GAZELLE COMPANIES: GROWTH DRIVERS AND AN EVOLUTION ANALYSIS

Abstract:

Gazelle companies are relevant because they generate much more employment than other companies and deliver high returns to their shareholders. This paper analyzes their behavior in the years of high growth and their evolution in the following years. The main factors that explain their success are competitive advantages based on human resources, innovation, internationalization, the excellence in processes and a conservative financial policy. Nevertheless, as time goes by they can be divided in two groups: a group which continues having growth, but most of them with lower growth rates; and the rest which face great problems or even disappear. The present study identifies several key factors that explain this different evolution.

Keywords:

Gazelle companies, high-growth companies, financial information, business evolution, financial statements.

JEL Classification:

L1-Business Strategy, M41-Accounting, M13-Business creation

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1. Introduction and objectives

The study of business growth is particularly important, as it is one of the objectives that a majority of companies have (Goedhuys and Sleuwaegen, 2010) and therefore, is an indicator of business success (Fisher and Reuber, 2003). Additionally, diverse studies have shown that high growth firms are major generators of employment, which is especially relevant in periods with high unemployment rates. For example, Birch and Medoff (1994) estimated that between 1988 and 1992, 4% of companies were identified as having high growth. Within these companies, 60% of them created new jobs in the United States. These companies increased their income significantly and are differentiated between high growth and high returns. This is the so-called gazelle.

This article has several objectives. First, we try to identify key factors that help these types of companies achieve high growth rates in sales and profits (Serarols and Urban, 2007). These factors are consistent with those, which are proposed by the international literature.

Second, we plan to analyze the development through the years, from the time the gazelles were identified, in order to assess whether these companies are able to maintain their revenue growth rate. Also, we aim to identify factors that contribute to the progress of the business, or conversely, identify problems that hinder sustainability. This type of monitoring can help to better understand the operation of gazelles.

This work complements the one that was published in Partida Doble (Amat et al, 2001) to mark the first analysis on gazelles.

2. Brief literature review

Over recent years, gazelles have been the subjects of multiple investigations. On the one hand, several studies have highlighted the contributions of gazelles, among which are companies that provide high returns to shareholders (Ace et al. 2008) and having a higher employment rate than their competitors (Henrekson and Johansson, 2008). Yet on the other hand, research has been conducted to identify the drivers of profitable growth. These include size, age, innovation and the availability of funding sources. In reference to a company size, most studies agree that smaller companies tend to grow faster than the others (Lotti et al., 2003). Regarding the influence of age, various investigations (Evans, 1987; Yasuda, 2005) have shown a negative relationship between growth and age. In relation to innovation, there is found evidence that investments in R&D increases competitiveness and sales (Freel, 2000 and Moraleda, 2004).

The availability of finance is another driver of profitable growth. Different studies have examined the relationship between the growth of companies and access to funding sources. The majority viewpoint believes the lack of financial resources hinder business

growth, especially in the case of small or newly established companies (Cabral and Mata, 2003). The effect is less if it is a larger company (Bechetti and Trovato, 2002). Therefore, small businesses that have limited access to sources of financing may grow more slowly than the rest.

Spain has also done various studies on gazelles with companies located in Galicia (Cabanelas and Vaamonde, 1995), Basque (Cabanelas and Vaamonde, 1996), Aragon (Galve and Hernandez, 2007) and Andalusia (Villalba et al, 2008). One of the contributions of the research as outlined in this paper is that in addition to analyzing gazelles in the years that are identified, companies with a high growth rate and profitability (The first phase of research which was carried out in 1999), we have also continued with the analysis over the next ten years (The second phase of the investigation which concluded in 2010).

3. First phase: Analysis of the gazelle companies in the years of high growth and profitability

3.1. Gazelle section and methodology

The selection was made through SABI database (Sistema de Analisis de Balances Ibericos) which contains the data of 113,095 Spanish companies who deposited their accounts in the Mercantile Registry between 1994 and 1997. Of these Spanish companies, 47,254 of them were headquartered in Catalonia and of those, 16,789 were industrial companies. The study focuses on the Autonomous Community of Catalonia (la Comunidad Autonoma de Catalunya) because several studies suggest that this part of Spain, where there are a greater number of gazelle companies, with 24.4% of the total (Bank of Spain, 2009) is a larger sample to be analyzed. The details of gazelles are accompanied by the Autonomous Regions in Figure 1.

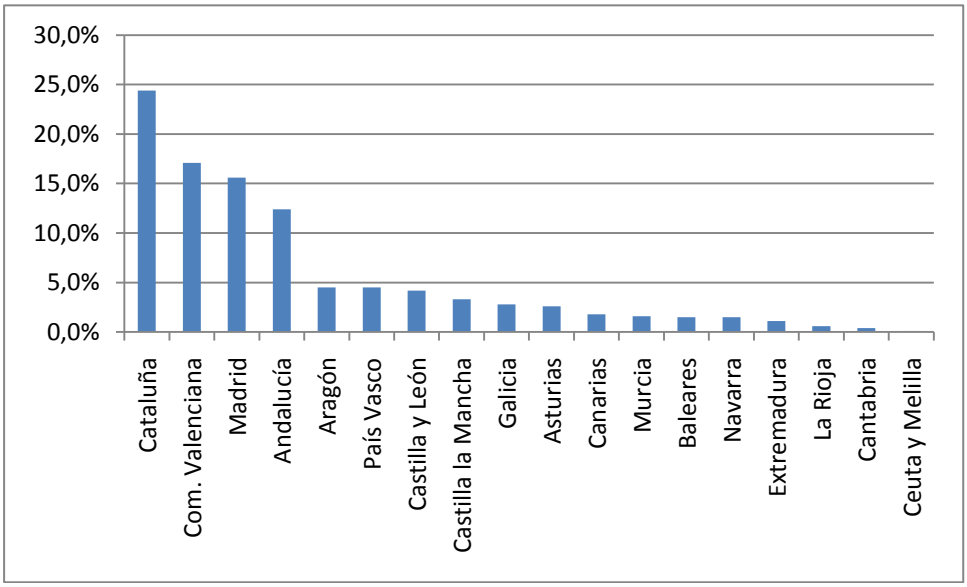

Figure 1: Percentage of Spanish gazelles by region (Source: Bank of Spain)

The sample was made from industrial enterprises that had a minimum billing of 2.4 million Euros in 1997, of which there were 3,116 companies. This group is regarded as gazelles, those with a minimum billing rate of at least 15% annually during 1995, 1996 and 1997 or that had doubled its sales between 1994 and 1997. Additionally, it was required to have obtained a financial return of at least 8% in 1995, 7% in 1996 and 6% in 1997 (Cabanelas and Vaamonde, 1996). Thus, 254 companies were identified as gazelles. The detail of the sample of companies analyzed is given in Table 1.

In addition to the financial analysis, a questionnaire was sent to the identified companies in order to assess non-financial elements (Hernandez et al., 1999). The aim was to identify the strategic behavior of high-growth companies, both resource mobilization and utilization of their abilities. The first part of the questionnaire sought information on basic characteristics of gazelles, such as: identifying data, billing, staff, year of constitution, umbrella company structure, apart of a group, foreign capital participation, location of its factories and evolution of staff. The second part of the questionnaire was organized into six sections:

- Strategic management
- Marketing
- Internationalization
- Innovation
- Quality and productivity
- Human resources and training

The last part of the questionnaire contained more detailed questions related to the six previous sections mentioned. Thus, to ensure that the surveys could be used as an analytical tool, we selected for each of the previous sections a series of indicators to provide more objective information on policies and performances of these companies (such as expenditures on R&D, staff training costs, rate of return on goods or the proportion of workers with higher education on the workforce). The questionnaire was then sent to the 254 gazelles and we obtained a total of 161 valid questionnaires (63% in total). In contrast, financial data were obtained for 100% of 254 companies from the SABI database.

Sector	Number of Companies	%	Sales (1997) (€ Millions)	%	Mean Sales (1997) (€ Millions)
Food products	15	6%	242	6%	16,1
Leather and confection	29	11%	358	9%	12,3
Paper, edition and graphical arts	17	7%	150	4%	8,8
Chemical industry	31	12%	828	21%	26,7
Plastic	27	11%	221	6%	8,2
Metallurgy	44	17%	332	8%	7,5
Machinery and equipments	37	15%	309	8%	8,4
Electrical material, electronic and IT	18	7%	589	15%	32,7
Material of transport	22	9%	795	20%	36,1
Other	14	6%	131	3%	9,4
Total	**254**	**100%**	**3955**	**100%**	**15,6**

Table 1: Number of companies and billing amount by sector of industrial gazelles (data from 1997)

3.2. Profitable growth drivers of gazelles

This summarizes the main conclusions of the study in the first phase (Hernandez et al., 1999). It should be noted that 60% of the gazelles were young, less than ten years old. According to the survey, the gazelles saw their competitive advantage deriving from higher to lower importance for the following factors (See Figure 2):

Strategic Management: Strategies undertaken by the gazelles have highlighted the diversification of products and markets by about 60% of companies. 32.5% of gazelle companies considered strategic direction as a major competitive advantage. The fact that the strategic direction has been considered; the main factor to generate competitive advantage over other companies is consistent with previous studies. In this sense, Cuervo, 1997, pointed out that in the past, a company's competitive advantage was based on factors such as availability of capital and technology. The point that these factors can be found relatively easily now makes the development of entrepreneurial skills a key to creating a competitive advantage.

The binomial quality-productivity was the second most important driver for gazelles. About 70% of gazelle companies had an ISO certification of 9,000, which was above the 5% for the rest of Catalan industrial companies. Focusing on quality meant that the rate of return on products was 1.07%, which represents half the average for industrial companies. In relation to productivity, 95% of gazelles were as, or more automated than their competitors and in doing so, they outsourced 26% of their production compared to the 22%, which was what the rest of the industry did. Furthermore, 21.5% of gazelles viewed quality and productivity as a major competitive advantage.

Thirdly, gazelle companies related their competitive success with innovation. In this sense, they spent 2.44% of sales towards R&D (about three times higher than the industry) and as a result, 35% of their billing came from the sale of new products compared with the industry average of 13%. Innovation was perceived as a major competitive advantage for 16.3% of the surveyed companies.

The gazelles were more internationalized than the other companies, which were highlighted with a 30% of sales made outside of Spain. Additionally, 26% of gazelle sales were subsidiaries abroad and 13% had production subsidiaries outside of Spain. These percentages are much higher than the rest of the industry, where 14% of them regarded this as their greatest competitive advantage. Both results obtained in reference to innovation and internationalization is consistent with previous studies in Spain, pointing out that the success in product innovation is a very important factor in increasing exports (Cassiman, Martinez-Ros, 2007). These two factors promote the growth of business and therefore, the chances that they can join the group of gazelles identified in this sample.

The human resource policy and employee training was the fifth factor explaining the business competitiveness of the gazelles. Around 16% of their employees had, on average, a University degree, compared with only 12.5% of the industry. In addition, earmarked for training and 2.4% of its payroll, a figure three times higher than 0.7% of other companies. The gazelles increased their workforce 68% between 1994 and 1997, while according to the Labor Force Survey, the industry population of employed during this same period increased by only 12%. In this regard, 11% of gazelle companies felt that their human resource policy was the most important factor in explaining their competitive advantage.

Lastly, gazelle companies applied a progressive trade policy that reflected a high-brand promotion. The pie chart shows that 5% of the companies surveyed pointed to their trade policy, which explains the competitive advantage over the rest of the industry.

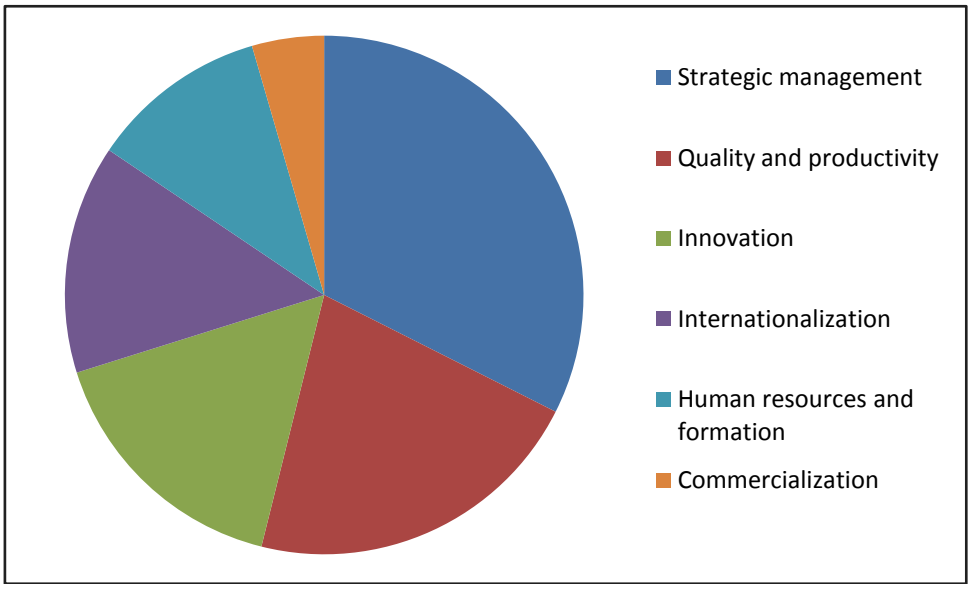

Figure 2: Factors explaining the competitive advantage gained by gazelle companies from survey

In reference to the model of economic and financial performance, the essential features of gazelles are as follows:

- They were largely independent. In this regard, 75% did not belong to any industrial group and 84% had no foreign participation in their capital.
- The combined billing of gazelle companies increased 136% between 1994 and 1997.
- Their financial return rate was 16% higher than their competitors and therefore, they were able to finance their growth without increasing capital provided by shareholders.
- Most of the profit was reinvested in the company with a self-financing premium. Furthermore, they also used debt to leverage the high performance and anticipated the debt would be profitable.

The profile of the gazelle companies from 1994-1997 is summarized in Figure 3, which shows how they created value through their commitment to human resources, process excellence, customer satisfaction, financial prudence and reinvesting most of their profits. This evidence is consistent with international literature on the subject.

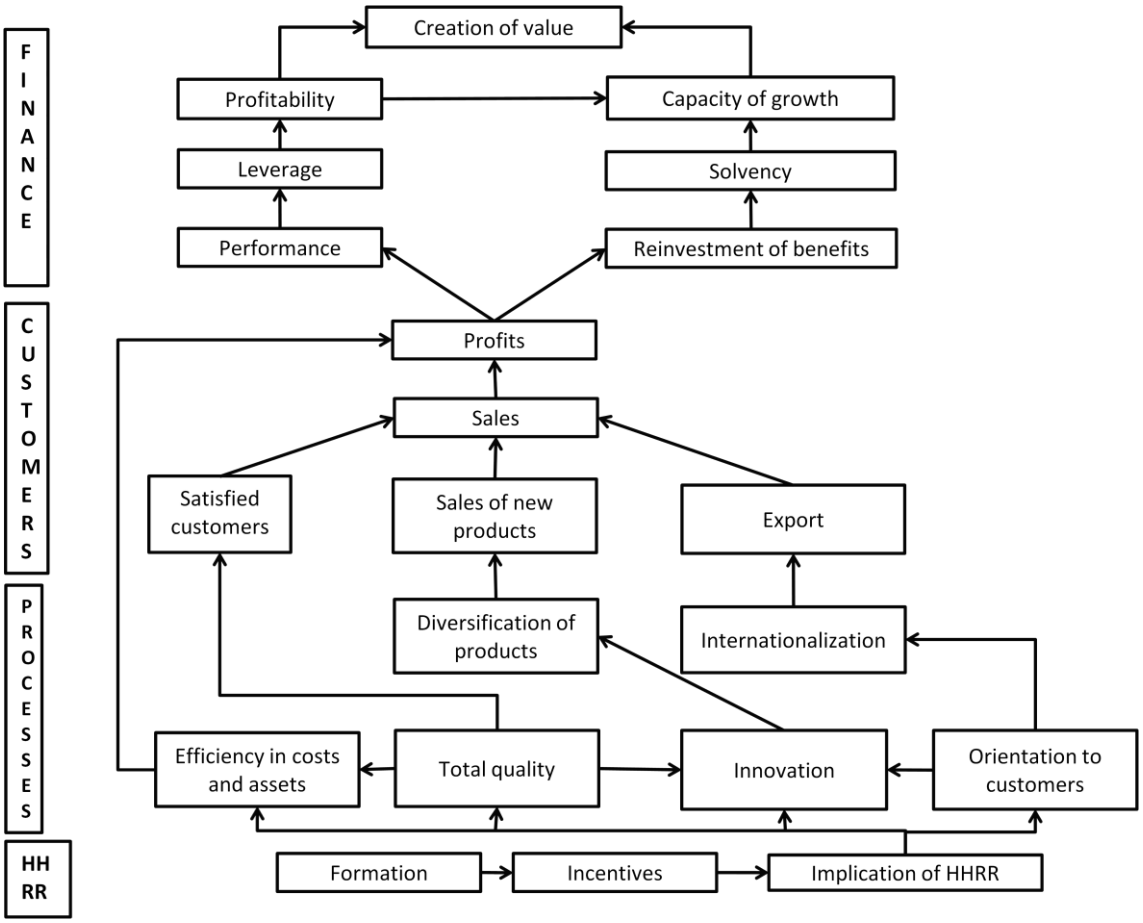

Figure 3: Main drivers of the gazelles' profitable growth

4. Stage Two: Further Developments of Gazelles

The second phase of the study consisted of analyzing the evolution ten years after the time that these companies had been considered gazelles. SABI database was used again in order to conduct the study. Since the accounts of companies are not listed in the database until almost a year from the end of the fiscal year, the study was done in 2009 and 2010 and has been carried out with the annual account until 2007. With this study we have been able to analyze the subsequent evolution of gazelles and their influencing factors.

4.1. Gazelle survivors

Gazelles have survived in a high percentage in companies above average. The evolution of the 254 gazelles in 1997 were quite disperse (see Table 2):

- 7 Companies, or 2.76% of the total, generated high growth ten years after the time they were selected as gazelles.
- 183 Companies, representing 72.04% of the total had a low sales and profits evolution rate similar to the low inflation rate.
- 16 Companies or 6.3% had merged, but were profitable at the time of the merger.
- 48 Companies or 18.9% had a negative trend (bankruptcy, unbeneficial merge, extinction, dissolution).

Company situation	**Number of companies**	**%**
Still operating and being gazelles	7	2,76%
Still operating but slowing down its sales	183	72,04%
Absorbed with benefits	16	6,29%
Absorbed with losses	5	1,96%
Creditors' meeting	11	4,33%
Extinguished	21	8,26%
Dissolved	9	3,57%
Bankruptcy	2	0,79%
Total	**254**	**100,00%**

Table 2: Status in 2007 of gazelle companies from 1997

4.2. Evolution of gazelle companies

The companies that were gazelles in 1997 and that have survived until now are bigger, as you would expect from a group characterized by high growth rates. In 1997, the group of gazelles were formed mainly by SMEs, since more than half billed less than 6 million Euros and only 5% had sales that exceeded 60 million Euros. Companies that had a billing rate below 6 million Euros had gone from 53% in 1997 to 25% in 2007. In contrast, companies that had a billing rate that exceeded 60 million Euros went from 12% in 1997 to 25% in 2007.

The gazelles in 1997 had an economic and financial structure that changed quite dramatically over the years. Between 2004 and 2007 all of the active gazelles experienced an increase in revenue of 16% (See Table 3), which is well below the 136% increase that occurred between 1994 and 1997.

Sector	1994-1997	1997-2007	2004-2007
Food products	197%	56%	4%
Leather and confection	105%	14%	-14%
Paper, edition and graphical arts	123%	107%	36%
Chemical industry	148%	592%	14%
Plastic	133%	59%	19%
Metallurgy	135%	129%	16%
Machinery and equipments	136%	172%	11%
Electrical material, electronic and IT	147%	49%	0%
Material of transport	131%	255%	14%
Other	94%	302%	22%
Total	**136%**	**240%**	**16%**

Table 3: Gazelle sector growth of income in 1997

Importantly, the increase between 2004 and 2007 was also lower than the growth experienced by the rest of the industrial sector, which was 19%. Figure 4 displays the evolution of the benefits of gazelles along with the different stages studied.

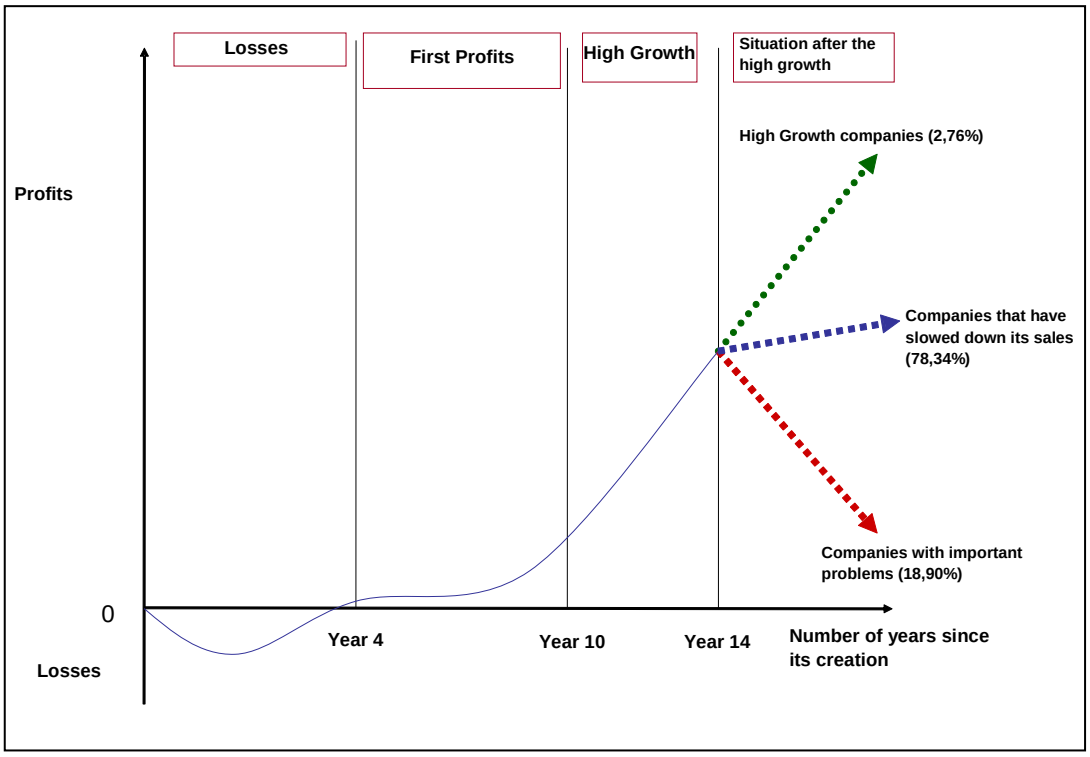

Figure 4: Performance evolution of the gazelles, from the beginning

The evolution of employment in the gazelle companies shows less growth than revenue in the period of 2004-2007 (see Table 4). Only two of the ten sectors studied have destroyed jobs in the period between 2004 and 2007, an increase in the average number of employees by 5%. This figure is positive according to Industrial Business Survey, employment in the Catalan industry decreased by 7.5% in the same period.

Sector	2004-2007
Food products	6%
Leather and confection	-12%
Paper, edition and graphical arts	20%
Chemical industry	-2%
Plastic	9%
Metallurgy	3%
Machinery and equipments	3%
Electrical material, electronic and IT	16%
Material of transport	7%
Other	2%
Total	**5%**

Table 4: Growth of average number of employees

In regards to the balance sheet structure, gazelles have been characterized by their investments in fixed assets and have managed to achieve a better quality of debt and therefore increase on capitalization (See Table 5).

	1997	2002	2007
Long Term Assets	32%	38%	41%
Inventories	17%	14%	13%
Acc. Receivable	47%	43%	43%
Banks & Cash	4%	5%	3%
Total	**100%**	**100%**	**100%**
	1997	**2002**	**2007**
Retained Earnings	41%	40%	43%
Long Term Debts	10%	19%	20%
Short Term Debts	49%	41%	37%
Total	**100%**	**100%**	**100%**

Table 5: Percentage trends in gazelle aggregated balance sheet from 1997-2007

The slowdown in sales was accompanied by a decline in profitability, both from the assets and equity (See Table 6).

	1997	2002	2007
Return on Assets	14,8%	11,0%	8,2%
Return on Equity	26,0%	18,3%	16,8%

Table 6: Gazelle profitability development (Amat et al., 2010)

Self-financing and prudent financial policies of gazelles explain that over the years their credit is improving and their debt is low compared with companies in the industry. This puts them in a better position to cope in a recession like the one since 2008. Considering that from 2008 the Spanish businesses have initiated a process of deleveraging in order to increase their levels of capitalization. The gazelles' decision to utilize prudent financial strategy worked to their advantage.

In 2009, active gazelle companies were re-analyzed to see if they still possessed the characteristics of a 'gazelle company'. Additionally, we also analyzed the circumstances that have adversely affected the 43 gazelles in 1997 that are currently in bankruptcy proceedings, extinguished or dissolved. These tests have yielded evidence regarding the circumstances influencing sustainability and growth and instead, had caused problems for business continuity. The main conclusions are that gazelles are still active with either a high or normal growth and have the following characteristics:

- They continued to give priority to the majority of drivers that favored their growth when they were considered a high gazelle:
    - Diversification of products and markets
    - Internationalization has increased its outreach efforts
    - High investment in R&D
    - Maintenance of policies to improve quality and productivity
    - Promoted a more professional human resource structure
    - Conservative in finances, due to betting on the reinvestment of profits and capitalization
- Additionally, they managed an organization with great capacity in order to adapt to changes

In contrast, the 43 gazelle companies in 1997 that experienced difficulties (such as bankruptcy) have other characteristics, such as:

- Excessive dependence on certain markets or products
- Significant reduction of investment in R&D
- Inflexible to change and inadequate response toward new competitors
- Slightly conservative finance, opted significant amount of dividends which were divided by the debt

Figure 5 summarizes the profile of gazelles and their growth cycle.

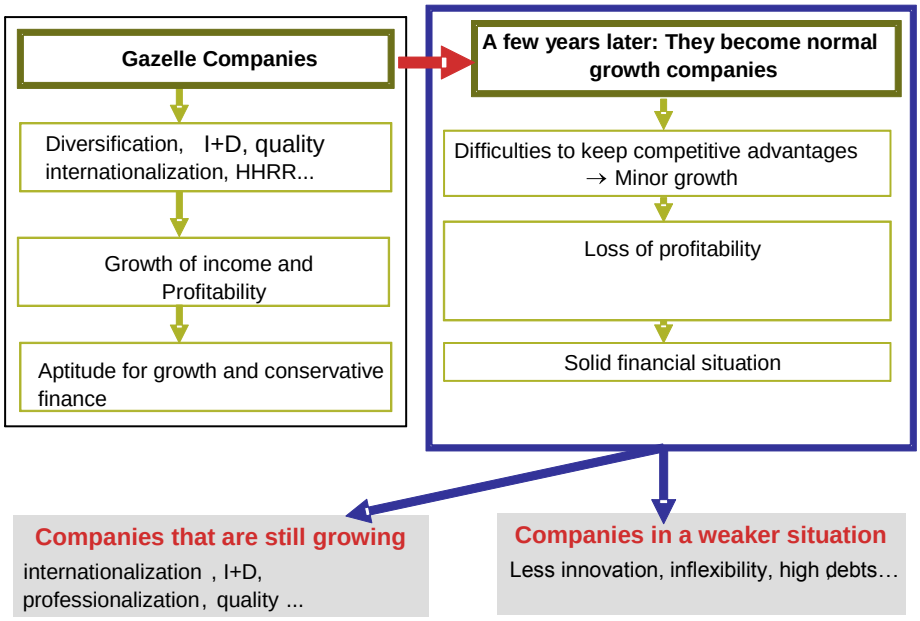

Figure 5: Factors that explain the development of gazelles

5. Conclusion

The study of gazelles is of particular interest because their growth is an indicator of success, and thus these companies achieve higher growth rates in both profitability and employment. This work is intended, first, to identify key factors to help companies achieve higher growth rates and secondly, to analyze the development in subsequent years to identify factors that contribute to the progress of a company or conversely, show where problems may occur.

Factors that contribute to a company achieving high growth rates are: a competitive advantage based on strategic direction, quality, innovation, globalization, human resources, trade policy and a conservative financial policy.

The analysis of the evolution of gazelles over the years has shown the difficulty of maintaining high growth rates in sales and profits over time. It has also served to differentiate the companies that have continued to grow to a greater or lesser extent, from those who have experienced significant difficulties. The results show that the latter group was characterized by very high debt increase and has been accompanied by reduced effort in areas that had once provided competitive advantages (R&D, internationalization) which has led over the years to an overdependence on few products or markets. In contrast, companies that are growing after ten years have been marked by continuing to invest in areas such as R&D, the professionalism of their teams, quality and productivity. Additionally, these companies have dominated the flow, thus putting them in a better position to face a recession.

Such type of evidence may be useful for both public managers in order to guide the priorities of business development policies and for managers interested in creating and developing companies with high growth rates in sales and profits.

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