When did join the group?
- Is the level of motivation today the same as in the past? If it is not, what has changed in the meantime? How?
- Which are the instruments and mechanisms that each management team used to transfer its passion for work and its entrepreneurship approach?
- Do you recognize in the group today some of those characteristics that were imprinted during the foundation? Or is it completely different?
- Which were the drivers at the basis of the selection of the right partners?

During my internship in Permasteelisa S.p.a. I had the opportunity to address the interviews to the founder Massimo Colomban and to three senior managers:

- Olindo De Luca, Operations Manager. He arrived in the group in 1998, starting as designer. In 2003 he guided the creation of a team of engineers dedicated to the projects support, in terms of assessments of structural, thermal and acoustic calculations. In 2008 he became project manager for the Italian and English markets. Since 2013 he is managing the important project of the Doha Airport, Qatar.
- Ulisse Giacomini, Design Manager. He arrived in the group in 1981, starting in I.S.A. straight after high school. He started as designer until becoming project manager for different markets (England, Switzerland, Asia), while increasing his specialization. Since 2011 he is managing the project of the Socar Tower in Baku, Azerbaijan.
- Massimo Mazzer, previous Sales Director for United Kingdom, East Europe and Africa. He arrived in the group in 1991 and worked as designer for 6 years. From 1997 to 2008 he worked as project manager for different projects in United Kingdom and U.S.A. He became Sales Director until 2013,

when he exited from the group.

3.1.1 Limitations of the analysis

The combination of corporate materials and results of the interviews constitute a good starting point for the identification of the sensitive periods that characterized the evolution of the group. Despite the result, the main dynamics generated by the different social actors have not always been examined to the same extent. It is not always easy to identify with precision the impact of each social actor in the diffusion of the imprinting practices. We have to consider that in some cases the interviewed managers failed to understand the imprinting objects of the questions and different dynamics are explained from their personal point of view. In other words, the analysis contains a series of information that are not directly measurable in terms of results.

3.2 Overview of the sensitive periods, object of the analysis

In this chapter my aim is to contextualize different dynamics that characterize the evolution of the firm: I try to do it by using the conceptual framework described in chapter 1, while emphasizing the role of social actors and their interactions. During the recent story of Permasteelisa group three different management teams have guided its evolution. The framework described at the end of chapter 1 is the analytical tool that leads the study of the dynamics of the imprinting process behind the evolution of the group.

Recalling chapter 1, imprinting occurs during the lifetime of an organism that exhibits high vulnerability to environmental influences, regardless of the length of the sensitive period. The dynamic perspective implies that an entity can experience multiple sensitive periods over its lifetime.

In the case study, three main sensitive periods characterize the recent evolution of Permasteelisa group:

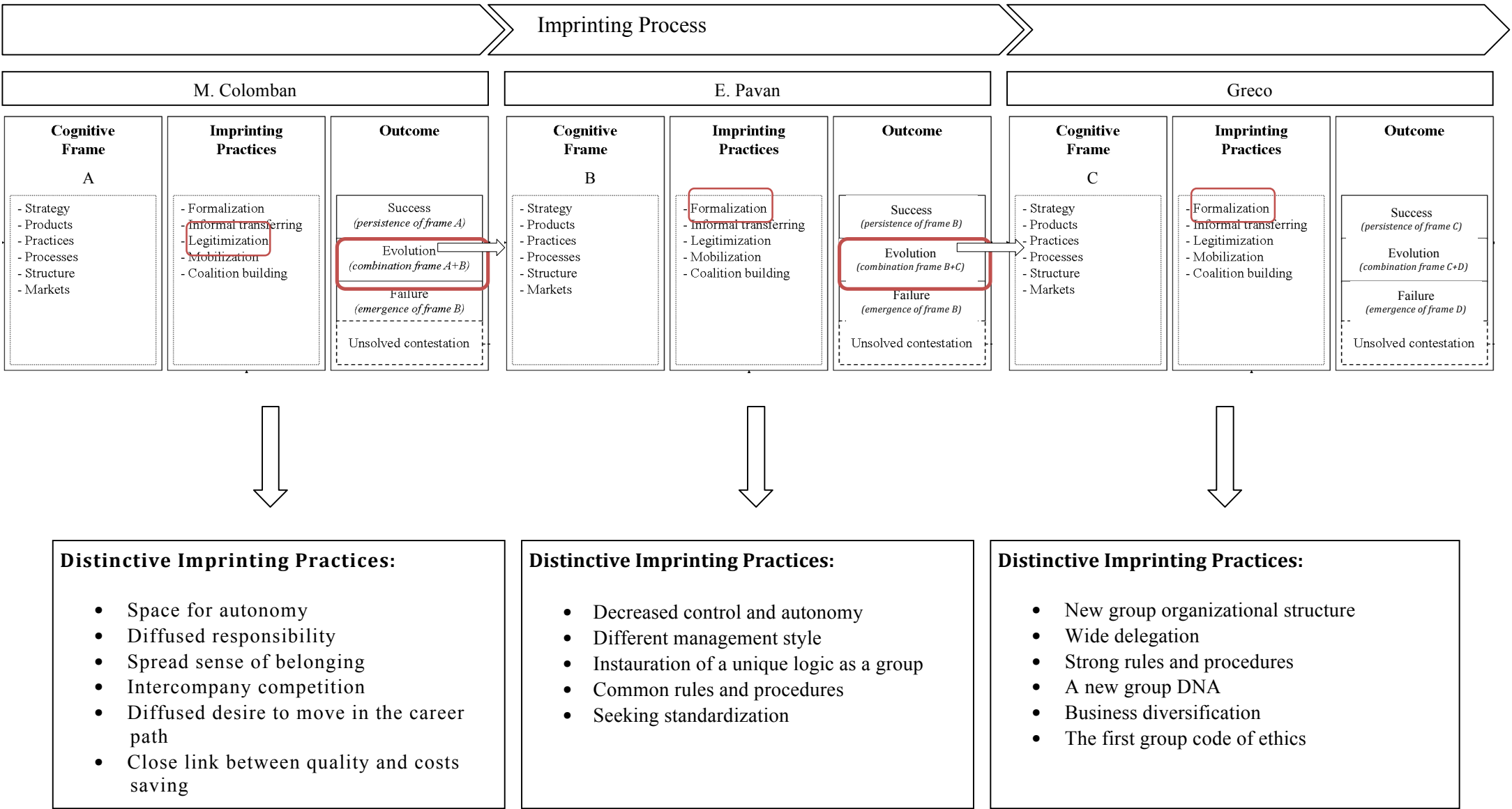
- The founding phase from 1974 to 1988
- The shift from the owner to a management structure from 1995 to 1997
- A second management shift to a new CEO in 2007

During the founding phase (1974-1988), Colombaro established a company around his figure and personality, by transferring his vision to reliable people and by giving them a lot of responsibility and autonomy. A rewarding system contributed to spread the sense of belonging by pushing employees to perform at their best. The shift from the founder to a more structured management approach (1995-1997) depicts the first relevant sensitive period the company experienced after its foundation. The formalization taken inside the group by the then-new CEO E. Pavan created a new imprinting process, characterized by a decreasing degree of autonomy and a pursue of standardization across the group. More recently (2007), the last shift that took to the current management team is the other sensitive period recognized in the case study. Differently from the previous one, the management led by Greco has taken a gradual change towards business diversification and group reorganization. The actual CEO could be described as the representation of the change rather than its cause.

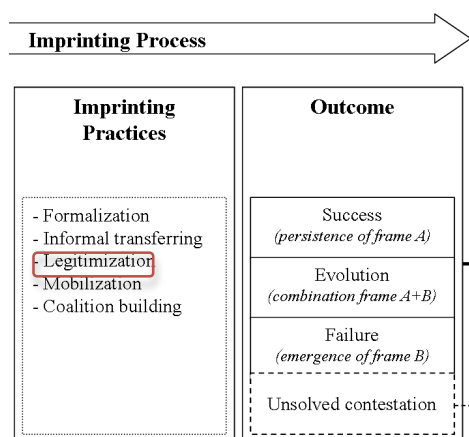
This chapter explains in details the dynamics that are behind each phase. It is evident that each management team evolved from the preceding one, by imposing its vision to the company, while in part continuing with the way undertaken by the predecessor.

Before moving to details, the framework that follows briefly synthesizes the evolution of the group from an imprinting perspective.

Figure 12 – A reinterpretation of the conceptual and analytical framework, Chapter 1



3.3 Imprinting dynamics during the founding phase



By recognizing the dynamic nature of the imprinting process, it is reasonable to start the analysis of the history of the group by its foundation, as we reported different times along the dissertation that “history matters”. Imprinting literature agrees that the foundation is one of the most sensitive periods of the evolution of a firm.

When dealing with the first sensitive phase (characterized by the management and ownership of M. Colomban), evidence from the different interviews led me to choose legitimization among the imprinting practices that are object of the conceptual framework.

Two main drivers guided the founder in the selection of his 83 closest partners: excellent performances and the recognition of specific personal traits in their personality. In this way the founder surrounded himself of capable people he could trust, “*someone who thought and acted like I would have.*”²⁰

Regardless of their role, those who were able to perform at a higher level, measured in terms of their direct impact on the field, were able to attract the attention of the founder, who personally acted in the selection of his partners.

By citing the words of Mr. Colomban:

“I have been always guided by the firm belief that even from your most recently appointed employee you can learn something new and interesting. I used to work closely with my employees in different part of the business, even for just some minutes on their side. I looked for specific personal traits in them. Sense of duty, enthusiasm, pride, ambition and high intellectual capacity were some key characteristics I judged as important when looking for a good partner.”

²⁰ Extract from the interview with Massimo Colomban, 07/05/2014. I will report extracts from my interviews in *italic* throughout the dissertation

Colomban used to monitor performances of his employees by measuring results on their particular field of specialization. The structure of the rewarding system offered top performers the possibility to become partner of the company, through the option of acquisition of some shares:

“The main characteristic of the management partnership was the existence of the stock option mechanism, through which I progressively distributed to these 83 managers the entire part of my shares, until my exit from the group in 2002. This instrument allowed me to guide the evolution of the company through the years, while contributing to the personal enrichment of the partners at the same time.”

Conceptualizing these first conclusions inside the analysis framework, I could say that Mr. Colomban transferred his cognitive frame to the company through legitimization: the next pages explain the different distinctive imprinting practices (already outlined in the previous framework).

By encouraging his employees to take part in important business decisions, Colomban established a positive and continuous negotiation inside the group. Furthermore the good level of autonomy and responsibility led to a strong consensus and sense of participation among the members:

“I used to travel frequently to the different branches of the group. In this way I was personally able to check that not only the methodology, but also the way of reasoning and the spirit were transmitted all over the entire group. I was proud to see that employees strongly believed in the company as decisions were taken together.”

As a consequence of the rewarding system based on results, the interests of the group and the personal enrichment were strictly linked; at a macro level, an inter-company competition among the different branches acted in the same way by offering rewards to the best performing branch at reaching of specific targets.

While leaving space for autonomy to his employees, Colomban recognized that the increasing complexity in the market of architectural envelopes needed new and more flexible professional figures. This is the reason why he later developed a new kind of project managers able to adopt a *glocal*²¹ approach to business while finding new opportunities in the segment of “made to measure” architecture. The new project managers were able to judge and manage a project not only from the technical point of view, but also from the economic side, in terms of costs. A statement from the founder Mr. Colomban well describes his vision:

“I used to tell my closest partners that the key to success in the business of architectural envelopes was to adopt two different lenses for each of their eye: one for the dollar, the other for the quality”.

Before the success of Permasteelisa, project managers were more technical-like figures able to handle projects of small size from their unique field of specialization. Colomban set up specific trainings for his project managers to take them up to speed with the economic and financial side of project’s management. Consequently, they became responsible for the design and the economic side of project at the same time. Any cost-saving activity, which was able to preserve the quality of the project, was rewarded accordingly. The incentive contributed to push project managers to improve their management skills. From Mr. Colomban’s personal point of view, the management partnership mechanism acted as the driver of the growth of the group during the Eighties and the Nineties.

The interviews to his partners confirmed the vision and emphasized the strong sense of belonging that characterized those years; many valuable individuals had the opportunity to grow and develop as professional figures, while being incentivized by a strong rewarding system that boosted their efforts. Despite these statements, in 2002 after his exit from the group most of his partners sold their shares and changed the equilibrium of the company ownership.

²¹ When talking about a *glocal* approach, Mr. Colomban referred to the Permasteelisa management style based on architectural envelopes realized using a global approach, by using products, solutions and structures adapted to the local business environment.

Massimo Colomban judges the fact as a failure of his system:

“If I could go back to those years I would impose the same management partnership mechanism. At the same time I would take an important change in order to fix the unique limit of the system that led to the failure of my imprinting process. I would impose the lock up on the possibility to sell the shares of the company, to prevent partners doing that after the listing on the stock exchange. I personally admire the current management who is still able to increase profits and revenues of the group. Business has changed a lot together with the more systemic management approach in place today. A family owns the company and takes decisions more directly and flexibly. During my time we completed different acquisitions because companies were in crisis as a consequence of their single ownership structure. Also for this reason I am personally convinced that the future of the company passes through the involvement of its major actors.”

Colomban is confident on the efficiency of his primary imprinting practice but at the same time he recognizes its limit. Consequently to his exit from the group, the prospect of converting company shares in cash guided many of his closest partners to sell their shares. The case is a good example of how much personal interest is stronger than the imprinting tool; a good practice was not sufficient to support an entire vision.

A series of other interviews I carried during my internship at Permasteelisa S.p.a acknowledged this valuable contribution from the founder.

Olindo de Luca, Operation Manager, described the time of M. Colomban by using these words:

“I was employed in 1998, entering in a company of “master artisans”. The founder, by transferring some shares of the company to people he trusted and by putting them at the head of key sub-units inside the firm, gave the group a strong goal-oriented entrepreneurship approach”.

The interview to Ulisse Giacomini (Design Manager), who has been working in the group since 1981, takes the same direction:

“Since the time of I.S.A., Colomban used to participate personally in every part of the business. Whenever he was able to find people who he could trust he gave them responsibility and space for autonomy, while training new employees as much as he could. By legitimizing his designers, the design department became a sort of independent branch inside the company: the budget was under control of the office that could directly benefit from its progress. If, for example, a particular project had a budget of 100 million and the office was able to save on total costs, savings were redistributed among the members of the office. The legitimization enabled the development of a strong entrepreneurship approach among employees.

Independence and autonomy given at the lower levels were the ingredients of success. I personally think that this rewarding system, together with the strong growth of those years, led Permasteelisa to become the global leader in its sector.”

It is interesting to observe the strength of the agreement regarding the spread involvement that was present inside the group, among the interviewed employees. Diffused responsibility and autonomy are recognized as the most important tools that contributed to the development of a personal entrepreneurial approach and to the success of the entire group over the years.

3.3.1 Distinctive imprinting practices during the founder's management

Massimo Colomban was the first real specialist of his group: he was able to combine his strong passion together with a deep knowledge and expertise of the workings of the industry. His daily presence in every part of the business contributed to spread a profound sense of belonging among every employee who, by being called by name and by receiving his direct support, became the first engine of the success of the group.

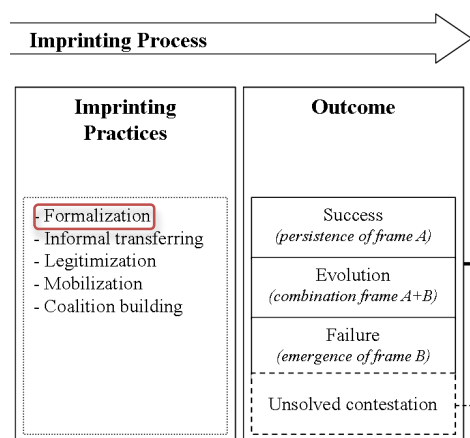
By conceptualizing his conclusion with the evidences from the interviews, we could say that legitimization contributed significantly to the success of the group

and the personal development of its members. The combined strong emphasis on cost saving and quality, together with an results-driven viewpoint were the ingredients of Permasteelisa at that time. After a first period of training Colomban used to give space for autonomy and responsibility to his closest employees who received special training to become the first specialized figures, able to manage complex architectural projects while always keep a close look to financial aspects. The creation of a generous rewarding system ensured good financial recognitions and contributed to diffuse a sense of belonging. A good level of autonomy and responsibility and the monetary aspect together combined constitute the pillars of the imprinting practice of the founder.

Mr. Colomban was guided by a strong belief in the personal development of his employees as the primary driver for the success of the group, and a bottom-up pressure ensured that everyone in the company performed at their best and grew up with an entrepreneurship approach to business. Despite the personal acknowledgment of failure, the imprinting lens is neutral and it analyses the evolution of the company from an objective point of view.

As the analysis continues in the next paragraph, evidence from the interview confirm what previously written in Chapter 2: Mr. Pavan took charge of the group after the founder and continued on his predecessor's path by keeping some strategic elements, removing others and adding some of his own.

3.4 Imprinting dynamics during the change of management team



In 2002 Colomban recognized that it was the right time to leave the company in the hands of an experienced manager. As I reported in Chapter 2, Pavan's strong career background led the founder to choose him: the increasing complexity of the group and the market were requesting a higher level of formalization. The new CEO had the right experience to

guarantee a safe shift towards this important change.

Pavan's strong reputation did not represent a guarantee for the majority of the group. After a period characterized by fierce leadership, they hesitated against the new CEO. The majority of them did not accept Pavan in a positive way. Interviews confirmed this change of dynamics inside the company: Enzo Pavan took a high level of formalization inside the group, while preserving some aspects of his predecessor; the change was in part dictated by the evolution of the market and of the group, towards wider horizons.

As reported by Ulisse Giacomini, the shift from the original management to the new one took time and energy:

"Enzo Pavan established a new approach for the group, shifting from a combination of different point of views centered on the different markets to an unique and shared logic as a group of firms. As direct consequence of this move, free riding behavior characterized the actions of many employees. Differently from the past, they sustained they were no longer incentivized to perform at their best by reaching specific targets. These employees suffered the change of attitude and interpret the shift as a reduction of their power and as a drop of responsibility. During those years we lost many valid individuals who were not able to recognize themselves in the new structure of the group."

Among the critics received, the new CEO was blamed to focus more on the financial aspects rather than on the technical ones. Olindo De Luca confirms the general dissatisfaction that was present in the group after his arrival:

"We could say that under the management of Pavan the major efforts were addressed towards the listing on the stock exchange; the aim was to increase the overall value of the group and to satisfy all the needs requested by the regulation. I can state that most of the changes adopted during those years represented a way to align the group with the obligations of the stock exchange, for the most part from a legal point of view."

Nevertheless Pavan found the support of many people inside the firm, specifically of those able to recognize that *"in part these were choices dictated by the market*

and globalization. As a result of the new group perspective, a continuous search for standardization characterized the working environment”.²² Dedicated activities of assistance and supervision became the basic elements of new training programs. Dedicated software for business management activities (like SAP) played a critical role in facilitating the implementation of a more formalized management approach. Ulisse Giacomini continues:

“Even the logic and the approach to design were changing together with the evolution of the group size and structure. With the new acquisitions and the gradual establishment of the group perspective, common procedures and rules were introduced. To some extents those activities that represent the essence of design and that existed during the first years of the company were lost and substituted by administrative tasks.”

Enzo Pavan implemented different actions of micro management directed to the establishment of a more organized management approach. The overall formalization imposed acted to the detriment of the freedom and degree of autonomy of employees.

3.4.1 Distinctive imprinting practices during Pavan’s management

As reported in the previous chapter, Enzo Pavan succeeded to the founder as CEO in 2002. He gained his personal respect, being recognized as the right person to guide the group during its first big sensitive period. Colomban recognized that his logic was no longer suitable for the complexity of the group and the market and Pavan was the answer to those problems. The background and competences of the new CEO differed completely from the founder’s and at the beginning he struggled to gain the respect of the employees. Under his management the technical competences got a secondary importance and this impacted on the motivation of many.

Even if he continued to give employees the opportunity to become partners and associates of the group, they had to accept an overall decrease in their space of

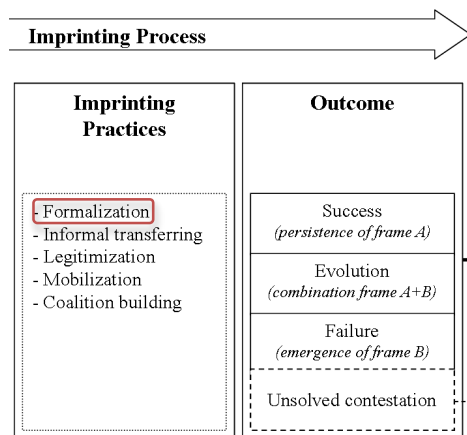
²² Extract from the interview with Ulisse Giacomini, 13/05/2014.

action and autonomy as the complexity of the market and of the group required more specialization and formalization. The primary aim became the increase of the value of the group by adding new projects to the customer portfolio, for the listing on the stock exchanges.

For this purpose the new CEO imposed a unique way of acting like a group: he merged together the different companies existing during Colomban and created common routines, rules and procedures as guides for the entire group.

These evidences guide us to state that an evolution characterized the shift from the founder to Pavan's management. Despite the words of Colomban regarding the failure of his imprinting process, the later CEO continued on the style of his predecessor, while adding some new elements. Managers were still able to become partners of the group, as during "the management partnership". It is true that a new group perspective was taken by Pavan and his choice was in part dictated by the evolution of the market and in part by new purposes. He found in the practice of formalization the best tool to reach his goals. Probably the increasing complexity guided him to choose the more direct and more efficient way, to the detriment of the leeway of his managers and employees.

3.5 Imprinting dynamics of the current management team



Between 2006-2007 Enzo Pavan was encouraged to leave his position as CEO as direct consequence of a year characterized by bad financial performances. The value of the share of the group was decreased by a third, as the number of projects was still high but profitability levels was reduced to minimum.

The appointment of a new CEO is the symbol of the second major sensitive period.

Nicola Greco was the right guide for the group, having developed an important career path at Technip S.A., a company specialized on project management, engineering and construction for the energy industry at a very complex level.

By citing Olindo De Luca:

“After a year of bad financial performances the direction of the group went to Nicola Greco. He transformed the mentality of a group of big artisans to one of a real industry. The craftsmanship style and attention to detail and quality is still present today. A new shared optic as a group is established to substitute the differences in procedures and norms that existed since the expansion of the group abroad through acquisitions of existing companies. A diffused aversion delayed the changes to the organizational structure already started by Pavan. Greco is continuing in his direction and is implementing a series of group common procedures to better coordinate the activities of the group and facilitate the working flow. It is an ongoing process that aims to change the DNA of the group”.

The establishment of a Code of Ethics in 2007 represents a step in this direction. At the employment date, each employee receives a copy of the code of ethics that summarizes the group’s values that each employee has to accept and respect.

Interest is a part of the interview with Massimo Mazzer, previous sales director at Permasteelisa S.p.a., who emphasizes to what extents the changes on the organization have impacted on the motivation of employees:

“An important difference between the founder and the current CEO is their physical presence in the working environments. I have good memories of Colomban working with us side by side, as he used to do even with the last employees of the production plants. Greco today has a completely different approach and he is used to barely walk at the lower floors of the company, with the exception of the corporate ones.

My point of view stresses the importance that Colomban strongly committed to his people. His goal was to make them able to fly away. Through legitimization he wanted to build a group of experts able to express their potentials. Today that passion is still present inside the group among employees. However the current structure is repressing their potential as people are no longer commended neither through responsibility nor through rewards.”

This important evidence found its frame inside the new configuration given to the organizational structure by the current CEO. In 2007, straight after his appointment, he established a decentralized network based approach in order to widen delegation of powers to the strategic units and impose a rigorous set of common rules and procedures.

“Since the time of the management of Pavan and continuing today we are continuously looking for standardization. The effects of globalization and the dynamics of the markets are dictating us this need. We are changing our approach and mentality towards design, which is losing its importance to the advantage of more administrative tasks. Today it is no longer possible to reason differently inside the same group and much more intercompany communications are needed.”²³

²³ Extract from the interview with Olindo De Luca, 13/05/2014.

3.5.1 Distinctive imprinting practices of the current management of Greco

Actions taken by Greco constitute an evolution of those started by his predecessor Pavan. On the same direction the current CEO is implementing a strategy to set a unique vision as a group by using different measures.

Formalization tools are helping him to go beyond the existing internal differences and the recent results are supporting his actions. Through big organizational changes and the introduction of different management tools, he is increasing the chances of success towards the installation of a new mentality.

Concerning other changes at organizational level, at his arrival Greco took some key figures as substitutes of former employees of the group creating uncertainty and aversion among many. A strategy towards business diversification is the cause of the decision: since his arrival, the focus on the group is moving beyond the segment of external façades and is embracing more and more the segments of interiors and contracting solutions. Recent financial results are showing that the choice is respecting the purpose in enabling the group to maintain good levels in terms of turnover and EBITDA.

3.6 The diffusion of distinctive elements along the story of the group

In the analysis of the case of Permasteelisa S.p.a. it is possible to observe how the entrepreneur's frame was strongly transferred to all employees inside the company, regardless of their role or level. The rewarding system, strictly linked to a diffused autonomy and a wider delegation of responsibility, contributed in a good manner to the installation of a deep sense of belonging among workers. Through these ways the founder's frame has been transferred by legitimization: employees were conscious of their importance and they were able to directly control the outcomes of their actions, for which they were accountable.

This created a continuous bottom-up stimulus coming from new employees who were eager to demonstrate their value and gain the respect of their colleagues. The dedicated presence of the founder in almost every part of the business and his profound knowledge of the sector contributed to the retention of his imprinting elements until his exit from the group.

Different is the conclusion that regards the transmission of new imprinting frames taken by later management teams. The actions of both Pavan and Greco are going on the opposite direction. By reducing the degree of control and freedom inside the group, through formalization practices the direction of their actions goes towards the establishment of a common way of thinking and acting as a group. Common rules and routines aimed at guiding different business activities are impacting on the organizational structure of the group, which is resulting transformed from its frame.

Starting from Pavan, a new approach to design and project management has caused the engineering aspect to lose its importance as technical competences gained a secondary importance with respect to more administrative tasks. Those employees who experienced different management styles are finding the current situation less stimulating than the past. Despite their conclusions, the conditions of the current working environment has to be contextualized inside the complexity and the recent dynamics of both the market of construction and the size of the group.

In 2002 Massimo Colombari understood that he was no longer in the right conditions to guide his group, as very specific competences were requested by what was becoming more an industry than a simple group of firms.

The company board of directors appointed Enzo Pavan and later Nicola Greco as CEO because they had the capacity to manage realities of that kind. They find into formalization procedures the best tools to rearrange the group and guide it towards new objectives. Specialization has become the priority in terms of job design.

Conclusion

The conceptual framework on imprinting I used in the analysis is a neutral lens that helps us to understand how past influences the present. Success and failure are not referred to the economic and financial results of the firm, but rather to the persistence or substitution of founders' frames during the firm's history. In this dissertation I focused on the mechanisms and processes that enable imprinted elements to survive at different times inside an organization.

For this purpose I tried to frame the dynamics at the basis of the persistence of founders' imprinting elements inside a process-oriented conceptual framework that emphasizes the importance of social aspects and of mobilizing practices.

The possibility of the existence of several sensitive periods implies that there is room for managerial actions beyond the founding period; such agency will take place only during specific times in the history of the firm and within specific context. In other words, every sensitive period has to be contextualized into the macro conditions of the period of consideration.

The case study contributes to demonstrate the continuity characteristic of the imprinting practice: each subsequent sensitive period constitutes an evolution of the preceding one. In the field of research is very difficult to find examples of case studies in which a new management team completely destroyed the elements of the predecessor.

The dissertation focused on how each management team turned out to administer its distinguished moment, effect of the conditions of the market and the complexity of the group:

- Massimo Colombari, the founder, invented its company in a segment of the market that was completely unexplored at that time. He acted as the primary strong stimulus towards growth and development. His personality and charisma are recognized by his employees as the first ingredients that contributed to the spread of group's motivation. His constant presence in every part of the business helped in increasing the sense of participation of

employees. A generous rewarding system boosted employees' spontaneous involvement and the resulting level of effort took the group to become the global leader in the segment of external façades and architectural envelopes.

- Enzo Pavan, the first CEO appointed after the founder, took the lead of the group with the objective of reducing inefficiencies and increasing the overall value of group's projects, for the listing on the stock exchanges. The board of directors chose the new CEO to transform the structure of the group into a real industry, in terms of standards, norms and procedures. Pavan succeeded to the founder adopting a micromanagement approach by establishing group common procedures and regulations to increase the level of standardization and better monitoring group's performances.
- Nicola Greco is the current CEO, in charge since 2007. He was appointed after a year of bad financial performances with the purpose of preserving the lead of the market of external façades while at the same time expanding the horizons of the group towards new business segments. By understanding that the group size and network is large enough to guarantee a certain level of performances he is acting in a gradual way. Among his first initiatives, he introduced a new decentralized group structure and the first group code of ethics (2007). More recently, he is expanding the boundaries of the group into the segment of interiors and contracting solutions. In these ways he aims to reduce the uncertainty level among employees by creating continuity with the past.

The four interviews, that constitute the content of the qualitative analysis, provide evidence confirming that the recent management practices are reducing the sense of belonging of employees, causing a general detriment to the group's performances. Permasteelisa group is today the global leader in its main segment and the increasing global competition could soon force the company to adapt its structure and practices. A possible way to stimulate the entrepreneurship approach of employees, while asking them for higher level of performances and results, could be the re-establishment of an internal rewarding system.

References

- Ashforth, B.K., & Saks, A.M. (1996). *Socialization tactics: Longitudinal effects on newcomer adjustment*. *Academy of Management Journal*, 39(1), 149–178. p. 149.
- Azoulay, P., Liu, C.C., & Stuart, T.E. (2011). *Social influence given (partially) deliberate matching: Career imprints in the creation of academic entrepreneurs* (Working Paper). Cambridge: Harvard University, 1-46. pp. 2, 4, 8.
- Baron, J.N., Burton, M.D., & Hannan, M.T. (1999). *Engineering bureaucracy: The genesis of formal policies, positions, and structures in high-technology firms*. *Journal of Law, Economics, and Organization*, 15(1), 1–41. pp. 1, 3.
- Barreto, I. (2012). *Solving the Entrepreneurial Puzzle: The Role of Entrepreneurial Interpretation in Opportunity Formation and Related Processes*. *Journal of Management Studies*, 49(2), 356-380. pp. 363, 364.
- Becker, C. M. (2012). *How dispositions shape organizations: The Carl Zeiss case*. Strategic Organization Design Unit (preliminary draft). University of Southern Denmark. 1-53.
- Burton, M.D., & Beckman, C.M. (2007). *Leaving a legacy: Position imprints and successor turnover in young firms*. *American Sociological Review*, 72(2), 239–266.
- Felin, T., and Zenger, T. R. (2009). *Entrepreneurs as theorists: on the origins of collective beliefs and novel strategies*. *Strategic Entrepreneurship Journal*, 3(2), 127-146.
- Finotto, V. & Moretti, A. (2013). *Unveiling the founder effect: a process oriented framework on entrepreneurial imprinting*, Strategic Management Society, Proceedings of the 33rd Strategic Management Society Annual Conference – Atlanta, Strategic Management Society, pp. 1-6, Convegno: 33rd Strategic Management Society Annual Conference, Atlanta:GA, 28/08-01/10/2013 (*Articolo in Atti di convegno*).
- Flanagan, C. (1999). *Early socialisation: Sociability and attachment*. London: Routledge.
- Garzia C. (2000a). *L'industria dei serramenti metallici: strategia e struttura*, Edimet, Brescia.
- (2000b). *The aluminium window and curtain wall industry*, «Aluminium 2000 World Congress Proceeding», Interall, Modena.
- (2003a). *Managing Innovation through Internal Corporate Venturing. A System Dynamics Approach*, «System Dynamics Society 2003 Conference Proceedings», System Dynamics Society, New York.

- (2003b). *Managing Internal Corporate Venturing. A System Dynamics Approach*, «European Academy of Management 2003 Conference Proceedings», EGEA, Milano.
 - (2003c). *Aluminium in building. The materials war. The case of the Italian market*, «Aluminium 2003 World Congress Proceeding», Interall, Modena.
- Gieryn, T.F. (2000). *A space for place in sociology*. *Annual Review of Sociology*, 26(1), 463 – 496.
- Harris, L.C., and Ogbonna, E. (1999). *The strategic legacy of company founders*. *Long Range Planning*, 32(3), 333–343.
- Hess, E.H. (1959). *Imprinting*. *Science*, 130(3368), 133–141.
- Hillerbrant P.M., Cannon, J., (1994). *The management of construction industry*, Macmillan, Londra.
- Immelmann, K. (1975). *Ecological significance of imprinting and early learning*. *Annual Review of Ecology & Systematics*, 6, 15–37. p. 16.
- Johnson, V. (2007). *What is organizational imprinting? Cultural entrepreneurship in the founding of the Paris Opera*. *American Journal of Sociology*, 113(1), 97–127. pp. 98-99, 100, 104-105, 121-123.
- Kaplan, S. (2008). *Framing Contests: Strategy Making Under Uncertainty*. *Organization Science*, 19(5), 729-752.
- Kor, Y. Y., Mahoney, J. T., and Michael, S. C. (2007). *Resources, Capabilities and Entrepreneurial Perceptions*. *Journal of Management Studies*, 44(7), 1187–1212. p. 1191.
- Loasby B. J. (2007). *The entrepreneur in economic theory*. *Scottish Journal of Political Economy*, 29(3), 235 – 245.
- Lounsbury, M., and Glynn, M. A. (2001). *Cultural entrepreneurship: stories, legitimacy, and the acquisition of resources*. *Strategic Management Journal*, 22(6-7), 545-564.
- Lounsbury, M., & Ventresca, M. (2002). *Social structures and organizations revisited*. In M. Lounsbury & M. Ventresca (Eds.), *Research in the sociology of organizations* (Vol. 19, pp. 3–26). New York: JAI/Elsevier.
- Marquis, C. & Tilcsik, A. (2013). *Imprinting: toward a multilevel theory*. *The Academy of Management Annals*, 7(1), 193-243.

McEvily, B., Jaffee, J., & Tortoriello, M. (2012). *Not all bridging ties are equal: Network imprinting and firm growth in the Nashville legal industry, 1933–1978*. *Organization Science*, 23(2), 547–563. p. 549.

Moretti, A., Garzia, C. (2004). *Massimo Colomban e la Permasteelisa, 1974-2002*. ISEDI.

Nelson, R. R. & Winter, G. S. (1982). *An Evolutionary Theory of Economic Change*. Belknap Press of Harvard University Press, Cambridge/MA. pp. 99, 100.

Schein, E.H. (1971). *The individual, the organization, and the career: A conceptual scheme*. *The Journal of Applied Behavioral Science*, 7(4), 401–426.

Scott, W. R. (1987). *The adolescence of institutional theory*. *Administrative science quarterly*, 493-511.

Shane, S. (2009). *Why encouraging more people to become entrepreneurs is bad public policy*. *Small Business Economics*, 33(2), 141–149.

Steyaert, C., 2007. *“Entrepreneurship” as a conceptual attractor? A review of process theories in 20 years of entrepreneurship studies*. *Entrepreneurship & Regional Development*, 19(6), pp. 453–477.

Stinchcombe, A.L. (1965). *Social structure and organizations*. In J.G. March (Ed.), *Handbook of organizations*. Chicago, IL: Rand McNally, pp. 142–193.

Swidler, A. (1986). *Culture in Action: Symbols and Strategies*. *American Sociological Review*, 51(2), 273-286.

Witt, U. (1998). *Imagination and Leadership - The Neglected Dimension of an Evolutionary Theory of the Firm*. *Journal of Economic Behavior and Organization*, 35, 161–177, pp. 163, 164, 166, 167.

Witt, U. (2007). *Firms as Realizations of Entrepreneurial Visions*. *Journal of Management Studies*, 44(7), 1125–1140.

Zander, I. (2007). *Do You See What I Mean? An Entrepreneurship Perspective on the Nature and Boundaries of the Firm*. *Journal of Management Studies*, 44(7), 1141-1164, p. 1142.

Websites

- <http://www.ilsole24ore.com/art/SoleOnLine4/Finanza%20e%20Mercati/2009/09/permasteelisa-bonomi-alpha-opa.shtml?uuid=f570e868-96db-11de-9427-0dfcab01a6df>

- <http://www.permasteelisagroup.com/>
- <http://www.permasteelisagroup.com/about-the-group/who-we-are/group-structure/>
- <http://www.permasteelisagroup.com/about-the-group/who-we-are/our-brands/>
- <http://www.permasteelisagroup.com/about-the-group/who-we-are/mission-philosophy/>
- http://www.permasteelisa.com/media/documents/attachment/Permasteelisa_Codice-of-Ethics_2014_WEB.pdf
- <http://global.lixil.co.jp/news/>
- http://www.corriere.it/economia/italie/veneto/notizie/puato_permasteelisa_a95900c8-4528-11de-982b-00144f02aabc.shtml
- http://archivistorico.corriere.it/2011/agosto/05/Permasteelisa_Bonomi_cassa_cron_Giapponesi_co_9_110805010.shtml
- http://archivistorico.corriere.it/2009/settembre/02/Bonomi_blanda_Permasteelisa_via_offerta_co_9_090902086.shtml
- <http://www.ilsole24ore.com/art/economia/2012-01-11/paese-rischio-bolla-guardate-092206.shtml?uuid=Aao7bicE&fromSearch>
- <http://www.ilsole24ore.com/art/finanza-e-mercati/2011-07-02/blitz-giappone-conquista-permasteelisa-081611.shtml?uuid=AaNjKikD>
- <http://www.ft.com/intl/cms/s/0/98656e2c-bdf9-11e0-ab9f-00144feabdc0.html#axzz3FP5Tp33U>
- http://www.repubblica.it/economia/affari-e-finanza/2014/02/03/news/permasteelisa_il_2013_stato_da_record_perch_ora_puntiamo_solo_alle_maxi_opere-77562472/
- <http://en.wikipedia.org/wiki/Shanghai>