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Entrepreneurship as renewal in mature industries

by

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ENTREPRENEURSHIP AS RENEWAL IN MATURE INDUSTRIES

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ABSTRACT

Entrepreneurship broadly covers different areas because it is a pervasive phenomenon. We here analyze the role of entrepreneurship in mature industries, where strategic change may be necessary for avoiding decline. Firstly, mature industries are embedded with a potential renewed role for entrepreneurship. Furthermore, the resource-based view may be employed as a tool of measurement of entrepreneurial activity in mature industries. The objective of this paper is to capture the evolution of resources – linked to a successful leverage of internal capabilities – in industries that are unattractive. The choice of specific indicators will highlight specific traits common to three cases of emerging business analyzed in detail. These businesses are endowed with entrepreneurial resources and revive in mature contexts. Specifically, these firms showed a high tension to growth, enjoyed good reputation, achieved better productivity compared to that of the industry in which they compete and were particularly able to adopt innovative technologies.

Keywords: Entrepreneurship, Industrial Organization

1 INTRODUCTION

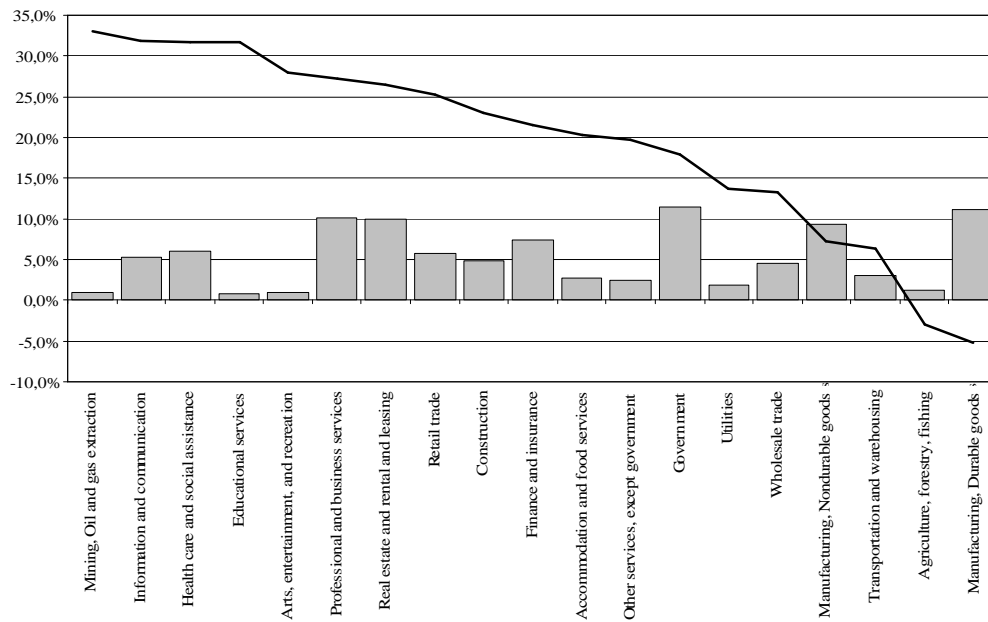
According to different structural contexts, entrepreneurship broadly covers different areas because it is a pervasive phenomenon. In this vein along the already abundant considerations in the context of emergent firms, we would like to highlight the role of entrepreneurship in mature industries, where ever more often change is necessary for avoiding decline.

Mature industries are embedded with a potential renewed role for entrepreneurship. We believe this is of particular interest from both a research and business perspective because most of the previous work on entrepreneurship concentrates on growing industries or on the birth of new markets or firms, usually overlooking the simple consideration that mature and infant industries cohabit. Furthermore, most of today's GDP comes from mature industries that also employ most of the labor force. This is particularly true for developed countries, where indeed often the debate is on the much abused word: decline.

The industries that shape the backbones of national economies are principally mature in nature, at least in developed countries, and they are the main contributors to GDP and employ most of the workforce. One way of identifying maturity is that under a temporal perspective their sales growth is slower and constantly below that of the economy as a whole. From the point of view of employment, instead, these industries are faced with the structural necessity to resize and improve productivity, implying different degrees of job losses. From a strategic point of view, the area of maturity in the industry life cycle is much more worrying for incumbent firms because in this phase the range of potential opportunities diminishes. Furthermore, competition shifts from differentiation-based to structures based primarily on cost factors, such as productivity. Indeed, as we will further detail in the business case analyses, maturity is multi-faceted and requires a more complex and dynamic approach for its detection.

Figure 1.1 shows the contribution to production of gross output for the USA: besides government – that alone absorbs relatively most of the resources of the economy (11.4%) – up to 21% of total gross output can be explained by manufacturing activities, both for durable goods (9.4%), like dishwashers, cars and furniture, and for non durables (11.1%) like food, shoes and chemicals. Indeed manufacturing activities reported sluggish – at times even definitely negative – growth rates. On the other hand, there are other so-called mature industries, like retail trade, that are straightforward in telling us that renewal is possible – growth of 25% – and that there are growth opportunities in these areas.

Figure 1.1 USA gross output and employment by industry, 2002.



Source: U.S. Bureau of Economic Analysis.

Maturity can last for a long time during which industries are influenced in a growing manner by external dynamics like, for example, national economic trends, demographic trends and so on. In our view this phase is an interesting battle field where firms are forced to rejuvenate in order to survive. Firms that make it to the mature phase of the life cycle tend to be structured and management projects good results from this existing and constant organization. When the firm is faced with declining trends and both profitability and performance decrease and even when management does take action, it might be too late, or too difficult for the firm to radically change its strategy. At the same time, in the context of the initial signals of decline, the conservative forces of the industry as a whole tend to break up, leaving space for strategic business innovation and at times creating the very foundation of industry renewal. That is, even in declining context, environmental factors may create the space for new opportunities.

The first part of the paper highlights the relationship between entrepreneurship and industry context, with the description and the development of the concept of industry systems based on the life cycle model. First of all, the adoption of the life cycle perspective puts forward a tool for defining the area of analysis. Literature is quite clear on the specifications of the model, and we refer to those authors that offered the opportunity to grasp the usefulness of it for dynamic industry evolution. The model distinguishes different phases of evolution in the attempt to describe how industries evolve in time. The model refers to different level of approaches, based on

products (Klepper, 1996; Gort and Klepper, 1982), firms (Miller and Friesen, 1984; Drazin Kazanjian, 1990; Quinn and Cameron, 1983) and industries (Mc Gahan et al., 2004; Filson, 2002; Auster, 1992; Porter, 1980). Second, one of the main characteristics of the mature and declining phase of the industry life cycle is that external conditions increasingly dominate its evolution. On one hand, the greater the power exerted by a firm's external environment, the more likely it is that the development of internal resources will provide a secure foundation for the firm's long-term strategy. On the other hand, the competitive environment that emerges will reward only the fittest to survive leaving open a renewed role for entrepreneurship, under the specific viewpoint of entrepreneur that pools, reorganizes and builds resources – both physical and intangible assets.

To support the cross-analysis of entrepreneurship in mature industries, we will acknowledge the resource-based view as a tool of measurement of entrepreneurial activity, based on literature that supports the consideration of entrepreneurship as the ability to combine resources in a fruitful manner. The second part of the paper will thus describe how the resource-based view can be useful for the detection of entrepreneurial activity (Alvarez, Busenitz, 2001). The main objective is to capture the evolution of resources – linked to a successful leverage of internal capabilities – in industries that are unattractive. Indeed the endowment of resources does not translate automatically into capabilities, although the exploitation of capabilities is the clear indication of possessing a resource. The relationship between resources and capabilities is much more complex, and it will be demanded to further research.

The third part of this paper will detail the analysis of the entrepreneurial activity in three business cases, RyanAir, Geox and Wal-Mart – and their performance compared to their industries, that are food and general merchandise retailing, footwear and passenger airlines, all in the mature phase of their evolution, as we will detail further on. The qualitative and quantitative data collected will be analyzed according to the methodological approach described in this part to evidence, if any, the presence of entrepreneurial activity underlying the best performing firms.

Last, we will summarize our conclusions based on the specific indicators that should enable us to grasp and expose the main effects brought forward by the firms' entrepreneurial activity. We will see that the most important issues are indeed the firms' ability to growth and take advantage of new business configurations that ensure an enhanced capability of capturing returns on new business knowledge.

2 MATURITY AND ENTREPRENEURSHIP

Mature industries are embedded with a potential renewed role for entrepreneurship. We believe this is of particular interest from both a research and business perspective because most of the previous work on entrepreneurship concentrates on growing industries or the birth of new markets, neglecting the simple consideration that mature and infant industries cohabit. Furthermore, most of today's GDP comes from mature industries that also employ most of the labor force. This is particularly true for developed countries, where indeed often the debate is on the much abused word: decline.

The choice of this specific area of the industry life cycle is thus linked with specific implications in terms of entrepreneurship, both at the individual and corporate level, in the sense that the role of entrepreneurship finds again the characteristic centrality it had in the introduction and growth phases, dominated by traits of innovation, creativity, risk-taking and also corporate diversification.

Before underlining the relationship between entrepreneurship and industry context, let us briefly describe the development of the latter according to the life cycle model. This model comes to aid when the analysis, like in this case, is dynamic in nature. First of all, the adoption of the life cycle perspective puts forward a tool for defining the area of analysis. Literature is quite clear on the specifications of the model, and we refer to those authors that offered the opportunity to grasp the usefulness of it for dynamic industry evolution. The model distinguishes different phases of evolution in the attempt to describe how industries evolve in time. Industry context as a whole can be view as made of products, firms and competitive environment. Correspondingly, the model refers to different level of approaches, based on products (Klepper, 1996; Gort Klepper, 1982), firms (Miller Friesen, 1984; Drazin Kazanjian, 1990; Quinn Cameron, 1983) or industries (Mc Gahan et al., 2004; Filson, 2002; Auster, 1992; Porter, 1980). While the evolution of the Product Life Cycle highlights the market side of an industry, the Corporate Life Cycle focuses on the dynamics of a single firm, and the Industry Life Cycle is related to the supply-side of an industry. We can imagine the model over time as the introduction, sales growth and then decline of product lines. Products are made by firms whose organization may follow patterns in time. Last, the industry's supply-side is the sum of the evolution of the firms competing in it, or simply menacing to do so.

In this perspective, the Industry Life Cycle may best capture the entrepreneurial activity as one of the main drivers underlying change. In particular, we are interested in those firms whose performance diverges from

the others. We think of this process as an emerging business in a mature industry. Thus, our framework is based on the evolutionary trends set forward by the life-cycle model.

There are two common traits of all theories based on the life cycle model. First of all, life cycle phases are consequential. Product, firms and industries change over time and they follow a predictable pattern that can be characterized by development stages. When and how these move on to the next stage mainly depends on the dynamics that occurred during the previous stages. For example, if during the growth phase the entry rate of firms in the industry were particularly high, then the shift to the mature phase could be fiercer, and the effects of the eventual shakeout particularly harsh. In general, the present embodies past events and if it is possible to act in the present foreshadowing the future, knowledge of the past manifests tracing in today the elements of what has been. Intuitively this could be correct for what concerns the first phases of the model (from introduction to maturity). For what concerns the period defined as maturity, it seems that the emergence of stronger environmental factors shaping the competition could weaken predictability of future evolution. Unfortunately, the further the analysis moves towards the last phases, the model becomes less reliable for future predictions.

Second, life cycle models are multidimensional. Most studies take into consideration concurrent determinants that cause the shift from one phase to the other of the life cycle. The complexity of evolution can be frequently restricted to a few main drivers, depending on the level – product, firm or industry – and on the phase of analysis. In Table 2.1 there is an outlook of the main indicator of industry maturity and decline according to the literature.

Table 2.1 Indicators of maturity and decline according to literature.

Author	Indicators of maturity and decline
Dean (1950)	Less product differentiation, standardization
Forrester (1959)	Less product differentiation, mass production
Patton (1959)	Less product differentiation, price competition, lower margins, lower prices
Levitt (1965)	Market saturation, replacement buying, overcapacity, price competition, more exits, lower profitability
Clifford (1965)	Market advancedness, cost control
Buzzell (1966)	Less product differentiation, lower advertising/sales, lower prices, lower profitability
Mueller and Tilton (1969)	Routine R&D, decreasing number of firms, price competition
Wells (1972)	Standardization, lower labor skills, decreasing exports, increasing imports, price competition
Smallwood (1973)	Mass production, price competition, increased quality, overcapacity, lower profitability
Staudt, Taylor, Bowersox (1976)	Repeat buying, less rapid product changes, lower advertising/sales, price competition, fewer competitors
Abernathy and Utterback (1978)	Innovation tends to decrease as industries mature and decline
Jovanovic (1982)	Information on efficiency
Foster (1986)	Innovation tends to decrease as industries mature and decline
Baden-Fuller (1989)	Falling domestic demand
Amin and Smith (1990)	Decline in output, decline in employment, increased market share of imports
Corcoran (1990)	Lower industry shipments, lower employment, increased productivity, domestic market share held by imports, domestic industry's market share in export markets
Lieberman (1990)	Divestment of production capacity
Walsh (1991)	Decline in production, decreasing employment
Jovanovic and MacDonald (1994)	Industry output lower than average firm growth, decreasing number of firms, price competition
Sekiguchi (1994)	Lower capacity utilization rate, higher import ratio, declining employment, lower profitability, over-capacity
Tan and Lewis (1994)	Firm entry and exit account for lower production (number of plants), lower value of shipments, declining employment
Williams D'Souza Rosenfeldt Kassae (1994)	Older average age of incumbent firms, decreasing levels of R&D, lower entry/exit barriers
Klepper (1996)	Increased firm size, decreasing number of firms, process over product innovation, price competition
Anand and Singh (1997)	Reduction of market demand
Gera and Mang (1997)	Real output growth is below the local economy's average growth of real output
Navaretti (2000)	Declining employment
Filson and Songsamphant (2001)	Output declines over at least five years, and then remains below the pre-decline output level at least for another 10 years
Grant (2002)	Replacement buying, well-diffused know-how, trend to commoditization, overcapacity, increasing imports, price competition

Source: Cassia, Fattore and Paleari, *Entrepreneurial Strategies: Emerging Businesses in Declining Industries*, forthcoming Edward Elgar.

3 MATURITY AND RESOURCES

Since one of the main characteristics of the mature (and the decline) phase of the industry life cycle is that external conditions increasingly dominate its evolution and the greater the change in a firm's external environment, the more likely it is that the development of internal resources will provide a secure foundation for long-term strategy. The competitive environment that emerges will reward only the fittest to survive, leaving open a renewed role for entrepreneurship, under the specific viewpoint of the entrepreneur that pools, reorganizes and builds resources – both physical and intangible assets. In the analysis of the mature phase of the industry life cycle, firms and markets are characterized by certain common traits, above all the fact that external factors highly influence industry evolution: limited technical improvement opportunities (McGahan et al, 2004; Foster, 1986; Abernathy and Utterback, 1978), saturated market (Gera e Mang, 1997; Anand and Singh, 1997; Baden-Fuller, 1989), product commoditization (Auster, 1992; Grant, 2002), increased competition and/or increased regulation (Grant, 2002; Klepper, 1996; Smallwood, 1973), social or demographic trends (Porter, 1980). We will now describe briefly this specific phase of industry evolution. Today most of industry life cycle models are usually described in terms of sales aggregates.

As described by the above authors, during the evolution of an industry, when the potential customer base is close to total coverage, the growth of volume production starts to slow down, and demand is stable and mainly focused on product replacement. Often products become more and more standardized and become near commodities. Clients are more price-sensitive and their knowledge of the products quite high after years of consumption. Differentiation becomes very difficult and while price competition becomes stronger, and profit margins shrink, it arises the need to search for new client bases. Firms seek to reduce costs and capitalize on internal resources. Product innovation leaves space to process incremental innovation. Innovation spreads quickly in the industry and barriers to the diffusion of knowledge become weaker.

During maturity it thus becomes increasingly difficult to achieve positive increases in productivity, because the products or services may have reached technological saturation. The main factors of the competitive process may increasingly be based on, for example, scale economies, learning curves, barriers to entry and financial resources. In these conditions, bigger firms may be more able to sustain and implement the innovative processes at the base of competition.

Mature industries reach a certain degree of stationary state such that the trends of market demand are usually lower than economic growth of the economy. On the other hand processes, technologies and resources

are managed according to efficiency objectives, but often require investments that may not be easily paid back. Other traits are a high degree of internal rivalry, a slow growth potential, limited introduction of new products and services, and decreased industry profitability. A stagnating market increases the buyers' negotiation power. There is often overcapacity in the industry resulting from efforts to achieve economies of scale. The established firms, and especially the market leaders of the industry, will strive towards creating barriers for new entries into the industry.

4 ENTREPRENEURSHIP AND RESOURCES

Entrepreneurship was defined as “identification and exploitation of previously unexploited opportunities. As such, entrepreneurial actions entail creating new resources or combining existing resources in new ways to develop and commercialize new products, move into new markets, and/or service new customers” (Hitt et al., 2001, p. 480). We tend to recognize here a version of the entrepreneur where value is created through new combinations of resources, fruit of exploited profit opportunities and entrepreneurial intuition. The common trait of entrepreneurship is heterogeneity: of the opinions on future value of resources (Schumpeter, 1934; Kirzner, 1979; Shane e Venkatraman, 2000), of the available information on the opportunity windows (Hayek, 1945; Venkatraman, 1997), of the cognitive abilities to understand and interpret this information (Busenitz e Barney, 1997; Baron, 1998; Alvarez e Busenitz, 2001), of the nature of these opportunities (Venkatraman, 1997; Shane e Venkatraman, 2000), of the individuals involved in the process (Knight, 1921; Khilstorm e Laffont, 1979; Cooper, Woo e Dunkelberg, 1988; Venkatraman, 1997).

Our perspective does not take into consideration the whole range of traits and roles that entrepreneurs have or undertake. Rather, we would like to evidence the relationship between Entrepreneurship and both organizational and industry renewal in mature or even declining contexts. It is particularly interesting to notice how on one hand old and new industries live alongside and on the other how innovation often sparks renewal in a wide array of industries that have been mature for quite a while (for example the impact of internet-based technology on bookselling and retailing) along with the creation of entirely new businesses (web portals). In this vein, and independently from the fact that the specific industries under exam are high or low tech, it is important to understand the ability of incumbent firms to be technology users, that is to reap the technological fruits of innovation to support competitive advantages.

Surely entrepreneurship has a relevant function in new-born industries, in their initial phases of the life cycle. The recent internet-based technology wave is a good example of how new entrepreneurs were erected, in popular belief, as ideal models of success to follow: Jeff Bezos of Amazon; David Filo and Jerry Yang for Yahoo!; Larry Page and Sergey Brin of Google.

Entrepreneurial activity is highly concentrated in the initial phase of the firm’s life cycle and thus even more in the initial phases of the industry. At the beginning and until maturity, the role of the entrepreneur has always been seen as paramount, and indeed the birth phase is also commonly termed entrepreneurial. Starting

from the growth phase the role of external finance becomes relevant, as investors are convinced of the growth perspectives once the firms proves to be initially successful. Even when investors participated to the birth phase, the growth phase is when their influence is strongest, for example venture capitalists usually push for IPOs once firms are successful. The role of managers, instead, starts to be relevant from the mature phase on, corresponding to a higher formalization of business organization.

Entrepreneurship seems thus not based on the mere idea of new entry, but rather as firm growth because only the latter generates important consequences in the industry, calling for policies that reduce barriers to growth as opposed to reducing barriers to entry. In this context the main gains in terms of growth and improved productivity potentially come from industry incumbents not necessarily triggered by the entrance of a new firm on the market. This seems the case of firms that compete in mature contexts – as an organization and, most importantly, in a specific industry.

From maturity on, the role of the entrepreneur is less clear, although it is not unlikely to suppose that in the long run, as in the case of most of the firms in effectively mature industries, the role is less important than at the initial phases. In practice this implies that the person that did have many of the entrepreneurial traits and motivations does not occupy an important role in conducting the business anymore.

In our view entrepreneurship should regain a central role in mature industries because these are the contexts where opportunities are less likely to emerge, to the extent that only an entrepreneur – or an entrepreneurial organization – could be able to recognize and exploit them. Mainly for this reason, where industry and external conditions increasingly dominate industry evolution, there is a renewed role for entrepreneurship, under the perspective of growth opportunities for both small and large firms. Renewed industry conditions may yield new opportunities, laying ground for industry and economic revival.

Particularly we believe that in mature industries the entrepreneurial process leverages on these facts: first of all the comes arising of sources of business opportunities, both explicit (market niches) and tacit (undiscovered needs). The natural evolution of industries may bring forward specific opportunity windows that, if engaged, would require bearing a high degree of entrepreneurial risk, the ability of organizational renewal and in general the skills to emerge and succeed. Second, the identification and evaluation of business opportunity, based on particular information: entrepreneurship relies heavily on asymmetries of information and beliefs and the ability to recognize opportunities depends on the possession of prior information (Shane and Venkataraman, 2000). Furthermore, the organization will require the necessary skills to value the opportunity, and the flow of information is thus oriented to the market on one hand and towards inward resource control on the other. A

subsequent important dimension is the organization development, that implies specific decisions concerning the correct interaction with the market, appropriate gameplays with competitors and a unique interaction with the firm's habitat. Furthermore, one of the main characteristics of organizational renewal implies the transfer of knowledge, which creates the basis for increasing returns on it, while erecting barriers to other firms, mainly to discourage imitation or free-riding. Moreover, organizational development – or its straightforward regeneration – is fundamentally related to the leverage of the individual behaviors of those people inside the firm who are able to discover, evaluate and exploit opportunities. Last the flow of information must give leaders the possibility to match market needs with internal resources. At the end of this process there is the deployment of resources aimed at the exploitation of business opportunities. Entrepreneurs will pursue an opportunity if the expected profit from the opportunity is enough to at least offset the opportunity cost of other alternative resource allocations (Kirzner, 1973). In the perspective of industries in advanced maturity, opportunities are less frequent, and exploitation of them is less likely because demand may not be growing, profit margins are low, it is not related to new technology, competition is high and the cost of capital is relatively high.

To support the cross-analysis of entrepreneurship in mature industries, we will acknowledge the resource-based view as a tool of measurement of entrepreneurial activity (Abernathy e Clark, 1985), based on literature that supports the consideration of entrepreneurship as the ability to combine resources in a fruitful manner. Under the resource-based perspective, firms are a pool of resources and capabilities that are the main determinants of their strategies. In the literature the boundaries between resources and capabilities are often not always clear (Andersen and Kheam, 1998). A common vision is that for which resources are all input to the firms production processes (e.g. capital equipment, finance, skills of individual employees, patents, brand names, finance, and so on). This may also be perceived as antecedent to organizational capabilities, which could be viewed also as the main source of competitive advantage (Grant, 1991; Amit e Schoemaker, 1993; Henderson e Cockburn, 1994; Maritan, 2001).

Our main objective is to capture entrepreneurial activity through the evolution of resources – linked to a successful leverage of internal capabilities – in industries that are unattractive. In this sense we can observe, perceive or measure entrepreneurial activity looking at the combination of resources that were able to generate a difference with competitors that lack this specific ability. Thus, by observing the evolution of specific resources in time we should be able to capture a higher-level order guiding them: the Entrepreneurial ability.

In mature industries where growth rates are low and margins decreasing, it seems interesting to investigate on the particular strategies that are able to completely change the prevailing business model,

proposing in this sense a radical strategic innovation that can bring the industry to new revival phase. Traditional models of industrial organization focus on the description of the contextual conditions that favor high performances for the firm. In a same industry different firms may possess the same strategic resources; indeed these resources are highly transferable (easy to buy, sell or even copy) and are thus homogenous. In this context firms and resources coincide. Conversely, theories based on resource perspectives of the firm underlie how the internal context of a firm, in terms of resources owned and not owned, is more critical for the determination of strategy than the external context.

The idea that the main trait of competition relies on systems of production over products is not a new approach, as already Penrose (1959) introduced this concept in her analysis of strategic diversification. Markets are poor in valuing new products, technologies and ideas. In reality new opportunities are known only once exploited and indeed many firms follow this processes of introducing new against established, based on the uniqueness of their own resources and capabilities.

The main resources related to innovation that we recognize as important both for entrepreneurship and for the evolutionary processes of firms in mature industries nearly to face decline are those related to the tension towards growth, productivity and reputation, that is the firm's relationship with the market. Although these are defined as resources, they cannot be assimilated to natural resources because they do not just exist. Veritably, they are shaped in the context of the particular industry habitat. The main implication of this point of view is that these resources must be nurtured, but not solely by the firm (as indicated by the resource-based theory) but also by the other actors of the industry habitat. Thus the implications for both strategy proposals and public policy.

5 METHODOLOGY

Here we will advance the analysis of specific mature contexts, such as the European airlines, the European footwear and the USA retail industries, during specific time periods, as indicated in the business cases. The qualitative and quantitative data collected will be analyzed according to the approach of above to evidence, if any, the presence of entrepreneurial activity underlying the best performing firms.

The object of analysis is the firm positioned in industry systems (at different geographical levels) on one hand, that lean on specific organizational resources on the other. From the first viewpoint some firms show an anomalous track record; a benchmark across the industry leads us to consider how firms in the same industry can have, for example, a different combination of the same resources, thus yielding completely different results in terms of both revenues and cost structures.

For each industry considered we compare the selected company with its main competitors as a group, using the following performance indicators: ROCE, Sales growth, EBIT growth, Sales/Employee growth, EBIT/Employee growth and Price to Book Value (P/BV).

ROCE is defined as the ratio between the sum of EBIT and the sum of Total Assets over the period considered. ROCE can be seen as a general measure of profitability of the capital employed in a firm. It shows the ability of generating profit (EBIT) from the resources available inside the company (total assets). A greater ROCE indicates, resources equal, a better ability in extracting profit from ordinary activity, thanks to, for example, a more efficient business model or a stronger effort in revenues improving and cost controlling. Sales growth is defined as the Compound Annual Growth Rate (CAGR) of revenues over the period and it is an indirect measure of the efforts a company makes to expand its activities. EBIT growth is defined as the CAGR of EBIT over the period; while EBIT is a measure of company profitability, EBIT growth may be seen as an indirect measure of the efforts a company makes in improving it over a period of time. Analyzed together with sales growth measure, it indicates if the process of business expansion is followed by a more or minus than proportional profitability gain, i.e. if the company is exploring some kind of economies of scale in its expansion strategy. Sales/Employee growth is the CAGR of the ratio between sales and the number of employees, while EBIT/Employee growth is the CAGR of the ratio between EBIT and the number of employees. They are a measure of gains in productivity of human resources involved in the developing of company activities. They may be the simple result of a shift towards a more capital intensive business model, for example by substituting

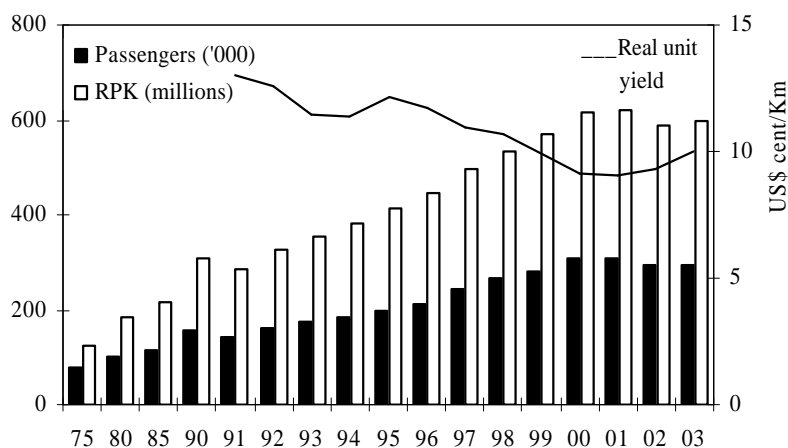
low-skill labor with automated process. Better, a gain in labor productivity may be the result of the adoption of simpler and more efficient procedures and organizational structure or the consequence of an externalization process of non core activities. Price to book value is defined as the ratio between market price and book value of a single share. The value reported in the table above is the average of monthly PTBV in the period considered. Main competitors PTBV is the average of PTBV of the single firms. We extend our analysis over the period where the company may be considered an “emerging firm”. The results of this final analysis are under the conclusions.

6 BUSINESS CASES

6.1 RyanAir

The picture of the intra-European passenger air transport industry is that of a contemporarily growing and declining sector. The first characteristic of the airline industry is the continuing growth in demand since the beginning of the aviation industry. The second characteristic is the drop in unit yield, i.e. revenues divided by revenue passenger-kilometers, that represents an aggregate of all the airfare and airline charges. The graph of Figure 6.1 shows how acute is the decreasing trend of unit yields, measured in real terms.

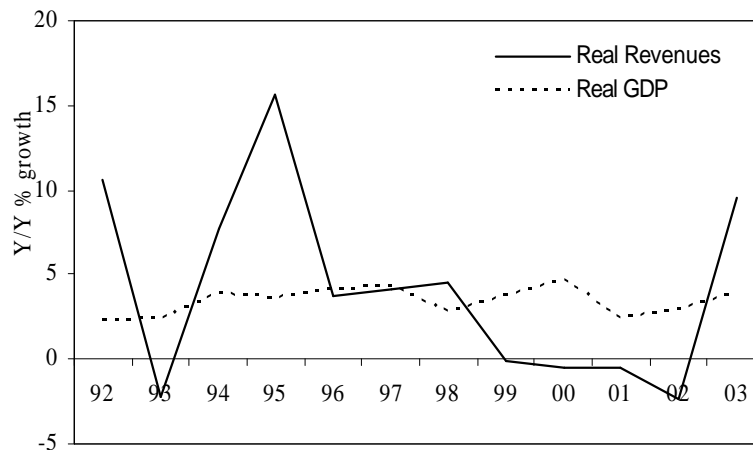
Figure 6.1 Trend of passengers (thousands), revenue passenger kilometers (million km) and real unit yield (US cents per kilometer) of the Association of European Airlines (AEA) members in the period 1975-2003.



Source: own analysis on AEA data.

The growth of the number of passengers was compensated by the decreasing charge applied per unit of service, giving an overall picture of maturity to the airline industry. This consideration appears substantially founded also comparing the growth of industry total revenues, given by the product of passengers and RPK, to the growth of real GDP, as in Figure 6.2. The airline industry has a poor average profitability and goes through cyclical trends. As already stated previous, lower prices, lower profitability and low growth are reasonable proxies of industry maturity.

Figure 6.2 Airline industry real revenues annual growth and real GDP growth.



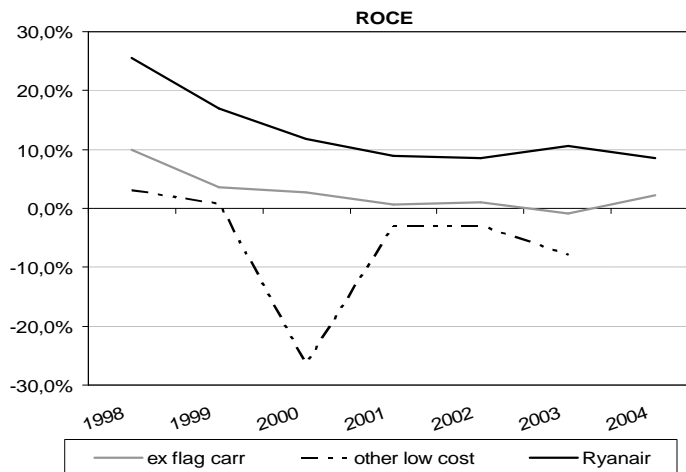
Source: own analysis on AEA data and International Monetary Fund.

The main actors of this market comprehend the flag carriers and other traditional carriers, and the later entry low cost carriers. A key difference between the low cost and the traditional model is the scale on which it is applied: low cost airlines operate short distance routes while traditional carriers generally serve a mix of short, middle and long distance destinations. When comparing cost advantage across the airline industry the low cost model seems to yield a totally different cost curve, significantly lower than that of traditional airline models. The overall effect of the low cost entry is that to generate and serve a new demand, not satisfied before by the traditional carriers.

RyanAir is the largest and most successful European low-cost airline. It has demonstrated amazing growth rates and financial performance especially when the rest of the airline industry experienced deep losses and struggled to survive. It seems that RyanAir was able to manage an extraordinary organizational expansion without losing control over costs and capacity use: within the 2000-2004 five years period RyanAir both operating profit and net income increased more than revenues growth.

RyanAir's average performance level is substantially higher than the average of traditional airlines when considering overall return on capital employed (the graph of Figure 6.3). At a deeper look, we discover that RyanAir's competitive edge doesn't come from asset turnover but from the ability in generating operating profits, thus outclassed competitors not in the minimization of assets employed but in minimizing the cost of their usage.

Figure 6.3 Return on capital employed of RyanAir against the average of the other traditional and low cost carriers.



Source: our analysis on company reports.

In our analysis of RyanAir we aim at highlighting the market opportunities and the resource strategy developed by its management to catch them. The figures behind this business model innovation is Michael O’Leary who is the person that laid out the cost-cutting orientation in the firm, through capabilities of centralized strong leadership: if RyanAir is the more frugal and extreme version of the low cost philosophy, that is because it partially reflected its chief executive’s soul.

A key driver of the emerging market opportunities is the evolution of the competition environment after market deregulation; competition did not change much in the early years of European industry deregulation and airlines at the beginning of the 1990’s were still discounting a high level of inefficiency. New entrants like RyanAir clearly recognized the opportunity to take advantage of inefficiencies of incumbents on specific routes.

RyanAir’s key success factor was the intuition that real price-elasticity was bigger than generally assumed and so the development of a business model able to catch unsatisfied demand trough the introduction of solutions already adopted by charters, an opportunity clearly influenced by deregulation.

It is fundamental to highlight how in RyanAir’s low-cost business model resources were managed in order to catch the emerging market opportunity. With the objective to build a business model based on low fares undoubtedly the first need is to cut the cost structure. In this sense tangible asset absolute a fundamental role because they are in the airline industry one of most relevant voice of the operational costs. The most apparent way taken by RyanAir, also reflected in its slogan “low fares no frills”, it has been cutting all unnecessary services – so-called ‘frills’ – in order to lower fares as much as possible. However this was not the only intervention. In order to rebalance the proportion of value retained along the supply chain, RyanAir took direct

phone and internet reservations, excluding usage of the GDS system and avoiding high fee commissions. Coherently with the choice of specific market segments, the low-cost airline' goals were routes that enabled to offer simple services – thus avoiding 'complexity costs' – to price-sensitive passengers. RyanAir focused on shorter ranged routes without particular care in appealing to business passengers. Furthermore, RyanAir used secondary airports because they have cheaper landing, parking and handling facilities fees; secondary airports were also less congested and therefore it was easier to obtain slots facilitating quicker turnaround time. Moreover, as a first mover it choose only selected airports that promised advantageous long-term contracts. This gave RyanAir also a competitive edge, due to the fact that long-term contracts yielded substantial barriers to entry against further entrants. RyanAir has a homogeneous fleet (all Boeings 737) that allowed reducing costs of training and maintenance – mainly outsourced. All decisions were oriented to obtain the maximum level of internal asset utilization. Air flight networks were point to point routes whereas traditional airlines used the hub & spoke system. The choice enable RyanAir to have a more widespread distribution flights during the day and in order to maximize the use of aircraft – one of the main assets – it minimized turnaround time, that is it tended to start flights earlier in the morning and to end them later in the night. Last, time was reduced through quicker check in and boarding procedures, and no served food helped keep the aircraft substantially clean reducing ground handling facilities.

Another important resource to leverage on for RyanAir was the human capital. In general a big portion of the airline costs was related to labor and thus productivity was paramount. Under this perspective, for example, homogeneous fleets allowed a significantly higher level of flexibility and significantly reduced training costs. Furthermore, through its higher aircraft utilization rates, RyanAir showed the highest level of productivity in terms of passengers per employee.

The intangible assets of RyanAir at the time of expanding in Europe were brand value and market knowledge. Basic customer needs were to arrive safely and quickly at a desired destination. RyanAir was able to convince customers that lower cost was not associated to lower safety standards. Another strategic resource was related to a deep customer knowledge management. In the trade off between low fares strategy and the necessity to reach a financial break-even, decisions on prices could only have been based on a deep knowledge of the market and of customer behavior. RyanAir started its business a few years before deregulation and so it was already 'in the business' meaning that it had time to acquire knowledge, routes and customers.

Moreover was the use of new marketing channels: RyanAir painted aircrafts using them as marketing tools. The introduction of direct sales and limited offer range – only one fare available at a certain time – simple

and clear for passengers made it possible to precisely find the right price levels – that were hidden from competitors – on those routes that allowed reaching enough overall revenues.

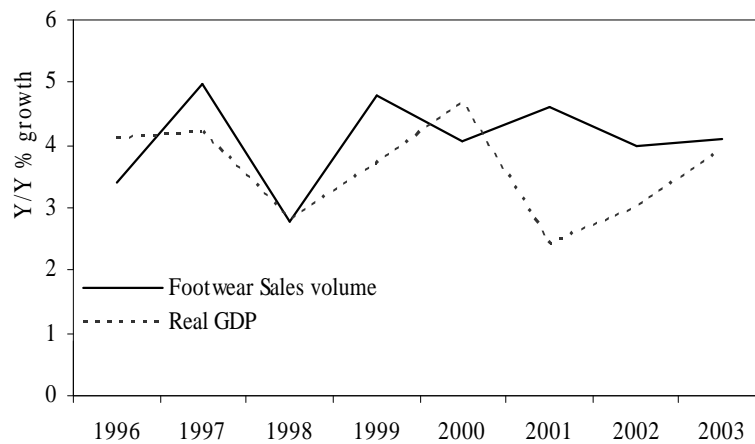
Finally, an important driver of growth was RyanAir's availability of sufficient and intelligently managed financial resources to expand. In order to quickly grow and expand, the firm approached the private equity fund Texas Pacific Group led by David Bonderman. Listing planning and timing was calculated with extreme precision and its execution did not absorb or distract the firm's organization from core business. Mr. Bonderman had another crucial role. First of all he brought in a deep knowledge related to the evolution of the USA airline industry. As the USA was a predecessor of other areas in the world in both regulation and business cycles, this industry-specific knowledge contributed to building a foresight of the evolution of European airline industry.

Concluding it's possible to highlight RyanAir as a wide technology user. Indeed RyanAir in order to reduce cost and rebalance the value retained along supply chain strongly adopted innovations mainly from the ICT industry, so that kind of technology characterized by pervasiveness. For example many marketing techniques were available by innovations in the call centers and web-based reservations. Again the introduction of ever more performing IT systems play an important part in info processing. So RyanAir even is a wide technology user it doesn't product this itself but it spills it from the external environment and adapt it to his need.

6.2 Geox

For this analysis let us focus on the European footwear industry. The main reason of this choice it is that the business case we are going to analyze, Geox, starts up and emerge first of all in these boundaries. The footwear industry is affected by the dynamics of the main macroeconomic variables, such as raw material prices, cost of labor, exchange rates, and the trend of gross internal product and consumption in the various countries, signaling a deep situation of maturity, clearly recognizable from the graph in Figure 6.4.

Figure 6.4 Annual growth of world footwear sales volume compared to the annual growth of worldwide real GDP from 1996 to 2003.



Source: Associazione Nazionale Calzaturifici Italiani (ANCI) and IMF.

The graph gives an overview on European footwear industry situation, from the demand perspective. First of all it is evident that the maturity of internal consumption, showing an average +1.2% growth from 1999 to 2002. Second, it is quite clear how the relaxing of regulatory constraints imposed by European authorities affected the distribution of total footwear consumption between imported and locally produced goods: the decline in domestic production seems to be completely compensated by an increase in import quantities. These are not the only signal of industry maturity. Both employment and the number of firms active in the industry declined during the 2000-2003 period: the European footwear industry lost in four years more than 50,000 employees and nearly 5,000 firms. The European footwear retail market reveals very small demand growth trends affecting both volume and value, signaling a deep consumption maturity. A saturated replacement market and low economic growth – that yielded low market growth rates – and decreasing production is a clear signal

of a declining industry, at least for the area of the EU15. As shown in Table 6.1, production contracted while imports soared, causing the local industry to shrink both in terms of less number of firms and, consequently, a lower number of employed.

Table 6.1 Main indicators of the European footwear industry maturity (EU15).

	1999	2000	2001	2002	2003	CAGR
Production	938	907	882	801		-5.13%
Imports (Extra EU-15)	904	966	1,018	1,089		6.40%
Apparent consumption	1,606	1,628	1,659	1,667		1.25%
Number of Employees		419,693	397,975	383,726	361,662	
Number of Firms		32,323	29,957	29,363	27,371	

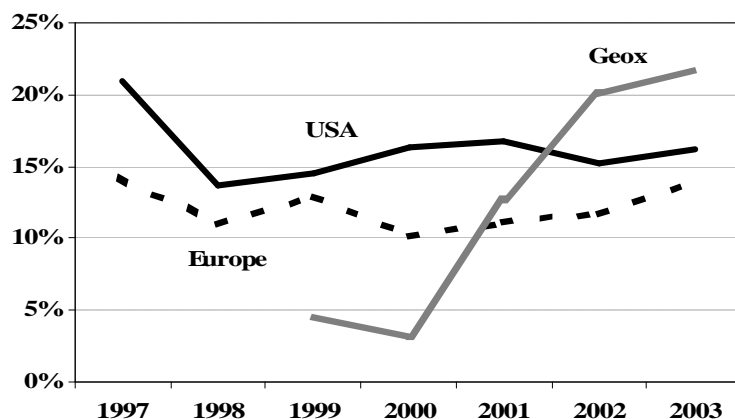
Sources: EU report on footwear.

The footwear industry is particularly exposed to international competition due to its labor-intensity, to the limited returns yielded by technological innovation and to the easy imitability of processes and products. Indeed to a certain extent that of footwear is a commodity market where input and labor costs are dominant issues. An important process involving world footwear industry is the introduction of delocalization and new forms of collaborative networks, with the consequence of a net transfer of total footwear production towards developing areas, such as China, seen as having considerably lower labor costs and more flexible business operation constraints (taxes, setup and shut down costs and other less tangible conditions). Among the main actors there are worldwide known brands that compete along the ‘sports’ segment of the market, where the focus is shifted from commodity to differentiation. In particular, these are segments more influenced by innovation, for example driven by fads and fashions, or also by technological advancements for athletes’ sportswear.

Geox is an Italy based company operating in the footwear industry since ‘90s. It is positioned, from a market perspective, in the mid-high price brown (formal, casual and traditional) shoes segment, even if, from a resource perspective, the firm has got many elements in common with the big players of the sport segment, as for example the adoption of innovative materials.

By the beginning of 2004 Geox was the first lifestyle-casual footwear brand in Italy and fourth worldwide, after selling 6.6 million shoes for a total of €254 M revenues through more than 230 Geox shops and over 8000 worldwide independent point of sales. From the perspective of firm performance, as expressed in terms of return on capital employed, Figure 6.5 seems to highlight the important results of Geox compared to industry averages.

Figure 6.5 ROCE of Geox against the average USA based firms and the average European based firms, based on the top 15 publicly listed shoemakers worldwide.



Sources: our analysis on company reports.

Furthermore, we can notice from Table 6.2 how Geox’s performance was driven remarkably by a profitability that recently outperformed industry average and a sales growth that was constantly at least three times faster than average, underlying the high tension for growth.

Table 6.2 Main indicators of performance for Geox and the top 15 publicly listed firms, distinguished between European-based and USA-based firms.

	1999	2000	2001	2002	2003	CAGR
Profit margin						
Europe	7.4%	9.2%	7.6%	8.3%	8.2%	9.8%
USA	7.5%	8.3%	9.5%	9.4%	9.0%	9.5%
Geox		3.1%	1.6%	9.6%	14.4%	15.4%
Sales growth						
Europe	42.5%	2.1%	-4.3%	5.1%	17.5%	22.1%
USA	2.0%	-6.0%	4.5%	7.5%	4.4%	7.8%
Geox			86.6%	52.4%	34.6%	75.2%

Sources: our analysis on company reports.

The organization centered on Geox was oriented to exploiting market opportunities that were potentially embedded in the technological innovation and in a demand for comfort unmatched. Indeed the main business idea was to offer high comfort footwear by applying a micro-porous membrane to the sole that would facilitate air moisture to exit preventing it from entering. The corporate strategy was based, at least initially, on the technological innovation embedded in the product and on above average quality, with the objective of making the customer perceive an extra comfort that only the Geox shoe could offer. On one hand the firm aimed at creating a new market niche that in part stimulated new sales in the market as a whole. On the other hand, and

most importantly since footwear is a mature market, the firm quickly eroded huge portions of market share from other incumbents. In the history of Geox there was an important constrain that subsequently reveals as an opportunity: the decision to organize a new company sprung in consequence of the refusal from the most important companies working in the industry to buy the patent for their own production.

In Geox case there was also an important information asymmetry. The innovation idea sources outside the industry and only Geox's entrepreneur was able to understand how to use in the footwear industry something already available in another industry, developed for completely difference uses from shoes. The polyurethane underlying Geox's innovation was for example developed in the aerospace industry. Knowledge spill over in general had in this case positive effects; conversely, other forms of inter-industry knowledge spill over may benefit competitors where the extreme example is of an imitator.

Geox focused strongly on allocating resources to maximize eventual returns resulting from filling the foreseen opportunity. In general, Mr. Polegato, the entrepreneur at the base of the firm, was able to allocate the right resources at the right time.

In this case the intangible assets were fundamental for the success of the company. Geox intense patents use to protect its innovations is quite new in the footwear industry; research and development was the key activity underlying the strategic link between technological innovation and firm growth. From Geox's strategic perspective, investments in R&D are directed at accumulation and application of knowledge, in order to erect sustainable and valuable information barriers. However patenting has limited time protection, thus it is necessary to set up production as fast as possible in order to gain enough profits to reward the innovation before imitation (intra industry spill over). While Geox's ability to leverage on assets and economies of scale seems limited, in truth, taking into account that Geox's group assets are mainly patents and other immaterial resources, these will contribute also to future performance.

In order to extract the biggest return during patent coverage period, distribution strategy and consumer communication play a fundamental role. So there became evident a convergence between the function of tangible and intangible assets. Geox objective of market coverage was supported by a particular distribution strategy that included both direct and indirect sales, respectively through proprietary/franchisee shops and distribution through independent multi-brand shops. Furthermore, market coverage was obtainable only if the firm was able to effectively communicate the usefulness of the innovation to satisfy customer needs, in this case latent, in order to create sufficient demand. In this direction and in order to build on reputation in general, Geox was forced to commit a large amount of resources, reaching 8% of total revenues in 2003. In order to capitalize

on brand and to reap the benefits of innovation directly from the customers, Geox followed a distribution strategy based primarily on proprietary shops. Proprietary shops had the further function of being an effective marketing tool that gave Geox the possibility to effectively communicate the importance of its innovative sole in improving comfort. Nevertheless, the amount of sales necessary to spark production economies of scale would have required a massive investment in terms of number and positioning of stores, to the extent that Geox had to rely also on multi-brand stores - about 1,800 in 2003. Thus, in general, proprietary shops helped reap margins and to build on brand awareness, while independent stores helped to achieve more capillary distribution so as to reach adequate economies of scale.

There are other important aspects about tangible assets. Geox de-locate its production facilities in low wages area, following the general behavior of footwear industry. Parallel to delocalized processes, an important part of resources, tanned skin, polyurethane, various accessories (including packing) and even production equipment and machinery are all exported to foreign plants from Italy. However the delocalization is thus not a mere reduction in costs, but rather it is rethinking of the entire production and supply chains, where Geox occupies a role of coordination of international resources and respective habitat conditions. Global market positioning is well supported by international production, in order to reduce both currency and operational risks. In general, the complexity of foreign operations is an important part of Geox's business model.

About knowledge, beyond the spillover from the aerospace industry Geox made a strategic use of available product and process knowledge dispersed in the territory. The influence of the Montebelluna textile district on Geox's product innovation may have emerged from the rich endowment of industry knowledge and resources. The fact that the area was mainly focused on winter sportswear may have also had a positive role in biasing the perception of returns on innovation: the winter sportswear market is rich with examples of winning higher performance products that consumers were willing to pay for. Prototypes and technical notes come directly from the R&D lab in Montebelluna that was mainly focused on innovative material development and testing. This lab was in contact with the Ascoli district, a central Italian area renowned for its excellence in the classic and fashion shoes segments, where Geox had a 25-employee shop that plans prototypes for fashion lines. These points work in a way that Geox is able to maintain direct control over the know how on the critical components that contribute to its competitive advantage and over production areas that enabled it to speed up the supply, production and distribution phases, reducing time to market.

Finally also for Geox the availability of financial resources was fundamental to sustain growth. Geox starts as a small family handicraft firm, becoming subsequently public in 2004 after an IPO on the Italian stock

market. The entrepreneur, Mr. Polegato, has got resources to start-up and the IPO gave the opportunity to both continue expansion, but also to partially cash-in, leaving part of the group ownership to the market, while keeping complete control over key assets through other owned companies (LIR).

6.3 Wal-Mart

Of the broad range of retail trade activities, here we consider two main categories, food and non-food goods. The difference, both in terms of product offering and firms' resource structure, between these groups is not particularly clear and in practice the industry is dominated by firms that operate in more than one area. As most of the goods sold satisfy primary needs, like food and clothes, growth is strictly related to consumer expenditure, and thus related to the evolution of GDP. Furthermore, consumers' confidence is also important, especially for those retail areas related to secondary and cyclical goods. Of the main trends characterizing the worldwide retail industry, the most important is globalization of trade; this shift in focus of the main players increased international competition while simultaneously this evolution also increased internal competition of single markets, as local players developed more focused and sophisticated business models.

The influence of government policy on retailing may be complex and pervasive, as are the effects of tax reductions on household income or as are the effects of corporate tax policies in terms of corporate organization and localization of holding consolidating companies. The effects of government policy extend also to other important retailing activities, requiring dedicated organizational resources of the main players. The intense recurrence to lower-skilled and part-time workers makes labor standards affect the industry in terms of minimum wages and overtime regulation. Furthermore, during the phases of industry consolidation different bankruptcy regulations may affect the outcome of transactions concerning available resources in terms of stores and other related assets.

Table 6.3 Segmentation of the USA food and general merchandise retail industry.

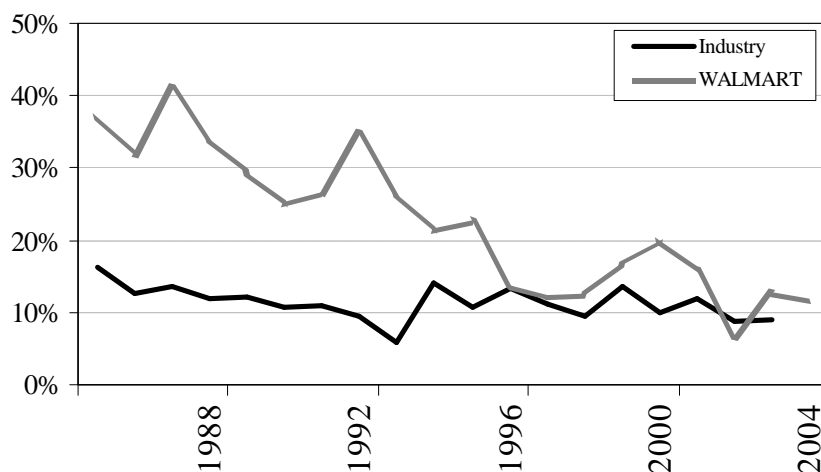
	Value share of segment 2002	Sales CAGR (97-02)	Average firm size (Th\$)	Average sales per employee (Th\$)
Food and beverage stores	100%	0.1%	3,063	161
Supermarkets and other grocery stores	86.4%	-1.0%	5,966	162
Convenience stores	4.6%	1.7%	711	148
Specialty food stores	2.9%	1.8%	538	101
Beer, wine, and liquor stores	6.1%	-0.5%	961	209
General merchandise stores	100%	6.1%	10,870	175
Department stores	50.4%	0.4%	23,267	154
Warehouse clubs and superstores	42.6%	18.3%	65,050	226
All other general merchandise stores	7.0%	1.8%	1,094	122

Sources: U.S. Census Bureau.

As detailed in Table 6.3, in general the USA retail industry was a mature industry albeit with different dynamics in the food and general merchandise areas. In particular the sales growth of the industry was almost all developed in the warehouse clubs and superstores segment, a trend that mostly Wal-Mart took advantage of. In the 1980s the introduction of new information systems enabled the deployment of bigger store formats. Conversely, increased consumer cost consciousness pushed wholesale retailers to approach final consumers. Wal-Mart took advantage of these arising market opportunities yielded by new store formats with the main idea to reduce cost and pass savings to customers thanks to the adoption of a new business model.

Wal-Mart started as category killer in non-food goods, and after little it moved into groceries to then differentiate its product offering into other retail areas, from automobile parts to pharmacies almost everything was captured in its low price philosophy. The decision to start in a small town compared to the urban areas where competitors like Kmart and Sears placed their stores certainly played a central role in Wal-Mart's success because in general both the market context and the available resources were completely different. It was more difficult to access suppliers and also availability of staff was limited. In order to reduce these barriers, Wal-Mart introduced many innovations like new forms of partnership with suppliers, related to logistics and inventory, and innovative profit-sharing schemes for employees. In order to approach limited market opportunities offered by smaller towns Wal-Mart had to keep costs to the minimum, to continue in the general strategy of passing savings to customers. This then created and stimulated demand.

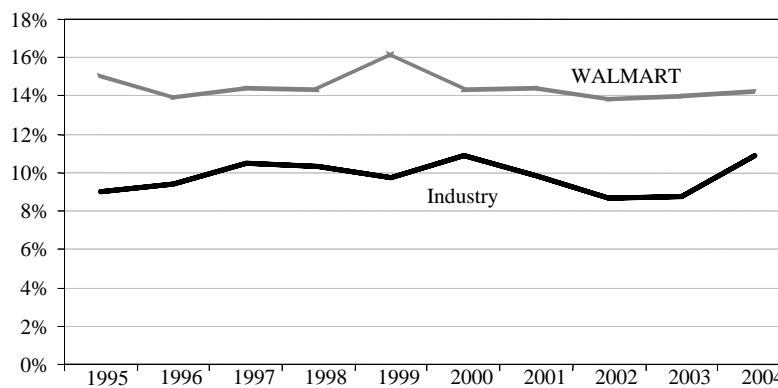
Figure 6.6 Sales growth rates of Wal-Mart compared to the world industry average. The industry data is the growth of the three-year sales average of the world's top ten publicly listed firms.



Sources: our analysis on company reports.

The graph of Figure 6.6 shows how Wal-Mart's growth rate from the 1980's until the mid-1990's was two or even three times that of the industry average. In 1987 the firm had a 9% market share, compared to more than 30% in 1999. Notwithstanding incredible growth in the past decades, it is worthwhile to notice that Wal-Mart seemed to slow down after the mid 1990s linked to the organizational change underwent after the founder's exit in 1992. The ROCE trend highlighted in Figure 6.7 clearly shows a better performance of Wal-Mart with respect to the whole industry, mainly due to ROA and Profit Margin trends along the whole period considered; this clearly reflects Wal-Mart ability to develop a cost structure significantly more competitive than of competitors.

Figure 6.7 ROCE of Wal-Mart compared to the average of the industry, that is of the world's top ten publicly listed firms.



Sources: our analysis on company reports.

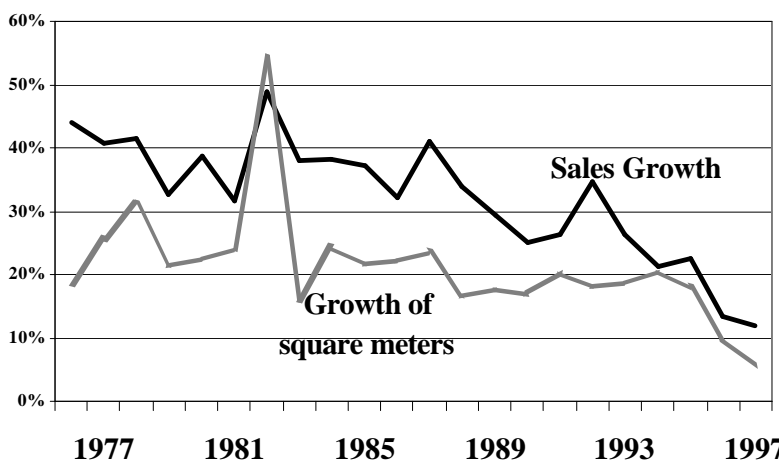
The results of above can explain at the light of an entrepreneurial management of resources. First of all Wal-Mart is an excellent example of a competitive advantage based on the use and implementation of technology, in that the achievement of ever more fine-tuned information systems. Notably, information technology was implemented inside the firm's more general expansion strategy even if very early in the firm's life cycle. In 1974 the firm adopted a computer-based inventory management control system that three years later became the basis for the launch of its electronic data interchange system (EDI). In 1978 Wal-Mart introduced bar-code scanning technologies. The applicability of these new systems did thrust the firm past and beyond competition on several competitive dimensions, enabling it to optimize many of the operations and basic activities, from inventory and shelf management, to store format reorganization product offering widening and corporate reorganization. In the 1980s Wal-Mart invested heavily (about twenty-four million dollars) in a

proprietary satellite system. Notwithstanding, the use of technology is not strictly related to its ‘production’, and indeed the spillover from other ICT intense industries fostered development also in the retail industry. By the mid 1990s the other competitors closed the gap and, maybe even because of Wal-Mart’s aggressive competition, the retail industry was one of the most affected by ICT innovations in that period. The correct leverage of information technology during its growth phase stabilized the firm’s performance, while other players suffered drastically from diseconomies of scale. Conversely, other players suffered expansion. Technology adoption deep influenced both human capital and tangible asset and it’s still a cross characteristic of the whole organization and strategy.

About tangible resources Wal-Mart built a comprehensive distribution system that would sort most of the goods, leaving smaller logistics to the suppliers. While most retailers heavily rely on their suppliers for the distribution of goods to stores, Wal-Mart sorted more than three fourths of its goods to its stores. The adoption of particular inventory management processes enhanced distribution performance, such as cross-docking and more efficient truck load routes for trucks.

At least until the mid 1980s, Wal-Mart avoided head to head competition in key locations, dedicating its efforts to developing less attractive market spaces. When the firm did confront its rivals on their turf, Wal-Mart was already a big player and it was endowed with the necessary financial and store coverage resources to stand the fierce competition. The choice of staying out of the spot light and to expand in areas that were to a certain extent ‘greenfield’ enabled the firm to learn from others and quickly adopt and spread new efficient practices.

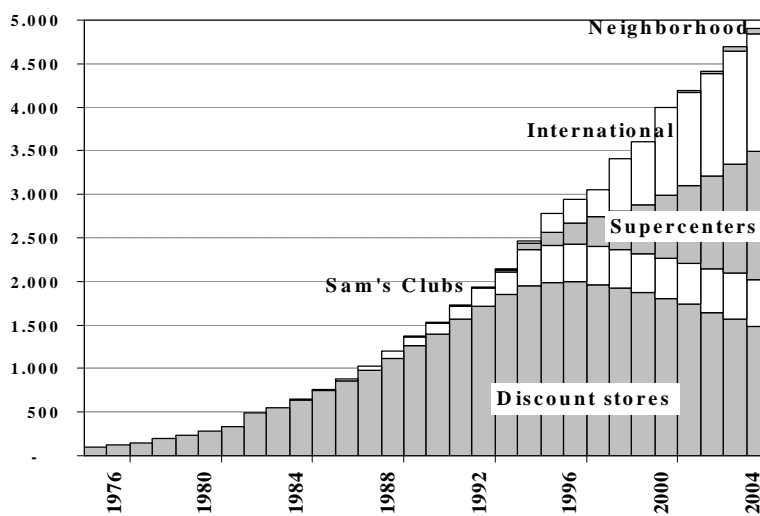
Figure 6.8 Wal-Mart’s growth in footage and sales from 1976 to 1997.



Sources: our analysis on company reports.

From the perspective of entrepreneurial management of assets, Mr. Walton was always keen on experimenting new store formats and product offering in order to increasingly attract customers with lower cost products. Wal-Mart's growth strategy was based on both store and format expansion. As shown in Figure 6.8, from the late 1980's to the turn of the century Wal-Mart opened stores at a growth rate, in terms of number of stores, of 15% a year on average. The shift towards larger store formats is evidenced by the growth in floor space per store, rising from an average of slightly over 50 thousand square feet in the mid 1980s to about 90 thousand by mid 1990s. The adoption of the warehouse-style and superstore formats explains the extraordinary and persistent sales growth of these two decades, as shown in Figure 6.9.

Figure 6.9 Number and types of Wal-Mart stores.



Sources: our analysis on company reports.

Partnership with suppliers was instead a real competitive edge for Wal-Mart that contributed in a particular way to the firm's growth. Since the beginning, when stores were located in sub-urban areas, one of the most crucial issues was how to get the right products on the shelves, at the right price at the right time. In parallel to the profound innovations in the field of logistics and ICT, Wal-Mart invited its main suppliers to jointly develop supply chain partnerships, designed to enhance efficiency and improve profitability. When Wal-Mart was still small, in the context of lower volume turnover, Walton sought out to cover the gap by introducing innovative ways of processing information, based on the most advanced technologies available at that time. The firm 'forced' suppliers to adequate to its IT systems so as to closely coordinate in the pursuit of lower inventory and logistics costs. Not only did these systems give Wal-Mart a competitive edge over competitors for the direct cost savings it enabled, the consequences were also of organizational nature, further supporting the general cost

savings strategy. Suppliers have total access to Wal-Mart's proprietary information system that contained real-time data on product sales for each single store. Many supplier firms faced the growing importance of the Wal-Mart channel for their sales and decided to engage in extensive partnership programs.

About human capital the relationship with employees was unique. On one hand the firm rewarded whatever reduced costs and on the other decision-making was widely delegated and employees enjoyed autonomy to a good extent. The corporate culture established by the Sam Walton fostered involvement of employees in the firm's incremental innovation by letting them try new solutions and be rewarded for them. Unfortunately, though, evidence has it that the firm's relationship with its workforce was surely not the most productive in the industry. The company did contrast unionization of its workforce, as it was viewed as a potential communication barrier between employees and management to the detriment of Wal-Mart's potential growth. Nevertheless, employees were rewarded based on profit-sharing schemes aimed at motivating continuous participation to the firm's objectives. Store management was widely decentralized in the perspective of decision-making on prices, product range and shelving. Even further, most superstores were further divided in departments and separately managed as if they were smaller stores inside a larger outlet. Department managers were called to implement their own ideas for increasing sales and reducing costs. Management was highly focused on corporate objectives, and many top managers started from the bottom, and entered the executive team after many years in the company. The main traits of Wal-Mart's management were parsimony, customer focus and continuous improvement culture: indeed it was easy that they would spend more time visiting stores – of both Wal-Mart and competitors – than in their office.

7 RESULTS AND HIGHLIGHTS

The main traits of the firms analyzed in the previous part can be summarized under three main perspectives: they all compete in mature industry contexts, they are all emerging businesses and finally they all followed an entrepreneurial dimension as path towards growth. The positioning of these industries along the maturity phase of the lifecycle enables to shed new light on the role of entrepreneurial spirit in supporting growth.

Table 7.1 Main Performance Indicators of Selected Firms and Relative Industries.

Industry	Period	ROCE average	Sales growth	EBIT growth	Sales/Employee growth	EBIT/Employee growth	P/BV	
Footwear	Geox	2001-2004	47.1%	47.1%	97.0%	67.9%	19.9%	10.5
	Main competitors		11.1%	11.1%	20.9%	15.4%	15.5%	3.2
Airline	RyanAir	1997-2003	30.2%	30.2%	43.1%*	20.9%	12.4%*	4.8
	Main competitors		5.0%	5.0%	-38.2%*	-40.7%	2.6%*	1.4
Retail	Wal-Mart	1985-2000	24.2%	24.2%	21.4%	1.8%	15.9%	6.0
	Main competitors		7.9%	7.9%	8.9%	1.1%	10.2%	3.3

Sources: our analysis on company reports.

Table 7.1 shows the main evidences of emerging traits for each company analyzed. For the Airline industry the period of analysis sparks from 1997 – year in which RyanAir went public - to 2003. We considered as main competitors of RyanAir Air France, British Airways, Iberia, Alitalia, Klm and Swiss. EBIT growth and EBIT/Employee growth are relative to the period 1997-2002, being impossible to define a CAGR along the entire period because of a negative EBIT from the aggregation of competitor in the year 2003. The period of analysis for the footwear industry is from 2001 to 2004. This is the period for which Geox information are available. In this case main competitors involved in the analysis are Nike, Reebok, Adidas-Salomon, Asics, Brownshoe, Timberland, Puma, Wolverine and Tod's. PTBV is relative to the period 12/2004-05/2005, i.e. from Geox's listing. The retail industry analysis goes from 1985 to 2000. We choose as main competitors of Wal-Mart: Ahold, Albertson's, Carrefour, Kmart, Kroger, Sears, Target and Tesco. Sales/Employee growth and EBIT/Employee growth are calculated using as competitors Albertson's, Carrefour, Kroger and Tesco because of lack of data in the number of employees for the other companies. Main competitor data for every industry are

here aggregated in a group; so we use performance measures of the group instead than a simple average of single competitor indicators.

The choice of the specific indicators of above is not casual but aims to highlight specific traits common to all the business cases analyzed and, theoretically, also to other emerging business endowed in similar contexts and based on an entrepreneurial effort. Specifically, as we'll see better next, these firms show a high tension to growth, enjoy good reputation and achieve better productivity compared to that of the industry in which they compete. It is important to identify the specific manifestations in phases of the watermarks that encompass the commonalities underlying the anomalous situations of the business cases, that is of the emerging businesses in unfavorable contexts.

First, the three companies show a higher ROCE than their direct competitors. As ROCE can be seen as the ability of generating profit from the resources available inside the company, this result underlies the relationship between resources and entrepreneurship at the base of our vision, that is a conception of the entrepreneur as a catalyst: a substance that modifies and increases the rate of a reaction between different chemical elements, without being consumed in the process. Conversely, in its absence, the reaction is slow or completely missing. The entrepreneur is the person who shapes resources to exploit their potentiality in terms of business advancements. In the example of the catalyst, the way of measuring the presence of its action is to measure the interaction between the elements with which it reacts, in this case the available resources.

The tension towards growth is thus an important aspect of entrepreneurial activity. All the selected companies show a sales growth rate higher than the group of its competitors and the difference is very strong, signaling the presence of an explicit attention on the growth as a success key for emerging in a mature industry. It is normal that, also in unfavorable contexts, there exist a variety of very small extremely specialized firms with good profitability, but our study concentrates on enterprises that had – or created – a significant presence on the market, often moving in offbeat with respect to the latter. In such situations the tension to growth appears to be an indispensable condition for dimensional growth and the reaching of thresholds that allow access to global markets.

In many cases, growth occurred by expansion in the adjacencies, in the perspective of expanding markets without abandoning the firm's core business. It appears that in some cases enterprises grow their core business activities by staying in the proximity of its previous established positions. This movement is suitable to bring forward those advantages based on specific resources to correlated markets. It is the case of RyanAir that was able to exit from initial failure with an expansion in the adjacencies, supported in truth by appropriate

sources of funding, that is from the Dublin-London route to other short European routes and in secondary airports.

Particularly, for all the firms under analysis EBIT growth is higher than sales growth, signaling a particular attention on both expanding the business and at the same time controlling the incidence of cost on revenues, thanks sometimes – as in the case of RyanAir – to the development of a new business model able to reduce cost structures. Profitability improvement appears to be an important issue in mature industries, where low demand shifts competition from market control to cost control, pushing the firms to focus on own cost structure.

More all selected companies show gains in sales/employee measure bigger than the industry. Further, all the companies show an EBIT/employee growth far stronger than the direct competitors. So the leverage on human resources appears to be another success key for the companies facing a context characterized by a progressive loss of attractiveness.

The use of technologies is not necessarily related to their production that is of the paradigm typical of new economy enterprises, but rather to their knowledgeable and wise implementation. We would like to highlight the role of it in mature industries, where frequently change is necessary for avoiding decline. In this vein, and independently from the fact that the specific industries under exam are high or low tech, it is important to understand the ability of incumbent firms to be technology users that is to reap the technological fruits of innovation to support competitive advantages. One of the main manifestations of this was, for example, the source of Wal-Mart's competitive advantage particularly bound to the reduction in logistic costs and the gathering of real time information on consumptions, both based on the adoption of information and communication technologies. This was not merely a step-up implementation but rather the pursuit of ever higher levels of competitiveness that translated into continuous adoption of new available technologies as in the prospected use of radio frequency identification systems.

A further striking commonality among the analyzed business cases is the strategic switch from the approach of an organization dedicated merely to production to a perspective where the main driver of competition is based on knowledge where the proportion and value of ideas and innovation to the factors of production, labor and capital, are dramatically rising. The main implication of this transition is that investing in knowledge creates the potential for increasing returns, albeit excludability may be limited and thus these returns may not always flow back to the original investor. In the growth phases of the industry life cycle, product innovation usually implied high prices and limited supply in order to capture monopolistic premiums. However,

in the context of knowledge-based innovations regarding the emergence of new business models in mature phases of the life-cycle and where there is potential for free-riding, the key strategy should be the pursuit of mass distribution. This on one hand enables the innovative firm to capture extended and expanded portions of the market, while on the other the achievement of sufficient volume levels enables innovators to exploit economies of scale and learning

In general, the engagement of entrepreneurial activity means engaging in commitments in time that increase the value of the firm's reputation. On one hand the pursuit of change may initially spark diffidence, but on the other, once success unveils the entrepreneurial firm attracts an important load of attention. Simplifying, the increase in the value of the firm's brand is related to the coherence between market proposals and effective product or service offering, a relation supported by entrepreneurial activity. In this context, one does not refer to the concept of brand as that of exclusiveness typical of the fashion industry, but rather to the ideas of trust, reliability and confidence strictly identifiable with those who proposed change in the first place. PTBV is usually used as a measure of company reputation on stock market: the bigger is the value and the more appealing is the company for external investors, who are disposed to pay a share more than its book value. In our case all the selected companies have a value higher than the average of their competitors.

Entrepreneurial function so acts on the firm, in terms of resources, taking it from a start position to a new one. It's difficult to gather this function directly; however it became more simply looking at its impact on firms' resources and results. The presence of entrepreneurs may be a necessary but not sufficient condition to spark entrepreneurial activity, albeit an organization is made of people. In this perspective, the call is for people able to connect market opportunities with specific resource deployment and it seems that the vocation to change is supported by specific ideas on how to achieve growth. In the perspective of entrepreneurship explicated in the role assumed by people inside the organization, another important aspect to take into consideration is that of the firm's managerial capabilities and management of human resources in general. There are a variety of dimensions that refer to the role occupied by individual in the entrepreneurial dimension and to his or her motivations, values and rewards.

8 POLICY IMPLICATIONS

As we highlighted in the previous part of this paper maturity is characterized by many constraints to growth. Entrepreneurship is the tool that can spark renewal in this specific phase of the life cycle; however we can consider entrepreneurship as the necessary condition but not strictly sufficient to pursue this object. Maturity presents an evolution increasingly dominated by external constraints and these regard also the implementation of an effective entrepreneurial strategy to capture opportunity through knowledge and resources management. Many of these limitations are not due strictly to the evolution of the competitive environment but are a part of the habitat that is in a same way “collateral” in the sense that is created and influenced by human action – e.g. regulatory, financial system, etc...

In this sense we can see an important potential contribution of the policy makers in reducing constraints to growth, influencing both exogenous and endogenous industry variables making so possible an entrepreneurial behavior.

Audretsch (2002) proposes an important distinction between the policies supporting small and medium enterprises (SMEs) and entrepreneurship policies. The first, typically referring to policies implemented by government or similar institutions, take the existing firm size classes as given, to then develop tools to promote the viability of those businesses. Entrepreneurship policy, instead, is more focused on the process of change, regardless of the organizational unit, and aims to support both existing and potential entrepreneurs.

The transition to an economy with competition based on knowledge is a crucial trait of industry evolution and for this we believe that there is a convergence between change and knowledge competition that underlies the discussion on entrepreneurial activity. In this perspective, entrepreneurial policies are evolving and gaining importance. The auspice we advance is that policymakers develop a portfolio of economic policy instruments that look at organizations and their needs in terms of habitat conditions enabling favorable competitive contexts. However it is opportune to be cautious when planning for regulatory intervention, in order to avoid compromising the health of the competitive environment.

It is necessary that policymakers identify and anticipate the transformations and, if necessary, guide them. This requires a systemic approach in supporting the entrepreneurial new economy. In the first place, policymakers should encourage the propensity to risk and the entrepreneurial spirit as well as creating an entrepreneurial environment where firms can be created, developed and renewed. Second, they should favor the

development of enabling efficient capital markets guided by a general innovation policy. In the third place, policies must ensure to the enterprises real access to all markets, internal and international, to sell their services and products. Last, policies should enhance a quick transferability of resources, avoiding the creation of barriers to exit: this implies higher flexibility of both capital and employment. Conversely, if there are barriers to erect, these should concern knowledge in the perspective of competition based on it.

In any case, in principle these policies should refer transversally to the broadest possible range of industries, in order to avoid favoring activities particularly able to attract state aid, distorting efficient market dynamics. This latter negative outcome in the long run would damage both the beneficiaries of these grants as well as the competitors, and more often than seldom these subsidies create inevitable delays in the necessary firm reorganization, limiting their ability to regain competitiveness. Furthermore, the enterprises that do not receive these aids and compete against those that instead receive them could resent such disparity, dumping a general loss of competition upon the entire market.

In the cases we analyzed access to capital and regulatory constraints were closely intertwined with the issue of growth, and many researchers support a perspective termed the legal view, that underlines the role of the country's legal system in determining its level of financial development (La Porta et al., 2000). This approach is based on the idea that where the investors' rights are more protected it is easier for firms to find external funding and some results in this direction show the existence of a positive correlation of the judicial efficiency with the structure of the financial systems and the financial development of a country. Such results throw a strong message for policy makers, that should concentrate on legal reforms that support a more general growth of financial intermediation, removing those constraints limiting the development of the bank system and of capital markets. For what concerns entrepreneurship, policies should encourage the propensity to risk and in such direction the regulatory framework on bankruptcy of the various legal systems may greatly affect entrepreneurial action. It is important to give a second possibility to the entrepreneurs who have not been able to take a business ahead. Policymakers should give a less negative personal characteristic to the bankruptcy.

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