

Analysing the relationship between diversification strategy and firm performance: the role of the economic cycle

Análisis de la relación entre la estrategia de diversificación y el desempeño de la empresa: el rol del ciclo económico

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Recibido el 16 de febrero de 2017, aceptado el 3 de mayo de 2018

Publicado online el 25 de enero de 2019

Nº de clasificación JEL: L25, M21

DOI: 10.5295/cdg.170738el

Abstract:

The relationship between corporate strategies and firm performance has been one of the key debates in the discipline of Strategic Management. There are studies that analyse the moderating role that certain variables may play in that relationship. These variables tend to refer to aspects within the firm or, at the very least, within the competitive environment in which a firm operates. Nevertheless, the empirical evidence on the part the general environment plays from an economic perspective is much less common, and focuses on large corporations and on periods of economic growth. Accordingly, using a panel of 1,828 Spanish manufacturing firms of different sizes, an analysis is conducted of the differences in Return On Assets (ROA), Growth in Sales (GS) and Labor Productivity (LP) between specialised firms, those with related diversification, and those with unrelated diversification, between 2002 and 2011, in which there was a period of growth alternated with another one of economic recession. Although some superiority is noted of related diversification and specialisation over unrelated diversification, the differences between strategies are less significant in periods of economic recession, and vary according to the dimension of performance considered. These results reveal the need to consider the economic cycle as a contingent factor that affects the impact corporate strategies have on firm performance.

Keywords:

Corporate strategy, diversification, economic cycle, performance.

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Resumen:

La relación entre las estrategias corporativas y el desempeño empresarial ha sido uno de los debates centrales en la disciplina de la dirección estratégica. Diversos estudios analizan el rol moderador que juegan diversas variables en esta relación. Dichas variables tienden a referirse a aspectos internos de la empresa o, si acaso, a aspectos del entorno competitivo en el que la empresa opera. Sin embargo, es más escasa la evidencia empírica sobre el rol que desempeña el entorno general y suele enfocarse en grandes empresas y en períodos de crecimiento económico. En consecuencia, utilizando un panel de 1.828 empresas manufactureras españolas de diferentes tamaños, se realiza un análisis de las diferencias de rentabilidad sobre activos, crecimiento de ventas y productividad laboral entre empresas especializadas, con diversificación relacionada y con diversificación no relacionada, entre los años 2002 y 2011, en los cuales hubo un período de crecimiento alternado con otro de recesión económica. Aunque se destaca cierta superioridad de la diversificación relacionada y la especialización sobre la diversificación no relacionada, las diferencias entre estrategias son menos significativas en los períodos de recesión económica y varían de acuerdo a la dimensión de desempeño considerada. Estos resultados revelan la necesidad de considerar el ciclo económico como un factor contingente que afecta el impacto que las estrategias corporativas tienen sobre el desempeño de la empresa.

Palabras clave:

Estrategia corporativa, diversificación, ciclo económico, desempeño.

1. INTRODUCTION

Since the pioneering works by Ansoff (1957), Penrose (1959), Chandler (1962) and Gort (1962), there has been considerable scholarly interest in understanding the role played by the directions of growth that a firm chooses to follow for its long-term performance.

Over the past decades, a significant volume of literature has built up on the relationship between strategies of *specialisation*, *related diversification* and *unrelated diversification* with regard to the various dimensions of firm performance. Nevertheless, the bulk of these studies have involved only large US corporations and, in general, scenarios of economic stability or growth.

Despite the importance the environment's conditions have as contingency factors of strategic corporate decisions, there are only a limited number of studies that consider the effects that the stages of the economic cycle have on the differences in performance between these types of strategies; what's more, the few studies that do in fact consider this factor have returned contradictory empirical results (Lubatkin and Chatterjee 1991; Chakrabarti et al. 2007; Kuppaswamy and Villalonga 2010; De la Fuente and Velasco 2015; Cerrato et al. 2016).

The aim of this study, therefore, is to analyse the differences in performance between firms that follow strategies of specialisation, related diversification and unrelated diversification, taking into account the stage of the economic cycle –growth or recession– of the immediate environment in which a firm operates.

Accordingly, an analysis is conducted of a panel of Spanish manufacturing firms of different sizes, over a time horizon that includes periods of economic growth and recession. The first section presents the theoretical framework that justify the hypotheses. Next, the methodology section describes the study sample and the measures used for the empirical analysis. Finally, the results of the statistical analysis, the discussion and the conclusions obtained are presented, from which future lines of research are proposed to further deepen this field.

2. CORPORATE STRATEGIES AND FIRM PERFORMANCE

Corporate strategies refer to the decisions a firm's top management adopts regarding the future development of its field of business, in terms of its growth and its business portfolio (Guerras and Navas 2007). There are therefore myriad decision-making areas related to these kinds of strategies, such as a firm's geographical scope, its methods of growth, the diversity of its markets, and the diversity of its technologies and products, among others (Bengtsson 2000).

Within the specific ambit of technological and product diversity, three general strategies can be identified that have been widely studied in the literature: specialisation, related diversification, and unrelated diversification (Montgomery 1982; Rumelt 1982; Palepu 1985; Varadarajan and Ramanujam 1987; Palich et al. 2000; Huerta et al. 2008; Ravichandran et al. 2009).

Specialised firms are involved in a single economic activity, whereby their growth depends on their penetration of current markets or the development of new markets or products within the same business field (Ansoff 1957).

Firms with related diversification are involved in several economic activities that share some resources and similar capabilities, whereby they may generate synergies between them and may be managed according to a similar *dominant logic* (Prahalad and Bettis 1986; Mahoney and Pandian 1992; Palich et al. 2000).

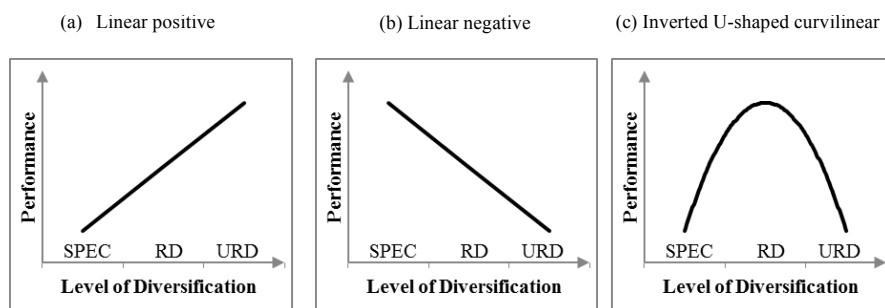
For their part, firms with unrelated diversification are involved in numerous economic activities, some of which are not in any way related to the firm's traditional products and markets. In these cases, it is much more difficult to generate non-financial synergies or transfer resources and capabilities between businesses (Mahoney and Pandian 1992; Palich et al. 2000). Firms that follow this strategy tend to do so in order to systematically reduce their overall risk, as by taking part in industries with different dynamics they may subsidise loss-making businesses with the financial surpluses from more profitable businesses (Porter 1987; Suárez 1993; Guerras and Navas 2007).

The debate over the impact that each one of these strategies may have on firm performance has now been ongoing for several decades. There has been a raft of empirical studies, with a corresponding diversity of results. Some of the basic models underpinning these relationships are the linear positive (diversification premium), the linear negative (diversification discount), and the inverted U-shaped curvilinear (Palich et al. 2000; Benito et al. 2012), which are shown in Figure 1.

The linear positive model is based on the rationale of the Industrial Economy, whereby diversified firms acquire a market power that is less accessible for their specialised counterparts, and so enables them to generate certain entry barriers and create cross-subsidies between businesses (Porter 1987). The transaction cost approach considers that the managers of a diversified firm have greater access to information than capital markets, which means they are better positioned to fine-tune the distribution of resources across their businesses (Williamson 1979). Sundry studies have reported results that are consistent with this model (Miller 1969; Rhoades 1973; Page et al. 1988; Villalonga 2004).

Figure 1

Models of relationship between diversification and performance



SPEC: Specialisation
 RD: Related Diversification
 URD: Unrelated Diversification

Source: Based on Palich et al. (2000) and Benito et al. (2012).

The linear negative model considers that diversification may destroy value, as cross-subsidies mean that a diversified firm ends up overinvesting in scarcely profitable businesses, whose poor results are concealed by those business units that are performing well (Berger and Ofek 1995; Benito et al. 2012). Furthermore, the decision to diversify may destroy value when it is motivated by the personal interests of managers seeking to increase their own individual power and prestige, as propounded by Agency Theory (Jensen and Meckling 1976; Denis et al. 1997). Some studies have also reported results that are consistent with this model (Imel and Helmberger 1971; Amit and Livnat 1988; Berger and Ofek 1995; Campa and Kedia 2002; Stowe and Xing 2006).

In turn, the inverted U-shaped curvilinear model considers that firms with a moderate degree of diversification (related) perform better than those with a low degree (specialised), while those with a high degree of diversification (unrelated) do not outperform those with a moderate degree (Grant et al. 1988; Palich et al. 2000).

According to the resourced-based view and the dynamic capabilities approach, it is argued that the advantages created by diversification are more closely linked to the synergies that may be generated among several businesses and their resource sharing (Penrose 1959; Wernerfelt 1984; Mahoney and Pandian 1992; Teece et al. 1997), whereby those firms with related diversification, whose businesses share the same dominant logic and use similar specific resources (excluding financial resources and certain general management capabilities), may develop certain core competencies that help them to be more competitive than firms pursuing other strategies (Prahalad and Bettis 1986; Prahalad and Hamel 1990; Markides and Williamson 1994; Miller 2004). They also highlight empirical studies that have reported results that are consistent with this model (Rumelt 1982; Palepu 1985; Grant et al. 1988; Palich et al. 2000; Tanriverdi and Venkatraman 2005; Ravichandran et al. 2009).

With these considerations in mind, and giving particular importance to the arguments of the resource-based view and capabilities approach, the following hypotheses have been formulated:

- *Hypothesis 1: Firms with related diversification perform better than firms with unrelated diversification.*
- *Hypothesis 2: Firms with related diversification perform better than specialised firms (single business).*
- *Hypothesis 3: Specialised firms (single business) perform better than firms with unrelated diversification.*

The contradictory nature of the results provided by these models may be explained, furthermore, by other variables that moderate the relationship between diversification and performance. For example, the policies promoted by some managers responsible for the existence of a certain abundance of shared resources among businesses (Shayne Gary 2005), the environment's level of institutional development that may increase the positive impact of diversification (Chakrabarti et al. 2007), or the level of expenditure on information technologies, which may also heighten the impact of related diversification (Ravichandran et al. 2009).

Besides the existence of contradictory results, a particular feature of the studies that have analysed the relationships between strategies of diversification and performance is the prevalence of research using samples of large corporations over periods of economic

growth (Rumelt 1982; Amit and Livnat 1988; Grant et al. 1988; Page et al. 1988; Berger and Ofek 1995; Campa and Kedia 2002; Stowe and Xing 2006).

The economic cycle has often been seen as a factor that affects the relationship between diverse corporate strategies and firm performance. For example, the abnormal returns accumulated through a strategy of corporate takeovers tend to be higher during sluggish market cycles (Pangarkar and Lie 2004), the impact of a firm's internationalisation strategy on results is moderated by the economic conditions in its country of origin (Bausch and Krist 2007; Elango and Sethi 2007), and the impact of cooperation strategies on market performance is also moderated by the level of uncertainty in the environment (Ritala 2012), which depends on the industry's life cycle.

Prior studies that have analysed the influence an economic cycle has on the relationship between diversification and performance have reported contradictory results. For example, Lubatkin and Chatterjee (1991) found that the economic cycle effectively influences the differences in performance between firms that pursue different diversification strategies; in this case, it was noted that during recessions firms with related diversification obtained higher returns with an adjusted level of risk than firms with unrelated diversification, although there was no significant difference in stable or growth periods.

Chakrabarti et al. (2007) found that the benefits of diversification may be limited when there is major uncertainty throughout the economy as a whole, as events of this nature dilute the benefits of internal markets for diversified firms, while increasing their costs by making the simultaneous management of multiple challenges more difficult.

De la Fuente and Velasco (2015) argued that the general external constraints imposed by the financial crisis negatively moderate the value effect of diversification in a context of low shareholder protection. Using a panel data of Spanish firms, they found that the value of corporate diversification decreases during the financial crisis. Whereas the impact of industrial diversification in the pre-crisis period is positive, yet not significant, the value of diversification during the financial crisis becomes negative and statistically significant. These findings suggest that diversified Spanish firms have failed to capitalise on the financial flexibility to emerge from their internal capital markets. Instead, external capital constraints imposed by the financial crisis have led diversification costs to increase more than benefits.

Cerrato et al. (2016) argue that performance effect of diversifying acquisitions would be less negative during the economic crisis relative to the pre-crisis period. However, they found that, in pre-crisis times, the coefficient for the performance effect of diversifying acquisitions was negative, but not significant, while during the crisis this effect was significantly negative.

By contrast, Kuppuswamy and Villalonga (2010) have found that in an environment of economic crisis, characterised by multiple financial restrictions and complex economic conditions, such as those that appeared in the 2007 crisis, firms with unrelated diversification (conglomerate) recorded certain advantages over more focused firms. Conglomerate firms obtained greater leverage than other more specialised ones, and their access to internal capital markets became more valuable, not only because external markets became more costly, but also because the allocation of internal capital became more efficient during the crisis.

Therefore, given this state-of-the-art, one might ask whether an environment of growth or of economic recession impacts upon the differences in performance between diversification, and whether it does so in equal measures for all kinds of firms, for example, according to their size.

In a growth environment, it may be argued that performance depends more on a firm's internal capabilities for exploiting growth and remaining competitive, enhancing the validity of the arguments propounded by the resource-based view and capabilities approach, which hints at the superiority of related diversification. Moreover, external capital markets are less complex within this favourable economic context, so they become attractive ways of accessing the necessary financial resources. Likewise, the lower level of uncertainty of any economic activity explains that the need for overall risk diversification through processes of unrelated diversification decreases in relative importance.

Nonetheless, within a context of economic recession, in which capital markets are less efficient and the risks are greater, the arguments of the Industrial Economy and the Transaction Costs approach become more valid in terms of the access to internal sources of finance. Thus, and through cross-subsidies between businesses, firms with unrelated diversification will be able to cope better with this context's specific threats. In short, within a crisis scenario there is a more pressing need to reduce systematic risk, which becomes more difficult for specialised firms or those with related diversification, as they do not have diverse sources of revenue that are weakly correlated with one another.

With these considerations in mind, we formulated the following hypothesis:

- *Hypothesis 4: Differences in performance between companies that adopt different corporate strategies will vary depending on the stage of the economic cycle (growth/recession).*

3. METHOD

3.1. Population and sample

We use the panel data from a survey on corporate strategies called “*Encuesta sobre Estrategias Empresariales*” (ESEE, SEPI Foundation, Spain) involving a population of Spanish manufacturing firms with more than ten employees. The sample included those companies that participated in the panel between 2002 and 2011, omitting those that were missing data in the analysis variables or which underwent drastic changes in their nature, such as mergers, takeovers and demergers. In addition, we omit those observations that register outliers, above or below three standard deviations, with regard to the mean for each dependent variable, with the aim being to make the analysis of variance more robust (Hair et al. 1999).

This has led to the selection of 16,646 observations corresponding to 1,828 firms (unbalanced panel), which account for 91.6% of the observations available in the panel for this time horizon. Out of this sample, 74% of the observations correspond to firms with fewer than 200 employees, and 26% correspond to those with more than 200. These firms belong to manufacturing industries classified in divisions 10 to 32 (except 19) of the Spanish codes

for the National Classification of Economic Activities (CNAE-2009). Table 1 shows the sample composition by main economic activity and by size.

Table 1

Sample composition

Main Economic Activity	CNAE codes	ISIC codes	Size		Total
			10 to 200 employees	More than 200 employees	
Meat industry	101	101	375	146	521
Food products and tobacco	102 to 109, 120	102 to 108, 120	1.156	446	1.602
Beverages	110	110	175	126	301
Textiles and clothing	131 to 133, 139, 141 to 143	131, 139, 141 to 143	1.026	173	1.199
Leather and footwear	151 + 152	151 + 152	411	7	418
Wood Industry	161 + 162	161 + 162	537	96	633
Paper industry	171 + 172	170	418	178	596
Graphic arts	181 + 182	181 + 182	677	151	828
Chemical industry and pharmaceutical products	201 to 206, 211 + 212	201 to 203, 210	655	463	1.118
Rubber and plastic products	221 + 222	221 + 222	700	215	915
Non-metallic mineral products	231 to 237, 239	231 + 239	948	324	1.272
Ferrous and non-ferrous metals	241 to 245	241 to 243	280	324	604
Metal products	251 to 257, 259	251, 252, 259	1.711	362	2.073
Computer, electronic and optical products	261 to 268	261 to 268	180	62	242
Machinery and electrical equipment	271 to 275, 279	271 to 275, 279	548	273	821
Agricultural and industrial machines	281 to 284, 289	281 + 282	830	297	1.127
Motor vehicles	291 to 293	291 to 293	347	492	839
Other transport material	301 to 304, 309	301 to 304, 309	176	122	298
Furniture industry	310	310	765	114	879
Other manufacturing industries	321 to 325, 329	321 to 325, 329	322	38	360
Total			12.237	4.409	16.646

Source: Own elaboration.

3.2. Measures

The measurement of corporate strategy involved the three categories the survey uses to classify firms according to their CNAE industry codes: specialisation (SPEC), referring to firms that have only a single business (the firm only specify a 3-digit economic activity of CNAE codes); related diversification (RD), referring to firms involved in several businesses that are all related to the same industry (the firm specifies more than one economic activity of 3 digits of the CNAE codes, but all belong to the same 2 digit sector of the CNAE codes); and unrelated diversification (URD), referring to those firms involved in several business, with some of these activities belonging to different industries (the firm specifies more than one 3-digit economic activity of the CNAE codes, but some belong to different 2-digit sectors of the CNAE codes). These categories are validated by their use in some prior studies (Huerta et al. 2004; Huerta et al. 2008).

Performance was measured through three variables: return on assets (ROA), growth in sales (GS), and labour productivity (LP).

Firstly, the level of return on assets –ROA– the ratio of a firm’s operating income to its assets value, which allows gauging the successful use of its assets for generating profit, regardless of the way in which those assets have been financed (Selling and Stickney 1989). It is a measure that has often been used for performance in studies on the impact of diversification (Mayer and Whittington 2003; Tanriverdi and Venkatraman 2005; Ravichandran et al. 2009).

Secondly, growth in sales –GS– reflects the year-on-year variation rate in sales, and also appears as a dependent variable in some studies on diversification (Wiersema and Liebeskind 1995; Forcadell 2002).

Thirdly, labour productivity –LP– relates the value added a firm generates to its labour costs, reflecting the efficiency with which the firms uses its workforce to create value. This variable is not often used in studies on diversification, but it has been considered a measure of performance in other studies on Strategic Management (Jerez 2001; Dimovski and Škerlavaj 2005; Jiménez and Sanz 2006).

Finally, to analyze the differences of the results according to the economic cycle, the panel was divided into two subsamples: observations between 2002 and 2006 (period of economic growth) and observations between 2007 and 2011 (period of economic recession). This meant considering the Spanish economy’s development, with periods of sustained growth during the first years of the new millennium, followed in more recent years by a profound economic crisis (Ortega and Peñalosa 2012).

4. RESULTS

An analysis of the composition of the panel according to corporate strategies reveals the majority presence of specialised firms, accounting for 86.5% of the sample. Firms that pursue a strategy of related diversification account for 5.8%, and firms with unrelated diversification make up the remaining 7.7%.

In order to verify the hypotheses considered here, the initial step involved comparing the measures of performance each group of firms recorded according to its own particular strategy, for each one of the periods considered.

Initially, it is found that companies with related diversification present a higher sample mean for the three performance measures, compared to companies with other strategies, both in periods of growth and in periods of recession, which emphasises the superior nature of the strategy of related diversification.

However, with a view to verifying whether the differences between the measurements are statistically significant, the next step has involved an analysis of variance (one-way ANOVA) with each performance variable and at each moment in the economic cycle.

Table 2 shows that periods of economic growth record significant differences in ROA (significance over 90%) and in labour productivity (significance over 99%), whereas in periods of recession there are only significant differences in labour productivity (significance over 95%). It is also noted that the measures for growth in sales do not record any significant differences in either one of the two periods, reflecting this measure's high variance.

Table 2

Analysis of variance - one-way ANOVA by periods

		Performance Variables					
		Growth (2002-2006)			Recession (2007-2011)		
		ROA	GS	LP	ROA	GS	LP
Mean	SPEC	12.3526	4.2747	1.5170	8.7973	-2.3706	1.4224
	RD	12.5207	6.3720	1.6014	9.5198	-1.7430	1.4519
	URD	10.8600	4.3229	1.4490	8.6138	-3.6991	1.3640
Standard Deviation	SPEC	13.5856	19.1451	0.6213	13.0744	23.9366	0.6223
	RD	13.9577	16.9233	0.7008	12.6472	22.6808	0.5376
	URD	12.3341	19.4024	0.5896	12.5769	25.8836	0.5187
F Statistic		2.97	1.72	6.67	0.94	1.2	4.11
Significance		0.0516	0.1796	0.0013	0.3924	0.3018	0.0164

Source: Own elaboration.

According to these results, a multiple comparison is required of the different measures between each pair of strategies based on the three performance variables and the two periods of the economic cycle. The Bonferroni, Scheffe and Sidak tests were used, which are more solid than the T test in the case of multiple comparisons (StataCorp 2009). The results are presented in Table 3.

Table 3

Multiple comparison tests of measures by periods

Economic cycle	Performance Variable	Comparison of measures	Difference of measures	Significance		
				Bonferroni Test	Scheffe Test	Sidak Test
Growth (2002-2006)	ROA	RD - UDR (H1)	1.6607	0.199	0.186	0.186
		RD - SPEC (H2)	0.1681	1.000	0.971	0.993
		SPEC - URD (H3)	1.4926	0.049**	0.056*	0.048**
	GS	RD - UDR (H1)	2.0491	0.491	0.379	0.415
		RD - SPEC (H2)	2.0974	0.192	0.180	0.180
		SPEC - URD (H3)	-0.0483	1.000	0.999	1.000
	LP	RD - UDR (H1)	0.1523	0.001***	0.001***	0.001***
		RD - SPEC (H2)	0.0844	0.026**	0.032**	0.026**
		SPEC - URD (H3)	0.0679	0.053*	0.060*	0.052*
Recession (2007-2011)	ROA	RD - UDR (H1)	0.9060	0.619	0.450	0.500
		RD - SPEC (H2)	0.7226	0.600	0.440	0.488
		SPEC - URD (H3)	0.1834	1.000	0.933	0.975
	GS	RD - UDR (H1)	1.9561	0.484	0.375	0.410
		RD - SPEC (H2)	0.6277	1.000	0.849	0.919
		SPEC - URD (H3)	1.3285	0.496	0.382	0.419
	LP	RD - UDR (H1)	0.0879	0.027**	0.033**	0.026**
		RD - SPEC (H2)	0.0295	0.792	0.536	0.601
		SPEC - URD (H3)	0.0584	0.033**	0.040**	0.033**
*p<0.10 **p<0.05 ***p<0.01						

Source: Own elaboration.

When performance is measured through ROA, there is a significant difference solely between specialised firms and those with unrelated diversification in growth periods. This means there is only support for hypothesis 3 in those periods, with no support for hypotheses 1 and 2.

As for the growth in sales, there is no support for any of the hypotheses, which is consistent with the analysis of variance conducted earlier.

Finally, a comparison of the measures of labour productivity shows that hypotheses 1 and 3 are not rejected in these two periods, which corroborates the superior nature of related diversification and specialisation over unrelated diversification under this dimension of performance. In turn, hypothesis 2 is supported solely during periods of growth.

The above observations confirm that hypothesis 4 is fulfilled for some of the differences. In the case of ROA, the difference between specialised firms and those with unrelated

diversification ceases to be significant in an environment of recession, and in the case of labour productivity, the difference between firms with related diversification and specialisation ceases to be significant in that environment.

5. DISCUSSION

According to the results obtained, there is initially some support for the argument that unrelated diversification is a strategy with poorer outcomes compared to that of a related nature and to the strategy of specialisation, as considered by the resource-based view and the dynamic capabilities approach. Generally speaking, unrelated diversification is the most vulnerable strategy. The limitations of unrelated diversification are to be found especially in the difficulty that managers face when simultaneously managing a series of businesses with different dominant logics (Prahalad and Bettis 1986), which increases their coordination costs.

Although these results are consistent with the theoretical resource-based view and capabilities approach (Barney 1991; Grant 1991), which argues in favour of the greater potentialities of strategies that are focused or generate greater synergies, the economic cycle is singled out as a factor that should be considered when comparing the performance of the different strategies. It is thus noted that the benefits of the strategies of specialisation or related diversifications are affected by environments of high economic uncertainty. This means that when an economy shows signs of exhaustion, and the levels of risk inherent to any business activity increase and it becomes difficult to access financial resources through the capitals market, strategies of unrelated diversifications are less unsuitable.

According to the reasoning presented throughout this paper, the vulnerability of unrelated diversification is reduced in an environment of economic recession, at least as far as ROA is concerned. This situation may arise for several reasons. On the one hand, capital markets become less efficient within a context of economic crisis, which may be more problematic for a specialised firm with fewer financing sources, while a firm with unrelated diversification could exploit its own internal sources of financing through cross-subsidies between businesses. This idea is consistent with the finding reported by Kuppuswamy and Villalonga (2010) on the possibility conglomerate firms have within a crisis environment to leverage their businesses and exploit their internal capital markets through a more efficient allocation of that internal capital.

On the other hand, the systematic risk a firm faces will make it more vulnerable in a crisis environment, given that its revenue comes from a single type of business, while that risk might be lower in a firm with unrelated diversification due to the very nature of its strategy.

There is a higher level of uncertainty in an economic crisis, so firms need to prioritise those strategies that restrict the level of risk assumed. In this context, unrelated diversification could be a suitable mechanism for responding to this kind of scenario, as it seeks to reduce the risk of the business portfolio as a whole, with priority being given to investments with short maturity periods. Nevertheless, the main problem of unrelated diversification is the complexity of the internal management derived, as when labour productivity is used as a performance indicator this strategy continues to record poorer results on average than that of a related nature and the strategy of specialisation.

These findings support the notion that differences in performance between companies that adopt different corporate strategies will vary depending on the stage of the economic cycle. Each strategy a firm pursues has different implications in terms of financial leverage, the level of risk assumed, and the time taken to recoup investments. These variables are obviously affected by the stage of the economic cycle that a market is in, and this means that firms pursue strategies of lower overall risk that may be better prepared for more uncertain environments, although stable or growth periods are more favourable for firms that pursue more focused strategies.

What's more, it is interesting to note that there are no significant differences in the growth of sales, even though some prior studies have indeed found differences in this aspect (Varadarajan and Ramanujam 1987; Suárez 1994; Forcadell 2002).

When considering standard deviations, it is noted that growth in sales is a more volatile variable than the other measures of performance, which means that significant differences between strategies are less likely to be found. This would be because the growth in sales may be more affected by environmental variables, such as the economic crisis and the stagnation of demand, than by internal variables that the firm can indeed control. Accordingly, the corporate strategy a firm decides to pursue would have a minimum impact on the dimension of the growth in sales, at least over the short term.

6. CONCLUSIONS

This paper has analysed the differences in return on assets (ROA), growth in sales (GS) and labor productivity (LP) that may be recorded within a context of economic growth or recession among firms that are specialised, with related diversification, and with unrelated diversification.

It has been found that firms with related diversification tend to record higher levels of labour productivity than firms with unrelated diversification, and within a context of economic growth they also outperform specialised firms. For their part, specialised firms also outperform firms with unrelated diversification in terms of labour productivity, although within a context of economic growth they also outperform them in terms of ROA. Nevertheless, there are no differences between the three strategies when comparing their growth in sales.

A practical implication of these results is the invitation to improve the decision-making criteria that managers use when defining the firm's growth directions. Bearing in mind the strategic superiority of related diversification, attention should be paid to the growth that facilitates the synergy between businesses and the exploitation of surplus resources and capabilities towards activities with similar technologies, giving less importance to criteria of risk reduction or the search for cross-subsidies between businesses.

One of the research's theoretical implications is the need to consider the economic cycle as a factor that affects the relationship between corporate strategy and firm performance, as each strategy involves certain conditions of systematic risk that may be more or less preferable depending on the conditions of uncertainty associated with each stage in the economic cycle.

Finally, consideration should be given to the limitations inherent to the methodological design of this study. On the one hand, the conclusions are circumscribed within the geographical and temporal context of the panel of firms used. On the other, some thought should be given to the specific restrictions of the metrics used, which depend on the variables available in the ESEE survey. In the case of the diversification measure, the ESEE survey avoids access to disaggregated information on the distribution of sales of each company at the level of industry segments, which makes it impossible to construct continuous measures such as the entropy index. Future research with more detailed databases may involve a more dynamic analysis using continuous measures of diversification, such as the entropy index (Palepu 1985), which would allow for more robust statistical analysis, or using market-based metrics for assessing performance, such as Tobin's Q, surplus values and the Sharpe, Treynor and Jensen ratios, which reflect a firm's outlook for future performance, as opposed to accounting measures that only reflect past performance. Additionally, although labor productivity may be a relevant performance measure for manufacturing companies, its limitations should be considered when comparing companies from different industries. Finally, in the panel used, there is a significantly higher proportion of specialized firms, compared to firms with related diversification or unrelated diversification. Future research could make comparisons between samples of similar quantity of firms for each strategy and using more recent panel data.

7. ACKNOWLEDGEMENTS

This paper has been supported by Project ECO2015-67434-R of Spanish Ministry of Economy and Competitiveness (Spain) and for the Excellent Research Group "Strategor" of URJC-Bank of Santander.

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