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*Conglomerate diversification strategy
and corporate performance*

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INTRODUCTION

1. SETTING THE SCENE AND STATING THE PROBLEMS

A key decision in corporate strategy is the choice of horizontal scope, i.e., the set of market segments in which a firm competes. Drawing on the seminal works of Ansoff (1957), Chandler (1962) and Rumelt (1974), how and to what extent diversification strategy achieves performances superior to other strategies has become an open debate. The nature and drivers of the processes of diversification, the differences in the average of competitiveness and performance between diversified and undiversified firms, and the emergence of a diversification premium/discount have been pillars of the strategic management and corporate finance research agendas for almost four decades. Nonetheless, the research issue that investigates the relationship between diversification strategy (both related and unrelated) and performance has not reached the status of maturity (Palich, Cardinal and Miller, 2000).

This dissertation polarizes on a particular choice of direction of diversification: *conglomerate strategy*. It aims to capitalize on the governance of resources and the economies of scope in firms that are typically widely diversified and decentralized (Williams, Paez and Sanders, 1988). Conglomerate strategy implies taking decisions on two relevant managerial choices: the *wide breadth* (level, amount) of diversification and the *type* of diversification that is *unrelated*.

There are three key reasons underlying the decision to focus exclusively

on conglomerate diversification strategy. Firstly, the magnitude of conglomerate firms' peculiarities suggests the need for specific investigation. Conglomerate firms' peculiarities concern financial structure and corporate governance mechanisms (Kochhar and Hitt, 1998), relationships among business units (Hill, Hitt and Hoskisson, 1992), human resource management controls (Rowe and Wright, 1997), and managerial control systems (Baysinger and Hoskisson, 1989).

Secondly, there is no consensus on the strategic logic of the firms' decision to operate in a wide portfolio of unrelated businesses (Ng, 2007) and, in addition, empirical results have presented conflicting advice to managers and investors about the benefits of conglomerate diversification strategy (Martin and Sayrak, 2003).

Thirdly, conglomerate diversification strategy represents a relevant economic phenomenon since it is frequently used in efficient and developed markets as well as in emerging markets (Hitt, Ireland and Hoskisson, 2009).

2. OBJECT OF THE RESEARCH

The object of this dissertation is *to discern the main variables that are instrumental in creating or destroying value in conglomerate diversification strategy*. Its development is the result of a path of research along a fertile area that lies at the intersection of strategic management, corporate finance and organization theory. To address the research questions and thereby implement the dissertation, the structure of the research reflects a threefold purpose:

- (I) to synthesize the existing body of research and develop a solid knowledge base that suggests a set of preliminary remarks to bridge the gap between

the different disciplinary traditions. Specifically, it intends to craft a conceptual contribution that addresses the need to integrate valuation tools from corporate finance and principles from the field of strategic management (Smit and Trigeorgis, 2004);

- (II) to rejoin the challenge to investigate the link between diversification strategy and performance by juxtaposing two conceptual arguments: the resource-based view and the real option lens. It enriches the debate on diversification strategy, introducing into empirical literature the difference between the breadth of a business portfolio and the type of diversification. Regarding conglomerate strategy, the study attempts to answer the following research questions: when the amount of diversification is high, can related diversification lead to inefficiencies generated by coordination, communication and integration costs, incentive distortions created by executives' intrafirm competition, incompatible technologies, and bureaucratic distortions? In the latter case, can unrelated diversification perform better than related diversification?
- (III) from the epistemic point of view – in addition to finance and strategy – the research aims undertake an investigation of the relevant literature on *strategic leadership* in order to illustrate how heterogeneity in the performance of conglomerate firms can be derived from the role of exceptional strategic leadership.

3. STRUCTURE OF THE DISSERTATION

This dissertation intends to explore the structure of the research and empirically

test the conglomerate diversification strategy. In addition, it studies how conglomerate diversification may impact on corporate performance by considering the strategic role of managerial leadership within corporate diversification processes. The contribution that this dissertation aspires to offer to management literature is threefold according to the three investigation chapters it contains. This dissertation is organized as follows:

- chapter I: “Conglomerate Diversification Strategy: Bibliometric Investigation, Systematic Review, and Research Agenda”;
- chapter II: “Diversification Strategy and Performance: Sharing of Resources or Strategic Flexibility?”;
- chapter III: “A Look Inside the Paradox of Conglomerate Success: Jack Welch’s Exceptional Strategic Leadership”.

Nonetheless, each chapter represents a complete essay in its own right that attempts to extend or build management theory and contribute to management practice. The following section presents the research perspective, methods and structure of each of the chapters.

3.1. Chapter I: Conglomerate Diversification Strategy: Bibliometric Investigation, Systematic Review, and Research Agenda

Chapter one aims to provide literature signposts for the new paths of research that combine different theoretical viewpoints and disciplinary approaches. It offers an overview of 202 articles which were included in the Institute for Scientific Information (ISI) database and were published in the decade between January 1990 and July 2010. In addition, focusing on the 55 most-cited papers, this

chapter proposes a more detailed analysis based on the bibliometric coupling approach.

Through a bibliometric investigation – that offers several advantages for quantifiability and objectivity (Nerur, Rasheed and Natarajan, 2008) – we scrutinize the quantitative aspects of the production, dissemination and use of recorded information (Tague-Sutcliffe, 1992) in conglomerate diversification studies. Our challenge to discover the latent structure of the literature and to map the main conceptual and empirical advances uses cluster analysis and multidimensional scaling analysis.

The chapter presents the most influential studies and the interrelationships among clusters of articles that have supported the theoretical evolution of the field. In the attempt to provide a reasonably comprehensive survey of current trends in literature we identify the major gaps in our knowledge and suggest a further focus for the conglomerate diversification research agenda. Table 1 presents an overview of chapter one.

Table 1: Overview of chapter one

Purpose	To present a systematic review of the literature on conglomerate diversification strategy and examine the different perspectives, paradigms, hypotheses and theories used in finance and strategic management approaches
Research questions	What are the sub-inquiries of research, interpretative lens that have been most consensus in shaping the literature? According to the common wisdom in the literature, how could conglomerate strategy support the process of value creation and appropriation?
Method	Bibliometric coupling approach
Methodological details	Cluster analysis, complete linkage and multidimensional scaling
Sample	202 articles published between 1990 and 2010 in ISI journals
Findings	The paper draws a detailed picture of the structure of conglomerate diversification strategy literature. It identifies six clusters of articles and offers a discussion on their dominant theoretical explanations, disciplinary traditions and approaches. Since this study summarizes the debate grounded concerns theoretical arguments as well as the methodological choices on conglomerate diversification strategy, it is helpful to identify new fertile lines of research.
<i>Research limitations</i>	<ul style="list-style-type: none"> - Bibliometric coupling does not separate the citations according to the coherence between the texts - Cluster analysis of articles assumes as a hypothesis that each paper could belong exclusively to a cluster
<i>Main contributions/ Originality</i>	<ul style="list-style-type: none"> - It conducts a literature review focused on conglomerate diversification strategy rather than a general study on diversification strategy - It proposes a better understanding of the intellectual structure of research using bibliographic coupling which allows us to systematize and organize the extant research in a systematic way - From an extended cross-functional perspective it stimulates a debate on the new issues - It offers an introduction to conglomerate strategy research for students and executives

3.2. Chapter II: Diversification Strategy and Performance: Sharing of Resources or Strategic Flexibility?

Chapter two explores the relationship between diversification strategy and performance. We study in more detail the relationship between the wide breadth of a business portfolio and performance and the effect of (un)relatedness among businesses on performance. The chapter juxtaposes two relevant theoretical viewpoints: the resource-based view and the real option lens. According to the resource-based view, since the goal of conglomerate strategy is not directly to transfer resources and activities between businesses or core competencies into its

businesses, a conglomerate strategy is widely believed to be inefficient. Conversely, using the real option lens, conglomerate strategy leads strategic actions successfully leveraging on the strategic flexibility, and hence conglomerate strategy is believed to be more efficient. We tested these hypotheses using a large panel of data concerning US firms longitudinally evaluated over a ten-year period (1998–2008).

Our empirical study has shown that the resource-based view and the real option lens arguments are not fully confirmed. The main results of our study are reported as follows:

- a) the breadth of business portfolios is not correlated with corporate performance;
- b) there is a positive link between a firm's coherence and performance when the breadth of portfolios is large, so we conclude that conglomerate strategy is characterized by low performance;
- c) when the amount of diversification is low, the firm's coherence is not linked with corporate performance, and two opposite forces, economies of scope and strategic flexibility, emerge and face each other.

Table 2 presents an overview of chapter two.

Table 2: Overview of chapter two

Purpose	To explain the impact of breadth of business portfolio and diversity of (un)relatedness on performance. In order to formulate the hypotheses and discuss the empirical results, this study juxtaposes the resource-based view and the real option lens.
Research questions	<ul style="list-style-type: none"> - What is the link between breadth of business portfolio and performance? - What is the link between a firm's coherence and performance? - How does the link between a firm's coherence and performance change on the basis of breadth of business portfolio?
Method	Econometric method
Methodological details	Random-effects tobit
Sample	1,166 observations concerning US firms longitudinally evaluated over a ten-year period (1998–2008)
Findings	<ul style="list-style-type: none"> - The breadth of business portfolio is not correlated with corporate performance - When the amount of diversification is low, the firm's coherence is not linked with corporate performance, and two opposite forces, economies of scope and strategic flexibility, emerge and face each other - When the amount of diversification is large, the firm's coherence is positively linked with corporate performance, and hence related diversification is preferred to unrelated diversification
Research limitations	Empirical setting comprises only one country; futures studies can be extended to other countries beyond the US
Main contributions/ Originality	<ul style="list-style-type: none"> - Whereas numerous studies have investigated diversification strategy, a gap in the conceptual and empirical literature remained regarding the impact of breadth of business portfolio rather the firm's coherence on diversification strategy performance, so it contributes to the debate on diversification in an attempt to bridge this gap - It proposes the initial steps of a research path intended to mindfully craft an interpretive theoretical framework of diversification - It introduces Bryce and Winter's relatedness index in the diversification literature. This represents a relevant step in order to mitigate the mixed findings that we have about corporate finance and strategic management disciplines

3.3. Chapter III: “A Look Inside the Paradox of Conglomerate Success: Jack Welch’s Exceptional Strategic Leadership”

Since the conclusions of chapter two agree with the theoretical and empirical arguments that a conglomerate diversification strategy does not lead to superior economic effectiveness vis-à-vis related diversification, we propose the following research question: on average, conglomerates are underperforming non-conglomerate firms but there is evidence depicting cases of successful

conglomerate diversification strategy, so what is the reason for successful conglomerate diversification strategy?

Chapter three attempts to answer the question. According to Donna (2003), the events of holdings that have developed a diversification strategy are segmented in correspondence with leaders' lives. This statement seems to confirm Galbraith's idea about the effect of strategy formulation and implementation by "exceptional persons" (Galbraith, 1993: 22) that manage ever greater complexity and diversity. Building on these considerations, the third chapter proposes that "exceptional strategic leadership" is a key contingency in the relationship between conglomerate diversification strategy and performance.

The research question clearly focuses on the outlier values that are generally left unappreciated in econometric studies. In addition, the explorative nature of our research needs an in-depth study that cannot be completed with large samples. For these reasons this chapter is based on an in-depth longitudinal case study. Specifically, through an in-depth narrative approach applied to Jack Welch's two-decade strategic leadership at General Electric (1981–2001) we illustrate how exceptional strategic leadership can turn a chain of events or organizational preconditions that usually lead to failure into something positive, and hence how heterogeneity in the performance of conglomerate firms can be derived from the role of exceptional and consistent strategic leadership. Table 3 presents an overview of chapter three.

Table 3: Overview of chapter three

Purpose	To identify the causal conditions that establish strategic leadership as a source of heterogeneity in conglomerate performance
Research questions	Can strategic leadership change the relationship between conglomerate strategy and performance? If this is the case, how does this happen, and what are the main dimensions of strategic leadership?
Method	Longitudinal qualitative study
Methodological details	Theoretical sampling justification, triangulation of facts, and temporal bracketing strategy
Sample	GE's success over a period of twenty years between 1981 and 2001
Findings	By offering a plausible explanation of GE's success paradox, we maintain that a source of heterogeneity in conglomerate performance is the implementation of exceptional strategic leadership
Research limitations	Necessity of extending the investigation to a comprehensive number of cases
Main contributions/ Originality	<ul style="list-style-type: none"> - It has made some advancement towards solving the extant puzzle of the limited generalizability of empirical diversification results by emphasizing the consistent role of strategic leadership in strategy formulation and implementation - It contributes to organization design by applying the concept of strategic leadership to the empirical context of the conglomerates - It bridges a gap between the resource-based view, the dynamic capability perspective and the leadership literature in that we emphasize that managerial discretion and the strategic leader's characteristics are linked to the function of organizational processes, structures and outcomes

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CHAPTER I

CONGLOMERATE DIVERSIFICATION STRATEGY: A BIBLIOMETRIC INVESTIGATION, SYSTEMATIC REVIEW AND RESEARCH AGENDA

Abstract

This paper examines the citation patterns in the literature and analyzes the links between them to present a detailed literature review that clarifies the current fragmentation in conglomerate diversification strategy research. We performed the literature review using a bibliographic coupling technique applied to a database composed of 55 articles on conglomerate diversification strategy, which were included in the Institute for Scientific Information (ISI) database, and have been published in the decade between January 1990 and July 2010. By mapping the main studies and discovering the dominant theoretical explanations and different empirical approaches, we reach improved understanding of the issue of conglomerate diversification strategy, and offer a set of preliminary remarks to combine the different conceptual perspectives and disciplinary traditions. Finally, we suggest major gaps in knowledge, which help to advance further the ongoing research agenda on conglomerate diversification strategy.

Key words: Conglomerates, bibliometric analysis, discount, corporate strategy.

1. INTRODUCTION

In recent decades, conglomerate diversification strategy (CDS) research in managerial literature and corporate finance studies has developed rapidly. These advances include a handful of ideas about the nature, antecedents, and economic and financial impact of CDS. While on the one hand, various studies maintain that CDS can create value (Hadlock et al., 1999; Villalonga, 2004a, 2004b), on the other hand, the majority of empirical studies show a negative relationship between CDS and performance (e.g., Datta et al. 1991; Hoskisson and Hitt, 1990; Ramanujam and Varadarajan, 1989; Rumelt, 1974), thereby estimating the existence of a diversification discount because a multiple-segment firm's consistently value below the value imputed using single-segment firms' multiples (e.g., Lamont and Polk, 2002; Rajan, Servaes and Zingales, 2000; Lins and Servaes, 1999; Berger and Ofek, 1995). In addition, third rather influential stream of research has argued that the relationship between CDS and performance is influenced by the institutional context (Lins and Servaes, 1999; Khanna and Palepu, 2000).

In essence, the debate reported above is motivated by the significance of CDS as an economic phenomenon, that is usually much broader than expected by received management theories explanations (Ng, 2007). Actually, Hitt, Ireland and Hoskisson (2009) note that an unrelated multiproduct diversification strategy is frequently used in efficient and developed markets (such as the UK and the US), as well as in emerging markets (e.g., China, Korea, Brazil, Mexico, Argentina, and India).

On the ground of the notable growth of CDS literature, and the extant

theoretical and empirical studies that take contradictory positions on the economic relevance and consequences of CDS, we posit that time has come to assess strengths and weaknesses of the past studies, synthesize the existing research body, so as to develop a more solid knowledge base. Such an approach promises to advance our understanding of CDS as a field of investigation, develop new theoretical insights and forge some preliminary remarks to summarize the different theoretical perspectives and disciplinary traditions.

We acknowledge that a handful of previous studies (Martin and Sayrak, 2003; Pallic, 2005; Wan et al., 2011) have already offered systematic reviews of literature about the relationship between diversification strategy and performance. However, an important sub-stream of studies focus on CDS because conglomerate firms have unique characteristics: financial structure and corporate governance mechanisms (Barton and Gordon, 1988; Kochhar and Hitt, 1998), relationships among business units (Hill, Hitt and Hoskisson, 1992), human resource management controls (Rowe and Wright, 1997), and managerial control systems (Baysinger and Hoskisson, 1989). In this context, we see an open opportunity to present a systematic literature review that accounts for conglomerate firms' unique characteristics.

For the reason above, this paper examines the citation patterns in the literature and analyzes the links between them to present a systematic literature review that clarifies the current fragmentation in CDS research. Thus, we ask the following questions: what are the main conceptual viewpoints that influence the literature on CDS? What groups of published articles share the same background? And, finally, are the relationships among these article clusters competing or

complementary?

We performed the literature review using a bibliographic coupling technique applied to a wide database composed of 55 articles on CDS, which are included in the Institute for Scientific Information (ISI) database and have been published in the decade spanning between January 1990 and July 2010.

We make use a couple of multivariate statistical techniques (i.e., cluster analysis and multidimensional scaling) to map the main studies, institutionalized streams, dominant theoretical explanations, disciplinary traditions, and different approaches that characterize this relevant research field. The identification of the sub-inquiries of research clarifies the main patterns of knowledge on the antecedents, nature, and consequences of CDS. Finally, by identifying the core structure of the CDS field, we aim to open a discussion on ongoing research, to raise new directions for future theoretical and empirical investigation, and to prompt further study at the intersections among different relevant disciplinary backgrounds, such as strategic management, corporate governance, and finance.

The contribution of this paper to the existing literature is threefold. First, we perform a review of CDS using a bibliometric method by examining the citation patterns in the literature and analyzing the links among them. Hence, we contribute to the scrutiny on CDS by detecting the state of the research on CDS and identifying its core arguments and a research agenda. Second, we make a methodological contribution to the field by developing, for the first time, a bibliometric analysis of the diversification literature. Finally, through a systematic assessment of the literature this study investigates the convergence path among different disciplinary traditions on CDS (i.e. corporate finance, strategic

management and corporate governance), and presents new directions for research.

The paper is organized as follows. In the section two, we discuss the theoretical background and highlight the unique characteristics of conglomerate firms. Section three discusses the research design of the study and the methodological details of the bibliometric analysis. Section four presents an overview of the literature using a “word cloud” visualization. In section five, we discuss the results of the bibliometric analysis. In the sixth and last section, we identify the implications of our findings, suggest major gaps in knowledge, and help to refocus the research agenda on conglomerate diversification strategy.

2. THEORETICAL BACKGROUND

CDS aims to capitalize on the governance of resource and the economies scope in firms that are typically widely diversified and decentralized (Williams, Lynn Paez and Sanders, 1988). Actually, conglomerate strategy implies taking decisions on two relevant managerial choices: the wide breadth (level, amount) of diversification and the type of diversification that is unrelated¹. The number of segments and the percentage distribution, that define the breadth of diversification are only one aspect of the key decisions in conglomerate strategy. The decision making is complete when the type of diversification that is unrelated is determined (Raghunathan, 1995).

¹ In extant literature, the definition of conglomerate strategy seems still unclear: actually, the notion of conglomerate strategy has been employed to identify the firm that results from M&A operations, a choice of the direction of diversification (i.e., unrelated) ignoring the type of growth selected, and a strategy that considers the firm’s goal to maximize both resources governance and scope economies (Williams, Lynn Paez and Sanders, 1988). In this work, we take into consideration the latter definition.

Albeit in management literature it is quite known that the level and the type of diversification are two distinct managerial choices, received empirical work has largely overlooked to explain the differences among soaring diversification strategy, unrelated diversification strategy, and conglomerate strategy (Williams, Lynn Paez and Sanders, 1988). Actually, empirical studies on diversification strategy generally assume that single-business, related, and unrelated diversification are equivalent to low, moderate, and high diversification (see, for instance, Palich, Cardinal and Miller, 2000).

Empirical studies usually agree that CDS measures “the degree to which an organization expands its pool of resources to discover their varied uses in incomplete markets” (Desmond, 2007) to create value for its shareholders through the synergetic integration² of a new business, often without marketing or technological links, thereby increasing its competitive advantage.

The general economic logic of CDS is that operating several unrelated businesses should serve firms just as well as, if not better than, more focused strategies do. In other words, CDS is expected generate a synergy value that results from the difference between the valuation of a combination of business units and the sum of the valuations of stand-alone units.

$$W_{conglomerate} = \sum W_{focused\ comparable\ firms} + Synergy.$$

Although the logic of CDS is the search for “super additivity” of the value of business combinations, it is possible that the costs associated with CDS are larger than the benefits.

² The term “synergy” comes from the Greek word *synergía* o *synérgeia*; in turn, this word derived from *synergo*. From an etymological perspective, the roots of the word synergy are *syn* (“with, together”) and *ergo* (“act”). Synergy concerns the different results of different factors taken together versus a sum of the factors.

$$W_{conglomerate} = \sum W_{focused\ comparable\ firms} - Synergy.$$

On the basis of the seminal works of the triad Chandler (1962), Ansoff (1957, 1965) and Rumelt (1974), an open debate spread out on the ways and the extent to which diversification strategy achieves superior performance. The scientific debate on the benefits of CDS identifies multiple value sources:

- a) “conglomerate power”, which allows for cross-subsidization among businesses and can therefore support predatory pricing strategy (Edwards, 1955);
- b) reduction of transaction costs (Coase, 1937; Williamson, 1975), in which CDS facilitates the use of excess resources and therefore increases efficiency (Teece, 1982);
- c) “informational advantage”, or the capacity to use information about the prospects of unrelated projects that is difficult to communicate to the market. For these projects, the investment of internally generated funds may be the only appropriate way to attain funding (Myers and Majluf, 1984);
- d) “financial synergy” , since a conglomerate corporate office can allow for a higher level of indebtedness (Lewellwn, 1971; Shleifer and Vishny, 1992), advantages of deductibility interests (Berger and Ofek, 1995), and lower cost of debt capital;
- e) “managerial synergy”, or cognitive competences in the selection of the industry and the managerial skills to oversee the process of entering a new business (Ganco and Agarwal, 2009).

The consensus on the economic logic that lays behind the management of

businesses in different competitive arenas suggests that the relationships between business units are not designed to produce operative synergies between divisions or to increase efficiency through the economies of scope (Hill, Hitt and Hoskisson, 1992). Unlike related diversification, the main goal of CDS is not to “transfer resources and activities between its business or core competencies into its businesses” (Hitt, Ireland and Hoskisson, 2009: 114). Because conglomerate firms generally focus on financial and managerial competencies, the benefits of CDS “are not directed specifically to critical success factors of a given market” (Montgomery and Singh, 1984: 183). From this perspective, “the information-processing requirements of a firm's chief executive reduced through delegation, that individual devotes more time to resource allocation and overall financial control” (Hoskisson, 1987). The managerial control systems in conglomerate firms are characterized by financial control rather than strategic control (Baysinger and Hoskisson, 1989; Johnson and Kaplan, 1987), and consequently, the human resource management control systems also take on some unique characteristics (Rowe and Wright, 1997).

Accordingly, the economic problem is to evaluate whether the benefits of CDS are larger than the costs associated with the so-called “conglomerate traps”. Conglomerate traps include: (a) strategic variety, which requires multiple dominant logics (Prahalad and Bettis, 1986) and, hence, has an important impact on an executive team’s ability to manage a conglomerate firm; (b) the misallocation of resources (Rajan, Servaes and Zingales, 2000; Scharfstein and Stein, 2000; Stulz 1990); (c) difficult development paths (Shin and Stulz, 1998) and (d) structural inertia (Hannan and Freeman, 1984; Surendran and Acar, 1993)

that generate a negative relationship between unrelated diversification and innovation (Hoskisson, Hitt, and Hill, 1993; Hoskisson and Hitt, 1988).

While it is relatively easy to identify the benefits and traps of CDS and the characteristics of conglomerates that use different managerial logics, the debate on the relationship between CDS and performance is still open, as the common wisdom about CDS has changed over time. In the 1960s managerial studies considered conglomerate firms to be outperforming the ex-ante expectations. Two decades later, many corporations restructured and rationalized, “basing their strategies on ‘sticking to the knitting’ and eschewing broad diversification” (Goold and Luchs, 1993: 8). Nonetheless, whereas some authors maintain that efficient economic market will eliminate conglomerate firms, so far these categories of firms play a relevant role in the market.

3. RESEARCH METHODOLOGY: BIBLIOMETRIC COUPLING APPROACH

The purpose of this paper is to provide deeper understanding the body of work published on CDS and to explore how this specific corporate strategy may contribute to create value. We examine the conceptual and empirical literature on CDS identifying and mapping the main studies, delineating and tracing their intellectual evolution, and studying the links (direct or indirect) among strategic management, corporate finance, and governance subfields. Our effort to develop a knowledge framework on CDS that involves the use of bibliometric methods. The possibility to apply bibliometric methods in literature reviews has been explored in business studies both in the strategy field of research (Nerur, Rasheed and

Natarajan, 2008; Schildt, Zahra, Sillanpää, 2006; Ramos-Rodriguez and Ruiz Navarro, 2004; Acedo and Casillas, 2005; Phwlan, Ferreira and Salvator, 2002) and in specific topics, as dynamic capabilities (Di Stefano, Peteraf and Verona, 2010), knowledge combination (Tsai and Wu, 2010) information systems and service (Di Guardo and Galvagno, 2010), and small enterprises (Ratnatunga and Romano, 1997).

Bibliometric methods analyze the quantitative aspects of the production, dissemination, and use of recorded information (Tague-Sutcliffe, 1992). A bibliometric analysis does not analyze papers to understand their authors' underlying viewpoints. Conversely, it identifies the quantitative relationships between words, references, authors, institutions and so on. The main advantages of the bibliometric method are its quantifiability and objectivity (Nerur, Rasheed and Natarajan, 2008).

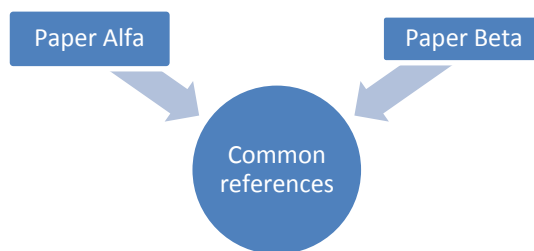
The family of bibliometric techniques that estimate the relative proximities of articles using references and/or citations includes bibliographic coupling analysis (Kessler, 1963), co-citation analysis (Small, 1973), author co-citation analysis (White and Griffith, 1981; White, 1990), all author co-citation analysis (Eom, 2008), and co-word analysis (Callon et al., 1983).

The core idea of this family of bibliometric techniques is that a “document is cited in another document because it provides information relevant to the performance and presentation of the research, such as positioning the research problem in a broader context, describing the methods used, or providing supporting data and arguments” (Wilson, 1999: 126).

To identify the theoretical perspectives of CDS and map the boundaries

between disciplines that study CDS, this paper uses *bibliometric coupling analysis*. According to this technique, the number of common references between two documents represents the coupling strength between them. For example, if Paper Alfa and Paper Beta have a high value of coupling strength, they are bibliographically coupled, and this method assumes that they have a relevant semantic similarity. In other words, the relationship between articles is measured by the number of shared references, because citations explain articles' dependence on previous works. The logic of bibliographic coupling is that the citations represent a proxy for the influence of an article on a research project.

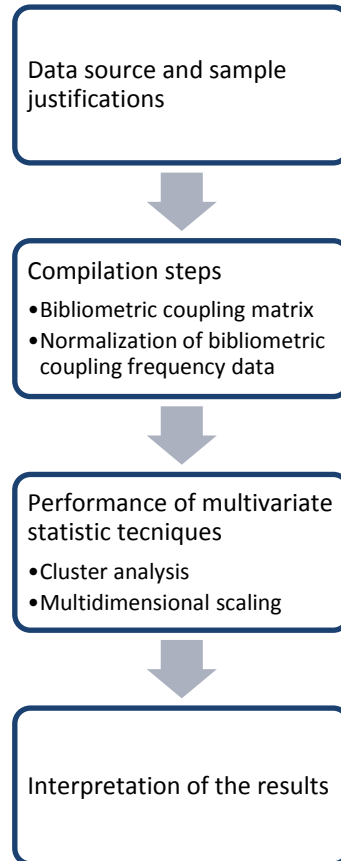
Figure 1: The logic of the bibliometric coupling approach



Generally speaking, the bibliometric coupling approach is applied along with multivariate statistical techniques. Our attempt to identify the latent structure of the literature and to map the main contributions on CDS uses two statistic techniques: cluster analysis and multidimensional scaling analysis. Cluster analysis classifies the articles into exclusive and homogeneous groups (or clusters), based on combinations of interval variables. The purpose of this multivariate method is to maximize the homogeneity in a cluster and the distance between the clusters. Finally, we performed a multidimensional scaling analysis (MDS) to visualize the literature on CDS and to explore similarities and dissimilarities in our database (Wilkinson, 2002). Figure 2 illustrates the research

design.

Figure 2: Research design



Source: Adapted from Nerur, Rasheed and Natarajan, 2008

In the last part of this section, we discuss each of the stages reported above to present a quantitative, systematic, and objective description of the base knowledge and, hence, the results of the analysis.

3.1. Data source and sample justifications

Our panel consists of 202 articles that have been published between January 1990 and July 2010. The data source was the database of Social Sciences Citation Index, owned by ISI Thompson. Although we acknowledge that other valuable works has been published in non ISI journals, we consider ISI journals to be the

“certified knowledge,” as they play a basic function in knowledge diffusion in the academic community.

We selected the articles using the platform Web of Knowledge according to the following criteria. First, we searched for articles that contain the word “conglomerate” or “conglomerates” in the title, abstract, and keywords. Second, we refined the results for the following subject areas: economics, business, finance business, and management. Finally, we further refined the results for the following types of documents: articles, proceedings papers, reviews, and editorial materials.

Before proceeding to perform the bibliographic coupling, we noted that the average number of citations for the articles in our database was 13.76, while the median was 3. This early finding indicates that the distribution of citations was severely asymmetric and consequently that relatively few papers represent the base knowledge of CDS research. This finding justifies our choice to investigate the interdependence between the published articles that have a higher number of citations than the third quartile (13 citations) of the citations in our database. Given our goal to define the core of CDS literature the list of articles considered was reduced to the most cited by filtering authors by 13 citations. This strategy ensured that we included the most important 25% of the contributions. Applying this threshold led to the identification of a core set of contributions, we built a subpanel of articles for the coupling analysis that included 55 articles.

Table 1: Alphabetical list of articles selected for bibliographic coupling analysis

Article	Focus of study	Method	Main insights
Ahn and Denis (2004)	Through an empirical analysis on spinoffs operations, the study verifies the inefficient investment hypotheses in diversified firms	Econometric investigation	Conglomerate firms allocate investment funds inefficiently. Consequently, spinoffs of conglomerates create value, because improving investment efficiency
Amburgey and Miner (1992)	To identify the strategic momentums in conglomerate merger activity	Event-history analysis	There are two momentums: (a) repetitive momentum in which mergers increase the rate of mergers of the same type; (b) contextual momentum wherein organizational decentralization increases the rate of diversifying mergers
Amihud and Lev (1999)	To verify the relationship between ownership structure and the type of mergers	Quantitative investigation	Negative relationship between ownership concentration and span of diversification
Anderson et al. (2000)	To investigate the relationship between corporate governance structure and diversification	Econometric investigation	Magnitude and persistence of the diversification discount cannot be explained by agency costs
Avery et al. (1998)	To analyze the internal and external recompense coming from acquisitiveness	Econometric investigation	CEOs that undertake acquisitions obtain more outside directorships than their peers
Bergh (1997)	To investigate whether divestitures of unrelated acquisitions can be predicted on the basis of whether motives and conditions at the time of acquisition have been satisfied	Econometric investigation	M&A requires a careful analysis of resources, type of diversification, planning and implementation
Billett et al. (2004)	To explore the wealth effects of M&A on target and acquiring firm bondholders in the 1980s and 1990s	Econometric investigation	The effects of related and unrelated M&A are variable over the time
Billett and Mauer (2003)	To study the relation between the excess value of a diversified firm and the value of its internal capital market	Econometric investigation	Efficient divisions to financially constrained segments significantly increase excess value, while inefficient transfers from efficient division significantly decrease excess value
Bolton and Scharfstein (1998)	To build a theoretical framework that encompasses the study of Coase (1937) and Berle and Means (1932)	Theoretical discussion	The study identifies two agency relationships: (a) between investors and corporate headquarters and (b) between corporate headquarters and the divisions

Boot and Schmeits (2000)	To investigate the conditions under which conglomeration is optimal	Theoretical discussion and econometric investigation	Diversification benefits can effectively relax the limited liability constraint. However, conglomeration weakens market discipline and invites free-riding
Brush (1996)	To investigate how the opportunity of sharing resources among divisions may have influenced the post-acquisition performance improvements in the acquisitions	Econometric investigation	Relevance of recognizing differences between types of diversifying acquisitions
Campa and Kedia (2002)	To explicitly consider of the endogeneity of the diversification decision in econometric investigation	Econometric investigation	Relevance of modeling the endogeneity of the diversification status and considering its effect on firm value
Campello (2002)	To investigate the role of internal capital markets in financial conglomerates	Econometric investigation	Internal capital market relaxes the credit constraints in financial conglomerates
Datta et al. (1991)	To explore the link between diversification strategy and performance	Review of literature	The study frames existing research on diversification under strategic management perspective
Doukas and Lang (2003)	To sketch the inferences about the value of diversification based on the market's assessment of unrelated and related foreign direct investment activities and the long-term performance of the firm	Econometric investigation	Operational and internal capital market efficiency gains are greater in multi-segment than single-segment firms when both expand their core business overseas
Fluck and Lynch (1999)	To build a theory of mergers and divestitures	Econometric investigation	Mergers increase the combined values of acquirers and targets by financing positive net present value projects that cannot be financed as stand-alones. While conglomerates are less valuable than stand-alones, because these projects are only marginally profitable
Gilson et al. (2001)	To examine whether firms emerging from conglomerate stock breakups are able to affect the types of financial analysts that cover their firms as well as the quality of information generated about their performance	Econometric investigation	Corporate focus can facilitate improved capital market intermediation by financial analysts with industry expertise
Graham et al. 2002	To explore the relationship between diversification strategy and performance	Econometric investigation	When firms increase their number of business segments, excess value does not decline

Gugler et al. (2003)	To compare the performance of the merging firms with control groups of non merging firms.	Econometric investigation	Horizontal mergers are more successful than conglomerate and vertical mergers with respect to their effect on both profits and sales
Guidry et al. (1999)	To test whether the bonus-maximization hypothesis that managers make discretionary accrual decisions to maximize their short-term bonuses.	Econometric investigation	Business-unit managers in the bonus range with incentives to make income-increasing discretionary accruals manage earnings upward relative to business-unit managers who are not in the bonus range
Hadlock et al. (2001)	To examine the effect of corporate diversification on the equity-issue process	Econometric investigation	Diversification helps alleviate asymmetric information problems. However, diversified firms are perceived less negatively by the market than are issues by focused firms.
Harris and Robinson (2002)	To explore the influence of foreign acquisitions on total factor productivity	Econometric investigation	Productivity declined after the acquisition, because of the influence of many assimilating difficulties plant into a new organization
Hitt et al. (1991)	To study the influence of related and unrelated acquisitions on R&D inputs and outputs	Econometric investigation	Acquisitions have negative effects on R&D intensity and patent intensity
Hubbard and Palia (1999)	To frame the conglomerate merger through the lens of the Internal Capital Markets perspective	Econometric investigation	Firm-level diversification in the 1960s has shown that bidder firms receive positive abnormal returns.
Hyland and Diltz (2002)	To investigate the drivers of diversification strategy	Econometric investigation	No evidence to support agency cost of debt/monitoring types of arguments in diversification process
Inderst and Muller (2003)	To investigate the optimal financial contracting for centralized and decentralized firms	Theoretical discussion	Conglomerate firms should have a lower average productivity than stand-alone firms
Inderst and Laux (2005)	To explore under which conditions the operation of an internal capital market is more likely to add value	Theoretical discussion	Firm value increases if investment becomes more sensitive to projects' profitability because this increases managers' incentives to generate profitable investment opportunities
Jovanovic (1993)	To investigate the reasons why firms have become more diversified over the past century and why such firms are more R&D intensive	Theoretical discussion	The increase in internal capital-labor ratio is a major probably of their increased diversification and it is significant within firms cross product spillovers in R&D
Kahle and Walkling (1996)	To investigate the impact of industrial classification on financial research	Quantitative analysis	Relevant impact of differences in diversification span measures

Kay (1992)	To give a theoretical explanation of the evolution of the conglomerate and M-form criticizing the Williamson's argument	Theoretical discussion	Conglomerate and the M-form corporation are unsustainable
Khanna and Yafeh (2007)	To investigate business groups in emerging markets	Qualitative analysis	Conglomerates may emerge in different economic contexts and gain different performance
Lamont and Polk (2002)	To explore the link between diversification strategy and performance	Econometric investigation	Diversification destroys value
Lins and Servaes (1999)	To investigate the difference of international evidences on the value of corporate diversification	Econometric investigation	In Germany there is no significant diversification discount, while from Japan and U.K. conglomerates suffer a diversification discount
Lins and Servaes (2002)	To investigate costs and benefits of corporate diversification in emerging markets	Econometric investigation	Conglomerate firms are less profitable than single-segment firms
Louis (2004)	Examining market's efficiency in processing manipulated accounting reports and provide an explanation for the post-merger underperformance anomaly	Econometric investigation	Post-merger underperformance by acquiring firms is partly attributable to the reversal of the price effects of earnings management
Lubatkin and Chatterjee (1991)	To examine the stability of the relationship between diversification and shareholder value across distinct market cycles	Econometric investigation	Relevance of the impact of market cycles in diversification strategy formulation
Maksimovic and Phillips (2002)	To study how conglomerate firms allocate resources across divisions	Theoretical discussion and econometric investigation	Conglomerate firms are less productive than single-segment firms of a similar size
Maquieira et al. (1998)	To investigate the relation between wealth creation and wealth redistributions in pure stock-for-stock mergers	Econometric investigation	No evidence that conglomerate stock-for-stock mergers create financial synergies
Martin and Sayrak (2003)	The relation between diversification strategy and performance	Review of literature	The paper summarizes the existing research on diversification strategy under corporate finance perspective
Matusaka (2001)	To identify a dynamic model of a firm wherein diversification is a value maximizing strategy	Theoretical discussion	The model argues that "if a firm's existing businesses are down but not yet out, it is safer maintain the old businesses while searching for a better opportunity instead of liquidating and throwing all resources into a new venture with uncertain prospects"

Matsusaka and Nanda (2002)	To develop a theory of organization based on benefits and costs of internal capital markets.	Theoretical discussion	The relative efficiency of integration and separation depends on assignment of control rights over cash flow
Matsusaka (1993)	To examine the stock market response to acquisition announcements during the conglomerate merger wave	Econometric investigation	Diversification is not driven by managerial objectives
Mcguckin and Nguyen (1995)	this study focuses on the type of establishment that experiences ownership change and how the transferred properties perform after acquisition	Econometric	Managerial-discipline contribution is not able to explain most ownership changes
Palich et al. (2000)	To investigate the relation between diversification strategy and performance	Meta analysis	A moderate levels of diversification yield higher levels of performance rather than either limited or extensive diversification
Phillips and Mason (1992)	To investigate the process of resources allocation of the conglomerate firms across industries	Theoretical discussion and econometric investigation	Growth and investment of conglomerate is related: (a) to fundamental industry factors and (b) division level productivity
Porrini (2004)	To investigate the role of acquirer target-specific information and experience in the selection, valuation and integration of the target to build a conglomerate firm	Econometric investigation	A positive correlation between targets' acquisition experience and acquisition performance
Rajan et al. 2000	Through the adoption of a conceptual framework, this study investigates which is the cost of diversity	Theoretical discussion and econometric investigation	The costs of diversity are larger than benefits. "Conglomerate socialism" is a driver of diversification discount.
Roberts (1990)	To study focuses on the relationship between the use of accounting information for performance reporting and control and the formulation and implementation of business and corporate strategy	Case study	The sharing and integration of market knowledge required for the successful formulation and implementation of strategy can conflict with the conformity and distorted communication encouraged by the hierarchical controls
Sato (1993)	To study the development of Asia conglomerates.	Qualitative analysis	The study identifies the "political affiliated power" and "conglomerate power" in Asia conglomerates
Schoar (2002)	To investigate the influence of corporate diversification on productivity	Econometric	In a given point in time, conglomerates are more productive than stand-alone firms. Conversely, in dynamic context.

Servaes (1996)	To investigate diversification strategy during the late 1960s and early 1970s, when corporate America went through the conglomerate merger wave	Econometric	Diversified firms are also valued at a discount compared to single segment firms during the 1960s. Diversification discount declines later
Stimpert and Duhaime (1997)	To study the interactions of industry dynamics, diversification, and business strategy	Econometric	Competitive advantage results from a series of connected decisions, such as industry characteristics R&D expenditures, and capital investments
Subrahmanyam and Titman (1999)	To investigate the linkages between stock price efficiency, the choice between private and public financing, and the development of capital markets in emerging economies	Theoretical discussion	Model suggests that as public markets become more liquid and informationally efficient, they will become relatively more attractive sources of capital.
Villalonga (2004a)	To explore whether the discount is determined by bias in data collection	Econometric	Diversification strategy generates a premium
Villalonga (2004b)	To investigate the link between diversification and performance	Econometric	On average, diversification strategy does not destroy value

3.2. Compilation steps

As noted above, bibliometric coupling analysis uses a matrix of bibliometric coupling frequency as the basis for a variety of investigations. We assembled the matrix using SITKIS, an open source software for bibliometric data management and analysis. We exported the database from the ISI platform and organized our database. Because the pitfalls of bibliometric validity are potential mistakes or inaccuracies in the database in the extraction of citation frequencies, we enhanced the robustness of our research in several ways. First, if a cited working paper became a published article, then we considered the citation of the working paper a citation of a published article. Second, we analyzed the database to remove duplications and incorrect data (i.e., an author is identified inconsistently by

his/her first or middle names). After we completed these compilation steps, the bibliometric coupling matrix was a symmetric square matrix consisting of 55 article variables and 55 observations.

References to different articles can be affected by authors' propensity to cite and by journal guidelines. From a methodological point of view, it is preferable to standardize data to avoid the problem of different scales of measures (Hair et al., 1992; Hanigan, 1985). Therefore, we built a matrix of normalized coupling strengths. Specifically, we normalized the matrix using the cosine measure (Salton and McGill, 1983) employed in previous bibliometric coupling studies (Glanzel and Czerwon, 1996; Mubeen, 1995; Jarneving, 2005). The coupling strength between paper i and paper j (CS_{ij}) is defined as follows: $CS_{ij} = \frac{r_{ij}}{\sqrt{r_i \cdot r_j}}$, where r_{ij} is the number of common references between i and j , and r_i and r_j are the number of references in the papers i and j , respectively. CS_{ij} takes values on the interval between 0 to 1.

3.3. Performance of multivariate statistic techniques

We acknowledge that various algorithms of cluster analysis produce different sets of clusters based on the same proximity matrix (Han and Kamber, 2000). Following previous studies, we applied cluster analysis with complete linkage (also called "farthest neighbor") to the matrix of normalized coupling strengths. Our choice of complete linkage for the cluster analysis is justified by a fairly good approximation of this classification with respect to the number of identified groups, especially in case of the stems approach (Ahlgren and Jarneving, 2008), and by the need to provide interpretable results (Han and

Kamber, 2000).

This technique is able to show a structure of “k” clusters and to maximize the similarity between the internal elements and the dissimilarity between the groups. In other words, it divides the literature into distinct similar groups, where the distance between two clusters is computed as the distance between the two farthest elements in the clusters. Each of the clusters represents a particular subfield of the literature.

To interpret the findings and reduce subjective bias, we used a brainstorming technique to characterize the clusters. Each author was brainstormed individually, and subsequently all of the ideas were merged onto a large idea map. During this consolidation phase, we reached a common understanding of the issues that characterize the papers in each cluster.

The final part of our empirical analysis concerns the production of a spatial representation of the literature on CDS through multidimensional scaling analysis.

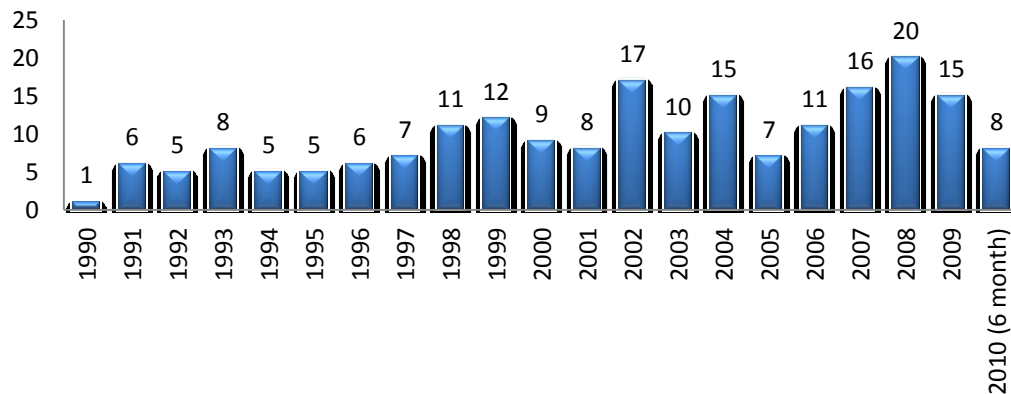
Though we believe that the findings of this study are important ones, some caveats are in order. First, we used the bibliometric coupling approach emphasizing the importance to use a method absolutely objective, but we know that presents some pitfalls. For example, bibliometric coupling do not separate the citations according to the coherence between the text. Second, we performed a cluster analysis of the articles, assuming as hypothesis that each paper could belong exclusively to a single cluster.

4. AN OVERVIEW OF THE INTELLECTUAL STRUCTURE OF THE LITERATURE

Diversification strategy is an established topic in finance and management research, and the identification of CDS antecedents, decisional processes, strategic implementation and outcomes has been a particularly important research area for the last decades. Between January 1990 and July 2010, 202 articles that used the word “conglomerate” in the topic were published in the ISI journals. Thus, we can confirm that CDS remains an important topic in managerial studies.

Beginning in 1998, the annual distribution of articles indicates a growing interest in this research topic; during this period, the idea that corporate diversification destroys value (Lang and Stulz, 1994; Berger and Ofek, 1995; Servaes, 1996) was reconsidered (Gramham, Lemmon and Wolf, 2002; Villalonga, 2004a, 2004b).

Figure 3: Annual distribution of articles



The 202 articles were published in 97 different journals; more than half of the articles (52.48%) were published in the following 17 journals (in order of frequency): *Actual Problems of Economics*, *Harvard Business Review*, *Journal of Accounting Economics*, *Organization Studies*, *Corporate Governance*, *Journal of*

literature currently holds that CDS destroys shareholders’ wealth and produces a diversification discount (Martin and Sayrak, 2003).

To evaluate the emerging view of CDS, we performed the same content analysis on the a subset of the 49 papers published between 2007 and 2010. The number of articles published in the last four years shows that no absolute truth (Montgomery, 1994) was found empirically about the relationship between conglomerate strategy and performance. The decision between focusing on a business and employing related or unrelated diversification remains subject to debate. The “word cloud” identified the same key concepts as the map shown in Figure 5: M&A, risk, capital market, inefficiency, and information.

Figure 5: Key words linked with “conglomerate” in the articles published between 2007 and 2010



5. BIBLIOMETRIC ANALYSIS

From a set of 202 paper, we selected the articles that have a number of citations greater than the average number of citations for the articles in our database (13.76). As early indicated, since our goal is to define the core of CDS literature and the distribution of citation is strongly asymmetric, our data set includes only

the most important 25% of the contributions. To identify the intellectual structure of CDS research, we performed cluster analysis and multidimensional scaling on the subset of 55 articles.

Table 2. Description of the sample

Number of Articles	Journals
18	Journal of Finance
9	Finance Management, Journal of Banking & Finance
8	Journal of Financial Economics, Review of Financial Studied
7	Strategic Management Journal, Forbes
5	Journal of Business, Journal of Financial Intermediation, RAND Journal of Economic, Review of Industrial Organization
4	Corporate Governance, Journal of Business Ethics
3	Actual Problems of Economics, Harvard Business Review, Journal of Accounting and Economics, Journal of Management, Organization Studies
2	Academy of Management Journal, Journal of Development Economics, Ekonomiska Samfundets Tidskrift, Enterprise and Society, European Financial Management, Geneva Papers on Risk and Insurance Theory, Industrial Corporate Change, Journal of Business Research, Journal of Corporate Finance, Journal of Economic Behavior and Organization, Journal of Economics & Management Strategy, Journal of Financial and Quantitative Analysis, Review of Economics and Statistics, Sov. Economics.
1	Accounting Organizations and Society, Administrative Science Quarterly, Advanced Strategic Management, American Economic Review, Asian Case Research Journal, Asia-Pacific Journal of Financial Studies, Journal of Practice & Theory, Brookings Papers on Economic Activity, Business History, Business History Review, Canadian Journal of Administrative Sciences, Defense and Peace Economics, Desarrollo Económico-Revista, Economic Development and Cultural Change, Ekon Cas Journal, Emerging Markets Finance and Trade, Entrepreneurship Theory and Practice, European Review of Economic, European Journal of Operational Research, Games and Economic Behavior, Group & Organization Management, Hitotsubashi Journal, IEEE Transactions on Engineering Management, Industrial Marketing Management, Insurance Mathematics & Economics, International Journal of Human Resource Management, International Journal of Industrial Organization, International Journal of Manpower, International Journal of Technology Management, International Review of Law And Economics, Journal of Accounting Research, Journal of the Asia Pacific Economy, Journal of Business and Technical Communication, Journal of Development Studies, Journal of Economic Literature, Journal of Economic Perspectives, Journal of Engineering and Technology Management, Journal of Financial Services Research, Journal of Industrial Economics, Journal of Institutional and Theoretical Economics, Journal of International Business Studies, Journal of Law, Economics, and Organization, Journal of Marketing, Journal of Monetary Economics, Journal of Money, Credit and Banking, Journal of Policy Modeling, Journal of Portfolio Management, Journal of Product Innovation Management, The Journal of Risk and Insurance, Journal of World Business, Japanese Economic Review, Land Econ, Long Range Planning, Management International Review, Manchester School, MIT Sloan Management Review, Post-Soviet Geography & Economics, Quarterly Review of Economics and Finance, R&D Management, South African Journal of Business Management, Service Industries Journal, Supply Chain Management, Technovation, Transformations in Business & Economics.

Our visual inspection of the dendrogram results and the coefficient analysis suggested the existence of six separate clusters:

1. competitive dynamics and business-level strategies;
2. market, corporate control structure, and managers' strategy for unrelated M&A;
3. the development and behavior of conglomerate firms;
4. strategic paths of conglomerates (going-public decision, stock breakups and corporate ownership structure influence);
5. diversification discount versus premium;
6. looking inside the paradox of diversification discount.

In the paragraphs that follow, we review the papers in each cluster and discuss the homogeneous elements of each cluster so as to highlight the respective theoretical backgrounds on which they are grounded.

We performed this analysis to develop two-dimensional and three-dimensional solutions. We used the two-dimensional solutions because the analysis resulted in an RSQ of 0.93423 and a stress value of 0.13082. This finding is widely acceptable for a two-dimensional setting and has many advantages for the visual accessibility of the intellectual structure (McCain, 1990).

5.1. Cluster 1: Competitive dynamics and business-level strategies

The cluster is composed of 9 contributions: Brush (1996), Hitt et al. (1991), Lubatkin and Chatterjee (1991), Datta et al. 1991, Porrini (2004), Stimpert and Duhaime (1997), Bergh (1997), Kay (1992), Roberts (1990), and Amburgey and Miner (1992). Generally speaking, this cluster attempts to explain the differences

in the performance and survival of conglomerate firms by analyzing the effects of a variety of factors at multiple levels, such as market cycles, industries, and growth path. For example, Lubatkin and Chatterjee (1991) test the stability of the strategy-performance relationship across nine contiguous time periods organized to underscore three distinct market cycles. They show that a related diversification strategy generates higher risk-adjusted returns than does an unrelated diversification strategy during periods of market decline, but also that the difference is not relevant during stable and bull markets. Stimpert and Duhaime (1997) show a “big picture” that links the influence of industry, diversification, and business strategy on performance. Building on Rumelt (1991), Stimpert and Duhaime (1997) argue that diversification indirectly influences performance by influencing strategic decision-making at the business level. This perspective is also consistent with the conclusion of Dundas and Richardson (1982) that successful diversified firms employ “critical contingencies”.

With regard to the ways to expand business scope (e.g., organic or internal development, joint ventures or other forms of cooperation, M&A deals), the cluster considers critical contingencies, such as M&A deals, an important ingredient in a company’s diversification strategy (Bergh, 1997) to directly enter a new business. Consequently, it includes various papers that introduce the influence of M&A conditions, times, and due diligence on conglomerate performance (Hitt et al., 1991; Brush, 1996). While Porrini (2004) states “that target-specific information and experience is an advantage-producing resource, benefiting selection, valuation and integration of acquisitions”, Amburgey and Miner (1992) focus on the role of organizational routines, cognitive decision-

making patterns, and internal context to increase the chances of conglomerate M&A.

In sum, this cluster underlines the interrelationships between competitive contexts, resources and performance. A main justification of CDS seems linked with the firm's capacity to create a resource pool that substitutes the lack of a efficient market o industry. Nonetheless, this cluster also represents a fruitful background to introduce the role of dynamic capability in diversification processes.

5.2. Cluster 2: Market, corporate control structure, and managers' strategy for unrelated M&A

Cluster 2 is composed of only three articles and it examines M&A experiences with respect to ownership change and transferred properties' performance after acquisition (Mcguckin and Nguyen, 1995), market reactions (Matsusaka, 1993), and managerial goals (Avery et al., 1998). Matsusaka (1993) shows that, during the conglomerate merger wave of the 1980s, return responses to the announcements of diversifying acquisitions were positive. Mcguckin and Nguyen (1995) find that managerial-discipline theory cannot explain most ownership changes. Finally, Avery et al. (1998) explore the explanations for building an empire through M&A: (a) CEOs who undertake acquisitions obtain more outside directorships than their peers; (b) CEOs gain connections, skills, and experience; and (c) an acquisition may signal that the CEO has the skills to manage a large, diverse enterprise.

5.3. Cluster 3: The development and behavior of conglomerate firms

Cluster 3 is composed of ten articles that take into account the development and behavior of conglomerates: Billett et al. (2004), Boot and Schmeits (2000), Gugler et al. (2003), Guidry et al. (1999), Harris and Robinson (2002), Jovanovic (1993), Khanna and Yafeh (2007), Palich et al. (2000), Phillips and Mason (1992), Sato (1993). Using both strategic, financial, and managerial perspectives, the cluster illustrates the expansion and transformation process of conglomeration.

The initial research question of this cluster asks, how much should firms diversify? We found two different and complementary arguments. Palich, Cardinal and Miller (2000) suggest that unrelated diversification, not only decreases the “benefits of increased diversification after a critical point, but also actual costs that “hamper performance”. In this context, the authors note that diversification processes increase managerial complexity, because decision-making, control and governance must occur in varied ways (Prahalad and Bettis, 1986).

Boot and Schmeits (2000) focus on managerial complexity in a conglomerate as a key variable in choosing the scope of diversification: they explain managerial complexity in terms of resource misallocation. These authors study the impact of market discipline, internal discipline, internal incentive problems, and product market rents to identify a class of financial synergies that compensate for ineffective market discipline. The scope of diversification is expected to be decided by considering the positive diversification effect of co-insurance, the negative incentive effect of co-insurance and, finally, the negative incentive effect of reduced market discipline. This consideration is particularly

important, according to Khanna and Palepu (1997), in emerging markets.

A second path of research that studies the development and behavior of conglomerate firms focuses on the strategic choices that follow the implementation of CDS (e.g., conglomerate mergers that can generate market power and dynamic intra-organization). Guidry et al. (1999) scrutinize how acquisitions allow firms to gain a larger share of the market in a burgeoning number of products and illustrates that conglomerate mergers decrease sales more than horizontal mergers do. Similarly, Harris and Robinson (2002) show the difficulties associated with assimilating established plants into a new organization. Finally, Gugler et al. (2003) present a possible trap in conglomerate firms: managers are able to maximize their short-term bonuses by manipulating earnings.

5.4. Cluster 4: Strategic paths of conglomerates: going-public decision, stock breakups and corporate ownership structure influence

Cluster 4 includes six contributions: Kahle and Walkling (1996), Subrahmanyam and Titman (1999), Louis (2004), Maquieira et al. (1998), Amihud and Lev (1999), and Gilson et al. (2001). The cluster focuses on corporate control structure and managers' strategy for CDS. In terms of traditional disciplinary approaches, the cluster is rather eclectic because it is composed of four articles at the boundaries of finance and strategy and managerial accounting.

The field focuses on the growth paths of conglomerates: the decision to go public, stock breakups, and the influence of corporate ownership structure. Subrahmanyam and Titman (1999) argue that, as the stock market grows, the

information conveyed by stock prices generally improves, which increases the incentives for private firms to go public and for conglomerates to spin off independent business units. Gilson et al. (2001) examine how managers' decisions to increase corporate focus through conglomerate stock breakups affect the types of financial analysts who cover their firms and the quality of information generated about their firms' performance.

Amihud and Lev (1999) investigate the conflict of interests between managers and stockholders and whether the concentration of ownership can moderate agency costs. Generally speaking, manager-controlled firms have a greater propensity to undertake conglomerate mergers and other actions that reduce diversifiable risk (Amihud and Lev, 1999). Hence, we can possibly use agency theory to interpret Maquieira et al.'s (1998) results, who do not find evidence that conglomerate stock-for-stock mergers create financial synergies or benefit bondholders at stockholders' expense.

Finally, the articles in the cluster represent a path of research that analyzes the characteristics of conglomerate firms in terms of financial structure and corporate governance mechanisms. Often, this research takes use of an agency theory perspective. Generally speaking, conglomerates are "not only characterized by the common ownership of a group of firms, but also by the complex mechanisms used to achieve control, including pyramid schemes, cross-holdings and dual-class shares" (Lefort and Walker, 2000).

5.5. Cluster 5: Diversification discount versus premium

Cluster 5, which is the largest in this study, is composed of twenty-three articles.

It investigates the relationship between CDS and performance and hence, the emergence of diversification discount or premium. This cluster called “discount versus premium of diversification” is composed of four paths of research (or subclusters):

- a) using the link between the theory of the firm, corporate finance, and conglomerate organization structure to explain the emergence of diversification discount;
- b) the problem of estimating diversification discount/premium in empirical studies;
- c) the debate on diversification discount as result of lower efficiency;
- d) agency perspective and an information-driven argument related to management’s decision to develop a CDS.

We have itemized each of the five path of research identified in the cluster and examined then as follows.

(a) Using the link between the theory of the firm, corporate finance and conglomerate organization structure to explain the emergence of diversification discount

This path of research is composed of five articles: Bolton and Scharfstein (1998), Hubbard and Palia (1999), Lins and Servaes (1999), Lins and Servaes (2002), Matsusaka and Nanda (2002), and Rajan et al. (2000). It aims to understand whether conglomerates as internal capital markets (Stein, 1997) can allocate financial capital better than external markets. The papers in this research path investigate how well internal capital markets work when there is internal

politicking for resources (Bolton and Scharfstein 1998). They examine explanations based on market imperfections - transaction cost economics (Williamson, 1975, 1979) and behavioral theory, inspired by sociological models of intra-organizational equity (Adams, 1965; Homans, 1974) – and aim to explain discount conglomerate diversification. Using the lens of internal capital markets, Matsusaka and Nanda (2002) prove that the relative efficiency of integration and separation among business units depends of the assignment of control rights over cash flow. In more detail, using the argument on the impact of control rights on divisional rent-seeking, Scharfstein and Stein (2000) claim that the costs of integration arise naturally for the Schumpeterian empire-building phenomena. From this perspective, the cost is that internal resource flexibility exacerbates an overinvestment agency problem.

Rajan, Servaes and Zingales (2000) build on prior studies that showed the existence of a diversification discount (Lang and Stulz, 1994; Berger and Ofek, 1995; Servaes, 1996) and that internal capital markets do not always lead to efficient resource allocation (Bolton and Scharfstein 1998). On this ground, Rajan et al. (2000) develop a conceptual framework which is rooted into two strong assumptions: (a) a firm's headquarters has limited power over its divisions; and (b) surplus is distributed among divisions through negotiations while divisions can influence the share of surplus they receive through their choice of investment. Rajan, et al. (2000) identify a conglomerate trap in capital misallocation (called "conglomerate socialism"): when there are more diverse resources and opportunities in divisions of a conglomerate firm, the resources flow to the most inefficient division that advocates major investments.

Despite the conventional wisdom of “conglomerate socialism” trap, focusing the attention on country specifics where firms operate, various studies have built on the argument that CDS is motivated by internal capital market advantages, rather than by a sheer manifestation of agency problems. These studies focus on conglomerate performance when external capital markets are weak, pointing out that institutional contexts are associated to corporate governance and financial capital markets characteristics that support the implementation of CDS. In this perspective, Hubbard and Palia (1999) underscore the influx of institutional contexts and, considering the wave of acquisitions in the 1960s, argue that internal capital markets were expected to overcome the information deficiencies of less-developed capital markets. Lins and Servaes (1999) examine comparatively differences in the valuation of diversified firms in Germany, Japan, and the United Kingdom. Their empirical results suggest that the effect of diversification on firm value differs across countries. Subsequently, the same authors (Lins and Servaes, 2002) analyzed the value of corporate diversification in seven emerging markets. They do not fully support the hypotheses that emerge from internal capital markets theory, albeit they conclude that greater information asymmetry and market imperfections increase the net benefits of corporate diversification.

(b) The problem of estimating the discount/premium of diversification in empirical studies

This path of research includes three articles: a contribution by Graham, Lemmon, and Wolf (2002) and two papers by Villalonga (2004a, 2004b). The goal of this

path is to tackle the problem of estimating the discount/premium of diversification in an empirical fashion. It provides evidence on the question of whether corporate diversification creates or destroys value and focuses on econometric methods. Graham, Lemmon, and Wolf (2002) show that the previous literature implicitly considers that stand-alone firms are a valid benchmark to evaluate the divisions of conglomerates and that this practice masks systematic and incorrect assumptions. Graham et al. (2002) examine two samples of firms that expand through acquisition and/or increase their reported number of business segments. They show that units that are combined into firms through mergers or acquisitions are priced at significant discounts relative to a median, stand-alone firm in the same industry prior to joining a larger firm. They also argue that the characteristics of acquired units are an important factor in determining valuation discount. Graham et al. (2002) conclude that the excess value is not reduced when a firm increases its number of business segments without making an acquisition. Villalonga (2004b) focuses on the problem of endogeneity in diversification decisions and estimates the value effect of diversification by matching diversified and single-segment firms on their propensity scores. Like Graham et al. (2002), Villalonga (2004b) finds that the diversification discount is reduced when conglomerates are compared to stand-alone firms with similar propensities to diversify.

(c) *The debate on diversification discount as result of lower efficiency*

This path of research encompasses nine papers: Ahn and Denis (2004), Billett and Mauer (2003), Campa and Kedia 2002, Campello (2002), Inderst and Laux (2005), Inderst and Muller (2003), Lamont and Polk (2002), Maksimovic and

Phillips (2002), and Schoar (2002). It investigates whether the diversification discount is a result of lower efficiency and contributes to CDS literature with empirical studies on the decline in internal capital markets efficiency and business units productivity.

Seven papers (Ahn and Denis, 2004; Billett and Mauer, 2003; Campa and Kedia, 2002; Campello, 2002; Inderst and Laux, 2005; Inderst and Muller, 2003; Lamont and Polk, 2002) examine the relationships between financial contracting, internal capital markets, conglomerate value and, hence, financial efficiency. Moreover, Schoar (2002) and Maksimovic and Phillips (2002) examine the productive efficiency of conglomerate firms.

Billet and Mauer (2003) use an internal capital markets perspective to find that efficient subsidies for financially constrained segments significantly increase excess value, while inefficient transfers from segments with good investment opportunities significantly decrease excess value. Conversely, Inderst et al. (2005) confirm that, operating an active internal capital market is unambiguously beneficial only when the divisions have the same level of financial resources and the same investment potential. They argue that managers' incentives may be lower and that an internal capital market may decrease firm value, even when a firm's headquarters allocates capital efficiently. Inderst and Muller (2003) emphasize that conglomerates lack strong capital market discipline and conclude that CDS should generate a decreased average productivity in comparison to stand-alone firms. In their econometric investigation (that explicitly considers endogeneity in diversification choices), Lamont and Polk (2002) argue in the same vein that diversification destroys value: the study is consistent with the

inefficient internal capital markets hypothesis.

As noted above, this path of research includes studies that examine the productive efficiency of conglomerate firms. Specifically, Schoar (2002) finds that new plant acquisition increases productivity. Taking into account statistical data on diversified productivity, the author argues that conglomerate firms have a productivity advantage over their stand-alone counterparts. Hence, higher productive efficiency does not necessarily translate into higher shareholder value. Conversely, Maksimovic and Phillips (2002) pinpoint that conglomerates have a discount because of lower productivity and not necessarily because of agency problems. Finally, Campa and Keida (2002) support the hypothesis that diversification destroys value by considering the firm's characteristics that push firms to diversify. This study shows that the benefits and costs of diversification are intimately related to firm-specific characteristics. The ultimate insight that this paper provides is to emphasize the need to develop a dynamic model that can allow for both diversification and focus in response to changes in the economic environment.

(d) Agency perspective and an information-driven argument related to management's decision to develop a conglomerate diversification strategy

This path of research is composed of five articles: Doukas and Lang (2003), Hadlock et al. (2001), Hyland and Diltz (2002), Martin and Sayrak (2003) and Matsusaka (2001). This subcluster addresses two research questions: (a) why do firms diversify? And (b) what are the potential benefits and costs of diversification? Hadlock, Ryngaert, Thomas (2001) present a simple model that

shows how diversification can alleviate the Myers and Majluf's (1984) problem, which is created by the presence of asymmetric information when a firm issues equity. Matsusaka (2001) examines the stock market's response to acquisition announcements during and immediately after the US conglomerate merger wave of the late 1960s. It argues that conglomerates were able to mislead investors by earnings-per-share manipulation. Hyland and Diltz (2002) argue that diversifying firms appear to pursue a strategy to hold large cash balances and pursue growth through mechanisms other than R&D. Finally, as concerns the relationship between product and geographic diversification, Doukas and Lang (2003) underscore that unrelated geographic diversification bears strongly against the prediction of the internalization hypothesis. Consequently, a decrease in corporate focus is an important determinant of international diversification loss.

5.6. Cluster 6: Looking inside the paradox of diversification discount

Cluster 6 is composed of three papers: Servaes (1996), Fluck and Lynch (1999), and Anderson et al. (2000), and focuses on the process of merger and divestiture in conglomerate firms.

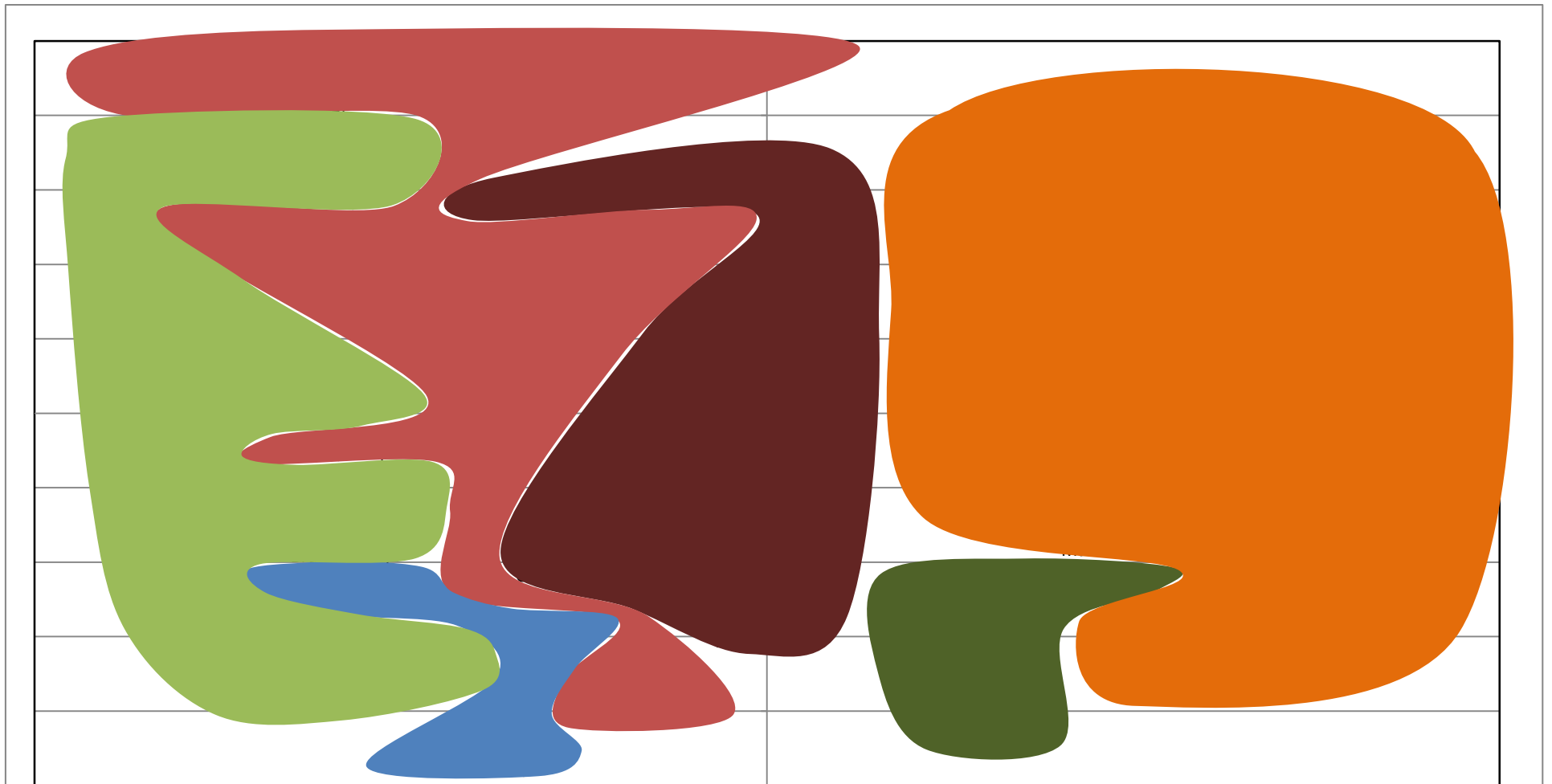
Servaes (1996) investigates the value of diversification during the conglomerate merger wave early mentioned. According to Servaes, there is no evidence that diversified firms had been valued more than single-segment firms in the 1960s and early 1970s. Conversely, for several years diversified firms have been sold out at a substantial discount compared to single-segment firms. Anderson et al. (2000) and Fluck and Lynch (1999) use the same idea to interpret CDS; i.e., agency costs do not offer a complete explanation for the persistence of

the diversification discount. Fluck and Lynch (1999) supply an explanation for conglomerate mergers by arguing that it was a technology to allow projects to survive a period of distress. This approach implies that mergers can increase the combined values of acquirers and projects that could not be financed as stand-alones. At the same time, because these projects are only marginally profitable, conglomerates are less valuable than stand-alone firms.

5.7. A spatial representation of the literature

Figure 6 exhibits a two-dimensional spatial representation of the body of literature under scrutiny. The horizontal dimension maps strategy deliberation and implementation versus CDS performance. In other words, this dimension considers three key features: competitive strategies, managers' strategic role in CDS, and conglomerates' performance. The papers allocated in the first part of x-axis take into account managerial roles, resources and competences, with more attention to the organization, its competitive behaviors. The focus of the papers allocated in the second part of x-axis is to suggest the use of econometric methods that explain the emerge of diversification premium/discount. The vertical dimension (y-axis) of the map reflects the orientation of the level of analysis, such as industry-effect, internationalization and efficiency.

Figure 6: A two-dimensional spatial representation of the studied literature



6. DISCUSSION AND PROPOSED RESEARCH AGENDA

In this section, we identify the contributions of our study, suggest major gaps in knowledge, and help to refocus the research agenda on conglomerate diversification strategy.

6.1. Contributions

On the ground of the analyses performed, this paper advances a threefold contribution. First, on the basis of a systematic review of CDS literature using bibliometric coupling, we have managed to identify, visualize in specific maps, and discuss the core arguments CDS research. The organized broad picture we offer may be viewed as a thought-out comprehensive introduction to the field of conglomerate strategy that may be of interest to both scholars and practitioners who already have or desire to have awareness in this topic.

Second, by developing a thorough bibliometric analysis of the extant bulk of the diversification literature, we have developed a specific methodological contribution, which may serve as a launching platform or ramp for building future research. In fact, we offer a solid quantitative and un-skewed methodology to rigorously examine the flow of citation patterns in conglomerate diversification and to investigate the relationships among them.

Third, by taking into account a set of 55 articles on conglomerate diversification published in two decades (1990-2010) in various streams of thought (namely corporate finance, strategic management, and corporate governance), we have investigated, for the very first time, the relative convergence of three different disciplinary traditions that are used to congregate

their investigation efforts (*heretofore nearly always in an independent fashion*) on the relevant issue. By gathering and exploring together studies on conglomerate diversification coming from finance, governance, and strategic management, the novelty of the study lies in that it has been able to unravel and juxtapose the content of a truly multidisciplinary background. While in the last twenty years the three major strands have developed their exploration “within them” in a rather cumulative way, they have mostly behaved as watertight compartments “between and among them”. Actually, there has been heretofore very little or no trade between and among the three research bodies and no cumulative efforts. Consequently, this paper makes a lucid unambiguous call for additional interdisciplinary and multidisciplinary research in conglomerate diversification.

6.2. Proposed research agenda

In this section, we gather a few hints that spread out from the systematic review of the intellectual structure of the literature on conglomerate diversification so as to outline the main gaps in the literature, and eventually propose a structured path for a future research agenda on the theme. We wish to underscore that, due to the controversy over the choice between refocusing a business or using related or unrelated diversification, this study suggests that this is an intriguing subfield “*no absolute truths*” (Montgomery, 1994) at the interface of finance, governance, and strategy. In a way, this may sound as a specifically attractive feature of doing conglomerate strategy investigation.

First, the main conclusion that emerges from applying bibliographic coupling is that the *antecedents* of CDS can be explained by using two key

theoretical perspectives: the market for corporate control and managers' strategy for unrelated M&A and the agency perspective. This is not seemingly a surprising result. In fact, while some factors emerged as the causes for conglomerate firms to form in the 1960s, such as technological or industrial shocks in a positive economic and political environment accompanied by rapid credit expansion and stock market booms (Martynova and Renneboog, 2008), the dominant conceptual perspective in this vein is still the agency theory and its implications for corporate governance (Fernandez and Arrondo, 2005). This paper extends Colak's (2010) contribution and considered various factors, such as a firm's characteristics and multinational nature, industry characteristics, inclusion in an exchange or index, and divested (or acquired) segment(s) industry conditions.

Second, the bulk of the literature focuses on scrutinizing the *essence of the relationship between CDS and performance* generally uses either transaction costs theory, or the internal capital market perspective, or the agency costs of free cash flow argument. Other studies, instead, concentrate on competitive dynamics and business-level strategies, emphasizing the M&A processes that underlie CDS, market, corporate control structure and managers' strategies for unrelated M&A.

Notwithstanding that, as a third tip, we have found that received research, neither the theoretical nor the empirical, presents clear consensus on why conglomerates actually exist and how they are expected to be organized. What determines the boundaries of conglomerate firms? How should conglomerate firms be organized internally? What is the impact of CDS on firms' performance? For instance, cluster 3, "the development and behavior of conglomerate firms", overlooks recent contributions in strategic management on ambidextrous strategy

and dynamic capabilities. It may be intriguing is to assess what and how ambidexterity and dynamic capabilities research can add to conglomerate success strategies and organizational design.

Fourth, in our analysis, we have observed that little attention has been paid to the possibility that CDS may be deemed as a strategic answer to technologically turbulent environments (Kay, 2002). Likewise, the relationship between CDS and the evolution of the macroeconomic and social system is another blank area. In addition, another space of inquiry to which little research has been devoted to is the one related to the strategic elements of the *deconglomeration* process. As Varadarajan, Jayachandran and White (2001) emphasized: (1) a ‘deconglomerate’ firm may be expected to be more competitive and customer oriented; (2) while multimarket contacts with competing firms and seller concentration may increase; (3) the businesses maintained by the ex conglomerate firm may be more innovative, thereby emphasizing advertising over sales promotion; and finally (4) the ‘deconglomerate’ firm culture may become more externally oriented.

Fifth, while both clusters 2 in our inquiry (i.e., “market, corporate control structure and managers’ strategy for unrelated M&A”) and the “agency perspective and an information-driven argument related to the management’s desire to develop a CDS”, assume that rational economic logic is liable to explain CDS, we underscore the necessity to dig deeper into the influence of psychological variables on executives’ decisions. We argue that the choice between alternative corporate growth strategies may be examined at the individual psychological factors. A micro-level analysis is relevant because a CEO’s

attention, effort, and choices are based on his/her underlying preferences (Hambrick, Werder and Zajac, 2008), which are in turn often influenced by other factors such as previous performance. Drawing on McNally et al. (2009), we argue for the requisite to introduce elements such as top management team characteristics and/or psychological variables to explain managerial CDS decisions, rather than the influence of executive's education on his/her decision to enter unrelated industries.

Sixth, open debate exists on the questions of how and to what extent diversification strategy achieves superior performance. The results obtained in clusters 6 and 7 (concerning the discount/premium of diversification) are all but unambiguous. Consequently, CDS remains puzzling and baffling. Based on Borghesi, Houston and Naranjo (2004), who examine corporate product diversification as a dynamic process, showing that diversification reduces firms' mortality rate, we suggest that future studies are expected to investigate how the relationship between conglomerate diversification strategy and performance changes over time. Moreover, it is important to investigate whether the absence of positive performance in the medium term deters firms from starting CDS in the short term. Finally, in this vein future studies are also called to investigate whether (or not) it is possible to elaborate a conglomerate's life cycle discount/premium.

Seventh, it is commonly believed that CDS, far from creating it, destroys value. We have earlier emphasized the paradox generated by the coexistence of a diversification discount and, concurrently, of outperforming conglomerate firms. Clusters 3, "the development and behavior of conglomerate firms" and 4,

“strategic paths of conglomerates”, present a couple of underresearched areas that may contribute to clarify the factors influencing diversification performance (Grant, 2002). Generally speaking, empirical studies consider the internal capital market benefits (Stein, 1997) (e.g., recently Doukas and Kan (2008); Yan, Yang and Jiao (2010); Datta, D’Mello and Iskandar-Datta, (2009)) and emphasize the potential for firms operating in inefficient and underdeveloped financial markets (Khanna and Palepu, 1997, 2000; Fauver, Houston and Naranjo, 2003). Similar to Han, Hirshleifer and Persons (2010), a promising approach is seemingly to consider the particular conditions where internal capital markets operate.

In this sense, since previous studies have provided no consistent answers on the nature and economic and financial impact of CDS, we suggest that future research is asked to investigate the potential moderators or mediators of the relationship between CDS and performance, including top management team characteristics, the institutional context, macro-economic or social conditions, and internal versus external growth paths.³

Eight and finally, we acknowledge that the issue of the generalizability of the results of studies located in cluster 5, “diversification discount versus premium”, remains an open problem. Therefore, we ask: why do some conglomerate firms create value, while others do not do it in the same contexts? Further, Huang and Snell (2003) modeled the relationship between leadership, institutional superstructure, internal governance and control systems, enterprise moral atmosphere, and performance. Interestingly, they show how these elements

³ On the ground of previous studies that show synergy traps in M&A deals (Sirower, 1997) and that financial synergies from mergers can be negative if firms have different risks or default costs (Leland, 2007), a research question for future studies may concern the effect on CDS of bad performance of unrelated M&A and whether an internal growth path can avoid these problems.

influence the intensity and direction of conglomerate performance. In this regard, based on Galbraith (1993), we also ask: is exceptional managerial leadership a moderator or a mediator variable between CDS and performance? For an initial answer to this intriguing question, see chapter 3 in this dissertation.

7. CONCLUSIONS

In conclusion, a myriad of open questions remain unwrapped in the literature as concerns the relationship between conglomerate strategy and performance. Contrary to the common sense, this makes the one on conglomerates an intriguing subfield of research located at the interfaces among a triad of relevant disciplines: strategic management, governance, and finance. Accordingly we stress that, in order to understand better the conglomerate value creation processes in financial markets (Smit and Trigeorgis, 2004), it is very important to proceed matching the applicable tools of corporate finance with the principles of governance and the rejoinders of strategic management.

As concerns the limitations of this study, before closing we feel to pinpoint two specific categories: methodological boundaries and interpretation bias. As concerns the former, we recognize that, while the bibliometric coupling approach emphasizes the significance to use a method that is deemed as absolutely objective, it presents some drawbacks. In fact, first bibliographic coupling is not able to separate the citations along with the coherence between the text. Second, while we performed the cluster analysis of the articles assuming that each of them fitted only in a single cluster, we acknowledge that the content of some articles may rest at the intersections of different clusters. As regards the latter, we concede

that, since a part of the analysis performed complementary to the bibliographic methods used is inevitably left to our considerate understanding, this study, as any other research effort, is to some extent liable to the interpretation bias of the authors.

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CHAPTER II

DIVERSIFICATION STRATEGY AND PERFORMANCE: SHARING OF RESOURCES OR STRATEGIC FLEXIBILITY?

Abstract

This paper systematically juxtaposes two conceptual theoretical arguments, Resource-based View and Real Option Perspective, to explain the performance of diversification strategy. To make it possible, this study observes in un a panel date of 1,166 observations, concerning US firms evaluated from 1998 to 2008, the effects of the breath of business portfolio and the (un)relatedness diversity on firm performance levels. As previous studies, the paper finds that when the breadth of business portfolio is not correlated with corporate performance. New insights are suggested into the well established chasm between the related and the unrelated diversification strategy. When the amount of diversification is large, the firm's coherence is positive linked with corporate performance and, hence, related diversification is preferred to unrelated diversification. Conversely and surprisingly, when the amount of diversification is low, the firm's coherence is not linked with corporate performance and two opposite two opposite forces, scope economies versus strategic flexibility, emerge and face each other. Empirically, this paper offers a contribution revolving the question of relatedness among businesses around an application of the general interindustry relatedness index (Bryce and Winter, 2009).

Key words: Diversification strategy, breadth of business portfolio, firm's coherence.

1. INTRODUCTION

The viability of diversification strategy is a research question that has attracted much attention in management research (Ramanujam and Varadarajan, 1989; Chatterjee and Wernerfelt, 1991; Palich, Cardinal and Miller, 2000). However, there has not been consensus on the economic logic underlining firms decision to operate in a wide portfolio of businesses (Ng, 2007). Since empirical results have presented conflicting advices to managers and investors about the benefits of diversification strategy (Rumelt, 1974; Hoskisson and Hitt, 1990; Datta Rajagopalan and Rasheed, 1991; Berger and Ofek, 1995; Lins and Servaes, 1999; Hadlock, Ryngaert and Thomas, 1999; Rajan, Servaes and Zingales, 2000; Lamont and Polk, 2002; Villalonga, 2004a, 2004b), the topic has not reached the status of maturely (Palich, Cardinal and Miller, 2000).

The huge debate grounded - across the borders between corporate finance and strategic management - concerns theoretical arguments as well as methodological choices (Hoskisson and Hitt, 1990).

With regard to theoretical arguments, for over two decades, diversification research has paid attention to the importance of resources (Wan et al., 2011). Moving from the idea that firms' performance depend directly on the availability of resources, an extensive theoretical and empirical literature looked at diversification as an approach to leverage these resources. According to the Resource-based View (RBV), diversification performance is contingent to the sharing of resources that are subject to market failure (Govindarajan and Fisher, 1990; Nayyar, 1993; Farjoun 1994; Markides and Williamson, 1996; Tanriverdi and Venkatraman, 2005) and related diversification strategy generates higher

performance than a focused strategy. Obviously, under the lenses, since the goal of unrelated strategy is not directly to transfer resources and activities between businesses or core competencies into its businesses, a conglomerate strategy is widely believed to be inefficient.

Recently, a few studies tried to understand diversification strategy offering an interpretation in terms of Real Options (RO) (Raynor, 2002; Andrés and Fluent, 2006), arguing that operating in many businesses allows firms to increase the value of its growth options (Bernardo and Chowdhry, 2002; Devlin, 1991). This newer conceptual perspective vis-a-vis diversification offers a fruitful set of ideas for recognizing the logic of diversification choices in terms of strategic flexibility and, hence, managerial proactive behaviors. By undertaking and examining the outcomes of real investments, diversified firms learn about the resources and capability that they possess (Bernardo and Chowdhry, 2002) and how to guide future investment decisions. If the managerial goal of a diversification strategy is to increase the firm's flexibility, coherently the type of diversification is most likely unrelated. Actually, unrelated diversification sustains managerial discretion in order to create or select activities that present greater opportunities and affect firm performance. The impact of diversification strategy on performance is interpreted by the RBV and the RO assuming two competing arguments based, respectively, on the sharing of resources and on strategic flexibility.

With regard to the operational level, albeit in the management literature it is quite known that the level and the type of diversification are two distinct managerial choices, various inquiries on the relationship between diversification

strategy and performance have fallen short to examine simultaneously the breadth of portfolio and the type of diversification (Datta, Rajagopalan and Rasheed, 1991). The level or amount of diversification represent the *quantitative* dimension of diversification phenomenon, while the direction of diversification is the *qualitative* dimension. Empirical studies on diversification strategy generally assume that related and unrelated diversification are equivalent to moderate and high diversification (see, for instance, Palich, Cardinal and Miller, 2000). In addition, a part of the studies at hand uses *subjective* measures of the type of diversification that are all but easy to replicate, while the calculation methods appear overly complicated and rather difficult to understand. In a different way, other research uses the relative entropy index or the concentric index. Both measures fall short allowing for the correlation between the businesses that are “invisible from the outside” (Nayyar, 1992). Actually, the sensitivity of the entropy index and the concentric index to feature the corporate portfolio composition is not directly linked to portfolio relatedness (Robins and Wiersema, 2003). Given this state of affairs, a kind of confusion among the two choices has emerged, as well as the lack of opportunities for conceptual advancement.

Using a panel data of 1166 observations concerning US firms longitudinally evaluated over a 10-year period (from 1998 to 2008), this study systematically juxtaposes the two conceptual theoretical arguments (i.e., RBV and RO) to explain the performance of diversification strategy. To make it possible, this study closely observes the relationship of breadth of business portfolio and (un)relatedness diversity to firm performance levels. In detail, the chapter addresses the question of relatedness among businesses, revolving around an

application of the general interindustry relatedness index (Bryce and Winter, 2009) at the firm level.

As previous studies, the paper finds that when the breadth of business portfolio is not correlated with corporate performance. Given that none of the two arguments mentioned above, taken in isolation, explains the performance of (un)related diversification choice, this study supplies a more fine-grained analysis through a stratification sample, shedding new light on the established chasm between the related and the unrelated diversification strategy.

When the amount of diversification is large, the firm's coherence is positive linked with corporate performance and, hence, related diversification is preferred to unrelated diversification confirming RBV perspective. Conversely and surprisingly, when the amount of diversification is low, the firm's coherence is not linked with corporate performance and two opposite two opposite forces, scope economies versus strategic flexibility, emerge and face each other.

The contributions that this paper provides are summarized as follows. First, we appreciate how diversification strategy could more closely approximate (a) decision making aimed at strategic flexibility generation, (b) strategic choice set sights on sharing resource and creating synergy. We systematically juxtapose two conceptual perspectives to detect the drivers of performance: resource based view and real option lens. Since though they are intriguing, our evidence demonstrates that the theoretical views are not fully confirmed, we offer an integrative wisdom to explain performance of diversification strategy.

Second, we infer that there has been a lack of attention on the problem of the operationalization of the degree of diversification, which ignores the

difference between the level of diversification (quantitative dimension) and the type of diversification (qualitative dimension), and rejoin the challenge to investigate the relation between diversification and performance considering the breadth of business portfolio and the relatedness/unrelatedness among businesses.

Finally, this paper plays a role in the current debate on diversification strategy, offering a methodologically tractable translation of the Bryce and Winter's general interindustry relatedness index (2009) from the industry level to a resource-based measure of diversification at the firm portfolio level.

The essay is organized as follows. Section two illustrates the theoretical background and introduce the hypotheses concerning the RBV and RO arguments on diversification strategy. Section three describes the sample characteristics, methodology and variables used. Section four reports the descriptive and estimation results. In section five, we discuss the empirical results obtained and suggest a viable explanation. In the last section, we conclude and discuss the implications of our findings for future theoretical and empirical researches.

2. CONCEPTUAL DEVELOPMENT

An evergreen debate in management research regards, respectively, the value creation attitude of diversification strategy, the conceptual perspectives that are helpful to interpret diversification processes, and finally the methodological choice inductive to analyze empirically the results (Hoskisson and Hitt, 1990).

As mentioned above, the RBV and the RO lens consider divergent drivers of diversification performance: sharing resources or strategic flexibility. At the empirical level, extant inquiries on the relationship between diversification

strategy and performance have not examined simultaneously the breadth of portfolio and the type of diversification.

Given the arguments outlined above, we juxtapose the RBV and the RO, investigating the relationship between the breadth of business portfolio and the (un)relatedness diversity to firm performance levels.

The breadth of the business portfolio and relatedness diversity represent two different conceptualizations of diversification, even if interrelated (Hoskisson et al., 1993). Breadth of portfolio concerns the *quantitative* dimension of diversification: the number of business segments where the firm operates and the composition of its sales. Type of diversification concerns the *qualitative* dimension of diversification strategy, it identifies the nature of relatedness among the various businesses in a firm's portfolio.

2.1. Main Hypotheses

In Table 1, we summarize the hypotheses about the relationships between diversification strategy and performance according to the theoretical arguments illustrated above.

Table 1 - Comparison of theoretical arguments and diversification strategy

	RBV perspective	Option Theory lens
Breadth of the business portfolio	H _{A1} : Under the RBV perspective, the link between breadth of the business portfolio and performance is an inverted U shaped relationship with performance	H _{B1} : Under the Real Options argument, the link between breadth of the business portfolio and performance is positive
Firm's coherence measure	H _{A2} : Under the RBV perspective, the link between firm's coherence and performance is positive	H _{B2} : Under the Option Theory argument, the link between firm's coherence and performance is negative

2.2. The Resource-based perspective on diversification strategy

Under the umbrella of the RBV perspective, firms achieve and sustain competitive advantages by organizing valuable resources and capabilities that are inelastic in supply (Penrose, 1959; Wernerfelt, 1984; Barney, 1991; Peteraf, 1993; Barney and Arian, 2001; Ray, Barney and Muhanna, 2004). Then, RBV predictions suggest that, when firms orchestrate valuable, rare, and costly to imitate resources, diversification strategy based on related resources contribute to superior corporate performance (Wan et al., 2011). The RBV scaffold focuses on the specific characteristics of resources and investments that provide sustainable sources of competitive advantage to diversified firms (Wan et al., 2011). Firms diversify for exploiting the superior resources and capabilities in deploying its know-how, so they can take advantage of limitations to the resources and capabilities of the other firms in efficiently and effectively acquisition on the market. Obviously, if the superior performance of diversification is subject to the opportunities to share strategic assets, no single resource of diversification cannot assure competitive advantage indefinitely (Markides and Williamson, 1996). Actually, in the long run other firms will reduce the competitive advantage associated with any strategic assets by substitution or replication.

The outcome of diversification is contingent on the ability to share the supplementary or complementary resources among businesses, considering the marginal costs of sharing the resources such as the coordination cost (Zhou, 2011). Since a resource-based set of diversification strategies has to be *related supplementary* or *related complementary* (Wernerfelt, 1984), the limits of diversification strategy are represented by the extensions of opportunities in

“close” markets (Montgomery and Wernerfelt, 1988).

Adopting the RBV perspective, several studies argue that such levels of diversification likely show an inverted U-shaped relationship with firm performance (for instance, Grant, Jammine and Thomas, 1988; Palich, Cardinal and Miller, 2000). The U-shaped relationship underlines that high levels of diversification are associated with high firm performance, but that beyond some point, increasing breadth of business portfolio is more probably a lower level of firm performance. When strategic interrelationships are based on sharing resources among business units within the firm and, hence, there are superior performance that increase firm value. Conversely, when the businesses portfolio is too large, managing the resources is more complicated and, hence, diversification strategy does not create value rather it destroys value. For this reason, we propose the following proposition:

H_{A1}: Under the RBV perspective, the link between breadth of the business portfolio and performance is an inverted U shaped relationship with performance

According to the RBV perspective, sharing resources among businesses inspire the diversification strategy. Visibly, if a resource is useful to participate only in one productive or commercial process, it is not suitable for diversification. More specifically, only when firms share firm-specific strategic assets, they perform better than the sum of its separate businesses. Specifically, Chatterjee and Wernerfelt (1991) found a strong association between intangible assets and more related diversification. The key to superior performance from a diversification strategy is linked to the *ability* to share resources, and, hence, firms with related diversification strategies are more likely to outperform those with unrelated

diversification strategies. Therefore, a firm that is diversified into unrelated businesses is unlikely to have resources that can be useful for all its business units. Summarizing, related diversification facilitates the emergence of operational economies of scope, and hence, make firm to build a portfolio of businesses that are mutually reinforcing (Barney, 1997). For this reason, we propose the following proposition:

H_{A2}: Under the RBV perspective, the link between firm's coherence and performance is positive

2.3. The Real Options lens on diversification strategy

Real options analysis has progressively emerged as an pivotal methodology for assessing investment opportunities when the environments are characterized by high levels of uncertainty (Dixit and Pindyck, 1994). It aims to capture the flexibility value resulting from the firm's adaptive capabilities (Smit and Trigeorgis, 2004). According to real options lens, firm operates in many businesses in order to create preferential claims that allow it to benefit by exercising the growth options. As Dixit and Pindyck (1994) argue, expandability of operations gives rise to a call option and the act of investing is the exercise of the option. Each business within a diversified firm represents a real option whose exercise price includes the initial investment and the costs of governance of businesses portfolio; while small investments represent experimentation and learning occasion in a new business. Diversification strategy generates value options because there are future choices and potential for proprietary access to outcomes (Mc Grath, Ferrier and Mendelow, 2004).

On the footsteps of Leiblein (2003), our conceptualization of diversification strategy is as follows: (a) there exists opportunity costs generated with irreversible investment; (b) each investment creates valuable follow-on investment opportunities. This logic takes into account that growth opportunities are a set of real options that is dynamically managed by the executives and may be influenced by competitors behaviors, new technologies and so on (Dixit and Pindyck, 1994).

The assumptions of the real options lens offer a fruitful set of insights to recognize the logic of diversification strategy, because they underscore the firms' capacity to "identify major changes in the external environment, quickly commit resources to new courses of action in response to those changes, and recognize and act promptly when it is time to halt or reverse existing resource commitments" (Shimizu and Hitt, 2004). Accordingly, diversification strategy performance are the outcome of a multidimensional dynamic series of decisions as firms operate in a large number of businesses in the exploration for and the expansion of new growth opportunities. We underline that the information is the critical resource, that generates strategic flexibility to recognize and capture project values hidden in dynamic uncertainties.

Actually, since the information is the critical resource in uncertainly environments, the main benefit of a diversification strategy is that provides a platform for future strategies. In this perspective, operating in many business increases preferential chances for investment choices, such as to expand in growing market, change business easier when market downturns, earn capital gain by divestiture and so on. For this reason, we propose the following proposition:

H_{B1}: Under the RO lens, the link between breadth of the business portfolio and performance is positive

Under the RO lens, firm benefits from a participation at low scale in several businesses. Actually, this underdeveloped participation is the mechanism that is employed to obtain the option to invest profitably in new businesses, would it be eventually convenient to expand (Raynor, 2002). If the managerial goal of diversification strategy is to increase the firm's flexibility, coherently the type of diversification likely is unrelated. Actually, unrelated diversification sustains managerial discretion in order to create or select activities that present greater opportunities and affect firm performance.

A dynamic management of businesses portfolio needs flexibility for maintaining the possibility to exercise or abandon each business. While many connections between related businesses, in order to realize synergies, may be the source of rigidity, unrelated diversification is useful for a dynamic management portfolio such as acquisitions, divestitures or both. For instance, disinvesting related businesses is complex, because it needs to consider the role of interactions among businesses while we know that it is very difficult to analyze the performance of each business unit. Under this viewpoint, the rigidity generated by related diversification creates structural inertia and resistance to new resource allocation processes. For this reason, we propose the following proposition:

H_{B2}: Under the RO lens, the link between firm's coherence and performance is negative

3. DATA COLLECTION, METHODS AND MEASUREMENT

This paper explores the effect of breadth of business portfolio and type of diversification on performance using a sample selected from the population of firms existing in the Compustat Industry Segment. Compustat database is supplied by Standard & Poor's and gives information about industries, firms, and business-units as well as accounting and financial data for over 6,000 US public corporations.

Our panel data consists of 1,166 observations concerning US firms longitudinally evaluated over a 10-year period (1998-2008). The firms are active in manufacturing industries, they operate in SICs comprising from 2000 to 3999. The advantages of a sample selection that restricts sample to manufacturing firms are two. First, our sample is more comparable with previous studies such as Schoar (2002), Villalonga (2004). Second, this selection strategy allows us to use Bryce and Winter's index (2009) for assessing the firm's coherence. Actually, the general interindustry relatedness index is supplied only for manufacturing firms. Nonetheless this limitation, the benefits to use Bryce and Winter index (2009) are numerous, i.e. coherence with RBV, no subjectivity, publicly available data source.

3.1. Dependent variable

Ongoing debate concerns the preferred measure of performance: market oriented performance versus an accounting-based performance. Wan et al. (2011) underline that a market oriented performance assume the existence of relatively perfect financial market while, conversely, according to the strategic management

perspective, it is preferable to use accounting-based performance. Nonetheless this significant argument, we made a different choice by selecting Tobin's q. There are three key reasons underlying this decision. First, it considers the latent value of an organization's resources and the risk. It also and performs a better control for the industry membership and time effects (Ng, 2007). Second, our sample is composed of firms that operate in the US market, that is traditionally considered an efficient market. Third, it allows us to compare our results with previous widely cited empirical studies (such as Wernerfelt and Montgomery, 1988; Villalonga, 2004; Miller, 2006).

We compute the Tobin's q according to the approximation proposed by Chung and Pruitt (1994): $Tobin's\ q = (MVE + PS + DEBT)/TA$. Where MVE is the product of a firm's share price and the number of common stock share outstanding, PS is the liquidation value of firm's outstanding preferred stock, DEB is the value of the firms's short liabilities net of its short-term assets, plus the book value of the firms's long term debt, and TA is the book value of the total assets of the firms. We compute the natural logarithm of the Tobin's q.

3.2. Measures of diversification

We consider two different constructs for measuring the diversification degree: the *breadth* of diversification and the firm's *coherence*.

The *breadth of diversification* (quantitative dimension of diversification strategy) is measured using the standard entropy index (that has been traditionally applied to measure industry concentration). This index of diversification is an SIC-based index constructed as follows:

$$Entropy\ Measure = \sum_{s=1}^n \left[P_s \ln \frac{1}{P_s} \right]$$

where P_s represents the share of sales in business segment “s” and $\ln \frac{1}{P_s}$ (the natural logarithm of the inverse of sale for the segment “s”) is the weight for each segment. For its construction, the entropy measure takes into account the number of business segments in which a firm operates and the relative importance of each segment in terms of the distribution of the firm's total sales across the business segments (Palepu, 1985).

The second measure of diversification concerns the *type of diversification* (qualitative dimension of diversification strategy) and, hence, the links among businesses. As mentioned in the introduction, some studies use subjective measures of the type of diversification, while other research uses the relative entropy index or the concentric index.

In order to implement a *resource based firm's coherence measure*, our work proceeds as follows. We have embedded the interindustry relatedness index in the firms' coherence index (Teece et al., 1994).

$$Resource\ based\ firm's\ coherence\ measure = \frac{\sum_{s \neq r} i_{sr} P_r}{\sum_{s \neq r} P_r}$$

where i is the measure of relatedness between segment business “s” and “r” according the Brice and Winter's index (2009) and P_r the sales in business segment “r” We consider as segment business base “s” the most important segment in terms of sales.

The main characteristics of the measure of relatedness among the businesses we propose are:

- a) the coherence with the predicaments of the RBV, because it is a measure of *degree of “strong” coherence* in firm’s diversification patterns (Teece et al., 1994);
- b) it is an *objective measure* that addresses strategic differences among business, since the measure at hand avoids the risk of falling in subjective specification (Bryce and Winter, 2009). For the construction, it is coherent with resource based view and really appreciates the relative strength of association between every pair of manufacturing industry (Bryce and Winter, 2009);
- c) it *overcomes the issue of subjectivity* in the evaluation of the type of resources and, hence, avoids the subjective approach based on the judgment of the researcher. In fact, the general interindustry relatedness index, that we embed in Teece et al. (1994) coherence measure, “acknowledges the characteristic resource baskets differ from industry to industry without requiring a specification of this difference” (Bryce and Winter, 2009: 1571). In so doing, the conversion of the general interindustry relatedness index to a resource based measure of diversification joins the advantages of the quantifiability and objectivity with the essential considerations of the links among resources and competence in different business;
- d) it helps to make the research replicable and cumulative, because the calculation method is not over-complex and uses publicly available data sources: the general interindustry relatedness index and the composition of firm’s sales.

The entropy measure and the resource based firm's coherence measure are interconnected, because a change in the entropy measure will impact in the firm's coherence and conversely. However, firm's coherence index and entropy measure are not always positive correlated. For example, when firm A entries in a new business, the entropy measure increases. If the new business is related with the core business of firm, the firm's coherence increases, because the weight of unrelated activities (in terms of sales respect the total sales) decreases. Conversely, if the new business is unrelated with the core business of firm, the resource based measure of relatedness decreases.

3.3. Other Control variables

Several control variables are utilized in this study for controlling other firms characteristic or other factors that may influence corporate value: *total assets* as proxy of firm's dimension, *total intangible assets*, *financial structure index* that is the leverage ratio, *R&D expenses*, *advertising expenses*, *interest paid*, *Return on asset (ROA)*, *firm's stock owned by institutional investors* (as a proxy for institutional investors' influence on firm's decision).

3.4. Model

To investigate diversification performance by comparing alternative perspectives, the following two formulas are applied:

$$\begin{aligned}
 (1) \text{ Performance}_{it} &= f(\text{Entropy}_{it}, \text{Coherence}_{it}, \text{Control Variables}_{it}) \\
 (2) \text{ Performance}_{it} &= f(\text{Entropy}_{it}^2, \text{Entropy}_{it}, \text{Coherence}_{it}, \text{Control Variables}_{it}) \\
 (3) \text{ Performance}_{it} &= f(\text{Entropy}_{it}^2, \text{Coherence}_{it}, \text{Control Variables}_{it})
 \end{aligned}$$

Random-effects Tobit is used to estimate the parameters required for testing the main hypotheses predicted by theoretical models of remittances. This estimation takes to account in clusion of the individual specific effect. As this individual effect is treated as a random variable, and the disturbances in the model are normally distributed.

Table 2: descriptive statistics

Variable	Mean	Std. Dev.
Dependent	.5209001	.6417063
Entropy	.2091969	.3555751
Coherence	3.107362	1.349168
Assets Total	7466.728	26852.26
Intangible Assets	1104.351	5018.976
Financial structure	26.79896	771.4285
Stock ownership	.3333333	.9429814
Advertising	227.2603	659.6353
R&D	456.4883	1315.825
Interest paid	113.5707	661.837
Roa	.0572478	.2087473

Table 5 shows the correlation matrix. In general, it reflects a lack of correlation among the variables (multicollinearity issue).

Table 3: matrix of correlations

Variable	Dipendent	Entropy	Coherence	Assets Total	Intangible Assets	Financial structure	Stock ownership	Advertising	R&D	Interest paid	Roa
Dependent	1.0000										
Entropy	0.0015	1.0000									
Coherence	0.0457	-0.4708	1.0000								
Assets Total	0.1368	0.4006	-0.1020	1.0000							
Intangible Assets	0.0653	0.3627	-0.0882	0.8926	1.0000						
Financial structure	-0.0233	-0.0273	0.0177	-0.0173	-0.0123	1.0000					
Stock ownership	-0.1564	-0.0941	0.0364	-0.0836	-0.0538	0.1296	1.0000				
Advertising	0.2011	0.4413	-0.1208	0.8315	0.7917	-0.0165	-0.0852	1.0000			
R&D	0.1568	0.2630	-0.0695	0.8549	0.6369	-0.0116	-0.0702	0.6377	1.0000		
Interest paid	0.0736	0.4314	-0.1270	0.7362	0.7152	-0.0100	-0.0969	0.7656	0.5092	1.0000	
Roa	0.1332	0.1275	-0.0412	0.1578	0.0931	-0.0460	-0.0447	0.1955	0.1365	0.1664	1.0000

4. RESULTS

This section presents the results obtained from the previously mentioned empirical models.

Regression (1) shows a positive link between firm's coherence ($\beta=0.221603$; $p=0.09$) and corporate performance. Others control variables are statistically significant such as stock ownership, advertising expense, interest paid and ROA. The entropy effect on performance is negative, but not statistically significant ($\beta =-0.0738752$; $p =0.427$)

Table 4: regression (1) using equation (1)

Dipendent	Coef.	Std. Err.	z	P> z	[95% conf. interval]	
Entropy	-.0738752	.093042	-0.79	0.427	-.2562342	.1084839
Coherence	.0221603	.0134264	1.65	0.099	-.004155	.0484755
Assets Total	-2.99e-06	6.67e-06	-0.45	0.654	-.0000161	.0000101
Intangible Assets	-.951e-06	8.86e-06	1.07	0.283	-.0000269	7.85e-06
Financial structure	-.0000628	.0000698	-0.90	0.368	-.0001996	.0000741
Stock ownership	-.1101193	.050665	-2.17	0.030	-.209421	-.0108177
Advertising	.0002185	.0000716	3.05	0.002	.0000781	.0003589
R&D	-1.57e-06	.0000465	-0.03	0.973	-.0000927	.0000895
Interest paid	-.0003833	.0002073	-1.85	0.064	-.0007895	.000023
Roa	.8105411	.094454	8.58	0.000	.6254146	.9956676
Constant	.5108713	.0638433	8.00	0.000	.3857406	.6360019
/sigma_u	.4570054	.0318454	14.35	0.000	.3945896	.5194212
/sigma_e	.4327064	.0096782	44.71	0.000	.4137374	.4516753
rho	.5272908	.0373822			.453975	.5996909

In regression (2) and (3), the results of the random-effects tobit regression do not show a statistical significance of entropy level effect on performance. The regression (3) confirms the positive relation between firm's coherence and corporate performance.

Table 5: regression (2) using equation (2)

Dipendent	Coef.	Std. Err.	z	P> z	[95% conf. interval]	
Entropy ²	.1128183	.2379205	0.47	0.635	-.3534973	.579134
Entropy	-.1850255	.2521806	-0.73	0.463	-.6792904	-.3092394
Coherence	.0193033	.0147153	1.31	0.190	-.009538	.0481447
Assets Total	-3.19e-06	6.68e-06	-0.48	0.633	-.0000163	9.90e-06
Intangible Assets	-9.52e-06	8.86e-06	-1.08	0.282	-.0000269	7.84e-06
Financial structure	-.000063	.0000698	-0.90	0.367	-.0001998	.0000739
Stock ownership	-.1109802	.0506775	-2.29	0.029	-.2103062	-.0116542
Advertising	.0002118	.000073	2.90	0.004	.0000687	.0003548
R&D	1.42e-06	.0000469	0.03	0.976	-.0000905	.0000933
Interest paid	-.0003793	.0002075	-1.83	0.068	-.0007859	-.0000273
Roa	-.8112672	.0944491	8.59	0.000	-.6261504	-.996384
Constant	.5235649	.0692131	7.56	0.000	.3879097	.6592201
/sigma_u	.4567931	.0318251	14.35	0.000	.3944171	.5191691
/sigma_e	.4326849	.0096773	44.71	0.000	.4137177	-.4516521
rho	.5270838	.0373763			.4537832	.5994762

Table 6: regression (3) using equation (3)

Dipendent	Coef.	Std. Err.	z	P> z	[95% conf. interval]	
Entropy ²	-.0494234	.0878077	-0.56	0.574	-.2215233	.1226766
Coherence	.0246652	.0127746	1.93	0.054	-.0003725	.0497029
Assets Total	-3.13e-06	6.68e-06	-0.47	0.640	-.0000162	9.97e-06
Intangible Assets	-9.24e-06	8.85e-06	-1.04	0.297	-.0000266	8.11e-06
Financial structure	-.0000626	.0000698	-0.90	0.370	-.0001995	.0000742
Stock ownership	-.1090993	.0506754	-2.15	0.031	-.2084212	-.0097774
Advertising	-.0002201	.0000722	3.05	0.002	.0000787	.0003616
R&D	-2.15e-06	.0000467	-0.05	0.963	-.0000936	.0000893
Interest paid	-.0003862	.0002073	-1.86	0.062	-.0007924	.00002
Roa	.8102452	.0944714	8.58	0.000	.6250847	.9954057
Constant	.4987683	.0604465	8.25	0.000	.3802954	.6172413
/sigma_u	.4574602	.0318501	14.36	0.000	.3950352	.5198853
/sigma_e	.4327172	.0096776	44.71	0.000	.4137495	-.4516849
rho	.5277742	.0373447			.4545235	.6000948

In addition, in regressions (4) and (5), we test the effect of firm's coherence on performance by stratifying the sample for entropy levels. This stratification attempts to answer the research questions that follow:

- (a) when the amount of diversification is low, can unrelated diversification lead to larger benefits, generated by strategic flexibility, than scope economies of the related diversification?
- (b) when the amount of diversification is high, can related diversification lead to inefficiencies generated by coordination, communication and integration costs, incentive distortions created from executives' intrafirm

competition, incompatible technologies, and bureaucratic distortions? In the latter case, can unrelated diversification perform better than the related one?

Such analysis aims to dig deeper into the effect of coherence and discover whether the impact of firm's coherence changes on the base of firm's coherence. Specifically, we have divided the sample into two main clusters: (a) for entropy measure lower than 0.6; (b) for entropy measure higher than 0.6.

Table 7 shows that when entropy measure is lower than 0.6, the impact of firm's coherence on performance slopes from 0.0221603 of the regression (1) to 0.013152. In addition, it is not also statically relevant ($p = 0.465$).

Table 7: regression (4) for subsample low entropy level

Dipendent	Coef.	Std. Err.	z	P> z	[95% conf. interval]	
Coherence	.013152	.0180038	0.73	0.465	-.0221347	.0484388
Assets Total	1.08e-06	.0000102	0.11	0.915	.0000189	.0000211
Intangible Assets	-.0000122	.0000141	-0.86	0.387	-.0000398	.0000154
Financial structure	-.000059	.0000717	-0.82	0.411	-.0001996	.0000816
Stock ownership	-.1173135	.0507758	-2.31	0.021	-.2168322	-.0177948
Advertising	.0002187	.0001182	1.85	0.064	-.000135	.0001547
R&D	9.86e-06	.0000739	0.13	0.894	-.000135	.0001547
Interest paid	-.0011516	.0003943	-2.92	0.003	-.0019244	-.0003789
Roa	.803802	.0993316	8.09	0.000	.6091157	.9984884
Constant	.5487196	.0727879	7.54	0.000	.4060579	.6913813
/sigma_u	.4530779	.0326136	13.89	0.000	.3891565	.5169993
/sigma_e	.4444969	.010613	41.88	0.000	.4236958	.465298
Rho	.5095594	.0388642			.4336746	.5850987

Finally, table 8 shows that when entropy measure is higher than 0.6, the impact of firm's coherence on performance is grand relevant β shifts from 0.0221603 in regression (1) to 0.0342353. It is also statically relevant ($p = 0.04$).

Table 8: regression (5) for subsample high entropy level

Dipendent	Coef.	Std. Err.	z	P> z	[95% conf. interval]	
Coherence	.0342353	.0170028	2.01	0.044	.00009105	.0675601
Assets Total	4.38e-06	6.94e-06	0.63	0.528	-9.23e-06	.000018
Intangible Assets	-.0000167	.0000103	-1.63	0.104	-.0000369	3.45e-06
Financial structure	-.0503636	.0122854	-4.10		-.0744425	-.0262847
Stock ownership	.0359621	.1611717	0.22	0.823	-.2799287	.3518528
Advertising	.0001006	.0000772	1.30	0.193	-.0000507	.0002519
R&D	-.000075	.0000505	-1.49	0.137	-.0001739	.0000238
Interest paid	.0001133	.0001589	0.71	0.476	-.0001982	.0004248
Roa	.2873598	.3088286	0.93	0.352	-.3179331	.8926527
Constant	.4839147	.1068931	4.53	0.000	.2744081	.6934214
/sigma_u	.4390866	.0777574	5.65	0.000	.2866849	.5914882
/sigma_e	.2597911	.0186407	13.94	0.000	.2232561	.2963262
Rho	.740752	.0784811			.5677454	.8687294

5. DISCUSSION

As our results (regression 1 and 3) suggest that none of the two theoretical arguments we have considered (RBV and RO), taken in isolation, is able to univocally single out the drivers of diversification performance. Regression (1) does not confirm the H_{A1} hypothesis concerning the inverted U shaped relationship between entropy measure and performance; while it confirms that the link between firm's coherence measure and performance is positive (H_{A2}). Regression (1) does not confirm both the hypotheses concerning the Real option lens (H_{B1} , H_{B2}).

Since our results are not consistent with RBV and RO expectations, we argue the relevance of stratify our sample. Such empirical results show that the coherence effect on performance is absolutely not relevant when entropy measure is low. We interpret these results considering that firm's coherence generates two opposite forces: scope economies versus strategic flexibility. A dynamic management of real-options underlined each business involving a collection

upward-potential-enhancing and downward-protection can generate an economic result that is larger than related diversification.

Conversely, when the entropy measure is higher, the coherence measure becomes relevant. In order to explain whether the coherence's effect on performance is generated by intangible assets, we perform two regressions that assess:

- (a) whether the interaction of the firm's coherence and the amount of R&D increases the effects of R&D expense on performance. Since operating in many markets increases a firm's knowledge of its resources' various possible utilizations, thereby generating *new expansions possibilities*, we suppose that related diversification strategy generates a "information disseminator" among many businesses that might explain why the coherence is auspicious. Actually, the configurations of portfolio of businesses will position the firm to develop the new knowledge required for future path of growth. In this perspective, related diversification strategy might involve process of competence leveraging as relevant ingredient of a firm's attempt to maintaining and increase the competitiveness.
- (b) whether the interaction of firm's coherence and the amount of advertising increases the effects of advertising expense on performance. We test this interaction effect, because marketing resources can represent critical source of value creation in many businesses.

Unfortunately, both the cases (table 9 and table 10) underline a positive effect of coherence on performance, but there are statistically not relevant.

Table 9: regression (6) for subsample high entropy level.

The interactive effect firm's coherence and R&D expense

Dipendent	Coef.	Std. Err.	z	P> z	[95% conf. interval]	
Coherence	.0304016	.0178654	1.70	0.089	-.004614	.0654172
Assets Total	5.09e-06	7.01e-06	0.73	0.468	-8.66e-06	.0000188
Intangible	-.0000173	.0000103	-1.67	0.094	-.0000375	2.96e-06
Assets						
Financial structure	-.0502687	.012244	-4.11	0.000	-.0742665	-.026271
Stock ownership	.0280771	.1628885	0.17	0.863	-.2911785	.3473326
Advertising	.0001004	.0000772	1.30	0.194	-.0000509	.0002517
R&D	-.0001207	.0000836	-1.44	0.149	-.0002845	.0000432
Interest paid	.0000901	.0001619	0.56	0.578	-.0002272	.0004074
Roa	.2686281	.3093769	0.87	0.385	-.3377395	.8749956
R&D *	.0000223	.0000326	0.68	0.494	-.0000417	.0000863
coherence						
Constant	.4935163	.1084138	4.55	0.000	.2810292	.7060034
/sigma_u	.4435022	.0784124	5.66	0.000	.2898166	.5971878
/sigma_e	.2586493	.018567	13.93	0.000	.2222585	.29504
rho	.7462024	.0772948			.5752007	.871926

Table 10: regression (7) for subsample high entropy level.

The interactive effect firm's coherence and advertising expense

Dipendent	Coef.	Std. Err.	z	P> z	[95% conf. interval]	
Coherence	.0293039	.0173036	1.69	0.090	-.0046104	.0632183
Assets Total	4.069e-06	6.81e-06	0.69	0.491	-8.66e-06	.000018
Intangible	-.0000154	.0000101	-1.53	0.127	-.0000352	4.39e-06
Assets						
Financial structure	-.0509007	.0122796	-4.15	0.000	-.0749683	-.0268331
Stock ownership	.0364907	.1561766	0.23	0.815	-.2696099	.3425913
Advertising	-.0000436	.0001304	-0.33	0.738	-.0002992	.000212
R&D	-.0000956	.0000526	-1.82	0.069	-.0001988	7.52e-06
Interest paid	.0000492	.0001655	0.30	0.766	-.0002752	.0003736
Roa	.2690407	.3071052	0.88	0.381	-.3328744	.8709558
Advertising *	.0001108	.0000807	1.37	0.170	-.0000474	.0002689
coherence						
Constant	.4653787	.1042144	4.47	0.000	.2611223	.6696352
/sigma_u	.4235584	.0749822	5.65	0.000	.2765959	.5705209
/sigma_e	.2597302	.0185884	13.97	0.000	.2232976	.2961627
rho	.7267303	.0809863			.5500393	.8599617

Finally, we suggest another explanation of why coherence's effect on performance is important when the entropy measure is high. Executives of focused or related diversified firms mainly observe some specific market and technological stimuli. Therefore, managing a focused or related diversified firm is much simpler than managing a conglomerate firm (Prahalad and Bettis, 1986). The strategic variety that a conglomerate diversification strategy implies

underscores a more complex style of management (Goold and Luchs, 1993). Therefore, beyond some point (large breath of business portfolio), firms suffer from the strategic variety, because each business requires a specific approach corresponding to the conditions of its competitive arena (Calori, Johnson, and Sarnin, 1994). In this perspective, we emphasize the relevance of managerial complexity trap, i.e. the difficulty of identifying a strategic thinking approach fitting businesses with different characteristics (Bettis and Prahalad, 1995), particularly when firms' competitive environmental is in dramatic and rapid changing (D'Aveni, 1994).

6. CONCLUSIONS

Moving from a vast debate that is currently had in corporate finance and strategic management literature, we have identified two divergent theoretical arguments: the RBV and the RO lens. The former underscores the relevance of firm's coherence in order to exploit scope economies, while the latter focuses on the impact of strategic flexibility on performance.

In addition, we have lead understood that level and type of diversification are two distinct managerial choices is quite known. They represent, respectively, the quantitative and qualitative dimension of a diversification strategy. Nonetheless, many empirical works have largely overlooked to explain the differences.

Using a panel date of 1,166 observations concern US firms longitudinally evaluated from 1998 to 2008, the paper has compared the two competitive

viewpoints mentioned above and enriched the investigation considering both the diversification variables: entropy measure and firms' coherence.

Our evidence demonstrates that the RBV and RO arguments are not fully confirmed. Actually, the main results of our study are: (a) the breadth of business portfolio is not correlated with corporate performance. These results support Villaonga (2004)'s conclusion that on average, diversification (intended as breadth of business portfolio) does not destroy value; (b) when the amount of diversification is large, the firm's coherence is positive linked with corporate performance and, hence, related diversification is preferred to unrelated diversification; (c) when the amount of diversification is low, the firm's coherence is not linked with corporate performance and two opposite forces, scope economies versus strategic flexibility, emerge and face each other.

These considerations is a initial steps to build a framework that integrate RVB and RO lens in the exploration of links between the breadth of business portfolio, (un)related diversification and corporate performance.

We aim to advance three related contributions. First, we provide a brief synopsis of current understanding about diversification strategy analyzing two intriguing arguments, the RBV and the RO, to identify the relationship between diversification strategy and performance. Given that none of the two perspectives mentioned above, taken in isolation, explains the relation between diversity and performance, this paper supplies a more fine-grained representation of the roles of opposite forces: strategic flexibility or sharing resources. We shed new light on the way that breadth of business portfolio, firm's coherence and performance are connected to the emergence of performance.

Second, whereas numerous studies have investigated diversification strategy, a gap in the conceptual and empirical literature remained regarding the impact of breadth of business portfolio rather the firm's coherence on diversification strategy performance, we contribute the debate on diversification trying to bridge this gap.

Third, empirically introducing the Bryce and Winter's relatedness index in the diversification literature, this study seeks to bridge the gap between strategic management and corporate finance academic communities. Since Wan et al. (2011) underscore that an improvement in the measurement of the span of diversification represents a relevant step in order to mitigate the mixed findings that we have between the two basic disciplines (finance and strategy), we consider the application of the general interindustry relatedness index in the diversification literature a concrete step forward in this direction. In fact, this measure of diversification accomplishes the requisites of using publicly available data sources, thereby avoiding subjectivity, which is a precondition of finance literature (Martin and Sayrak, 2003), while being concurrently coherent with the RBV, which is the dominant mainstream perspective in the strategic management realm.

Given that the main limitations of this study is in that its empirical setting comprises only one country, futures studies can extended to other countries beyond the US. Settings for comparative analysis that could yield interesting and important results may include Italy, Germany, France and Spain. Studies could also be conducted in emergent countries such as China, India, Brazil and Japan.

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CHAPTER III

A LOOK INSIDE THE PARADOX OF CONGLOMERATE SUCCESS: JACK WELCH'S EXCEPTIONAL STRATEGIC LEADERSHIP

Abstract

This paper aims to test the role of strategic leadership on the strategic effectiveness of conglomerate diversification, thereby tackling the paradox offered by the generalizability of econometric studies applied to diversified firms. Bringing the concept of strategic leadership to the relationship between conglomerate diversification strategy and performance involves exploring the key processes of creation, change, and integration that characterize successful conglomerates. Through an in-depth narrative approach applied to Jack Welch's two-decade-long strategic leadership at General Electric, we identify intriguing insights that are shown to be helpful for understanding and assessing the role of strategic leadership on the success of conglomerates. We illustrate how heterogeneity in the performance of conglomerate firms can be derived from the role exerted by exceptional strategic leadership to avoid the so-called "conglomerate traps."

Key words: Strategic leadership, conglomerates, diversification.

1. INTRODUCTION

Corporate finance studies and the strategic management literature have hitherto fallen short of solving the paradox of why some conglomerate firms create exceptional value while others generally suffer from a diversification discount (a multiple-segment firm's value below the value imputed using single-segment firms' multiples). This apparent contradiction has been termed "the paradox of conglomerate success".

From the financial viewpoint, there is no reason why, when the market is efficient, conglomerated portfolio management should create value for shareholders. In fact, "diversification is easier and cheaper for the stockholder than for the corporation" (Brealey and Myers, 2000: 946). Further, starting from Richard Rumelt's (1974) pioneering work, empirical studies usually show a negative relationship between conglomerate strategy and performance (Datta et al., 1991; Hoskisson and Hitt, 1990; Ramanujam and Varadarajan, 1989), thereby estimating the existence of a discount of diversification; i.e., the value of diversified firms is less than the sum of their parts (Lamont and Polk, 2002; Rajan et al., 2000; Lins and Servaes, 1999; Berger and Ofek, 1995). Generally, theoretical and empirical arguments agree that a conglomerate diversification strategy does not lead to superior economic effectiveness (Martin and Sayrak, 2003; Palich, Cardinal and Miller, 2000; Davis, Diekman and Tinsley, 1994) vis-à-vis related diversification.

Despite the conventional wisdom depicted above, some conglomerates do surprisingly achieve good performance. Some examples are as follows: Bidvest, Onex, ITC, Fimalac, General Electric, Wesfarmers, Berkshire Hathaway 'A,

Hutchison Whampoa, Bouygues, and Lagardère. Starting from the consideration that some of these top-performing conglomerates operate in relatively efficient financial markets, we propose the following research question: *on average, conglomerates are underperforming non-conglomerate firms, but there is evidence depicting cases of successful conglomerate diversification strategy. Therefore, what is the reason as to why we may have a successful conglomerate diversification strategy?*

Whereas three decades ago, Bettis et al. (1978) underscored that we may improve our understanding of the relationship between diversity and performance if we shift our research focus from the central tendencies to outliers, to date diversification literature has missed to focus on the problem of the limited generalizability of empirical findings across conglomerate firms (Martin and Sayrak, 2003). This is an apparent contradiction that marks a conceptual gap in our comprehension of the real causes underlying the condition that some conglomerates do in fact experience success, even though, according to the extant dominant managerial theory, we would not expect such an outcome.

One of the most prominent theories that has been proposed to address this question revolves around the role of strategic leadership, which is considered a major antecedent linking diversity to performance (Galbraith, 1993). In fact, Villalonga's (2004) argument that conglomerates can add value sets the stage for diving into the role of leadership as a key contingency. Notwithstanding this argument, the majority of prior studies have discussed the formulation and implementation phases of the conglomerate diversification strategy without

explicitly considering the role of the CEO as the architect of strategy and organizational leadership (Andrews, 1971).

Conversely, we argue that a potential explanation of the conglomerate paradox is directly linked to the issue of strategic leadership. This paper aims to check for the role of strategic leadership in the effectiveness of the conglomerate diversification strategy, thereby tackling the paradox given by the generalizability of econometric studies applied to diversified firms.

Our argument draws upon a longitudinal appealing qualitative study. By focusing on a top-performing conglomerate, we investigate how strategic leadership may influence strategic choices, the commitment to achieve objectives, and organizational culture (Yukl, 1989).

We have selected the case of General Electric (GE), focusing on Jack Welch's leadership in the two decades from 1981 to 2001. There are three key reasons underlying this decision. First, GE is a particularly suitable case to analyze because it is an extraordinary example of the enduring success of a conglomerate diversification strategy. In addition, the two consecutive decades of Welch's leadership at the helm of GE are particularly salient for a detailed chronological case study. Actually, the presence of first-hand material (i.e., interviews and autobiography) provides an extraordinary opportunity to understand Welch's leadership. Finally, GE has been a widely studied case study at the world's most prestigious business schools, which provides particularly rich and detailed data sources (Ambrosini et al., 2010).

For the analysis of the GE case, we identify the causal conditions that establish strategic leadership as an important source of heterogeneity in

conglomerate performance. Specifically, we focus our attention on three strategic leadership dimensions that represent the key factors in avoiding the “conglomerate traps”; i.e., managerial complexity, the misallocation of resources, and structural inertia.

By offering a plausible theoretical and empirical explanation of GE’s success paradox, we maintain that a source of heterogeneity in conglomerate performance is the implementation of *exceptional strategic leadership* (Galbraith, 1993). We define exceptional strategic leadership as the convergence in the same person of managerial excellence (Hambrick and Finkelstein, 1987) and best leadership (Bass, 1995; Bass and Avolio, 1994; Yammarino, 1993). With the sheer awareness of value creation options, exceptional strategic leadership creates the internal conditions needed for increasing the impact of resources or for broadening the base on the one hand and, on the other hand, revealing a cleavage between existing resources and the future ambitions of the organization.

A systematic examination of the GE case as an example of a successful conglomerate diversification strategy such as the one we offer in this paper is able to suggest potential relevant insights in a fertile area at the intersection of strategic management, corporate finance, and organization theory. More specifically, the contribution that this paper provides is summarized as follows. First, it provides an explanation for “why” there are only a few cases of successful conglomerate firms, thereby tackling the paradox of the generalization of the conglomerate diversification strategy performance. More explicitly, it shows that the so-called “conglomerate traps” can be avoided when the conglomerate diversification

strategy provides a way to obtain good shareholder returns by making use of exceptional strategic leadership.

Second, we contribute to the organization theory literature by applying a general concept, such as strategic leadership, to a specific context, such as the conglomerate firm. In this vein, the explorative nature of this study is helpful in defining some important dimensions of strategic leadership (transformational leadership, transactional leadership and managerial excellence) that can lead to the heterogeneous performance of conglomerates.

Third, the study creates a link between the leadership literature, the resource-based view and the dynamic capabilities perspective. In fact, in the context of the conglomerate diversification strategy, it emphasizes the influx of leadership on strategic choices and thus on organizational outcomes. Moreover, it explains that strategic leadership can be the most relevant ingredient for distilling the characteristics of success that are unique to conglomerate organizations.

Fourth, because there is little theory explaining how conglomerates manage resources to create value, this study advances the investigation of this issue by confronting the conglomerate diversification strategy literature with the empirical analysis of a relevant business case. In this way, we are able to extract some insights that may be relevant to executives in the creation, change, and integration of resources as well as discover competencies that characterize successful conglomerates.

Finally, this study paves the way to understanding how strategic leadership affects conglomerates' success with insights that may create a bridge between corporate strategy, corporate finance, and organization theory, thereby

establishing an area of potential convergence among the three constituent bodies of research.

The remainder of this paper is organized as follows. Section two builds the theoretical background. We discuss the factors that influence diversification performance, focusing on the most common traps of the conglomerate diversification strategy and the role of strategic leadership in the strategic implementation of conglomerate diversification. Section three presents and discusses the methodological features of this research and explains the choice of studying the GE case. Following the temporal bracketing approach, section four portrays the three sequential stages in the evolution of Jack Welch's leadership at GE. Section five discusses the role of strategic leadership in explaining the success of GE as a conglomerate firm. The final section presents the limitations of the study and illustrates the key implications of our findings for future theoretical and empirical research.

2. THEORETICAL BACKGROUND

To provide an answer to the key question of why successful implementations of the conglomerate diversification strategy exist if conglomerates generally underperform firms with more focused diversification, we introduce the role of the strategic leader. Our research question can be partitioned into three main parts: can strategic leadership change (in intensity or in direction) the relationship between conglomerate diversification strategy and performance; if this is the case, how does this happen; and what are the main dimensions of strategic leadership? Aside from the realms of finance and strategy, this work aims to take advantage of

investigating the relevant literature on strategic leadership intended as a potential factor in the relationship between conglomerate diversification strategy and performance.

2.1. The factors influencing conglomerate firms' performance

A key decision in corporate strategy is the choice of market segments in which a firm competes. Drawing on the seminal works of Chandler (1962), Ansoff (1957, 1965) and Rumelt (1974), how and to what extent a diversification strategy may achieve superior performance in comparison to other firms is an argument that is still open to discussion (Palich et al., 2000). Emphasizing the paradox generated by the coexistence of a diversification discount and outperforming conglomerate firms, a relevant area of investigation would be one that unravels the factors that influence diversification performance (Grant, 2005) and the way to implement this strategy (Hoskisson and Hitt, 1990).

The debate concerning the benefits of the conglomerate diversification strategy identified three main sources of value:

- (a) “conglomerate power”, which allows cross-subsidization among businesses and thus is able to support a predatory pricing strategy (Edwards, 1955);
- (b) financial synergy, e.g., where a conglomerate corporate structure enables a higher debt capacity (Lewellwn, 1971), advantages of tax-deductible of passive interests (Berger and Ofek, 1995) and a lower cost of debt capital;

- (c) cognitive competences in the selection of the industry and the managerial skills to manage the process of entry into a new business and, more generally, the managerial synergy.

Because empirical findings suggest that conglomerates are generally characterized by low performance, on average, the benefits of a conglomerate strategy do not exceed the costs generated by the traps of the conglomerate diversification strategy.

Managerial Complexity

The first trap of the conglomerate diversification strategy concerns the strategic variety that imposes multiple dominant logics (Prahalad and Bettis, 1986) and thus has an important effect on the ability of the executive team to manage a conglomerate firm. Because increased product diversity influences the demand for managerial services (Hutzschenreuter and Guenther, 2008), as soon as strategic variety increases, managerial processes become more complex. However, strategic variety in a conglomerate is not generated solely by the number of businesses in which it operates. Strategic variety is in fact a function of market and technological factors that must be taken into account and these factors often diverge.

Executives of focused or related diversified firms mainly pay attention to a narrow set of distinct market and technological stimuli. In this sense, managing a focused or related diversified firm is much simpler than managing a conglomerate firm (Prahalad and Bettis, 1986). The strategic variety underlying a conglomerate diversification strategy leads to a very complex style of firm management (Goold

and Luchs, 1993). In this sense, Calori, Johnson, and Sarnin (1994) argued that diversified firms suffer by way of this variety, as each business requires a specific strategic approach corresponding to the conditions of its competitive arena. Conglomerate firms have to monitor, anticipate, and react to varied competitive structures, technologies, and customers. In addition, Bettis and Prahalad (1995) highlighted the difficulty of identifying a strategic thinking approach fitting businesses with different characteristics, particularly those in industries that are prone to dramatic and rapid change (D'Aveni, 1994).

The strategic variety of conglomerates generates an out-and-out trap labeled *managerial complexity*. Managerial complexity implies costs such as spans of control, coordination costs, inflexibility, and cultural mismatches within the central bureaucracy. In this vein, Rawley (2010) found that both coordination costs and organizational rigidity costs, net of other costs and benefits of diversification and incumbency, are economically and statistically significant. In fact, these costs often nullify the benefits of the economies of scope that conglomerate firms may realize (Lauenstein, 1985).

Misallocation of Resources

The second trap of the conglomerate diversification strategy is the *misallocation of resources*. In particular, when diversity in resources and opportunities increases within a conglomerate firm, the resource flow may shift to the most inefficient divisions that are pushing for major investments (Rajan et al., 2000; Scharfstein and Stein, 2000; Stulz 1990). This problem, also called “conglomerate socialism”, underscores the distortions that internal capital markets may generate; namely,

business units with fewer investment opportunities require high financial resources and can feature many inefficiencies, which effectively penalizes divisions with better opportunities.

Shin and Stulz (1998) identified another source of traps in conglomerate firms concerning the misallocation of resources: undertaking overly hazardous development paths. This observation is congruent with the hypothesis of hubris in managerial behavior, as this kind of psychological bias (exaggerated self-confidence that changes the cognition of risks) is probably of greater interest to managers of large firms (Hiller and Hambrick, 2005; Hayward and Hambrick, 1997; Roll, 1986).

Structural Inertia

The third trap of the conglomerate diversification strategy is *structural inertia* (Hannan and Freeman, 1984; Surendran and Acar, 1993). Various studies have found a negative relationship between unrelated diversification and innovation (Hoskisson, Hitt, and Hill, 1993; Hoskisson and Hitt, 1988). The common wisdom is that the link between unrelated diversification, fit, and flexibility is characterized by a short-term perspective, or short-termism (Rowe and Wright, 1997). In addition, knowing that conglomerate diversification strategy is often the result of a managerial choice made merely to reduce risk (Amihud and Lev, 1981), it is apparent that changes that imply costs and risks will be carefully circumvented.

Finally, top managers often face difficulties in assessing the long-term potential of new strategic paths in each business and, thus, the opportunities of

R&D investments. In broader terms, Hannan and Freeman (1984) argued that complexity generates managerial myopia that in turn increases along with the duration of change. Because the possibility of failure increases exponentially with the duration of change, managerial complexity, according to Hannan and Freeman (1984), increases the negative prospect of failure.

The brief analysis performed heretofore shows that, taken together, managerial complexity, the misallocation of resources, and structural inertia significantly decrease the benefits of the conglomerate diversification strategy. Because empirical research argues that conglomerates are characterized by lower performance, on average, the impact of conglomerate traps on performance constrains the accrual of economies of scope.

2.2. Strategic leadership as a factor linking conglomerate diversification strategy and performance

Following the insight that the poorer performance of conglomerate firms may not be due exclusively to strategy but rather may also be due to how strategy is implemented (Dundas and Richardson, 1982), we investigate the role of strategic leadership to solve the puzzle of conglomerate performance. Aside from the finance and strategy perspectives, which try to explain the key factors in the relationship between conglomerate diversification strategy and performance, we focus on the role of the ability of strategic leadership (Hambrick, 2004) to guide, train, and enhance distinctive capabilities in an organizational context with high levels of complexity.

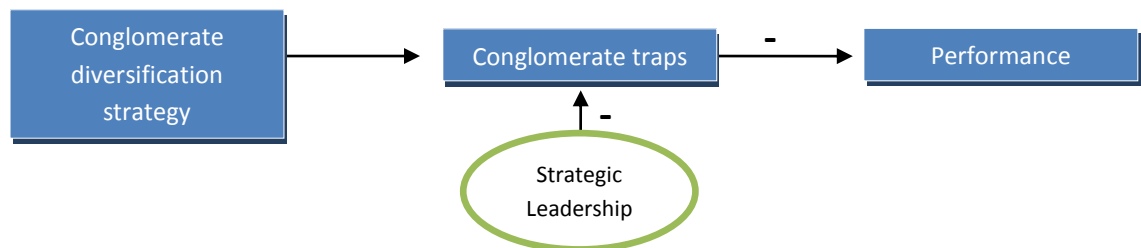
Within the field of organization theory, the concept of leadership is one of the most discussed concepts due to the intellectual ferment that it raises by means of its numerous definitions and theoretical perspectives, e.g., the personality traits and style approaches (Bryman, 1986; Stogdill, 1948), situational leadership theory (Hersey, 1985; Blanchard, Zigarmi and Zigarmi, 1985), charismatic leadership theory (Bass, 1990; Conger, 1989; Butterfield, 1988; Weber, 1946), the substitutes for leadership perspective (Kerr and Jermier, 1978; Meindl, 1993), and servant leadership theory (Greenleaf, 1977), among others.

Indeed, the concept of leadership has been interpreted in many ways underlining, from time to time, some aspects over others, such as the leader's abilities, the power relationships versus forms of persuasion, cognitive versus emotional orientation, and relation-oriented versus task-oriented leadership styles. All of these aspects, taken together, offer a general idea of leadership and a more realistic view of strategic leadership (Cannella and Monroe, 1997). However, the "discrete managerial function or task, involving a course of action that could be configured in a variety of ways" (Finkelstein and Peteraf, 2007: 239) exercised by leaders varies vis-à-vis the variety of contexts. Strategic leadership has been illustrated and detected in many contexts, but the topic is still substantially overlooked in the conglomerate diversification strategy literature, as diversification research is mostly characterized by the perspectives of financial and strategic management. The lack of attention to leadership in these fields of inquiry may be explained by disciplinary bias, where "the domains of strategy and organization theory have been ignoring the critical role of leadership – a concept that may both enlighten and help bridge the two domains" (Miller and Sardais,

2011, 174). Alternatively, by integrating the constructs of strategy, leadership, managerial capabilities and philosophy, we can imagine and understand the configuration of organizational forms (Snow et al., 2005) and, more specifically, successful conglomerate firms.

The purpose of this paper is thus to detect the dimensions of strategic leadership associated with an empirical success case of a conglomerate firm. These dimensions suggest a set of cause and effect relationships among strategy, leadership, and performance in the case of conglomerate diversification. Our study focuses on the contribution of strategic leadership to create value through a conglomerate diversification strategy and, more specifically, on how some strategic leadership dimensions may be indispensable for removing the conglomerate traps.

Figure 1: Interrelationships between the main variables under scrutiny: the negative impact of traps on conglomerate performance and the role of leadership in reducing the relevance of the conglomerate traps.



3. RESEARCH METHOD: AN IN-DEPTH LONGITUDINAL CASE STUDY

Our research question of why few conglomerates create value when others generally suffer a diversification discount clearly focuses on the outlier values that are generally left unappreciated in econometric studies. Moreover, the explorative nature of our research introducing strategic leadership into the relationship

between the conglomerate diversification strategy and performance implies a fine-grained analysis that cannot be realized economically with large samples (Golden-Biddle and Locke, 1993). For these reasons, the paper is based on an in-depth longitudinal case study (Eisenhardt, 1989; Yin, 2003) that investigates conglomerate value creation within its real-life context. We endeavor to compose the data of events to understand how things evolved over time and why they evolved in this specific way (Van de Ven and Huber, 1990). In particular, we attempt to support the contention that the success of the conglomerate diversification strategy can be explained by means of strategic leadership. Taking into account the limitations of studying a single, though relevant, firm, the multiple possible interpretations of the evidence in a single case study, as well as the benefits of extracting many details in a particular case (Eisenhardt and Graebner, 2007), we aim to discuss the existing theory by pointing to a gap in the generalizability of previous results regarding the conglomerate diversification strategy.

To begin to fill the gap of the generalizability of results (Siggelkow, 2007) in the diversification literature and to advance our understanding of management and organizations (Amabile et al., 2001), this qualitative study follows the scientific criteria of theoretical sampling justification, parsimony, exploratory power, and relevance (Gibbert, Ruigrok and Wicki, 2008; Heugens and Mol, 2005; Eisenhardt, 1991). We shall depart from discussing theoretical sampling.

3.1. Theoretical sampling: General Electric

We have explored GE's success over a period of twenty years, from 1981 to 2001, during which Jack Welch was at the helm of the company. There are a number of reasons that led us to examine GE under Welch's leadership in greater detail. First, under Welch's leadership, GE was the largest and the most respected conglomerate firm in the world. Indeed, GE represents a case that is considered to be prototypical and paradigmatic of a successful implementation of the conglomerate diversification strategy. From this perspective, the methodological value of the case stems from its importance along some dimensions of interest (Gerring, 2007). Second, providing the analysis of a long period, such as the two decades of Welch's leadership at GE, is a particularly attractive approach for conducting a detailed historical analysis. Additionally, during his tenure as GE's CEO, Welch released a large number of interviews (both written and videotaped) and also wrote an autobiography (Welch and Brine, 2001) that is rich in detail, and there exist several memos, essays, and articles about his career and factual experience. The presence of primary material such as the interviews and the autobiography offers a truly unique opportunity to understand Welch's contemporaneous thoughts, as well as his thinking at various points in GE's history. The choice of studying GE allows us to dig into multiple sources of information that are eventually juxtaposed and interpreted via a triangulation of facts (Jick, 1979). In fact, GE has traditionally received notable attention from both the academic realm and the business, financial and economic press. Third, and finally, the GE case represents a teaching case that is by far the most discussed in the business world. There actually exist several GE teaching cases

taken from various management angles and from different times during Welch's tenure as CEO by various business schools, especially in North America. This vast array of data provides access to a wide array of published and unpublished material, fulfilling the recent claim that case studies can "be used as research materials for academics in their quest to advance management knowledge" (Ambrosini et al., 2010: 206). Accordingly, these manifold teaching cases as well as the bounty of accessible materials accessible on GE constitute prolific sources of interesting sets of data and information that are helpful for deriving comparisons and conducting pattern identification (Ambrosini et al., 2010).

3.2. Data sources

As mentioned above, the exploratory nature of this study implies the need to scrutinize the variety and richness of events, occurrences and episodes to grasp the links among the conglomerate diversification strategy, performance, and leadership. In constructing our case study, we used a system of multiple data collections to combine a variety of information sources. Enriching the evidence for the case study context increases the construct validity of our study. This research strategy in turn increases the understanding of the researchers' sampling choices (Cook and Campbell, 1979), improves the trustworthiness of the data (Denzin and Lincoln, 1994), and illustrates more convincing and accurate findings (Eisenhardt, 1989).

Our qualitative research draws its data from a combination of traditional and nontraditional data sources (Bansal and Corley, 2011): archival sources, interviews, and observations, as well as narratives and videos. Specifically, we

use traditional and nontraditional primary data sources, such as Welch's autobiography and books (Welch and Brine, 2001; Welch and Welch S. 2005, 2006), a book written by Welch's collaborator (Lane, 2008), letters to shareholders, annual reports, and a collection of videos downloadable on Internet websites. The videos represent a rich and primary source of information and data that, to a certain extent, can be regarded as a substitute for direct interviews; overall, we collected more than 100 videos of Welch's interviews, conferences, and in-class presentations. Table 1 presents some video extracts that address the most significant aspects of our case study.

Table 1: Primary video data sources selected

Type of source	Interviewers	Extract of main contents	Date	Organization and other information	Other information (as of May 14, 2011)
Journal reports and Welch's interview	L. Stahl	The impact of bureaucracy on performance; how competition relies on continually raising the bar in terms of strategic goals	October 29, 2000	Organization: 60 Minutes Time: 4:15	http://cnettv.cnet.com/10-29-00-jack-welch/9742-1_53-50059310.html?tag=mncol;5n
Welch's interview	C. Rose	Welch describes his leadership strategy and the role of meritocracy on company success. He talks about his plans for new business endeavors	March 16, 2001	Organization: Charlie Rose Time: 52:47	http://www.charlierose.com/view/interview/3211
Welch's interview	D. McWilliams	Welch narrates how he learned the importance of competition from his mother. In addition, he explains the role of self-confidence, responsibility and energy in human resources	October 14, 2001	Organization: Agenda Highlights Time: 10:00	http://www.davidmcwilliams.ie/2007/05/01/video-jack-welch-full-length
Welch speaks at Anderson school	In-class presentations and discussions	Qualities for potential leaders and team managers	April 28, 2005	Organization: CLA Anderson School of Management Time: 37:00	http://www.anderson.ucla.edu/x8422.xml
Welch speaks at Stanford business school	In-class presentations and discussions	How creating candor in the workplace and the combination of rewards and recognition create a high-performance work environment	April 27, 2005	Organization: Stanford Graduate Business School Time: 1:02:51	http://www.youtube.com/watch?v=PxU6Z0BgyWM
Welch's interview	A. Main	Strategic drivers for business in complex competitive context	July 11, 2006	Organization: 2006 IOD Annual Convention Time: 3.17	http://www.workplacetv.com/video/strategic-drivers-for-business

Welch's interview	S. Colbert	Presentation of book <i>Winning</i>	December 18, 2006	Organization: The Colbert Report Time: 6:28	http://www.colbertnation.com/the-colbert-report-videos/79758/december-18-2006/jack-welch
Welch's interview	Debate among Welch, S. Welch and S. J. Adler	Conversation about a wide range of subjects from business and career issues to global warming	Feb. 15, 2007	Organization: BusinessWeek Time: 13.46	http://www.businessweek.com/mediacenter/video/captainsofindustry/d369cee2fef400cd745ff9e30b4d309089d51711.html
Welch's interview	D'Arbeloff	Self-confidence and energy in human resource management	April 12, 2007	Organization: MIT World Distributed Intelligence Time: 58:24	http://mitworld.mit.edu/video/466
Welch's interview	Debate among Welch, D.H. Lee, N.P. Suh and J.R.Pitte	How to cultivate core talent for the future	27 October, 2008	Organization: Global HR Forum 2008 Time: 59:52	http://www.youtube.com/watch?v=RG6YLbUwqNE
Welch's interview	D.E. Shalala	Relation between CEO and middle management; strategic planning; and the role of human resources in a company's success	January 16, 2009	Organization: 2009 Global Business Forum: University of Miami Time: 55:43	http://www.youtube.com/watch?v=PaXO9Uab6K0
Welch's interview	B. Jartz	How to differentiate four types of managers according to abilities and values	November 5, 2009	Organization: Fox Cities Performing Arts Center - The New York Times News service/ Syndicate Time: 15:11	http://english.alroya.com/content/jack-welch-four-types-managers
Welch's interview	S.J. Adler	Information and competitiveness in the globalization context	March 1, 2011	Organization: 92nd Street Y Time: 9:52	http://makemoneyhomebusinesscenter.com/2011/04/14/jack-welch-with-stephen-j-adler-at-92nd-street-y/

Further, we integrated primary data with some personal interviews. The informants came from different GE hierarchical levels, functional areas, and educational backgrounds. We conducted interviews with the following people:

- Pier A. Abetti (PhD in Electrical Engineering and currently professor at the Lally School of Management and Technology), who had a distinguished 32-year career with GE as an advanced development engineer, was a member of GE's Europe Strategic Planning Operation, and held other important executive jobs. Abetti represents a sort of "folk memory" of GE, as he worked with four different CEOs (i.e., Cordiner, Borch, Jones and Welch) and interacted frequently with them;
- Ron Ashkenas (PhD in Organizational Behavior and currently works at a management consulting company for organizational transformation and leadership development), who was part of the original team that collaborated with Jack Welch to develop GE's Work-Out process and also contributed to the development of GE Capital's approach to acquisition integration;
- Paolo Fresco, who worked at GE from 1976 to 1998. He was named vice president and general manager of GE's International Operations team in 1985. Two years later, he was elected senior vice president of GE International. In the last part of his career at GE, he was vice chairman of the board and an executive officer at GE.

In-depth and semi-structured interviews were conducted to complete the fact-gathering process that was initiated using other primary and secondary sources.

One of the authors discussed the preliminary mental maps constructed from the archival data. This approach sustains the validity of our study, as it avoids the influence of a single dominant perspective while mitigating retrospective sense-making.

In addition, data collection included a variety of secondary data sources, such as books (Ashkenas, 2009; Baum and Conti, 2007; Lowe, 2007, 2002; Rothschild, 2007; Krames, 2005, 2003, 2001; Badowski and Gittines, 2004; Slater, 2004, 2003, 1999; Heller, 2001) and book reviews (Abetti, 2008; Abetti, 2006a), documentary information, scientific journal articles or essays in academic books (e.g., Abetti (in press), Lehmborg, Rowe and White, 2009; Shirisha and Sajai Sam, 2009; Abetti, 2006; Maccoby, 2002; Abetti, 2001; Strohmeier, 1999), practitioner press articles, newspaper articles, the Internet and a few other sources.

Considering the advantages of using teaching case studies (e.g., they capture rich and detailed data, are often longitudinal and provide insights into the order in which circumstances change (Ambrosini et al., 2010; Christensen and Carlile, 2009; Miller and Friesen, 1977)), we also used the entire set of Harvard Business School case studies on GE as data sources (Ken 2008; Nohira, Mayo and Benson, 2007; Bartlett and Wozny 2005; Bower and Dail, 1994; Bartlett 1992; Bartlett and Elderkin, 1991; Malnight, 1990; Aguilar, Hamermesh and Brainard, 1984; Aguilar, Hamermesh and Brainard, 1981). Understandably, we judged case by case whether the data contained in these readings were consistent with other sources. However, authors generally acknowledge that the teaching cases under consideration are able to offer several intriguing insights.

3.3. Temporal bracketing

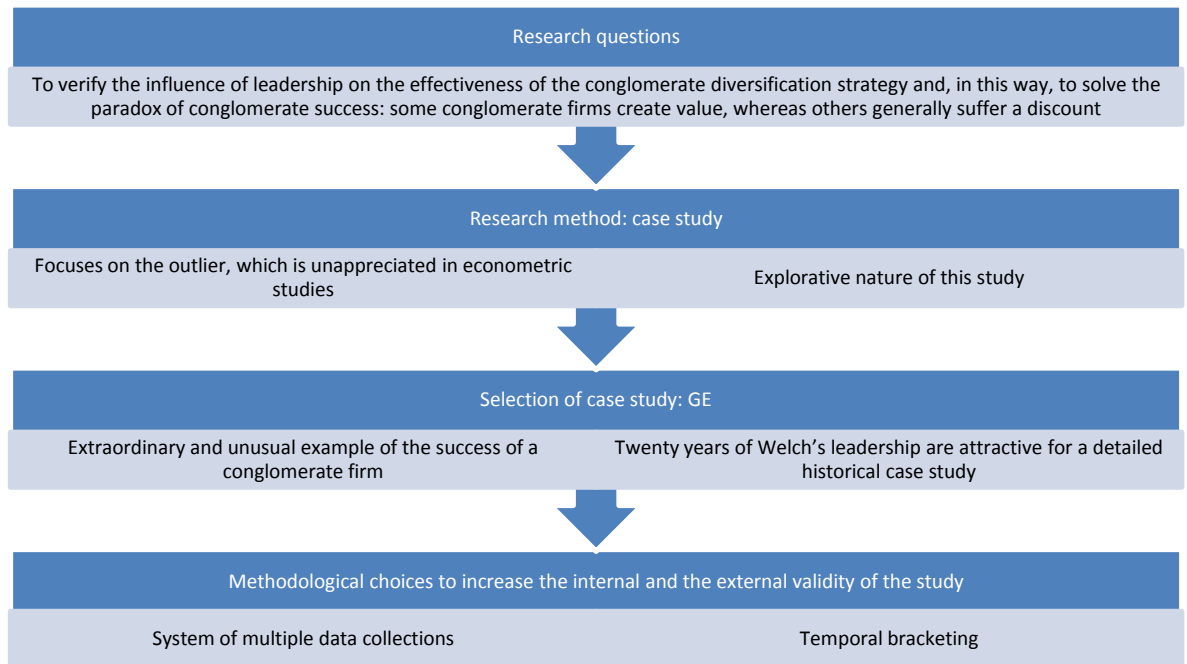
The focal period of interest covers the twenty years spanning from 1981 to 2001. By understanding the temporal progressions by which strategic leadership leads to observable performance, the case study allowed us to extract some interesting aspects of GE's evolution. To exemplify the role of Welch in GE's success – in the footsteps of Abetti (2006) – we divided the two decades under investigation into three temporal phases (i.e., phase I, 1981-1985; phase II, 1986-1995; and phase III, 1996-2001). The choice to analyze data encompasses the three waves of GE's revolution shaped by Welch because it places emphasis on the continuity of the activities within each phase and the discontinuities of actions between the phases (Langley and Truax, 1994).

The research strategy to partition Welch's leadership at GE in three waves is justified by the motive of investigational parsimony. Indeed, this methodological choice seems helpful for refining our analysis of the role of Jack Welch at GE and, mainly, for making comparisons across the three different temporal phases. In this sense, temporal decomposition increases the internal validity of our study (Eisenhardt, 1989). In addition, employing a structured analytical process using temporal decomposition enables us to perform cross-case comparisons and thus also sustains the external validity of this study.

Moreover, using temporal bracketing, we scrutinize how “actions of one period lead to changes in the context that will affect action in subsequent periods” (Langley, 1999: 703). From this perspective, the strategy of decomposing the time scale into successive periods appears to be particularly suitable because it allows

one to show, step by step, how Jack Welch was able to shape the idiosyncratic “social architecture” (Beinhocker, 2006) that sustained the conglomerate diversification strategy at GE.

Figure 2: Research design.



4. THREE REVOLUTIONS AT GENERAL ELECTRIC MADE BY JACK WELCH’S LEADERSHIP

The origins of the General Electric Company date back to the Edison Light Company, which was established by Thomas Alva Edison in 1878 and, fourteen years later, merged with the Thomas Houston Electric Company. Over the next hundred years, GE changed managerial practices and dramatically widened its business. Whereas the success of GE in the 1930s was based on the adoption of a highly centralized model, GE pursued greater decentralization two decades later.

Even when profitability was satisfactorily high (the average return on common equity in the period between 1964 and 1970 was 14.44%), GE successively changed its strategic planning, focusing on strategic analysis and control according to a somewhat rigid and bureaucratic culture.

In 1980, the year before Welch took over as CEO, GE was a conglomerate that operated in six unrelated business segments (in terms of sales relevance): (a) consumer products; (b) power systems; (c) industrial products; (d) technical systems; (e) aircraft engines; and (f) services, materials, and natural resources. The net sales amounted to 24,959 billion dollars. Further, GE presented many strengths, such as a good liquidity position (the Acid test ratio was 0.861) and acceptable financial leverage (1.216), which were reflected on a triple-A balance sheet. The P/E ratio was not too high (9.211), showing that investors did not believe in the possibility of the firm experiencing rapid growth.

In this context, Jack Welch started his revolution with a significant improvement in performance. The firm's market value went from 12 to 500 billion dollars, and the P/E ratio more than tripled (37.161) in the period from 1981 to 2000. This high ratio decreased during the leadership of Jeff Immelt, Welch's successor as GE's CEO, under whom the P/E ratios were 17.148 and 20.653, respectively, in December 2001 and 2002. Immediately after the ending of Welch's leadership as CEO of the company, GE suffered from external events (such as the 9/11 attacks and other consequences from the US economy), but the

primary problem was the high level of market skepticism regarding GE's performance (Grant and Neupert, 2005)⁴.

Assuming that differing managerial logics can be conceptualized even in the same context, in the following subsections, we introduce the partition of Welch's leadership at GE into three main periods. This partitioning corresponds with the specific strategic choices that allowed GE to achieve success (Abetti, 2006) and, in the meantime, the grand influence of Jack Welch's guidance. Specifically, we will appreciate how the new vision for GE was the fulcrum of Welch's revolution. In our interview, Abetti described Welch's leadership as "built on a creative vision of becoming the most competitive organization in the world" (and, thus, a high-spirited one, characterized by strong in-house entrepreneurial spirit). This revealed to be an exceptional tool for developing a highly idiosyncratic culture that valued hard work, building a winning identity, and continuously seeking new practices (Abetti, in press). The temporal bracketing analysis pinpoints how Jack Welch's ideas and practices helped to explain and make sense of ongoing events. Welch's vision represents the core shared tip of the three waves of the revolution at GE, as the new values impacted all managerial fields. Each phase underlines the impact of the new values and of the new vision in specific strategic and organizational aspects. In the first wave, which lasted from 1981 to 1985, Welch worked to reconfigure GE's business portfolio and proposed a profound cultural shift. The first phase was in fact a "hard revolution", as it directly influenced strategic choices. The second wave from 1986 to 1995 was instead a "soft revolution", wherein Welch focused his

⁴ Abetti (in press) notes that, differently from Welch's leadership, "Immelt lacked creativity and never articulated a unifying vision. His portfolio management style can be defined as *opportunistic*".

attention on human resource management, methods, and managerial practices coherent with the new vision for GE. Finally, the third wave of Welch’s revolution, which covers the period from 1996 to 2001, was epitomized by the union of the hard shift and the soft revolution. Welch proposed new challenges for the growth of GE, such as the implementation of Six Sigma and the use of the vitality curve.

Table 2: A Comparison of Jack Welch’s leadership phases

	Phase I: 1981-1985	Phase II: 1986-1996	Phase III: 1996-2001
Focus	The reconfiguration of the business portfolio and the cultural change	Human resource management as a strategic leverage of Welch’s vision	Another revolution: new challenges for growth
Welch’s vision	Being number one or two in market growth through the creation of a strong firm identity and human resource excellence		
Type of revolution	Welch starts a <i>hard revolution</i> rather than simple incremental improvements. A new vision and values directly influence the strategy of the business portfolio, organizational structure and human resource management	Welch starts a <i>soft revolution</i> in order to maintain/increase the results of the phase I. The focus of this phase is to ensure human resource motivations and upgrade the level of management skills. Lean and agility of a small company are important strategic element	Once again, Welch suggests stretching the operating plan. This revolution is both <i>hard</i> and <i>soft</i> . Managerial choices concern both immaterial and material elements such as strategy, organizational structure and climate, and culture
Main choices of Welch	(a) Technique based on the well-known three circles approach for managing the wide business portfolio (b) The “three circles” idea was also a tool for human resource management: building self-confidence in the workers of the business entities who performed well and implementing a new organizational culture	(c) A mission for GE’s Crotonville facility: to develop leadership and consolidate cultural change (d) Work-Out practices. The goal is to use strategic variety of the conglomerate strategy to transform GE into a learning organization	(e) Six Sigma (f) Total Quality Management (g) “Vitality curve”
Financial market results	P/E improved from 9.211 in December 1980 to 14.181 in December 1985	In December 1996, P/E was 22.472	In December 2000, P/E increased to 37.161

4.1. Phase I: The reconfiguration of the business portfolio and the cultural change (1981–1985)

Although the Return on Equity (ROE) of GE was 19.5% (a good level of profitability compared to other conglomerates), in the year before Welch took over as CEO, he always considered the implementation of a managerial revolution, rather than simple incremental improvements, to be an absolute necessity for GE. In the first wave of his revolution (1981–1985), Welch suggested a new vision for GE that involved a radical cultural transformation and a dramatic reconfiguration of its business portfolios.

Welch's announcement in front of Wall Street analysts on December 8, 1981, that GE needed to "search out and participate in the real growth industries and insist upon being the number one or number two in every business" (Welch and Brine, 2001), was extremely important from both an external and internal perspective. In fact, this was the occasion on which he managed to present a new vision of the role of GE in financial markets, along with a believable message for members and stakeholders of the firm.

The idea of being a market leader in deciding to fix, sell, or close a business is part of the formulation of corporate strategy, but, in this case, it represented the codification of Welch's personality into GE's identity. GE adopted the need to excel from the belief of its CEO. Each business unit had to learn to control its own destiny because "if you don't have a competitive advantage, don't compete" (Tichy and Sherman, 1994, 15). Welch's main purpose was to adopt an internal strategic organization by means of diversification criteria to create a strong firm identity of "reality, quality, excellence and the human

element” (Welch and Brine, 2001, 106). On the one hand, this idea built self-confidence among the workers of the business entities that performed well. On the other hand, it generated new value in GE’s culture based on “learn the fun and joy of competition”, which was something that Welch discovered from his mother (Welch and Brine, 2001, 5). From this perspective, Welch worked to create inside GE not simple managers, but rather self-confident entrepreneurs “who would face reality every day” (Welch and Brine, 2001, 92). The pleasure of winning motivated Welch to stretch the organization by “reaching more than what you thought possible” (Welch and Brine, 2001, 385). He revised his personal vision of GE’s culture, thus raising workers’ performances to a much higher standard.

Acquisitions, joint ventures, the creation of new internal businesses, restructuring, minority investments (all absorbing over one billion dollars in two years) and divestiture,⁵ all helped Welch to refine GE’s portfolio management and thus its dynamic changes in content. In this context, Welch developed a technique based on the well-known three circles (services, high technology, and core manufacturing) for managing the portfolio of an extremely diversified business and potentially reducing managerial complexity. The core idea of the three circles is that businesses outside the circles were secondary in terms of performance, growth markets or strategic fit. Consequently, businesses outside the circles would have to be fixed, closed or sold out. This technique suggested a strong control of industry type and the application of careful acquisition criteria that were able to prevent the misallocation of resources.

⁵ Over two years, GE implemented mass dismissals and divestments in 71 business, and employment fell from 402.000 in 1980 to 367.00 by 1982 and 330.00 by 1984.

Through the reconfiguration of the business portfolio and cultural change, Welch overhauled management practices and generated a general reconfiguration of the firm's mindset. Following Welch's insight to build an organizational identity that emerged on its own as well as a stronger culture and values, GE eventually adopted a new vision. This vision was aimed not only at maintaining the size and growth profile of a large conglomerate firm but also at creating a broader and stronger culture that included the divestiture process (that earned him the epithet of "Neutron Jack") when businesses were not coherent with the company's vision. In this way, Welch showed a trait of a revolutionary leader; in fact, through his new series of initiatives, he created the conditions necessary to overcome structural inertia. The final performance of this first revolution was excellent; the P/E ratio improved from 9.211 in December 1980 to 13.174 three years later and to 14,181 in December 1985.

4.2. Phase II: Human resource management as a strategic leverage of Welch's vision (1986-1995)

During the "second wave" of Welch's revolution (1986–1995), GE was still a large conglomerate, but an attempt was made to establish a simpler structure for both facilitating new acquisitions and improving knowledge, managerial competence and employee motivation.

The thread linking the first and the second revolution is the prevalence of organizational aspects in strategic design. Whereas the innovative idea of the first wave of the revolution was to give GE a vision based on the pleasure of winning (and, consequently, on the managerial practices of choosing the business), the

explicit focus of the second wave was on human resource management. Welch again pushed the company to develop the leanness typical of a smaller company that is characterized by speed, simplicity, and self-confidence. In this wave of the revolution, it is rather clear that Welch's superior ability to energize human resources and to connect with large amounts of knowledge, technology and financial resources represented the key elements in the process of value generation.

There was strong coherence between the new vision suggested by Welch in the first revolution and the managerial practices of the second wave. Welch suggested a dynamic strategy that used the energy, the passion and the knowledge of human resources as strategic leverage. Specifically, Welch heavily relied on GE's Crotonville facility, the company center for management development, used "to upgrade the level of management skills and instill a common corporate culture" (Rowe and Guerrero, 2011, 215). The Crotonville meetings did not provide the teaching of new technical notions; rather, Welch used these meetings as training sites for improving middle management leadership. Indeed, under Welch's leadership, GE was known for its capability of developing managers. Crotonville's mission was to develop leadership and introduce cultural change. Through these meetings, Welch diffused his values within GE and developed many mentorship processes.

In 1988, running in parallel with the successful Crotonville meetings, Welch pushed a new program: "Work-Out". Work-Out was able to address "wrestling with the boundaries, the absurdities that grow in large organizations" (Slater, 1999, 150), such as too many approvals, duplication, pomposity, and

waste. It was a formidable tool for cutting bureaucracy. The Work-Out program emerged from the efforts of thousands of people struggling, learning, and grappling to translate a vision into reality (Ulrich, Kerr and Ashkenas, 2002, 4). The course of leadership development within the Work-Out program allowed the realization of the appropriate environment with which to provide an intellectual atmosphere. Indeed, as described by Ashkenas in our interview, the Work-Out program supplied “a point of dissemination of corporate ideas” that stimulated and enriched debate solutions and was “a fantastic way to share practices”.

Once again, Welch used these programs to engender passion in human resources, which is a shared characteristic of winners (Welch and Brine, 2001, 385), as only people with great passion can “care more than anyone else. No detail is too small to sweat or too large to dream” (Adubato, 2005, 35).

Work-Out practices partially explain why GE did not fail through structural inertia and managerial complexity in this phase. The success of GE was not generated by grand technology innovation. Rather, it was a result of Welch’s intense focus on building an organization that was able to respond quickly to competitive changes. Welch’s influence on GE and his ability to introduce new tools to promote continuous change and improve people’s performance are very apparent.

We note two fundamental aspects of this revolution. The first is the awareness that human resources could be a significant competitive leverage in conglomerate organizations. This feature is not derivative because, following mainstream thought, the CEO thinks of a conglomerate as a mere portfolio of disparate businesses. Second, the voluntary effort to continually reach “the hearts

and minds of the company's best people - the inspirational glue that held things together as we changed" (Welch and Brine, 2001, 171) (i.e., through the Crotonville meetings). In this wave of the organization's revolution performed under Welch leadership, the economic and financial results of GE improved: the P/E ratio shifted from 15.751 in December 1986 to over 25.248 five years later and then to 22.472 ten years later in 1995.

4.3. Phase III: The third revolution: new challenges for growth (1996-2001)

Whereas in the first wave of revolution, Welch's managerial focus was on a new vision for GE and on a few complementary hard effects of this vision, such as the choice of businesses and significant dismissals of employees, the second wave was more of a "*soft revolution*" in which Welch worked to implement new methods and working practices coherent with the new GE vision. The "third wave" in the period 1996-2001 represented the conjunction between the hard phase and the soft chapter of the revolution. In December 1995, GE generated a ROE of 23.5; however, once again, Welch proposed to change the status quo because the "pleasure of winning" and the need to excel implied that it was again time to stretch the operating plan, which in turn meant new directions, growth and energizing changes.

The third wave of Welch's revolution at GE emphasized the need for changes to improve the company's growth rate. Although at first glance this intent appears to be illogic or irrational, deeper scrutiny and reflection confirm that the third phase of the revolution was equally important vis-à-vis the first two. In this

phase, GE was able to avoid failure due to structural inertia and managed to reduce managerial complexity. In the final wave of Welch's revolution, he used Six Sigma to "reduce waste, improve product consistency, solve equipment problems, or create capacity" (Welch and Brine, 2001, 339). Six Sigma was a formidable method for developing "high potentials" (Welch and Brine, 2001, 339) because it proposed a culture of excellence. Nobody within GE could be a spectator. Rather, Welch argued that "everyone (...) must lead the quality charge" (Welch and Brine, 2001, 330). The tools used to implement Six Sigma (i.e., process improvement, process design/re-design and process management) represented a way to introduce a new managerial philosophy rather than a mere focus on engineering aspects. It implied measuring process output, analyzing the process input for criticality, improving the process by modifying inputs and, finally, controlling the process by controlling the appropriate input (Hendricks and Kelbaugh, 1998). Welch's initiatives concerning organizational processes helped GE to bring about a culture of excellence and to increase the skills of "speed and adaptability" (Vakhariya and Menaka Rao, 2009, 88). Indeed, Jack Welch emphasized this goal and spoke frequently "about the need to create a boundaryless organization, an enterprise that has no impediment, that allows each and every employee to do his or her job without interference, without obstacles" (Slater, 2004, 229).

In addition, Welch was a supporter of "the vitality curve", a tool to differentiate human resources. The interview with Paolo Fresco revealed that Welch signed a new psychological "pact between management and the workers". GE offered education and knowledge, competence and capabilities and provided

many chances for personal and professional growth, but this opportunity was given only to people who liked competing and excelling. Employees and white-collar workers should be full of pride and pleased to be part of the GE family. According to the “vitality curve”, business executives need to distribute human resources into three categories: the “top 20”, “the vital 70” and the “bottom 10”. The “top 20” are people who have “very high *energy*, the ability to *energize* others around common goals, the *edge* to make tough yes and no decisions, and finally, the ability to consistently *execute* and deliver on their promises” (Welch and Brine, 2001, 158).

The importance of energy in Welch’s leadership is apparent. When Welch selected his middle management, he analyzed three main aspects: “First of all, they should be bursting with energy. Second, they should be able to develop and implement a vision. And, perhaps most important, they must know how to spread enthusiasm like wildfire by firing up the entire company” (Slater, 1999, 35). According to Welch, *passion* is able to separate the “top 20” and “the vital 70”. The “bottom 10” are likely to *enervate* rather than energize (Welch and Brine, 2001, 158). This easy-to-grasp concept fortified GE’s high-performing culture in a dynamic way because it did not assure that an employee could remain in the top group forever. It prompted executives to analyze the strong and weak points of human resources and to eliminate poor performers. Badowski (2003), an executive assistant at GE, explained the force of the “vitality curve” as its capacity to continually upgrade the workforce and give a “constant pressure to improve and to become even more effective and efficient”. It rewarded top performers while forcing weak performers to leave GE.

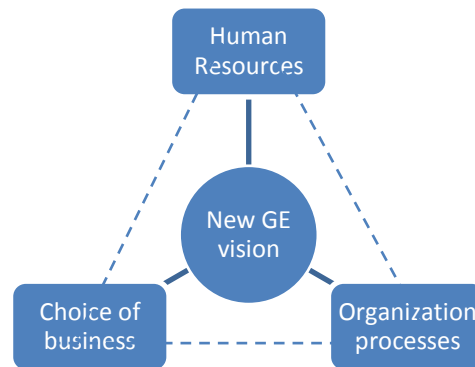
In the third wave of the revolution, Welch's focus on developing an integrated, boundaryless, stretched, total-quality company with A-players (Abetti, 2006) once more enabled the P/E ratio to increase from 22.471 in December 1996 to 37.161 in December 2000.

5. DISCUSSION

Following a chronological progression, we have shown three successive waves of the Welch revolution and illustrated that each one was consistent with the new vision of GE, namely being number one or two in every market, establishing growth through the creation of a strong firm identity and developing excellent human resource management. In particular, the narrative approach we have adopted clarifies how Welch renewed GE's apparently mature business model, thus laying the foundations for renewal and sustainable competition in creating the new GE's winner identity.

From this perspective, GE's success under Welch's leadership provides rich insights into the role that strategic leadership plays in the relationship between the conglomerate diversification strategy and performance. In more detail, we attempted to supply responses to the following questions: Why did GE not suffer from the conglomerate trap? Why was Welch's contribution to the creation of a social architecture (strategy, structure, and systems) able to support conglomerate diversification strategy? Finally, why was this social architecture created by Welch at GE so successful? Accordingly, as shown by Figure 3, it is possible to map the strategic and organizational choices made by Welch.

Figure 3: Strategic consonance of GE developed during Jack Welch's strategic leadership.



The superior performance of GE can be ascribed to Welch's use of various managerial techniques to emphasize specific values. A new vision and set of values impacted, either directly or indirectly, all managerial fields. Welch believed that the market value of a conglomerate is not completely captured by tangible assets and that the use of financial logic to manage a conglomerate is not helpful in a relatively efficient stock market such as the US market. To achieve his objectives, Welch used organizational and strategic approaches to manage GE; for example, he instilled his cognitive base and values in taking strategic decisions, rather than in choosing the sheer application of financial and managerial tools. Consequently, GE assumed the characteristics of a new organization (Tichy and Sherman, 1994), as its radical change is explained by new shared values and new managerial practices⁶.

In the unending quest to achieve the competitive advantage of each business and that of GE as a whole, Welch chased coherence among GE's vision,

⁶ Obviously, it was also relevant to the role of institutional communication of the financial community to understand the vision of GE and clear the hurdle represented by the skepticism to clear a hurdle toward the conglomerate organization.

its choice of businesses, its human resource management, and its organizational processes.

Operating in many industries without commercial or technological connections among them necessitates, for example, the management of reasonably distinct production processes, marketing logistics, strategic unit cultures and values. Welch reduced managerial complexity, seeking coherence, as illustrated above. He promoted excellence, new practices to scout and screen the businesses where GE had to operate, but he also promoted empowerment processes and leadership training.

Welch's dominant logic for managing GE's conglomerate strategy did not involve analyzing in person all the competitive contexts in which GE operated or each business process within each business unit. Through a well-built vision that justified and found consensus among middle management, employers and workers, Welch imposed strong criteria to select the businesses of GE and to reduce conflicts between businesses regarding financial allocation, as well as to decide on business divestment. In this way, he was able to grant the company coherence between the company's vision and its business areas. Under Welch's leadership, GE was not only a broad conglomerate but also a contemporary one: "GE's business portfolio should, first, be focused around a limited number of sectors, and second, these sectors should be attractive in terms of their potential for profitability and growth" (Grant and Neupert, 2005: 343). Welch's idea was to focus GE's resources on its best opportunities. Welch used a dynamic approach based on the three circles approach to manage the portfolio of businesses through divestitures and acquisitions (Abetti, in press).

Moreover, according to the mantra “people first, strategy second” (Tichy and Cardwell, 2002, 154), Welch’s focus was not on formal strategic planning but on the organization and its leaders, empowering them at Crotonville to come up with new directions for GE (Greiner, 2002). This well-communicated vision generated a culture of excellence that consistently impacted GE’s organizational processes.

Additionally, GE created value from global scale and diversity, building an organization where “the transformation was not only of systems and procedures” but rather was one “of people themselves” in general (Tichy and Charan, 1999). As Grant and Neupert (2005) observed, Welch’s contribution was his work in building an organization able to adapt to intense and rapid competition. Using this perspective, Welch developed an organizational structure, a corporate planning system, a managerial culture, and a vision that matched the benefits of the conglomerate diversification strategy with strategic flexibility and agility.

Welch developed a cognitive schema to manage complexity, building not “a sophisticated structure” but incessantly and persistently creating “a matrix in the minds of managers” (Bartlett and Ghoshal, 1989: 212). The creation of a well-built vision and the joint empowerment and formation of middle management were the main tools that Welch used to build the consonance described above and thus to mitigate the traps generated by managerial variety.

Because it is extremely important that a strategic leader in a conglomerate firm recognizes the need for *multiple strategic logics*, looking at both strengths and weaknesses, such as opportunities and threats from both the business units and the conglomerate firm’s viewpoints, we can affirm that the secret of Welch’s

success was his ability to build “a religion for manager to know and connect dots between local, divisional, and corporate contexts” (Baum and Conti, 2007: 181). A conglomerate firm implies different strategic logics of management for each business, but the task for managers is to be holding the business units together to reduce complexity. Welch desired consonance among GE’s vision, business areas, human resource management and organization processes as a buffer against managerial complexity.

Through the vision and the culture based on the relevance of excellence and the development of entrepreneurial values, Welch generated a system able to reduce complexity and thereby straightforwardly and carefully implemented targets and policies that impacted each single field of GE’s management.

Because “the greater the degree of the complexity characterizing a managerial activity, the greater the manager’s discretion” (Finkelstein and Peteraf, 2007), in a conglomerate context, strategic leadership plays a fundamental role in creating or selecting activities that present greater opportunities and impact firm performance. In GE’s case, the awareness of the sources of tangible and intangible value creation (i.e., vision, choice of businesses, human resource management and organization processes) explains their ability to avoid failure due to the managerial complexity trap. More specifically, Welch provided a novel idea about how conglomerate firms can create value: “the strength of a conglomerate is the human resource management” (interview with Paolo Fresco). He emphasized organizational and strategic features rather than a mere application of financial matrixes. Here, the awareness of the sources of value creation was a necessary condition with which to put “things together in one’s head, making sense of things

in a meaningful way” (Martin de Holan and Mintzberg, 2004) that other people do not see. In this way, it is possible to confirm that managerial excellence (Finkelstein, Hambrick and Cannella, 2009; Hambrick and Frielstein, 1987) is a relevant dimension of strategic leadership in conglomerate diversification strategy success.

Proposition 1: The presence of a strategic leader who has a sheer awareness of the sources of value creation ensures that a conglomerate firm will avoid failure due to the managerial complexity trap

Focusing on the congruence between the vision and the choice of businesses and between the vision and human resource management, we appreciate how Welch’s leadership influenced GE and created the conditions that allowed it to perform better than the markets in the short-term.

Slater (2003) found three Welch rules partially explaining his contribution to preventing the misallocation of resources. The first is “Face reality. Business leaders who avoid reality are doomed to failure”. The second is “Act on reality quickly! Those who truly face reality can’t stop there. They must adapt their business strategies to reflect that reality, and they must do so quickly”. Finally, the third is “turn your business around. Stick your head in the sand and you fail” (Slater, 2003, 11). Welch’s three rules and the mantra “being number one or two in each industry” explain why, under his leadership, GE was active in investment and disinvestment and, at same time, how GE avoided failure due to the misallocation of resources. Instead, Welch placed strong emphasis on financial planning and control, as each business was expected to create value for shareholders. In the choice of (dominant) businesses, Welch as a transaction

leader (Northouse, 2004; Bass, 1985; Burns, 1978) promised rewards for good performance and recognized accomplishments.

The same logic of transaction was the one that Welch applied to keep GE operating at the edge by setting goals that seemed difficult or even impossible for employees to achieve (Locke, 2000). Welch's vision involved a psychological contract between management and the workers. Here, the object of the exchange between the leader and the follower(s) is clear: GE offered opportunities for personal and professional growth, but it only did so to people who enjoyed taking risks and excelling. Stock option compensation was truly the most relevant part of the salary or bonus growth associated with performance. Also, Welch assumed the characteristic of the transaction leader, as he provided rewards in return for subordinates' effort (Burns, 1978; Bass and Avolio, 1993; Howell and Hall-Merenda, 1999).

Asking for "a company filled with self-confident entrepreneurs who would face reality every day", Jack Welch was able to streamline the internal bureaucracy and thus create an atmosphere where workers "would feel comfortable stretching beyond their limits" (Welch and Brine, 2001, 106-107).

The choices of businesses and human resource management under Welch's leadership were coherent with the new vision and were implemented by a transactional leader who emphasized the "external selection pressure, interpreting it, and beaming it back into the organization in a way" (Beinhocker, 2006, 343). The external selection pressure, adopted without compromise, represented the best tool to avoid the misallocation of resources and implement a value-focused strategy.

Proposition 2: The presence of a strategic leadership that maintains a focus on the proper exchange of resources and capabilities ensures that a conglomerate firm does not allocate financial and human resources more poorly than markets

Propositions 1 and 2 support the explanation of GE's success using, respectively, the concepts of managerial excellence and transaction leadership. Nonetheless, the transformation of GE was not solely the result of the strategic choices on businesses and of managerial practices. In fact, an organization is the result of human actions, which move the firm through the expertise, energies and passion of human resources. In this regard, we emphasize Welch's role in revitalizing the firm (e.g., Tichy and Devanna, 1986) and in injecting high *energy* at each level of the organization. Our set of personal interviews confirms the extraordinary ability of Welch to energize people towards the pursuit of common goals. This was a strategic tool to increase the enterprise creativity degree, an essential tip to avoid failure due to structural inertia.

Accordingly, Welch borrowed his mother's views on education: "if you don't study, you will be nothing. Absolutely nothing" (Welch and Brine, 2001, 4). Welch created a culture of being a "problem finder", not just a problem solver (Locke, 2000). Actually, Slater (2004, 17) stressed that Welch loved change, arguing that "change keeps everyone alert". The new vision that Welch introduced at GE was a tool for everyone to understand the importance of working hard and excelling in life. His energy in communicating the new vision "to be the most competitive firm" qualifies Welch as a *transformational leader* (Northouse, 2004; Hater and Bass, 1988; Bass, 1985; Burns, 1978). Welch supported his three-wave revolution with strong messages of constant upheaval and renewal, knowing that

the communication of the company vision stimulates collective actions to realize the strategy (Bass and Riggio, 2006; Strange and Mumford, 2002). In this vein, Lowe (2007) underlined that, observing the words Welch used most frequently (e.g., game, compete, speed, performance, and winning), Welch's vision appears as a "spiritual concept". Amernic et al. (2007) identified in the slogans "reality, excellence, ownership", "speed and boundarylessness", and "passion, hunger, appetite for change, customer focus, and... speed" a method for creating within GE an idea of "permanent revolution" and thus to avoid failure due to the structural inertia trap. "Welch spent many years in an ardent crusade to rid the firms of anything that interfere with energy and productivity while adding initiatives that would spank energy and enhance performance" (Krames, 2005, 24).

Our narrative approach shows that Welch assumed the characteristic traits of a Weberian transformational leader: he provided a vision and sense of mission, instilled pride and gained respect and trust (Bass, 1990). In the use of many mantras, we can also detect the imprints of Welch's transformational leadership. In fact, he used specific slogans to emphasize the importance and the dissemination of the values of excellence, such as passion, speed, revolution and others.

In addition, Welch's charisma was able to motivate his followers to expand their energy on behalf of the group or organization. Welch's interactions with other organizations and the trust that his followers put in the leader's unique expertise (Yukl, 1999) were all based on the "emotional appeal" of the new vision. His vision "was actionable" because Welch disseminated his own

infectious pleasure of winning through an incessant relationship of influence (Clark and Clark, 1996).

Proposition 3: The presence of a strategic leadership that suggests a new strategic trajectory and promotes a fertile intellectual environment ensures that conglomerate firms will not fail due to structural inertia

We maintain that GE's success can be explained by Welch's leadership and, in particular, by his innovative insight to focus managerial efforts on organizational aspects. Using a quantitative case analysis, in a recent study, Franke et al. (2007) showed that GE's increase in market value was due chiefly to a favorable competitive position, although Welch's leadership and resource allocation in the internal environment made a positive contribution. In our understanding, the consideration of competitive position as a point separate from strategic leadership appears to be inappropriate, as GE's competitive position was strongly influenced by the strategic configuration and organization of resources. As we have shown, it seems difficult to single out GE's competitive position and Welch's strategic effort. Welch's first revolution captured a well-known insight (being number one or two) and generated the complete reengineering of the company's business portfolio and thus that of its competitive position. Consequently, we can argue with Abetti (2006) that the competitive success of GE depended significantly on Welch's strategic leadership.

On the basis of our analysis, we argue that Welch's strategic leadership is a rather complex process presenting multiple dimensions. First, Welch developed a new vision, a new organization identity, and a new business culture. This transformational dimension of Welch's leadership is not in opposition with the transactional dimension required to avoid falling into the misallocation of

resources trap. In fact, transformational leadership substantiates the effectiveness of transactional leadership; it does not substitute the role of transactional leadership (Waldman, Bass and Yammarino, 1990; Kamungo and Mendoca, 1996). Using an inspirational vision, Welch proposed the closing of a psychological agreement with the workers, namely, GE offered opportunities for personal and professional growth, but only to people who strived to excel. In this context, Welch did not build sophisticated managerial schemas but instead created a matrix in the minds of executives to manage different alternatives simultaneously.

The explanation of GE's success paradox leads us to maintain that a source of heterogeneity in conglomerate performance is the implementation of *exceptional strategic leadership* (Galbraith, 1993). The narrative approach showed how the success of GE is, to a good extent, the projection of the leader's personal goals and a reflection of his character (Andrews, 1971): managerial excellence, transactional leadership and transformation leadership. In this vein, organization literature presents the *best leadership* concept (Bass, 1995; Bass and Avolio, 1993; Yammarino, 1993) as the coexistence of transformational and transactional leadership. Consequentially, exceptional strategic leadership explains the paradox of conglomerate performance, incorporating *managerial excellence* and the *best leader* concept.

Using three basic constructs (i.e., managerial excellence, transactional leadership and transformation leadership) that are mutually non-exclusive but complementary, we are able to represent an *exceptional strategic leader*. This is a person who, by seeing values that other people do not see, creates the internal

conditions for increasing the impact of resources and broadening their base and who, in the mid-term, reveals a disconnect between existing resources and the future ambitions of the organization.

6. CONCLUSIONS

Through an in-depth analysis of the GE case study, we have illustrated that heterogeneity in the performance of conglomerate firms is a byproduct of the influence of top management and, in this way, affects leadership, strategic guidance, and resource allocation decisions. In this regard, we have used a particularly significant case, that of GE under the two-decade leadership of Jack Welch (1981-2001). Besides being one of the most important conglomerates in the world for market cap and turnover, since the McKinsey/GE matrix in the early 1970s to Six Sigma in the early 1990s, GE has always acted as a kind of compass and guiding light for both business practice and academia in strategic management and organization design.

The narrative approach, based on our proposed in-depth longitudinal case study spanning twenty years, clarifies how Jack Welch renewed GE's apparently mature business model and laid the foundations for renewal and sustainable competition through the creation of GE's identity as a winner. In particular, we closely and thoroughly depicted the three waves of the Welch revolution. Whereas in the first phase (or the *hard* one), Welch mainly focused on developing a new vision for GE and on coherent business areas, which allowed GE to be number one or two in growth markets, the winning idea in the second phase (or the *soft* one) was to develop and emphasize a method to achieve and maintain the fit

between GE identity and its human capital. Finally, the third phase focused on GE's operating processes and on its continuous improvement. We have shown how Jack Welch, in transforming GE from a bureaucratic behemoth to a dynamic and revered powerhouse (Torrance, 2004), manifested his personality in both the structures and the processes of GE and epitomized how they reflected both nature-based and nurture-based experiences (Pervin, 1996). Put simply, Welch was able to create a lean, agile, and creative organization where executives "not only had great energy and commitment to the company's value, but also had competitive drive and the ability to spark great excitement in employees and colleagues" (Krames, 2001, 22).

In more general terms, our case study shows that strategic leadership can play a key role in ensuring a conglomerate's success. We illustrate how heterogeneity in the performance of conglomerate firms can derive from the role exerted by exceptional strategic leadership to avoid the so-called "conglomerate traps". From this perspective, we offer an explanation of the paradox offered by the generalizability of econometric studies applied to diversified firms.

The multiple contributions of this study are summarized as follows. First, we have made some advancement towards solving the extant puzzle of the limited generalizability of empirical diversification results by emphasizing the consistent role of strategic leadership in strategy formulation and implementation throughout a significant time period of two decades from 1981-2001. Second, we contribute to organization design by re-defining and applying the concept of strategic leadership to the empirical context of the conglomerate diversification strategy. Third, this study bridges a gap among the resource-based view, the dynamic

capability perspective, and the leadership literature in that, in the context of conglomerate organizations, we underscore that managerial discretion and the strategic leader's characteristics are inextricably linked to the function of organizational processes, structures and outcomes. Fourth, by exploring the processes of creation, change, and integration that characterize successful conglomerates, and by taking advantage of an investigation into the relevant blueprints of strategic leadership, this study is able to provide relevant insights for management scholarship and practice.

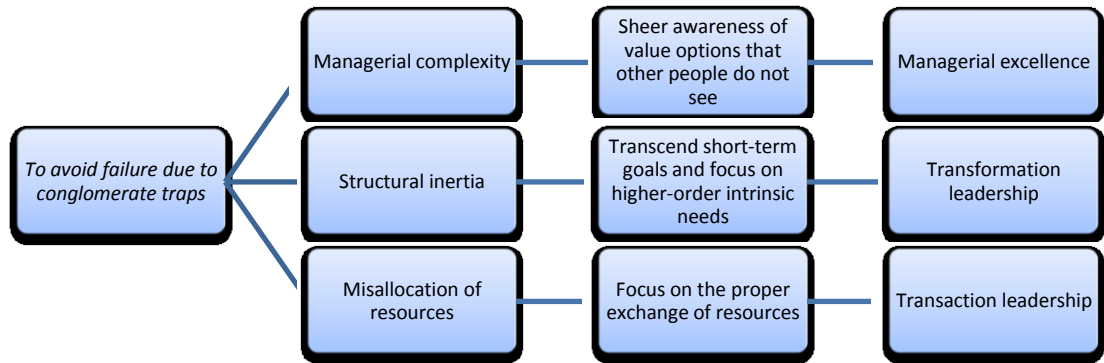
Finally, shedding new light on the paradox of why some conglomerate firms create exceptional value when others generally suffer a diversification discount, this paper creates solid groundwork to pave the way for the convergence between early inquiry in corporate finance, strategic management and organizational leadership research. More specifically, this paper has investigated how the success of a large conglomerate can depend on exceptional strategic leadership that is *complementary* to the value of resources and their deployment over a wide range of strategic processes, structures and activities.

Because previous research has separately identified three conglomerate traps (i.e., managerial complexity, structural inertia and misallocation of resources), we have emphasized the explicit strategic leadership traits helpful in enabling companies to avoid the traps of the conglomerate diversification strategy. The logical validity (Cook and Campbell, 1979; Yin, 2003) of our case study resides in the causal relationships between these variables and the results. It consists of clarifying the following: (a) the absolute novelty of Welch's idea about how conglomerate firms can create value and the advanced understanding of the

way to implement it (in fact, GE avoided failure due to the managerial complexity trap because Welch was a strategically excellent leader bearing a sheer awareness of the sources of GE's value creation); (b) the transactional leadership characteristics that he presented allowed GE to overcome the misallocation of resources trap; (c) the transformational leadership mechanisms that shifted the leader's personality traits to the firm's traits through a relationship of influence, thereby creating the conditions required to prevent failure due to structural inertia.

The findings of the GE case study provide confirmative evidence that managerial excellence, transaction leadership, and transformational leadership have a grand and significant impact on the success of the conglomerate diversification strategy. Considering the concept of exceptional management leadership as an intelligent mix of these three concepts, we argue that Jack Welch was an exceptional strategic leader during his tenure as CEO in the context of GE (1981-2001). Specifically, his exceptional strategic leadership was linked to the sheer awareness of the values options that other people did not see, the capacity to transcend short-term goals and to focus on the higher-order goals, and the focus on the proper exchange of resources.

Figure 4: Dimensions of leadership useful in preventing failure due to traps of the conglomerate diversification strategy.



6.1. Limitations

Like any study, the paper suffers some limitations that represent new and fertile directions in which to initiate and conduct further studies. Because it is rooted in the thorough scrutiny of a single but relevant business case, the initial limitation of this paper concerns the necessity of extending the investigation to a comprehensive number of cases to elaborate a solid base with which to generate more generalizable propositions. In addition, such an in-depth comparative study would be able to test the extent to which differences in strategic leadership may influence the emergence of performance. From this perspective, it would be a promising research approach to compare strategic and organizational logics in top-performing conglomerates and in firms whose diversification strategies have more often been unsuccessful than successful (Ramanujam and Varadarajan, 1989). Second, settings for comparative analysis that could yield interesting and important results include firms from different countries. In fact, a comparative study is able to test the extent to which differences in the CEO's power (i.e., legal

protection of workers and corporate governance systems) may influence the role of strategic leadership in conglomerate firms. Third, we have acknowledged that, although our analysis shows the impact of Welch's leadership on GE's performance, it falls short of identifying the personality traits that engendered this leadership. We maintain that it would be relevant to proceed by investigating the role that individual differences in leadership may play in explaining the heterogeneity of firms' performances (as regards conglomerates in particular). Third, and finally, the paper does not take into consideration the potential substitutes of exceptional strategic leadership in the context of conglomerate firms.

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CONCLUSIONS

Diversification choices play a significant role both in the strategic behavior of large firms and in their performance. Starting from the seminal works of Ansoff (1957), Chandler (1962) and Rumelt (1974), diversification strategy has progressively become a center-stage topic in corporate finance studies as well as in strategic management literature.

In making a contribution to this long-standing debate, this dissertation aims to improve our understanding of conglomerate strategy. The focus of the research is justified by the economic relevance of conglomerate strategy and its peculiarities vis-à-vis other directions of diversification strategy. In addition, despite four decades of studies, to date diversification literature has not succeeded in explaining the economic logic underlining the conglomerate strategy (Ng, 2007) and the limited generalizability of empirical findings across conglomerate firms (Martin and Sayrak, 2003).

The purpose of this study is *to discern the factors that are instrumental in generating or destroying value in conglomerate diversification strategy*. While previous efforts have typically focused on the unique disciplinary tradition or conceptual approach, this dissertation benefits from seeking to combine corporate strategy and finance studies and, finally, a part of organization theory. The structure of this dissertation is as follows:

- chapter I: “Conglomerate Diversification Strategy: Bibliometric

Investigation, Systematic Review, and Research Agenda”

- chapter II: “Diversification Strategy and Performance: Sharing of Resources or Strategic Flexibility?”
- chapter III: “A Look Inside the Paradox of Conglomerate Success: Jack Welch’s Exceptional Strategic Leadership”.

Originality, contributions to management theory and practices, and the findings of each of the chapters are summarized in the following paragraphs.

* * * * *

Chapter one has presented a bibliometric investigation of conglomerate diversification strategy literature. Unlike previous systematic reviews (Martin and Sayrak, 2003; Pallic, 2005; Wan et al., 2010) that focused on the general relationship between diversification strategy and performance, this study has focused on a relevant sub-stream of studies: the conglomerate strategy. In addition, it has conducted an analysis of the literature by observing the relationships among the citations and, in so doing, it has made a methodological contribution to the field by developing, for the first time, a bibliometric analysis of the diversification literature.

The bibliometric investigation included 202 articles which were published in ISI journals in the decade between January 1990 and July 2010. Following the bibliometric coupling approach, this chapter has presented an analysis of the links among the most-cited studies and identified six clusters of articles: (a) competitive dynamics and business-level strategies; (b) market, corporate control structure, and managers’ strategy for unrelated M&A; (c) the development and behavior of conglomerate firms; (d) strategic paths of conglomerates: going-public decision,

stock breakups and corporate ownership structure influence; (e) diversification discount versus premium; (f) looking inside the paradox of diversification discount.

By drawing a more detailed picture of the main studies and detecting the prevalent conceptual points of view and empirical advancements, the study has shown that the debate concerns theoretical arguments as well as methodological choices (Hoskisson and Hitt, 1990). On the other hand, the need to integrate valuation tools from corporate finance and principles from the fields of strategic management emerged as a way to better understand value creation in financial markets. By identifying the foremost gaps in the literature this study has helped to find a further focus for the research agenda.

* * * * *

In chapter two we have juxtaposed two conceptual theoretical arguments, the resource-based view and the real options lens, in order to explain the relationship between diversity and performance. While the former emphasizes the relevance of coherence in order to exploit economies of scope, the latter focuses on the impact of strategic flexibility on performance in high uncertainty contexts.

With regard to the operational level, we have emphasized that diversification strategy has both a *quantitative* dimension, breadth of portfolio, and a *qualitative* dimension, type of diversification. Despite this distinction being known in the literature, there is a quite problematic confusion in empirical studies.

By considering the debate concerning the resource-based view versus the real option lens to interpret the link between diversity and performance and the

methodological confusion between the qualitative and quantitative dimensions of diversification, an opportunity for conceptual advancement has emerged.

An empirical study – based on 1,166 observations concerning US firms longitudinally evaluated from 1998 to 2008 – has shown that the resource-based view and the real options arguments are not fully confirmed. The main findings of this study are reported as follows: (a) the quantitative dimension of diversification strategy is not linked with performance (b) when the breadth of business portfolio is large, the firm's coherence is positively correlated with corporate performance (These results agree with the resource-based view and confirm that related diversification is preferred to unrelated diversification. Therefore, the existence of a discount for conglomerate firms is justified) (c) conversely, when the breadth of business portfolio is small, the firm's coherence is not linked with corporate performance. In this case two opposite forces, economies of scope and strategic flexibility, emerge and face each other.

This chapter has aimed to advance three related contributions. Firstly, it has analyzed two intriguing arguments, the resource-based view and the real option lens, to identify the relationship between diversification strategy and performance. Hence, by interpreting the empirical findings, it has proposed the initial steps of a research path intended to mindfully craft an interpretive theoretical framework of diversification.

In addition, whereas numerous studies have explored the link between diversity and performance, a gap remained regarding the single impact of the two dimensions of diversification on performance; this study has contributed to the debate on diversification by trying to bridge this gap.

Finally, the chapter has offered an empirical contribution, introducing Bryce and Winter's relatedness index (2009) in the diversification literature. This contribution may play an important role since it satisfies the requisites of finance and strategic management literature: no subjectivity, publicly available data sources, consistent with resource-based view.

* * * * *

Chapter three has introduced the role of strategic leadership in the relationship between conglomerate diversification strategy and performance.

Moving from the wisdom that emerged in the second chapter, related diversification is preferred to unrelated diversification; we have identified that some conglomerates (such as Bidvest, Onex, ITC, Fimalac, General Electric, Wesfarmers, and so on) *surprisingly* achieve good performance. This apparent contradiction has been named "the paradox of conglomerate success": some conglomerate firms create exceptional value while others generally suffer from a diversification discount.

Through evidence from cross-temporal analyses of the GE case during Jack Welch's leadership we have illustrated that heterogeneity in the performance of conglomerate firms may be a byproduct of the role of strategic leadership. Specifically, we have illustrated how heterogeneity in the performance of conglomerate firms can develop from the role of strategy leadership as a key contingency to avoid the so-called "conglomerate traps": managerial complexity, misallocation of resources and structural inertia.

The main contribution of this study is to introduce the relevant blueprints of strategic leadership to solve the puzzle of the limited generalizability of

empirical diversification and provide relevant insights for managing conglomerate firms. The conclusions of this chapter have emphasized that managerial discretion and the strategic leader's characteristics are contingent keys to the function of organizational processes, structures and outcomes.

* * * * *

Taken together, the three chapters have drawn a more detailed picture of the factors that are instrumental in generating or destroying value in conglomerate diversification strategy. They have created a sound base on which to build convergence among early investigations in corporate finance, strategic management and organizational leadership research in conglomerate firms.

We discussed theoretical and empirical perspectives to investigate the phenomenon. Successively, we have investigated whether and, if so, how the success of the conglomerate strategy is linked with the strategic flexibility or the exceptional strategic leadership. Nonetheless, the interesting findings of the econometric study did not confirm the hypotheses that strategic flexibility fully explains the economic logic of conglomerate strategy. Therefore, our research challenge shifted on the comprehension of the causes underlying the condition that some conglomerates do in fact experience success. In this study we suggested that exceptional strategic leadership is *complementary* to the value of resources and their deployment over a wide range of strategic processes, structures and activities in conglomerate diversification strategy.

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