An Entrepreneurship Perspective on the Formation and Growth of Business Groups in the Small Business Sector

by

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Abstract

This thesis is a contribution to our understanding of business groups in the small business sector. Specifically, its aim is to verify to what extent the consideration of entrepreneurial processes can advance our understanding of this phenomenon. A 'business group' is a set of companies which are legally distinct but belong to the same person or people. Despite the significant presence of business groups in the small business sector, most of the literature on business groups addresses large groups. This study demonstrates that the available theories of business groups – the financial and the diversification theories – are not able to explain the presence and characteristics of business groups in the small business sector. Given the little work done on the issue, the research strategy involves the use of both, quantitative and qualitative methods. Quantitative methods are used to test propositions deduced from available models of business groups; qualitative methods, based on case studies and direct interviews, are used to get new insights about the phenomenon and develop theoretical propositions. Quantitative analyses refer to the population of Italian business groups; case studies and interviews refer to a sample of business groups in the Marche region (Italy).

The business group is an organizational form used by portfolio entrepreneurs to grow and diversify the businesses under their control. By using cross sectional and longitudinal analyses this study shows that in the small business sector diversification is a substitute strategy for growth in the original business. Moreover, this study demonstrates that the diversification theory is not able to explain the setting up of a business group as in most cases the degree of diversification observed in small groups is very low.

The thesis demonstrates that entrepreneurial processes associated with the exploitation of new business opportunities by portfolio entrepreneurs play a crucial role in explaining the formation and characteristics of business groups. The start-up phase is critical for the success of a new business as it requires complete dedication of time and attention by the entrepreneur to continuously adjust the planned actions to the unforeseen events and unpredictable contingencies that are typical of this phase. The legal autonomy granted to the new venture helps focus resources and monitor results. In addition to this and more than anything else, legal autonomy allows entrepreneurs to modify the ownership structure of the new business and give minority shares to people involved in the start-up. The financial explanation of business groups stresses the importance of legal autonomy as a way for manipulating the ownership structure of new businesses, to raise outside equity. The thesis demonstrates that the causal relationship is the opposite of that hypothesised by the financial explanation: it is not so much the aim of raising outside equity that determines the involvement of external shareholders as the need to involve and motivate people in the start up of the new business that induces entrepreneurs to sell minority shares in it, thus enlarging the entrepreneurial team. By involving other people in the start-up of new ventures, portfolio entrepreneurs enhance their ability to enter new businesses while retaining ownership and control of the ones already established. The empirical analysis revealed the existence of three different patterns: joint venture with established entrepreneurs, employee involvement and intrapreneurship. The first is when new ventures are set up with other established entrepreneurs. The second is when the entrepreneur gives a share of the new company to an employee to secure his/her involvement in the start-up of a new venture (employee involvement). The third is when the new business is established as a result of the inspiration of an 'intrapreneurial' employee who takes major responsibility for the devel-

opment of the business. As well as the discovery and analysis of these three forms, the thesis provides a theoretical explanation of entrepreneurial team development in business groups, based on the problems faced by portfolio entrepreneurs in allocating time and attention between the running of established businesses and the exploitation of new business opportunities. By integrating the latter explanation with other models of business groups the thesis provides a more general framework for understanding the formation and dynamics of business groups in the small business sector. The thesis also provides contributions to explain the formation and dynamics of entrepreneurial teams in a multi business context and in situations where there is a ‘dominant’ or ‘lead’ entrepreneur and one or more ‘associate’ or ‘sub’ entrepreneurs.

Studying the formation and evolution of business groups poses several methodological problems, as groups are complex systems, characterised by the presence of several companies, different architectural structures and a multi-business context. The thesis provides methodological contributions on the ways to represent the current structure of business groups and on how to analyse their evolution over time.

Preface and acknowledgements

The first idea for this research came to me in the year 2000 when reading the 1998 paper by Peter Rosa on business clusters in entrepreneurial firms. For some years I had been involved in the study of the growth processes of small and medium-sized firms in Italy and I came across the phenomenon of business groups. Indeed, most of the companies I was analysing ended up forming a business group. At that time, the phenomenon of business groups was studied almost exclusively with reference to large firms. In the case of small firms, the prevailing idea (at least in Italy) was that business groups were formed for the purpose of concealing the true scale of the activities under the control of the entrepreneur in order to take advantage of the incentives and benefits which are available to small firms. I was unconvinced about this interpretation and looking for alternative explanations. When reading the paper by Peter Rosa, I got the feeling that he was going down a route which I wanted to explore. I contacted Peter and we started planning a research project with the aim of contributing to explanations of the phenomenon of business groups in the small business sector. My sincere thanks to Peter are therefore not only for his help in encouraging me during these years and supervising my work, but also for inspiring this research from the very beginning.

I also express my sincere thanks to my main supervisor, Jovo Ateljevic. Although he joined this project at a later stage, he was always very supportive with my work. I especially thank him for his thorough reading of the preliminary versions of the thesis. The final result has greatly benefited from his comments and suggestions.

I am indebted to many colleagues and friends with whom I have shared ideas and research activity during this work. The list is too long to record here and so with the risk of omissions. I would like to mention two people to whom I owe special gratitude: Giulio Cainelli, with whom I have shared an interest in the study of business groups over the last decade and with whom I have published several works on the subject. I also wish to give particular thanks to Professor Valeriano Balloni (now retired from the Università Politecnica delle Marche) with whom I began the study of business groups in the Marche region in 1996 and who was the first person to stimulate my interest in this subject.

I received valuable comments and suggestions from participants to conferences and workshops where preliminary results of this research were presented and from anonymous referees of papers submitted for publications.

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"*Dynamic capabilities and entrepreneurial team development in SMEs*" paper presented at the Workshop on "Dynamic Capabilities between firm organization and local systems of production" Lecce (Italy), 25-26 June 2004

"*Business groups as evolutionary entrepreneurial systems*" (with Peter Rosa) presented at BKERC 2004 (Babson Kauffman Entrepreneurship Research Conference), Strathclyde University, Glasgow, 3-5 June 2004.

"*Habitual entrepreneurs, entrepreneurial team development and business group formation*" (with Peter Rosa), presented at RENT XVIII, Research in Entrepreneurship and Small Business, Copenhagen, 24-26 November 2004.

"*Habitual entrepreneurs and business group formation*", presented at the Expert Workshop on Networks, Entrepreneurship and Methodological Issues, ESC, Toulouse Business School, Toulouse, 13-14 May 2005

"*The role of agglomeration and technology in shaping firm's strategy and organization*" (with Giulio Cainelli", presented at 'EUNIP 2006 Conference' Department of Economics, Kemmy Business School, University of Limerick, Ireland, 20-22 June 2006

"*Vertical integration, organizational governance and firm performance. An empirical study of Italian business groups*" (with Giulio Cainelli), presented at the International Workshop on "Internal organisation, cooperative relationships among firms and competitiveness", Lucca (Italy) – 19-20 January 2007.

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Acronyms and definitions used in the text

Acronyms

ATECO	Classification system of economic activities adopted by ISTAT (Italian Statistics Agency)
RBV	Resource Based View
R&D	Research and Development
SMEs	Small and Medium-sized Enterprises

Definitions of key terms

Business group	A set of companies that are legally distinct from each other but are owned and controlled by the same owner(s). The latter is also called *ultimate owner* or *vertex* of the group
Control	The possibility of disposing of the assets of a firm and raising capital to enlarge them; within a company, control is attributed to the Board of Directors.
Controlled company	The same as *subsidiary*.
Direction	Coordination and supervision of resources in order to attain the planned goals; direction is associated with the CEO and the top managers.
Habitual entrepreneur	A person who has started more than one business. Habitual entrepreneurs are made up of *serial* and *portfolio* entrepreneurs.
Novice entrepreneur	A person involved in the start-up of a business for the first time.

Outside equity	Equity capital provided by people or institutions that are not directly involved in the management of a company; in this study, outside equity refers to equity capital provided by investors other than the entrepreneur (or family members) who own the group.
Pyramid	When a company is controlled by another company. The minimum number of companies for a pyramid is two, when there is one company controlling another company. It is synonymous with *pyramidal group*.
Pyramidal group	The same as *pyramid*.
Portfolio entrepreneur	A person who started more than one business and has retained the ownership and control of at least one of the previously established businesses.
Serial entrepreneur	A person who has started more than one business but has sold or closed the established business before starting a new one.
Subsidiary	A company that is controlled by another company owning 50% or more of its shares.
Ultimate owner	The subject, or coalition of subjects, that controls the company at the top of a pyramidal group. It is synonymous with *vertex*. In small groups the ultimate owner is often an entrepreneur and his/her family members.
Vertex	The same as *ultimate owner*.

Chapter 1 - Introduction

1.1 Subject of the thesis

This thesis is a contribution to our understanding of business groups in the small business sector. Specifically, its aim is to verify whether or not and to what extent the consideration of entrepreneurial processes can advance our understanding of this phenomenon. A 'business group' is a set of companies which are legally distinct but belong to the same person or people. Business groups are present both in industrialized and in emerging economies, where they account for a large proportion, if not the majority, of employees and capital invested. The economic and management literature on business groups has generally focussed its attention on large firms. However, as demonstrated in this thesis, business groups are not confined to the large firm sector and also have a significant presence among small and medium-sized firms (SMEs). Indeed, the business group can be considered the organizational form normally adopted by entrepreneurs when expanding the business activities under their control. For this reason, the study of business groups should be regarded not as a curiosity, but as a central topic for understanding the growth process and the performance of firms and entrepreneurs.

Despite this, little work has been done either to investigate the characteristics of business groups among SMEs or to justify their presence and characteristics. One of the aims of this thesis is to develop a theoretical framework to explain the presence and characteristics of business groups in the small business sector. Small groups, like small firms, are characterized by the relevant presence of entrepreneurs, i.e. people who retain key positions in the ownership, control and management of firms. For this reason, specific attention will be paid to the role of entrepreneurial processes in explaining the formation and dynamics of business groups. Entrepreneurial processes are those processes associated with the discovery and exploitation of new business opportunities.

Among the many issues included in this topic, this study concentrates on the following theoretical and empirical questions: i) why do entrepreneurs prefer to set up new companies when expanding the activities under their control? i.e. why are business groups formed?; ii) how are business groups organized and developed through time? iii) what is the role of entrepreneurial processes as opposed to other possible explanations for the phenomenon of business groups?

1.2 Background and justification for the research

Business groups have been studied by researchers belonging to different disciplines including economics, management, sociology and economic development. Recently this issue has also attracted the attention of entrepreneurship researchers. Each of these disciplines addressed the subject looking at specific aspects and using their own methodological approaches.

Economic and managerial literature on business groups has generally focussed on large groups, sometimes the largest ones in each country where studies have been conducted. The choice of this object has strongly influenced the theoretical perspectives used by researchers. The theoretical approaches to explaining the presence of business groups can be divided in two broad categories: the first considers the group as an organizational form to manage diversified or vertically integrated activities (Williamson, 1975; Chandler, 1982; Goto, 1982; Kester, 1992; Shimotani, 1997); the second considers the group as a financial device to manipulate the ownership structure of companies to the advantage of controlling owners (Hilferding and Bottomore, 1981; Barca and Becht, 2001; Morck and Yeung, 2003). The first approach emphasizes the 'horizontal' nature of business groups as collections of units devoted to specific businesses; the second emphasizes the 'vertical' nature of business groups associated with ownership relations between successive layers of companies (what is called a 'pyramid'). In the case of the financial explanation, specific attention is paid to the relationship between the presence of business groups and the functioning of capital markets; in fact, the objects of analysis are large, publicly traded companies.

There is another important strand of literature that examines the nature of business groups in developing and emerging economies (Ghemawat and Khanna, 1998; Khanna, 2000; Khanna and Yafeh, 2005; Yiu *et al.*, 2005; Chang, 2006). This literature explains the presence of business groups as the result of the specific social, economic and political conditions of these countries: market asymmetries, underdevelopment of capital markets, weak legal protection of investors and a wide scope for political lobbying. This strand of literature also focuses on large firms, often the largest in the country.

Empirical evidence shows that business groups are largely present in developed countries and among SMEs (Rosa and Scott, 1997, 1999b; Loiseau, 2001; Chabanas, 2002; Iacobucci, 2002). This reduces the possibility of explaining the phenomenon by referring to specific socio-economic conditions, either attributed to individual countries or to a set of countries. Moreover, when we consider small and medium-sized groups, the explanation based on financial arguments is less important and often irrelevant. Given the differences between large and small firms, it is likely that the theoretical approaches previously mentioned contribute little to explaining the presence and characteristics of business groups in the small business sector.

A recent model proposed by Almeida and Wolfenzon (2006) has extended the financial explanation to small, family-owned business groups. In this model, groups are seen as a device used by entrepreneurs to manipulate the ownership structure of new businesses to maximize their financial wealth. The Almeida and Wolfenzon (2006) paper is a theoretical contribution and the authors do not provide evidence on the predictions of their model. This thesis demonstrates that some of the latter predictions are not confirmed by available evidence of business groups in the small business sector. This is because the model relies only on financial arguments and overlooks organizational and entrepreneurial motives that are specifically relevant in the case of small groups.

At present there is no convincing theory explaining the presence and characteristics of small groups. There is also no study that compares and links the theoretical approaches previously mentioned and assesses their role and limits in explaining the phenomenon of business groups in the small business sector.

Another reason for the limited attention that researchers have dedicated to small groups is also the lack of empirical evidence on the phenomenon. Business statistics in most countries are not organised around entrepreneurs or business groups. With only slight variations from country to country, statistics on business activity are generally based on establishments and firms (Eurostat - OECD, 2007). An establishment is a single physical location of economic activity (a plant, a shop, etc.). A firm is a more difficult object to define but is generally associated with a legal unit: a single proprietorship, a partnership, a company, etc. For most countries the firm (i.e. the legal unit) is the highest level of aggregation of statistics on economic organizations. Some statistics agencies rely on more complex definitions of the firm and also consider the business group. Eurostat, for example, defines the group as “an association of enterprises bound together by legal and/or financial links ... It constitutes an economic entity which is empowered to make choices, particularly concerning the unit it comprises” (Eurostat, 2003, p. 196). Notwithstanding the requests provided by Eurostat for the collection of data about business groups, only a few European statistics agencies provide statistics on this phenomenon, and the legal unit remains the main unit for data and information about the business sector.

1.3 Business groups in entrepreneurship research

The phenomenon of business groups in SMEs has recently received attention from entrepreneurship researchers. It is not a direct interest but the result of research on the related phenomenon of habitual entrepreneurs, i.e. entrepreneurs who have started more than one business during their lifetime. Following a few seminal articles (MacMillan, 1986; Starr and Bygrave, 1991; Birley and Westhead, 1993; Scott and Rosa, 1996) literature on this phenomenon grew rapidly since the second half of the 1990s.

Habitual entrepreneurs comprise two types (Westhead and Wright, 1998b): ‘serial entrepreneurs’, i.e. entrepreneurs who started more than one business but sell the previously established business before the last start-up; ‘portfolio entrepreneurs’, i.e. entrepreneurs who retain at least one of the previously started business(es) when starting other businesses. The latter are the ones who end up forming a business group. The two concepts - portfolio entrepreneur and business group - refer to the same phenomenon although from different perspectives: business group refers to the set of companies owned by the same entrepreneur; portfolio entrepreneur refers to the person owning the set of companies.

The increasing interest of entrepreneurship researchers in habitual entrepreneurs produced the emergence of two main themes. The first is concerned with exploring the differences between novice and habitual entrepreneurs and how these differences affect the characteristics and performance of new ventures (Westhead and Wright, 1998b, 1999; Ucbasaran *et al.*, 2003c). The common hypothesis of these studies is that habitual entrepreneurs should have an advantage over novice entrepreneurs in starting new businesses because of the accumulation of experience and human capital in the start up of businesses (Birley and Westhead, 1993; Westhead *et al.*, 2003; Ucbasaran *et al.*, 2008). Given the latter aim, this literature focused on the start-up events rather than on the overall businesses owned by habitual entrepreneurs.

The second theme developed around accounting for diversification and portfolio formation as an entrepreneurial strategy; it focused on the characteristics of the entire group of businesses brought about by the activity of habitual entrepreneurs (Rosa and Scott, 1999a, 1999b). This led to detailed consideration of the reasons why entrepreneurs wanted to diversify by setting up new businesses rather than by expanding within the core business. The question of why business groups are formed in the small business sector became an important focus of interest. Previous research has already established that entrepreneurial processes are associated with growth through business group formation by small firm entrepreneurs (Rosa, 1998; Iacobucci, 2002). However, the nature and complexities of these processes have not been systematically explored or researched as issues in their own right. We also do not know how entrepreneurial motivations relate to the other explanations of business groups based on financial arguments and on the diversification hypothesis. The latter research questions represent the main motivation for this thesis.

1.4 Aims and objectives

The main aims and objectives of this research can be synthesized as follows.

In the small business sector, business groups are the result of entering into new business by portfolio entrepreneurs. The fundamental research question is understanding why and when entrepreneurs decide to set up a new company rather than developing the new venture within the established firm. The nature of these processes has not been systematically explored and we do not know how far business groups can be considered the result of entrepreneurial processes (those associated with the start up of new ventures) rather than as a device to efficiently manage a portfolio of businesses.

One of the main theoretical approaches to business groups – the financial explanation - hypothesises that business groups are a device used by entrepreneurs and managers to manipulate the ownership structure of new businesses (Almeida and Wolfenzon, 2006). Until now, this theory has not been empirically tested. We do not know whether the involvement of other people in the ownership of new ventures is merely for financial motives – as is the case for large groups - or whether there are other motivations and mechanisms at work. The involvement of other people by the entrepreneur in the growth of business groups and the dynamics of the interactions between the entrepreneur and those people are still to be investigated.

Business groups are not stable over time and there is empirical evidence from previous research that phases of growth and contraction occur, which may have complex causes (Rosa, 1998). However, the dynamics of business groups over time, in all its forms and determinants, requires systematic investigation.

1.5 Research design and methodology

Given the aims of this thesis, the research design is based on a mixed methods strategy that includes the use of quantitative and qualitative methods. Quantitative methods, based on statistical analysis of large sets of data, are needed to test some of the theories proposed by the literature; namely, the financial and the diversification theories. I derive the main empirical propositions emerging from the latter theories and assess to what extent they are confirmed by available data. For the quantitative analysis I use both cross-sectional data and longitudinal data. Cross sectional data are taken from two large data sets. The first is a data set of the population of business groups in the Italian economy elaborated by ISTAT, referring to 2001. This is the first attempt made by ISTAT to build a data set about the population of business groups. The statistics are published periodically at an aggregate level (ISTAT, 2005). Thanks to a research agreement between ISTAT and Università Politecnica delle Marche, I have been able to access and elaborate the micro-data about business groups that are not publicly available. Given the complexity of representing and elaborating data about business groups, the analysis of this data set has required considerable effort to organize the data (at group and at firm level), identify the main variables and elaborate on them according to the aims of this study.

As mentioned above, the main aim of this thesis is to assess whether and to what extent the consideration of entrepreneurial processes adds to our understanding of business groups and whether it is able to fill the gaps left by other theoretical approaches. To achieve these aims, it is necessary to use qualitative methods; specifically, I used case study analysis and direct interviews with entrepreneurs. The choice of qualitative methods is justified by two main reasons. Until now, little work has been done on this topic and we do not have a consolidated theory from which to derive propositions that can be tested with available data. For this reason, I carried out an exploratory study aimed at developing a coherent set of theoretical propositions about business group formation in the small business sector. To this aim, it is necessary to look at the complexities of the processes involved and leave the entrepreneurs free to give their own meaning and explanations, rather than imposing some pre-defined hypotheses. The other reason for using qualitative methods is that it is difficult to express entrepreneurial processes using quantifiable variables and they are better described and analysed through narrative statements and visual models.

The process of theory building is made by integrating the results of qualitative and quantitative analyses. In the qualitative analysis I used some of the techniques of grounded theory. I started interpreting the interviews on the basis of some pre-defined issues. I then added coded the interviews by adding new issues and concepts as they emerged from the views and motives expressed by entrepreneurs; finally, these issues and concepts were gradually refined to derive some general propositions. These propositions has been compared with the results obtained from the case studies and quantitative analyses of secondary sources. The combination and comparisons of results obtained from interviews, case studies and quantitative analyses have been beneficial to the overall process of model building.

The thesis proposes a new conceptual framework based on entrepreneurship theory to explain why and when entrepreneurs are likely to develop a business group rather than expanding the activity within the same legal unit.

1.6 Scope and context of the study

This study aims at explaining the presence and characteristics of business groups in the small business sector. To delimit the field of analysis, it is necessary to define the two constructs and specify the criteria for their empirical identification. Business groups are defined as the set of legal units (companies) belonging, directly or indirectly, to the same owner. Indirectly refers to the fact that a company can be owned by means of another company (referred to in the literature as a pyramid). The 'owner' is not necessarily a single person. In the small business sector it is common to observe firms that are owned by members of the same family or by a coalition of owners. In both cases, the number of owners is limited to a few people; moreover, it is normally possible to identify a 'dominant' entrepreneur, i.e. a person who played the major role in the start up and development of the group and who retains key positions in the ownership and control of companies. Majority rule is used for the empirical identification of business groups; i.e. legal units are considered as belonging to a group when the same owner (or coalition of owners) owns at least 50% of it.

The theoretical definition and empirical identification of the small business sector poses more problems; though the size of firms is the obvious criteria in discriminating between small and large firms, the empirical application of this criteria is not straightforward because of the difficulties in identifying a quantifiable dimension and a cut-off value for delimitating the two aggregates (Storey, 1994). Depending on the sectors examined, the national context and the specific aims of researchers, several discriminating values have been proposed based on input dimensions (such as number of employees) or output (such as sales) dimensions. To empirically delimit the small business sector I have used the number of employees, as this is the dimension most commonly used in the empirical literature. Because most of the empirical analysis refers to the manufacturing sector, I use the cut-off values proposed by the EU for delimiting SMEs in this sector: i.e. 50 employees for small firms and 250 employees for medium sized firms. As observed for small firms also in the case of groups their size distribution is highly skewed towards the smaller size. When appropriate, I provide evidence that the empirical results are robust to the use of different size classes.

Some authors also propose using qualitative dimensions for identifying the small firm sector. The most important feature attributed to small firms is the concentration of ownership and the association between ownership and management. This is the reason why the entrepreneur is so often associated, in the empirical and theoretical literature, with the owner-manager of a small firm. The latter association is questioned by researchers who consider entrepreneurship as a process rather than a state (Gartner, 1988; Ucbasaran *et al.*, 2001); entrepreneurial processes can be observed in large as well as in small firms. Nevertheless, the processes of opportunity identification and new venture creation in large firms are significantly different to those observed in small firms. For this reason the scope of the analysis is limited to privately-held and family-managed small firms.

The term family is used here, as in much of the literature on family firms, as a ‘collective’ label meaning a single person (the entrepreneur), a few members of the entrepreneur’s family or a coalition of people belonging to different families (Pramodita, 2004; Chrisman *et al.*, 2005). What these situations have in common is that the ownership of the firm is concentrated in the hands of a few people who retain key positions in the control and management of it.

Most of quantitative and qualitative analyses contained in this thesis refer to the manufacturing sector. This is because of the relevance of this sector for innovation and competitiveness in industrialized countries. It is possible that agriculture and service sectors present similar problems with regard to the issues of this thesis, but also specific features (Carter, 1998; Westhead and Wright, 1999); their inclusion would have required a different, comparative approach. By limiting the analysis to the manufacturing sector, it is possible to rely on a more homogeneous basis for the analysis.

The geographical context of the study is that of business groups located in Italy. The choice of this context is based on the availability of relevant statistics which fulfil the aims of the research. The Italian statistics agency (ISTAT) is among the few in developed countries to produce systematic statistics on the population of business groups. Thanks to the concern about the presence of business groups raised by some Italian researchers at the beginning of the nineties (Brioschi *et al.*, 1990; Barca *et al.*, 1994), information on business groups has also been incorporated in the main surveys on business activities.

Though the Italian context presents specific economic and social features - above all the prevalence of small firms organized in industrial clusters - the widespread presence of business groups is not a peculiar Italian phenomenon. Nor are there reasons to suppose that the characteristics of business groups and the general motives for their formation differ between the Italian context and those observed in other countries. When more information on the causes and characteristics of this phenomenon become available, the design of comparative studies to assess how different national contexts influence them will be worthwhile.

The data sets examined in the empirical section exclude from the analysis sole proprietorships and partnerships. This is because the information on ownership structure, that is essential for the identification of business groups, is more easily accessible for limited companies than for sole proprietorship and partnership. The exclusion of the latter legal forms does not represent a significant limitation for the aims of the study. This is for two reasons. Sole proprietorship and partnership are more common in the service sector, especially the retail sector and the personal service sector; because I focus on manufacturing, the exclusion of sole proprietorships and partnerships cut a lower percentage of firms. Besides this, there is a more important reason that is linked to the specific object of the study. Business groups emerge as a strategy of growth by entrepreneurs who expand their original business by creating new ventures. The empirical evidence shows that this is more likely when the original firm survives and goes beyond a minimum threshold; in fact, the presence of business groups is negligible in firms with less than 10 employees, but increases steadily afterwards. For this reason, the study of the phenomenon is better carried out considering small and medium sized firms (commonly organised as joint stock companies) rather than micro firms (commonly organised as sole proprietorships or partnerships).

1.7 Structure of the thesis

The thesis is organized in seven chapters.

Chapter 2 reviews the available empirical and theoretical literature about business groups. After discussing the definitions adopted to delimit the field of investigation, the chapter deals with two main issues: a) the analysis of available statistics on the phenomenon of business groups in developed and emerging economies; b) the review of the several strands of literature that have addressed this phenomenon. The final section identifies the main research gaps and elaborates the scope and aims of the thesis.

Chapter 3 is dedicated to illustrate the research methods used in the thesis. After a brief discussion of some methodological issues in the field of the social sciences (and in entrepreneurships research specifically), the chapter outlines the empirical and theoretical methods used to attain the research aims. The chapter describes the major sources of data that are used through the thesis: a) a large data set on Italian business groups, referring to the population of Italian firms in the year 2001; b) the result of a survey about Italian manufacturing firms; c) a longitudinal data set of the population of business groups in the Marche region; d) information collected through a qualitative survey on a sample of business groups in the Marche region. These sources of data differ in terms of geographical and population coverage as well as for the span of information about the groups and their evolution over time. For this reason they will be used to address different research questions or to analyse the same issue with different perspectives.

On the basis of the data set of business groups for the population of Italian firms (developed by ISTAT, the Italian statistics agency) the chapter also offers an analysis of the main characteristics of business groups in the Italian economy. This analysis is an important first step for understanding the broad characteristics of the phenomenon I am going to investigate.

The two following chapters (4 and 5) address the two main theoretical explanations put forward by the literature to explain the presence of business groups: the separation of ownership and control and the diversification of activities. Chapter 4 addresses what

I refer to as the ‘financial explanation’ of business groups, i.e. the one that considers the group form as a financial device for separating cash flow rights from control rights. The main aim of the chapter is to analyse the ownership and control structure of business groups and discuss to what extent the financial explanation is appropriate in the case of small and medium-sized groups.

Chapter 5 discusses how diversification strategies can explain the formation of business groups. After discussing the problems arising from defining and measuring diversification the chapter examines the current pattern of diversification observed in business groups. It also examines a specific aspect of diversification, i.e. the integration of activities within the same production chain (vertical integration); in fact, this is one of the reasons for the presence of autonomous legal units under the same ownership. As in the case of the previous chapter, the main aim of chapter 5 is to examine to what extent the diversification hypothesis is able to explain the phenomenon of business groups in the small business sector and explore which questions remain unanswered.

Chapter 6 deals with the role of entrepreneurial processes in explaining business group formation. The chapter is based on the results of a direct survey based on interviews with habitual entrepreneurs and a qualitative analysis of the context and reasons that justified the setting up of new legal units when starting new business activities. Specifically, the chapter addresses two issues that justify the role of entrepreneurial processes in business group formation: a) the entrepreneurial functions involved in the start up phase; b) the development of an entrepreneurial team.

Chapter 7 integrates the results of the previous chapters to develop a model that aids an understanding of the decisions of entrepreneurs to set up new firms and enlarge the entrepreneurial team when starting new businesses.

Chapter 8 synthesizes the main results of the thesis, discusses its limitations and points the way to further research on this topic.

Chapter 2 - Business groups: Facts and interpretations

This chapter is devoted to an analysis of what we know about the phenomenon of business groups, both at an empirical and theoretical level. Before starting the analysis of available statistics, section 2.1 discusses the terms and concepts used by researchers to identify and analyse the phenomenon. Definitions are not neutral with respect to interpretative models of reality; for this reason, it is necessary to discuss them and justify why I have chosen one definition over others.

At an empirical level, the chapter analyses available statistics in order to shed light on two main aspects: a) the relevance of the phenomenon in industrialized countries and the presence of business groups by size of firms and sector of activity; b) the main characteristics of business groups, such as the number of firms, their activities, etc. This is the object of section 2.2.

On a theoretical level, the chapter reviews the existing theories on business groups to assess to what extent they are able to explain the available evidence and whether there are still research gaps to be addressed. Specific attention is given to groups of SMEs and to the literature that addresses them. This analysis is carried out in section 2.3.

Finally, section 2.4 presents the main results and points out the research gaps that exist both at a theoretical and empirical level.

2.1 Concepts and definitions

2.1.1 Ownership and control

The private ownership of businesses is recognised as one of the most important features of a free market economy. Owning businesses is somewhat different from owning assets such as land, buildings or equipment. It implies the possibility of organising and directing people's work in order to attain economic goals; it is the ownership of a going concern[1]. The most important feature of ownership is the possibility of freely disposing of assets within the limits set by the law. In the case of a business I use the term 'control' to indicate the possibility of disposing of the particular 'going concern' represented by the set of physical assets, people, brand names, commercial relationships, etc. that we call a firm. The way in which the owners of a firm exercise this control is regulated by the law, customs and cultural institutions; for this reason it differs according to the legal status of the firm and the country in which it is based[2]. In modern corporations ownership and control are formally separated and owners are not allowed to directly control firms. They may only appoint the people who will be responsible for that (members of the board) and periodically verify the result of their activity. The modern corporation has been specifically created for separating ownership and control and for regulating the relationship between them.

Acquiring and allocating resources is not enough for the successful running of a business; it is also necessary to provide the direction and co-ordination of such re-

[1] Recognising the specific features of business ownership, each country has a dedicated set of norms on this issue, separate from general rules concerning the ownership of assets.
[2] For a theoretical analysis of how the ownership of firms is assigned and exercised see Demsetz (1988) and Hansmann (1996).

sources in order to attain the planned goals. As already noted by Kaldor (1934), the running of a business implies the exercise of three main functions a) risk of the capital invested in the business (ownership); b) allocation of resources (control); c) co-ordination and supervision of resources (direction)[3].

In SMEs these three functions are generally performed by the same person(s); in fact, the owner(s) of the business is normally responsible for resource allocation and the daily coordination of people employed in the firm. In modern corporations the three functions are attributed to different organisms and persons. With the rise of giant firms and stock markets, the separation between these functions and especially between ownership and control, has continuously progressed (Berle and Means, 1932): ownership is increasingly widespread among a large number of individuals and institutions who are not interested in control; the allocation of resources is attributed to the board of directors, co-ordination and supervision to executives. In the case of large public companies, both directors and executives are selected from the lower ranks of the organizational pyramid on the basis of experience and capabilities, rather than emanating from the ownership ranks. There are several arguments to support the superiority of this model (the public company) and the specialization of functions needed to run a business. The separation of ownership from control is seen as beneficial both to owners (portfolio diversification) and to top management (assigned to competent people rather than capitalists). Notwithstanding, the current situation of company ownership and control is rather different from what is expected from the portfolio diversification hypothesis and the resulting public company model. Concentration of ownership and the association between

[3] The control function is called co-ordination by Kaldor (1934); it "… is concerned with the allocation of resources along the various lines of investment, with the adjustment of the productive concern to the continuous changes of economic data" (Kaldor, 1934, p. 68).

ownership and control remain important in most industrialized countries and are predominant in developing countries (La Porta *et al.*, 1999). This is true not only in the case of SMEs but also for large firms. Even in the USA the relevance of direct ownership has been somewhat underestimated and recent tendencies are towards an increase in direct involvement of owners in the control of firms (Jensen, 1989; Holderness, 2009). The debate on these issues both at theoretical and empirical level has gained considerable relevance in the last decade (Shleifer and Vishny, 1997; Tricker, 2000; Becht *et al.*, 2002).

Together with the debate on the separation of ownership and control, recent literature on corporate governance has also underlined the importance of 'multiple business ownership'; i.e. the fact that the same owner(s) can control more than one firm. This phenomenon cannot simply be explained in terms of portfolio diversification; a strategy of portfolio diversification would be efficiently attained through the spread of capital in a large number of firms. On the contrary, in the case of multiple business ownership the owner retains a significant stake in each company in order to maintain control of them. Researchers belonging to different disciplines have investigated the advantages of owning and controlling more than one business. As is common in the social sciences, each discipline has concentrated on some aspects of the phenomenon and developed its own terminology. As a result, the same object is sometimes referred to by different names and the same term is used to refer to different objects. This is one of the reasons why, until now I have used the neutral expression of multiple business ownership. The terms used to refer to this phenomenon are those of 'business group' (or simply group), 'business cluster', 'holding company' and numerous variants to indicate specific forms (pyramidal group, horizontal group, etc.). From now on, I will use the term 'business group'. The reasons for this choice and a clearer definition of the concept and of the objects it refers to will be discussed in the following section.

2.1.2 Groups, networks and clusters

The terms 'group' and 'cluster' are general ones. They mean a number of similar entities considered together because of their relation to each other. In our case, these similar entities are represented by legally autonomous businesses (mostly companies) among which there is a form of stable connection. There are many definitions of a business group. While all of them agree on the units constituting the group (i.e. legal units organizing business activities), there are differences in the kind of relationships between them. Taking into account that we are concerned with stable connections (as opposed to spot market transactions), the most important distinction is between ownership and non-ownership links. In the former case the belonging to a group is determined by the fact that most shares – or a stake large enough to secure control – belong to the same owner. In the latter case literature has defined several forms of connections that allow the identification of a group of firms. Goto (1982) for example, states that "business groups are essentially coalitions of firms pursuing their common interests through a system which coordinates decisions made by member firms" (Goto, 1982, p. 61). Common ownership is not necessary in this definition, as long as the managers controlling the firms are committed in some way to a long term collaboration policy. Granovetter (1994) also uses a broad definition: "A business group is a collection of firms bound together in some formal and/or informal ways" (Granovetter, 1994, p. 454). In general, economic and managerial literature has stressed ownership ties, while sociological literature has emphasized the analysis of non ownership ties (Barringer and Harrison, 2000; Smangs, 2006). In the latter literature specific attention has been dedicated to links based on the presence of the same people on the boards of companies: the phenomenon referred to as ‘interlocking directorates’ (Stokman *et al.*, 1985; Silva *et al.*, 2006).

Although I do not deny that forms of collaboration or interlocking directorates can influence the behaviour of firms, throughout this study I will identify a group (or a business group) on the basis of ownership relationships. This is mainly because of the importance I put on ownership and control in the definition of entrepreneurship (as discussed in the previous section). The reference to ownership also has the advantage of relying on an objective and quantifiable character. It also has a few drawbacks: firstly, it rules out those situations in which several companies, although not belonging to the same owner, are bound together by a form of dependence similar to that implied by ownership; secondly, the presence of ownership links can be associated with a large variety of relationships between firms belonging to the same group, in terms of dependence and economic synergies.

Notwithstanding these limitations, ownership ties are specifically important for this study. The control secured by ownership is different from any other form of contractual dependence: the latter is normally limited to specific objectives and periods of time while the former, as discussed above, is characterized by the generality attributed by the law to ownership[4].

There are two ways in which ownership relationships can be organized in a business group. In the first case, one or more persons retain the majority of ownership of several

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[4] We prefer to use the term ‘network’ (rather than group) to refer to firms that are bound together by different forms of non-ownership ties but implying the presence of long term collaboration. Among the most important and widespread forms of business networks are those composed by firms engaged in vertical relationships (customer-supply relationships) within a production chain.

companies, directly or through several layers of companies with a holding company at the top. In the second case, we observe minority shareholding between firms. The latter type is identified as a joint group and its presence is quite exclusively limited to large Japanese firms under the name of Keiretsu (Goto, 1982). In the first case, we have a unitary control of the companies by means of majority shares while in the second case minority stakes are used to support long term coordination of business policy by the member firms.

In the case of Western countries and other Asian countries, the former type of group is the prevailing one[5]. This is the form to which literature normally refers when considering the phenomenon. It is also the object I will investigate in this study, throughout which I will adopt the following definition: **a business group is a set of companies (or other legal units) controlled by the same owner(s)**. In the case of SMEs, the owner is represented by a single person or a coalition of people (often members of the same family). In general, we also have the case of groups in which the owner is represented by the state or by a public company (Cuervo-Cazurra, 2006). These cases are generally confined to the large firm sector and are ruled out from this study.

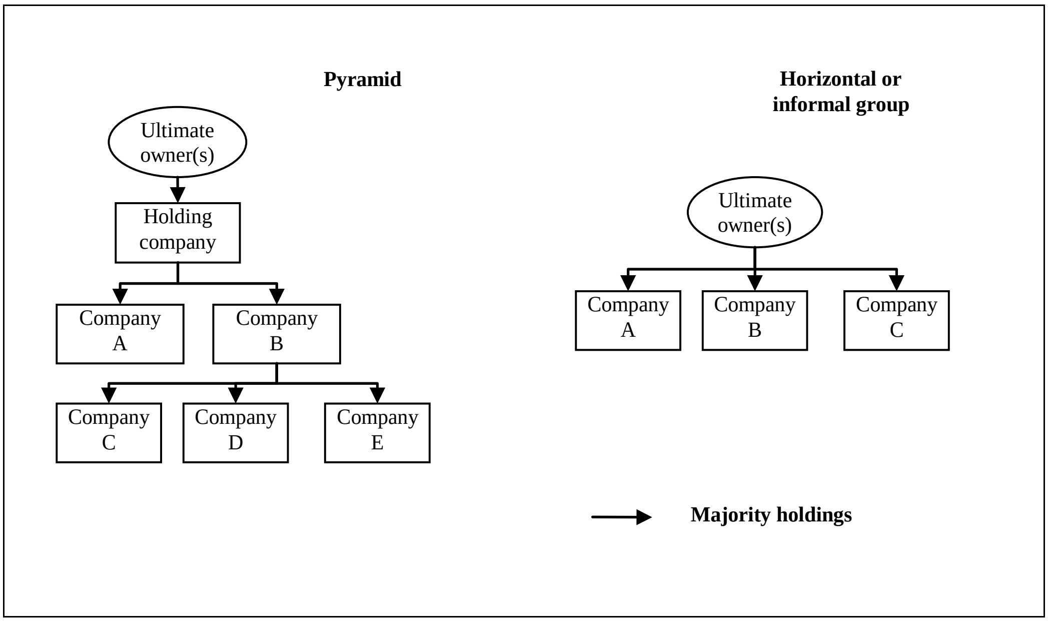
There are two main types of business groups (Figure 2.1): the first is when the companies are controlled by means of other companies; the second is when one or more people directly own more than one company. The former type is referred to as a pyramidal group (or simply a pyramid); the latter as an 'informal' or 'horizontal' group[6]. Although in business groups we can have a complex ownership structure with several

[5] Even in the case of Japan Gerlach (1997) demonstrates that the pyramidal group is the prevailing form and that the Keiretsu form is limited to the largest firms in the country.
[6] There is not general agreement on such terminology. The term 'horizontal group' is also used in the literature to refer to the 'Keiretsu' type of business groups, where there are minority holdings between companies (Goto, 1982).

layers of companies, it is always possible to determine the ultimate owner(s) which in small groups is invariably a person or a coalition of persons.

When trying to empirically apply this definition of business group, two main problems arise: a) how to detect control; b) how to identify the ultimate owner. As previously discussed, control is associated with the power to directly influence the process of resource allocation of a firm or, indirectly, to appoint the people responsible for that process (who are supposed to act in the interest of their appointer).

Figure 2.1 – Types of business groups



In modern capitalist firms (corporations or limited companies) ownership is attributed to those (persons or other companies) that have supplied equity capital. By definition, the capital of a company is supplied by more than one entity (persons or firms) which constitute the shareholders of the company. Given the ‘majority rule’ adopted in the shareholders’ meeting, an entity owning more than fifty percent of the capital can be unambiguously identified as the controlling owner[7].

Problems arise when there is no single entity owning more than fifty percent of the shares. Three main situations can be identified. The first is when there is an owner with a significant stake while the other shares are spread among smaller shareholders. This situation is often observed in listed companies. Although the largest owner does not have more than fifty percent of the shares, he/she is able to control the company given that the small shareholders have no possibility or incentive to do this[8]. How large a stake should be in order to secure control in this situation is difficult to assess; it depends on how widely the remaining shares are spread and on the rules governing shareholders’ meeting. The second situation is when there are few shareholders and none of them holds the majority of shares[9]. In this case it is rather difficult to identify the controlling shareholders because control is exercised through a coalition. In Italy, as well as in other countries, shareholders of private companies are often members of the same family; in this case the family, rather than a single person, can be considered the ultimate owner[10]. The third case is a company in which ownership is sufficiently spread so that neither a single owner nor a coalition is expected to exercise a significant influence on the company. This is the situation of a pure public company. In this case, control is in the hands of the top managers sitting on the board and influencing its formation.

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[7] Minority shareholders can certainly have an influence in controlling the firm depending on their relative share and on their role in the effective management of the firm (position on the board, links with suppliers and customers, etc.). However, an entity owning more than fifty percent of shares can impose his/her will on the other shareholders.

[8] The “free rider” problem prevents the single small shareholder from being interested in challenging the present management. Large coalitions of small shareholders are difficult to form and manage.

[9] A typical case is a fifty-fifty joint venture.

[10] This case is so widespread that in a recent theoretical work on business groups family is used as a synonym of ultimate owner (Almeida and Wolfenzon, 2006).

The ownership structure within groups can be very complex, with several layers of controlled companies. To identify the presence of a common ownership (and the ultimate owner) one must take into account not only the ownership structure of individual companies but all the direct and indirect relationships between them. Given the information on the ownership structure of legal entities, the identification of business groups can be made by applying the following algorithm: a) setting up of rules which specify how a 'controlling' owner is identified (for example a majority share of equity); b) identification of all the companies that are controlled, directly or indirectly, by the same owner. These are the rules adopted in this thesis for the empirical identification of business groups.

2.2 The presence and relevance of business groups in industrialized countries

In spite of the widely recognized importance of business groups in industrialized and developing countries, we lack systematic and comparable data on this phenomenon. National statistics agencies normally consider the legal unit and its sub-units (plants or establishments) as the statistical unit for collecting data about firms. For this reason they normally fail to recognize the group as an economic entity.

This is explained by theoretical and practical reasons. From a theoretical point of view, it reflects economists' view of the economic system as populated by firms that relate to each other through market relationships (both through exchange or competitive relationships). In this view, it is taken for granted that the legal boundaries coincide with the economic boundaries and that ownership links between firms are only of a financial nature, with no consequences for the firm as an economic entity.

The practical reason is associated with the difficulty in collecting data on ownership relationships between firms and the fact that these relationships are subject to continuous changes over time. Moreover, while a legal unit or a plant both present clear-cut characteristics, such as location, type of activity, etc., the group appears as a complex system that is more difficult to characterize in terms of statistics traditionally used for firms.

EU regulations on statistical units define the enterprise as “the smallest combination of legal units producing goods and services and constituting an autonomous economic entity”[11]. Nevertheless, European national statistics agencies normally associate the enterprise (or firm) with a legal entity (a sole proprietorship or a company). Indeed a recent survey by the European Commission stated: “… the fact of observing an enterprise gives no information about whether it forms part of a group of enterprises. … Regrettably, groups of enterprises do not currently figure in the business statistics of many Member States” (European Commission, 2001, p. 191)[12].

Of the major EU countries, France is among the few that systematically collect data on business groups. Since 1980 INSEE (France’s official statistics bureau) has carried out an annual survey on business groups (‘enquête liaisons financières entre sociétés’) that takes into account medium-sized and large companies. At the same time, since 1984, INSEE has also carried out a survey on state controlled companies[13]. In the INSEE surveys, the ultimate owner (‘tête de groupe’) is represented by a company when it

[11] Regulation (EEC) No 696/93, 15 March 1993, p. 1.
[12] Although the European Commission report gives a definition of the enterprise group as “an association of enterprises bound together by legal and/or financial links” (European Commission, 2001, p. 193), no data are provided about enterprises groups within the EU or within its member states.
[13] For the methodology and results of these two surveys see Chabanas (2002).

controls other companies and is not controlled by any other company[14]. Control is associated with the direct or indirect ownership of more than 50% of voting shares. According to the 1999 survey, companies belonging to groups (controlled either by national or foreign companies) represented 60% of the value added and 50% of employees (Skalitz, 2002). An interesting fact is that the number of groups identified by the INSEE surveys soared during the nineties, thanks to the increase in the number of micro-groups, i.e. groups with less than 500 employees overall (Vergeau and Chabanas, 1997; Loiseau, 2001). The number of companies belonging to large groups also rose during the last decade. According to recent statistics from INSEE, business groups in France employ almost 8 million people representing about 56% of total national employment (excluding the financial sector). Groups with less than 500 employees (defined as micro-groups by INSEE) number more than 30,000 and employ more than 2 million people (Table 2.1).

Table 2.1 – Business groups in France at the beginning of 2005 by class of employees (excluding financial and agricultural sectors)

Class of employees (2)	**Number of groups** (1)	**%**	**Number of employees** (1)	**%**	**Sales (Euros)**	**Equity (Euros)**
			thousands		billions	billions
Micro groups : 1 - 499	32,668	94.8	2,105	26.9	528	201
Small groups : 500 – 1,999	1,316	3.8	1,194	15.3	309	155
Medium groups : 2,000 - 9,999	399	1.2	1,477	18.9	468	263
Large groups : ≥ 10,000	84	0.2	3,051	39.0	969	981
Total	34,467	100	7,827	100	2,274	1,600

(1) Only employees in France are considered.
(2) The size classes of business groups and their definitions are those adopted by INSEE.
Source : (INSEE, 2006)

[14] The ultimate owner can be persons, the state or a foreign company. The survey takes into account only French companies.

As in many other countries, until the beginning of the nineties the phenomenon of groups was studied in Italy almost exclusively with reference to large firms (Alzona, 1988; Brioschi *et al.*, 1990). At the beginning of the nineties, a study by the Bank of Italy on the structure of ownership of Italian companies revealed that the presence of groups was relevant even among SMEs. ISTAT (Italian National Statistics Agency) started collecting information on the presence of business groups in the intermediate census of 1996, and has included a specific question on business groups in the industry and service Census of 2001. At the same time it has used the Chamber of Commerce databases on company ownership to build a map of the presence and characteristics of business groups in the Italian economy[15].

The last statistics available on Italian business groups are from 2002 (Table 2.2).

Table 2.2 – Business groups in Italy at the end of 2002 (excluding agriculture).

Class of employees	**Number of groups**	**%**	**Number of employees** (thousands)	**%**
1 – 19	32,958	62.5	205.2	4.2
20 – 99	13,877	26.3	615.7	12.5
100 – 499	4,642	8.8	959.4	19.5
500 – 4,999	1,169	2.2	1,455.3	29.6
≥ 5,000	88	0.2	1,679.2	34.2
Total	140,646	100	1800,134	100

Source: ISTAT

Excluding the agricultural sector, there were more than 50,000 groups, most of which were small in size (less than 500 employees overall). Compared with the French situation, in Italy there are more small groups; those with less than 500 employees represent more than one third of employees (36.2%) while in France they represent approximately one fourth of overall employees (26.9%). Although the absolute number of employees

[15] This data set will be extensively analysed in chapter 3.

is much bigger in French groups than in Italian ones, their weight on the overall employees is remarkably similar (although the two data are not exactly comparable given slight differences in the composition of the numerator and the denominator): the employees in Italian business groups represents 56.5% of all employees in joint stock companies (ISTAT, 2005, p. 11).

In other EU countries there are several surveys on the phenomenon of business groups, but none of them have reliable official statistics covering the population of firms (such as those for Italy and France). This is not because the phenomenon is less important, but simply because it has not yet attracted the attention of scholars and official statistics agencies.

For the US Census Bureau, the statistical unit for collecting company data is the establishment, defined as a single physical location where a manufacturing or other activity is performed. Data on establishments are then aggregated to form a firm, defined as a business organization consisting of one or more domestic establishments in the same state and industry that were specified under common ownership and control (the term company is also used as synonymous of firm). All the reported statistics are at the level of the single company and it is unclear whether controlled companies are included within the same unit[16]. In the USA there is also less attention than in Europe to the phenomenon of multiple business ownership (Starr and Bygrave, 1991). One of the reasons for this is that business groups are supposed to be of marginal importance in the USA, where divisional structures are used to control diversified business activities[17].

[16] The Census Bureau also defines the enterprise as "a business organization consisting of one or more domestic establishments that were specified under common ownership and control… Each multi-established company forms one enterprise" (U.S. Census Bureau, Statistics of U.S. Businesses – Explanation of Terms). The definition of enterprise coincides with that of company.

[17] Morck (2003) maintains that the scanty presence of business groups in the USA is due to fiscal reasons.

Statistics Canada is the most explicit in distinguishing between legal units and groups of companies under common control. This is the result of a 1962 Act (the Corporations and Labour Unions Returns Act, CALURA) that requires all corporations over a certain size to declare their ownership and the companies controlled[18]. The data collected by Statistics Canada are organized in the ICO (Inter Corporate Ownership) database and published quarterly. Within the ICO database, the following definition of enterprise is given: “An enterprise is a group of corporations under common control… Controlled corporations are called subsidiaries. A multi-corporation enterprise contains one or more subsidiaries. A corporation which is not controlled by another corporation and that does not control another corporation is called a single-corporation enterprise” (Statistics Canada, ICO, 1998). The ICO database also specifies how control is defined and how the controlled corporations are aggregated under a single enterprise. The database has two important limits when used to access the importance of multiple business ownership in Canada: the first is that it excludes small firms; the second is that the ultimate owners are represented by a corporation and not by people (as in the French case). For the latter reason, the database underestimates the phenomenon as it does not take into account the cases in which one or a few persons directly control more than one company (without a holding company). Of the more than 90,000 corporations considered in the 1998 database, about 80% were multi-unit corporations (i.e. groups) while the rest were single unit corporations. Unfortunately, the database does not provide information on the size of the corporations; for this reason it is impossible to assess how the relevance of the phenomenon varies according to the size of the companies.

[18] “The Act, as amended in July 1981, applies to every corporation that carries on business in Canada or that is incorporated under a low of Canada or a province, whose gross revenue for the reporting period exceeded $15 million, or whose assets exceeded $10 million” (Statistics Canada, ICO, 1998).

Comparing firms' statistics across countries is a difficult task given the different legal systems that regulate economic activities and the different definitions and methodologies adopted by statistical agencies (Traù, 2004). In the case of business groups this is even more so, given the fact that further qualifications are needed to identify and classify the phenomenon. Notwithstanding these difficulties and the lack of statistics in several countries, from the available works and statistics it is possible to reach the following conclusions:

a) The business group is the normal form through which business activities are controlled in capitalist economies. Almost all major companies are organized as a group, resulting in the fact that the bulk of activities in all countries are controlled through this organizational form.

b) As in the case of single legal units, the large majority of business groups are of small size. Moreover, the presence of groups is also a relevant phenomenon in the small business sector.

c) The weight of business groups increases steadily with the size of firms. This suggests that the setting up of a business group is the main way through which successful entrepreneurs expand the activities under their control.

2.3 Economic and management theories about business groups

Given the relevance of business groups in all countries and the fact that almost all the main firms are organized as a group, it is not surprising that there is a large body of literature on this phenomenon. However, for the most part this literature concerns large groups. The economics and management literature on business groups can be classified in three broad perspectives.

The first perspective considers the group as an efficient form of organizing business activities. The reference points for this approach are Chandler's work on the evolution of large firms in industrialized countries (Chandler, 1962, 1977, 1990) and Williamson's work on the governance of multidivisional structures (Williamson, 1975).

The second approach comprises those authors who, studying specific countries, consider the group as a result of institutional conditions in those countries. Specifically, they see the group as the result of the lack of efficient market institutions (such us the financial market) or as a result of particular historical events. Within this approach, I consider scholars coming from different fields: economic history, industrial economics and sociology. Given the perspective of these studies, they tend to focus on specific countries rather than trying to formulate more general explanations for the phenomenon (Ghemawat and Khanna, 1998).

The third approach sees the group – specifically the pyramidal group - as a financial device that allows investors to maximise the activities they control given a fixed amount of financial resources (Brioschi *et al.*, 1990; Barca *et al.*, 1994). This is possible in those countries (many in continental Europe) where the listing of both controlled and holding companies is permitted. In some ways this approach can be considered as a subset of the second one because it considers the group as a result of specific conditions regarding corporate law and capital market regulation. Nevertheless, I decided to separate it from the institutional approach, given the importance that it has received in explaining the presence of groups in continental Europe (while the former approach mainly concerns emerging economies).

Between these perspectives there are also links and overlaps. Nevertheless, the classification proposed here is useful for the scope of this study and allows me to unambiguously classify the literature. Within the first approach, I consider all the authors who focus on the internal organization of business activities; in the second approach I consider all the studies that focus on the relationships between institutional conditions and organizational choices of firms; and in the third, I consider the authors who study the problems of corporate governance and their relationships with the financial market.

A common characteristic of these three approaches is that they refer to large firms, sometimes the largest in the country that has been analysed.

2.3.1 The group as an efficient organizational form

The starting point for this approach are Chandler's studies on the organizational changes in the largest American firms during the first decades of the 20th century (Chandler, 1962, 1977). In these studies, Chandler gives an explanation of the development of vertically integrated firms as a result of the need to coordinate mass production. In the same studies he explains the emergence of the multidivisional form (M-form in the terminology later introduced by Williamson) as a result of the need to efficiently control diversified activities. Although in these works Chandler does not consider the group in an explicit way, his contribution is fundamental because of the similarities between the group and the M-form: both can be interpreted as decentralized organizational forms for controlling diversified activities. In a subsequent work Chandler explicitly considers the differences between the group and the M-form (Chandler, 1982b). He argues that the two forms arise from the same needs; nevertheless, the M-form is typical of North-American firms while the group is typical of European countries. The difference between the two forms, according to Chandler, is that the group is based on contractual relationships ("contractual cooperation") among formally independent legal entities, while the M-form is based on administrative relationships (“administrative coordination”). Chandler believes that the “administrative coordination”, peculiar to the M-form is more efficient for controlling diversified activities, both for the allocation of financial resources and for the exploitation of economic synergies. He maintains that the persistence of business groups in Europe and the delay in adopting the superior managerial hierarchies of the M-form can be explained by the relative underdevelopment of capital markets (such as in France or Germany) or by the persistence of family control of large firms (as in the case of the UK)[19].

Although Chandler must be considered the initiator of the organisational approach, his method is mainly descriptive. It is Williamson who has given this approach its main theoretical background through the elaboration of the transaction costs theory. The contributions of Williamson can be divided in two chronologically distinct parts.

In one of his first studies Williamson, following the work of Chandler on the evolution of large firms in the USA, gives a more general explanation of the emergence of the M-form and gives a clearer characterization of this organizational form using the analytical categories of the transaction costs theory. According to Williamson the fundamental features of the M-form are the following (Williamson, 1970, pp. 120-121):

> "1. The responsibility for operating decisions is assigned to (essentially self-contained) operating divisions or quasifirms.

[19] “… in industries where British firms failed to create such managerial hierarchies as was the case in many technologically advanced chemical and machinery products, American and sometimes German firms, which had grown through administrative efficiency, completely dominated the British market” (Chandler, 1982b, p. 19).

> 2. The elite staff attached to the general office performs both advisory and auditing functions. Both have the effect of securing greater control over operating division behavior.
>
> 3. The general office is principally concerned with strategic decisions, involving planning, appraisal, and control, including the allocation of resources among the (competing) operating divisions."

The separation between operative and strategic responsibility enables the firm to manage them in a more efficient way: "..the whole is greater (more effective, more efficient) than the sum of the parts" (Williamson, 1970, p. 121). The superiority of the M-form in the efficiency and effectiveness of decisional processes are compared by Williamson with the problems of the functional form (U-form): the slack in pursuing goals, the distortion and concealing of information[20].

> "In relation to the U-form organization of the same activities, the M-form organization of the large, complex enterprise served both to economize on bounded rationality and attenuate opportunism" (Williamson, 1975, p. 137).

With regard to the group, Williamson adheres to Chandlers' idea that it should be considered as an M-form that is not completely developed. He indicates the group as the H-form (holding company) of which he gives the following definition (Williamson, 1975, p. 152):

[20] These problems are attributed to some aspects of human behaviour that are at the basis of the transaction costs theory: i.e. bounded rationality and opportunism.

> "This is the divisionalized enterprise for which the requisite internal control apparatus has not been provided. The divisions are often affiliated with the parent company through a subsidiary relationship".

According to Williamson the H-form can enhance the allocation of financial resources to the divisions (internal capital market) but lacks some of the characteristic features of the M-form (Williamson, 1975, p. 143):

> "... a holding company form of organization is a loosely divisionalized structure in which the controls between the head-quarters and the separate operating parts are limited and often unsystematic. The divisions thus enjoy a high degree of autonomy under a weak executive structure".

As a consequence, the H-form can show inefficiencies in the strategic and operative processes and in the functioning of the internal capital market (the allocation of financial resources). For these reasons it is unclear, according to Williamson, why the group form should be preferred to the M-form. His conclusion about the two forms is unequivocal: "Holding companies certainly cannot be expected reliably to yield results that compare favorably with those which I impute to the M-form structure" (Williamson, 1975, p. 144).

The contribution of Williamson extends well over the comparison between the M-form and the H-form. It is an indirect contribution associated with the works that have used the transaction costs economics (from now on TCE) (Williamson, 1985) to explain the nature and diffusion of business groups. The authors that have used this theory can be divided in two groups: on the one hand, those who have focused on the internal aspects of the organization, paying attention to the relationships between the companies forming the group; and on the other hand, those researchers who focused on the environmental factors that, raising transaction costs, determine the convenience of the adoption of specific organizational forms of enterprise.

According to TCE the group is characterized as an intermediate form of transactions government between the hierarchy (the administrative coordination of Chandler) and the market. Such intermediate form is not identifiable with a specific contractual relationship, but comprises a continuum of possibilities between the two extremes. For this reason, the authors using TCE tend to give a general definition of the business group as a set of enterprises tied by long term relationships not necessarily based on ownership. What is important for TCE is the examination of the relationships between independent enterprises, among which ownership ties are one of the many possibilities. In the authors that use this approach, there is sometimes ambiguity (from the point of view of this study) between the group (i.e. companies tied by ownership relationships) and the network (i.e. companies tied by long term contractual relationships)[21]. A further limit of transaction cost theory, when applied to the analysis of business groups, is that TCE is especially appropriate for explaining the nature of vertical relationships between firms (i.e. the exchange of goods and services along a production chain) rather than the management of a diversified portfolio of business.

The most convinced supporter of transaction cost theory in the explanation of the groups is Kester (1992). In his work he refers to the main groups of Japan, Germany and Sweden. His aim is to show that such organizations of enterprise can be considered as efficient forms of organization of the economic transactions rather than as a phenomenon to be regarded with suspicion. The analysis conducted by Kester concerns

[21] The differences between the two are discussed in section 2.1.2.

both the ownership structure of enterprises and the relationships among them; he refers to the first with the term corporate governance and to the second with the term contractual governance. The latter concerns the relationships of the enterprise with the input suppliers. Kester (1992) assumes that the purpose of contractual relationships with input suppliers is to minimize transaction costs while ensuring the continuity and efficiency of the exchanges.

Putting aside the differences observed in national contexts, the group form is characterized, according to Kester, by the following features:

> "… (the) heavy reliance on *implicit, relational contracting* founded on *trust*; (ii) concentrated equity ownership among shareholders multiple with, commingled claims on the corporation…; (iii)… the preservation of a healthy degree of *managerial autonomy* and *inter-firm rivalry* among group members…; (iv) *selective intervention* by major stakeholders when problems do arise; (v) participation in product markets characterized by *vigorous rivalry* among vertically co-operative groups." (Kester, 1992, p. 28, italics in the original)

The second and the fourth features attributed by Kester to groups concerns corporate governance; the others concern contractual governance. One of the innovative aspects of Kester's analysis is the attempt to link the organizational characteristics of groups with some aspects of corporate governance; specifically the concentration of ownership and the association between ownership and control. The concentration of ownership and the involvement of owners in the management of the group are important elements for ensuring long term and informal relationships between the companies of the group.

From the predominantly descriptive analysis conducted by Kester the nature of causal relationships between governance and contractual aspects is not apparent, and neither is the direction of such relationships. Contrary to Chandler and Williamson, Kester believes that the model of contractual relationships and corporate governance typical of groups is more efficient than the M-form; this is because the group guarantees, at the same time, the advantages of long-term relationships between the subjects involved in the transactions with the incentives coming from the market.

The theoretical perspective chosen by Kester (1992) strongly affects his interpretation of business groups because transaction cost theory required him to focus on the vertical relationships among the companies; moreover, little to no empirical evidence or explanation is given with reference to the presence of diversified activities within groups. For Kester the group is characterized, as a matter of fact, as a firm integrated along a specific production chain; his aim is to explain why the peculiar long-term relationships between companies belonging to the same group can determine a superior efficiency in comparison to an integrated firm or to market relationships between the same companies. He examines the aspects of groups that can be better explained by his chosen analytical perspective but that are not necessarily the most important in the present reality of business groups.

This limit, common to other authors that have used transaction costs theory in the interpretation of business groups (Goto, 1982; Chang and Choi, 1988), causes two problems: 1) on the one hand it leads researchers to focus on vertical relationships between companies and to extend the definition of group to include companies that are linked by customer-supplier relationships but do not share a common ownership; 2) on the other hand it encourages neglect of the horizontal diversification of activities, which make up one of the characterising aspects of business groups.

2.3.2 The group as a result of specific socio-economic and political contexts

During the Sixties and the Seventies, several studies on business groups in developing countries were carried out by growth economists and sociologists: (White, 1974, for Pakistan; Strachan, 1976, for Nicaragua and other Central American Countries; Leff, 1978, for the developing countries in general; Zeitlin and Ratcliff, 1988, for Chile).

Although these works are rather different in their aims and the methodology adopted, they reach similar conclusions on the causes explaining the presence of business groups and their internal characteristics. On the latter aspect, the most important features of groups in developing countries are the following: a) family ownership; b) the association between ownership and control (i.e. family members normally occupy the key positions within the group); c) the presence of co-ordinating mechanisms that allow the group to be managed under a common strategy; d) a high level of diversification in the activity performed by the group.

In general, the studies indicated above explain the presence of business groups as an organizational form suitable for the management and development of business activities in the specific conditions of developing countries. The most important conditions are the following: a) the underdevelopment of financial markets; b) the high level of "institutional" uncertainty and the discretionary power exercised by private enterprises and public institutions; c) the high level of uncertainty due to political instability; d) the underdevelopment of intermediate product markets.

A synthesis of the contributions regarding the presence of business groups in developing countries has recently been proposed by Khanna and Palepu (1997) and Khanna (2000). They interpret the presence of business groups in emerging economies as a result of the absence or deficiencies of institutions that allow an efficient enterprise system. According to this interpretation the large, diversified groups common in developing countries are justified by the need to circumvent the absence of such institutions: "… highly diversified business groups can be particularly well suited to the institutional context in most developing countries. … (they) can add value by imitating the functions of several institutions that are present only in advanced economies" (Khanna and Palepu, 1997, p. 41).

The defective institutions are those already mentioned: financial markets; labour market (lack of managerial formation, rigidities in labour utilization); product markets (lack of product quality assessment, certification, etc.); the legal system. This interpretation can be associated with the one that justifies the presence of groups in some industrialized countries (Japan and continental Europe) as a result of the delay with which these countries have undergone a process of industrialization.

The Japanese situation has received much attention. One of the characteristic features of the economic system of Japan can be identified in the specific pattern of business organization and its associated model of corporate governance (Dore, 1987; Aoki, 1988; Fruin, 1992; Gerlach, 1995). The organization of large Japanese firms is characterized by the presence of groups that are tied together in a close network involving ownership, management and supply relationships. Most studies of Japanese firms focus on the six main groups (*Keiretsu*) and on the supply relationships that characterize key sectors such as car manufacturing and electronics.

In the case of *Keiretsu*, these are large business groups linked by cross minority shareholdings and interlocking directorate mechanisms (that is, the same board members for the main companies in the group). The structure of these groups, therefore, is horizontal rather than pyramidal (Goto, 1982). In the case of the car manufacturing and electronics groups the term group is used with reference to the network of suppliers to a large company. The horizontal groups that characterize the largest companies in Japan are not the only form of group that exists there. Shimotani (1997, p. 24) identifies three types of groups: i) corporate complexes (such as the *Keiretsu* referred to above); ii) corporate groups; iii) subcontractors (networks of suppliers). While the literature on Japanese firms has mainly focused on the first and third of these three forms, corporate groups (that is, pyramidal groups) are in fact the most widespread in Japan.[22] Corporate groups correspond to the definition of the business group used in this study:

> The term 'corporate group' will be used to identify the organic whole consisting of a parent company at the apex of a supporting cast of group companies, each linked to the parent by capital and operational ties. Virtually all major Japanese companies are organized in this corporate group form. (Shimotani, 1997, p. 9)

According to Shimotani these groups are established through new company spin-offs rather than by the acquisition of established businesses. The setting up of new companies is the result of a diversification process or the need to control the production chain.

The phenomenon of business groups in emerging markets continues to attract the attention of management researchers. A special issue on conglomerates and business

[22]. 'Of the three types, the one that occupies the most central position is the corporate group, composed of a large number of subsidiaries and forming a fundamental unit of business enterprise' (Shimotani, 1997, p. 9).

groups in the Asia Pacific was published in December 2006 by Asia Pacific Journal of Management. While adding new empirical evidence on the structure, performance and evolution of business groups in emerging markets (especially East Asian countries) these new contributions do not change the basic explanation for the importance of business groups in emerging economies.

As stated by Peng and Delios in the presentation of the special issue of the Asia Pacific Journal of Management mentioned above: "In general, business groups and conglomerates are creatures of institutional imperfections". (Peng and Delios, 2006, p. 399). This view is shared by Chang (2006b) with specific regard to East Asian countries:

> "Business groups are creatures of market imperfections, government intervention, and socio-cultural environments. I expect that as long as markets, especially capital markets, are imperfect and the East Asian governments influence resource allocation, business groups will continue to exist and even prosper in this region. As markets become more efficient and government intervention subsides, business groups may lose their reason for existence and see their influence decline". (Chang, 2006b, p. 413)

Business groups occur most frequently and most profitably in countries where market inefficiencies are prominent, usually developing countries with significant market information asymmetry (Yiu *et al.*, 2005). In particular, it is the delay in the development of capital markets that justifies the specific type of development and firm governance represented by the group. If this hypothesis were correct, we should see a progressive reduction in the presence of groups as the process of industrialisation and the development of those institutions typical of a market economy progresses. At present, we lack longitudinal statistics on the phenomenon of business groups that might allow us to confirm or reject the hypothesis of a diminishing role of business groups in emerging economies.

2.3.3 The group as a mechanism of corporate governance

European studies on business groups have paid the most attention to the separation of ownership and control and to the way in which this separation is carried out through the group form. What differentiates the countries of continental Europe from the UK and USA is the particular way in which the first stages of industrial accumulation occurred. Lack of private capital and insufficient development of stock markets have made public sector and bank intervention more important in the financing of industrial activities (Landes, 1969). The differences between Continental European and English-speaking countries in the accumulation process have had considerable influence on the ways firms are financed and controlled. Countries in continental Europe are characterized by a higher concentration of ownership, a closer association between ownership and control, by a reduced importance of the stock market and by the greater importance of banks in financing businesses. In the UK and the USA, the development of stock markets has favoured the establishment of public companies under managerial control. In continental Europe the group structure has allowed concentrated control based on banks, families or the state to persist (La Porta *et al.*, 1999). In a public company the fundamental instrument for controlling manager discretion is the stock market, through the contestability of control. In the case of business groups, the control of the firms is granted by forms of negotiated relationships between the main stakeholders who ensure greater stability of control (Trento, 1993, p. 34). According to this interpretation, groups are used to carry out two main functions: a) the stability of control; b) the separation between ownership and control.

Daems's (1978) study of the largest Belgian groups is one of the first to interpret the group as a way to reach efficiency and stability in the control of business activities. Daems pays great attention to the main financial holdings defined as "…financial institutions which manage a portfolio of stocks in order to control the companies in which they hold a share of the equity capital" (Daems, 1978, p. 2). The crucial point in this definition is the notion of control since it is this activity which justifies the existence of the group. By control Daems means the possibility of monitoring, and therefore influencing, the allocation of capital by the controlled companies. Through this function the holding company replaces the "visible hand" of managerial control with the invisible one of the capital market. Nevertheless, this requires a developed capital market to raise the capital necessary for acquiring control of the subsidiaries[23]. The presence of groups is justified by the fact that the mechanism of resource allocation guaranteed by the holding company is more efficient than the capital market. From a theoretical point of view, in a perfect capital market there would be no need for intermediation. The existence of the holding company can therefore be justified on the basis of two elements: 1) the existence of imperfections in the capital market (information, transaction and monitoring costs) which make both portfolio diversification and the active management of shares carried out by the holding company convenient; 2) the existence of advantages stemming from the direct control of businesses, that result from the possibility of directly influencing strategic decisions and resource allocation. According to Daems it is the sec-

[23] "By acting as a financial intermediary in the capital market, the holding company becomes similar to a closed mutual fund. The basic difference is that holding companies strive for control over corporate decision-making" (Daems, 1978, p. 3).

ond factor which is especially important in explaining the presence of groups[24]. On the basis of empirical evidence on the main Belgian groups Daems (1978) shows that the shares held by the holding companies and the mechanisms of interlocking directorates guarantee the possibility of exercising an effective control over the strategic decisions of companies. The main reason for the persistence of the holding company is to be found, in Daems' opinion, in the presence of conflicts of interest between investors and in the inability of the capital market to offer an efficient solution for these conflicts[25]. In this situation investors are prepared to pay a prize in order to exercise control over the businesses to allow for coordination of their company policies. The holding company is the instrument which allows this control to be exercised: "The financial institution of the holding company, as an invention of financial capitalism meant to structure the corporate control market, permits the large investors to implement their policy preferences and diversify their wealth at the same time" (Daems, 1978, p. 122).

There are some studies by Italian authors who interpret the group as the mechanisms for the control of resources invested in the controlled firms (Buzzacchi and Comombo, 1994; Buzzacchi and Pagnini, 1994; Guelpa, 1994; Buzzacchi and Colombo, 1996). Buzzacchi and Colombo (1994) show that belonging to a group influences the concentration of ownership. Other things being equal, a firm belonging to a group shows a higher spread of ownership if the other companies in the group require a high amount of capital and vice versa. This is the result of internal mechanisms of financial resource allocation that characterise pyramidal groups where the 'invisible hand' of the stock mar-

[24] "The economic rationale for the existence of the large holding companies and industrial combines, if any exists, must consequently be sought in the struggle for control over corporate wealth and corporate strategic decision-making" (Daems, 1978, p. 65).

[25] "Conflicts of interest arise among them [investors] because of uncertainty, differences in beliefs about the likely occurrence of some events and because of incomplete markets" (Daems, 1978, p. 122).

ket is replaced by the ‘visible hand’ of the vertex of the group. According to Buzzacchi and Colombo (1996) the empirical evidence available does not permit an assessment of whether or not the distortion in the ownership structure induced by the presence of pyramidal groups responds to allocation efficiency criteria. From a theoretical point of view, there are arguments in favour of this – as the greater incentives for the monitoring of managers or the investment in information and human capital - as well as against it – as the greater difficulty in the reallocation of control.

Buzzacchi and Pagnini (1994, 1995) try to measure the importance of financial resources managed within the group (internal capital market) and allocation efficiency of this internal market. In their first study on a sample of 510 large industrial enterprises, they show that the amount of capital intermediated within the group is comparable to the financial resources raised by the group from external sources. This confirms the role of the group as an instrument for the allocation of financial resources in the same way as in a multi-divisional enterprise. Unlike the latter, in a group the centres for raising external capital are multiplied, since capital (debt and equity) can be raised both by the holding company and by the individual companies. It is this feature, according to Buzzacchi and Pagnini, which could potentially generate inefficiencies in the allocation process. In fact, the allocation process can be orientated to maximising the utility for the vertex controlling the group to the detriment of minority shareholders of individual companies. This possibility is ruled out in the case of a multi-divisional enterprise since the shareholders have the same share in all the activities (divisions) of the firm (Buzzacchi and Pagnini, 1995).

The inefficiency associated with the ownership structure of the group and potential conflicts of interest between majority and minority shareholders in individual businesses have particularly interested those authors who interpret the group as being a mechanism for separating ownership and control. The interpretation of groups as a way to maximise control over a number of activities had already been proposed by Einaudi in the Twenties, referring to the Italian situation, and even before that by Hilferding with reference to the most important capitalist countries (Hilferding and Bottomore, 1981).

The first systematic study which adopted this perspective with reference to the Italian situation is by Brioschi *et al.* (1990) who examine the ownership and control structure of the pyramidal groups listed on the Milan stock exchange. The interpretation of the group given by these authors is clearly illustrated in the introduction to their book:

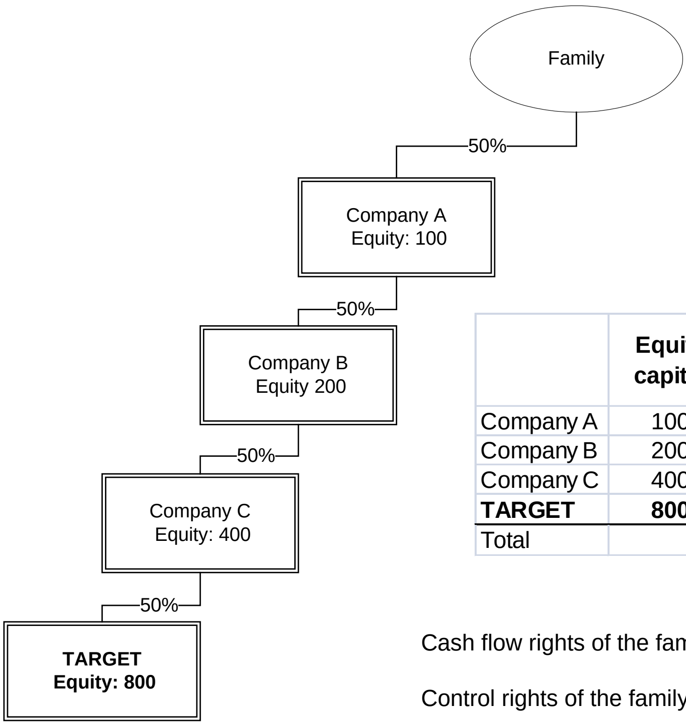
> "even if the importance of the group as an organisational form of enterprise mid-way between the market and hierarchy cannot be denied, it is necessary to recognise explicitly that the group phenomenon, in its hierarchical version, is essentially linked, for causes and effects, to the issue of separation between ownership and control … following Hilferding hypothesis, the group form is seen as an answer to the problem of controlling the widest range of activities with a limited amount of capital." (Brioschi *et al.*, 1990, p. 21-22).

In this interpretation, a fundamental role is played by the relationship between groups and the stock market since the maximization of controlled capital is achieved through the presence of minority shareholders in the companies controlled by the vertex of the group. The same conclusion is reached by a study of the bank of Italy at the beginning of the Nineties. In this study the pyramidal group is also seen as a mechanism for separating ownership and control:

> "By spreading the voting rights of minority shareholders out over a large number of firms, and concentrating those of the entrepreneur in the company at the top of the pyramid, this model allows the latter to obtain the control over the largest possible amount of other people's capital with the smallest possible amount of his own" (Barca, 1996, p. 14).

This mechanism can be called 'equity leverage' as it allows the maximization of capital controlled by leveraging on equity provided by the other shareholders. The mechanism is exemplified in Figure 2.2. For example, if a family wants to firmly control (i.e. with a share of at least 50%) a target company whose equity capital is 800, this would mean investing 400 in the target.

Figure 2.2 – The mechanism of 'equity leverage'



	Equity capital	Provided by the family	Provided by minority shareholders
Company A	100	50	50
Company B	200		100
Company C	400		200
TARGET	**800**		400
Total		**50**	**750**

Cash flow rights of the family on Target: 6.25%

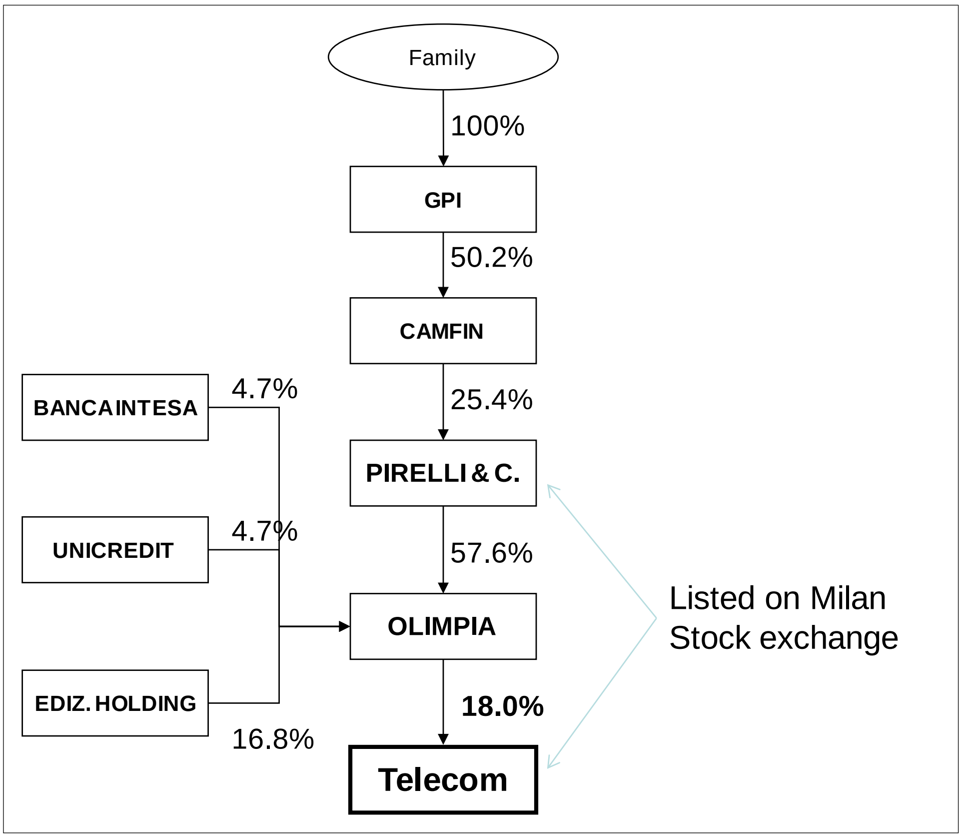
Control rights of the family on Target: 50.0%

Alternatively, the family could create a pyramid of holding companies between the family and the target. In the company at the top of the pyramid (Company A), the family might own 50% of shares, the remaining capital provided by other shareholders. Being in control of Company A, the family can decide on the allocation of its capital that is used to firmly control (50%) another company (Company B) that issued 200 of equity capital; the remaining capital is again provided by other shareholders (the market in the case of a listed company). This can be repeated several times. In each passage the cash flow rights of the family (i.e. the rights to dividends) are reduced according to the share in the company; in this example, they are cut by a half each time. This is not the case for the control rights which remain at 50% for all the companies. With a pyramid of 4 companies, a family can firmly control a capital of 800 by investing only 50 (the 6.25%); while firmly controlling it with a direct share of 50%.

As an actual example of this phenomenon Figure 2.3 shows the pyramidal structure used by the Tronchetti Provera family to control Pirelli & Co. and Telecom Italia, both among the largest companies listed on the Milan stock exchange. The control of Telecom was in the hands of the company Olimpia that retained 18% of voting shares; this share was enough to secure Telecom’s control, given that the remaining shares were dispersed among a large number of minority shareholders. The cash flow rights of Telecom held by the Tronchetti Provera family (through the family holding GPI) were about 0.8 of the Telecom capital. This last figure corresponds to the capital actually invested by GPI to secure the 18% control of Telecom Italia[26].

[26] Morck and Yeung (2003) report a similar case of the Bronfman group in Canada. Other cases of large family groups with listed companies are reported in Morck (2000) and Barca and Becht (2001).

Figure 2.3 – The control of Telecom Italia in 2006.



Source: Annual reports of involved companies.

The interpretation of the group as a financial mechanism for separating ownership from control raises the issue of the relationships between controlling shareholders at the top of the group (vertex) and minority shareholders in the individual companies of the group. In addition to possible conflicts of interest between majority and minority shareholders in individual companies, in the case of business groups there are also those arising from the fact that the controlling shareholders, unlike the minority ones, also have interests in other companies belonging to the group. This could lead to income transfers between companies, which are in the interests of the controlling shareholders but not the minority ones (Johnson *et al.*, 2000; Dewenter *et al.*, 2001; Bertrand *et al.*, 2002)[27]. The

[27] This phenomenon is commonly referred to in the literature as ‘tunneling’.

interpretation of the group as a financial device to separate ownership and control is appropriate for groups that include listed companies and where there is a significant divergence between control rights and cash flow rights; it concerns a tiny minority of large groups, though in some small countries they can represent an important fraction of the economy (Morck *et al.*, 2005).

In a recent paper Almeida and Wolfenzon (2006) have extended the financial explanation to small, family owned business groups. The starting point of Almeida and Wolfenzon (AW from now on) is the dissatisfaction with the equity leverage explanation, given the empirical evidence on the widespread presence of business groups in the small business sector. As stated by the authors:

> “Despite the ubiquity of pyramidal business groups, no *formal theory* explains their existence. A traditional *informal explanation* argues that pyramids are formed to allow a family to achieve control of a firm using only a small cash flow stake” (Almeida and Wolfenzon, 2006, p. 2638, italics added).

From the above statement it seems that the dissatisfaction is motivated not only by the discrepancies between theory and facts, but also by the way in which the traditional theory is formulated (informal versus formal). For this reason, the aim of AW is twofold: the first, explicitly stated, is that of providing a more general model for the presence of business groups that does not rely on the separation of cash flow rights from control rights; the second, implicit, is to develop a formal model to account for the new evidence. In social sciences a formal model is a mathematical model. The choice of mathematical formulation is associated with two main consequences (Bianchi and Henrekson, 2005): the assumption of a (rationally) maximizing behaviour on the part of the decision makers (in this case the family)[28] and the choice of a quantifiable target for maximization so that it is possible to analytically specify the relationship between aims and means to achieve them. In the case of the AW model, the family maximizes the monetary payoff of capital investment. The authors recognize that there are other reasons why a controlling shareholder (an entrepreneur or a family) might wish to set up an independent company to develop a new business: to separate risks from the established company; to offer better incentives and more control to middle managers; and to increase the transparency of results (Morck *et al.*, 2005). Nevertheless, they argue that these considerations do not alter the basic results of their model.

The AW model justifies why business groups exist and why they are organized as pyramids instead of an ownership structure in which companies are owned directly by the family; the latter form is what I have called 'informal groups' but is referred to as horizontal groups by AW (see Figure 2.1, p. 24). The AW model also aims to explain why firms controlled through pyramids sometimes have substantial deviations between ownership and control while in other cases the separation is minor, as is the case in most small and medium-sized groups. For these reasons, the AW model can be considered a more general explanation of business groups than that based on the separation of cash flow rights from control rights. An interesting novelty of the AW model is that business

[28] Almeida and Wolfenzon (2006) consider the 'family' as the ultimate owner of a business group and the decision maker. In this study we refer to the 'entrepreneur' as the ultimate owner and the decision maker. There is some truth in both choices. When considering the ownership of a group we often observe that it is shared by members of the entrepreneur's family; when considering the decision process it appears that the entrepreneur has a key role.

groups are considered the result of companies being added over time by the family as new business opportunities arise[29].

> "When this opportunity arises, the family must decide on the ownership structure of the business group. Under a pyramidal structure, the new firm is owned by all the shareholders of the original firm. As a result, although the family shares the security benefits of the new firm with nonfamily shareholders of the original firm, it has access to all of the retained earnings (cash) of the original firm. The alternative ownership structure we consider is one in which the family controls the new firm by directly holding its shares." (Almeida and Wolfenzon, 2006, p. 2639)

A key ingredient of the model is the assumption of poor investor protection in financial markets. Poor investor protection allows the family to divert (i.e. appropriate at the expense of minority shareholders) some of the cash flow of the controlled company; at the same time, the presence of minority shareholders reduces the security benefits (i.e. the share of dividends from the controlled company) for the family. In the presence of poor investor protection, the pyramidal structure is more attractive than the horizontal structure.

> Because in a pyramidal structure the family shares the security benefits with nonfamily shareholders, while in the horizontal structure it keeps all the security benefits, high diversion gives a greater payoff to the family under the pyramidal structure than under the horizontal structure (*payoff advantage*). Second, because external investors anticipate diversion and discount the terms at which they are willing

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[29] AW use the term 'family' to refer to what we have called the 'ultimate owner' of a business group. The use of the term family recognizes that the authors are dealing with privately owned companies, controlled by one or more entrepreneurs and their family members.

> to provide financing, it is optimal for the controlling shareholders to use internal funds from existing firms to set up new firms before raising any external financing. This makes the family's ability to use all the retained earnings of existing group firms in a pyramid structure more valuable (*financing advantage*). (Almeida and Wolfenzon, 2006 pp. 2639-2640, italics in the original)

This citation clarifies that in the AW model the explanation for the presence of pyramidal groups rests on financial arguments while organizational or other management issues receive no consideration. Because the AW model is based on the hypothesis of wealth maximization and rules out organizational issues I consider it as belonging to the 'financial explanations' of business groups. The AW model makes several predictions about the factors affecting the presence of business groups, their characteristics and the ownership structure of controlled companies. The paper of Almeida and Wolfenzon (2006) is a theoretical one; the authors discuss some anecdotical evidence but do not provide an empirical test of their conclusions.

Compared to the previous financial explanations, the AW model is specifically relevant for this thesis as it refers to family owned (small) business groups rather than large groups. For this reason it is important to examine how far the AW model is able to explain the present characteristics of business groups in the small business sector and what questions it leaves unanswered.

On a theoretical level, the main weakness of the AW model is that it does not give enough consideration to the agency costs of outside equity (i.e. equity provided by subjects that are external to the controlling family) in family firms. This is a crucial issue, because the justification for the creation of business groups and pyramids in particular rests on the possibility for the entrepreneur to raise equity capital from external (to the entrepreneur's family) shareholders when financing new business ventures.

Agency costs are normally referred to the relations between owners and managers in firms where there is a separation between ownership and control. The basic idea of agency theory is that managers, as agents of shareholders (principals), can engage in decision making and behaviours that may be inconsistent with maximizing shareholder wealth (Jensen and Meckling, 1976; Fama and Jensen, 1983).

Agency costs are normally considered relevant in the case of publicly traded firms. In the context of family firms the conventional viewpoint has been that agency issues are of little to no significance owing to the association of ownership and control and the resulting concordance of the interests of owners and managers in such firms (Jensen and Meckling, 1976; Daily *et al.*, 2003). However, recent research suggests that agency issues in family firms are more complex than previously believed (Chrisman *et al.*, 2004; Steier *et al.*, 2004). In fact, entrenched ownership and asymmetric altruism could create unique agency problems in family controlled firms (Gomez-Mejia *et al.*, 2001; Schulze *et al.*, 2001; Schulze *et al.*, 2003). Up to now the literature has given attention to the fact that the overlapping between family and business objectives can hamper firm's performance. Little attention has been paid to the agency costs arising from the presence of minority shareholders (Chrisman *et al.*, 2005, p. 560). The available studies refer to specific situations like when financial resources are raised involving family members (Steier, 2003) as in the case of venture capital operations (Chrisman *et al.*, 2005, p. 560).

In the case of small firms, because of the coincidence between the (main) owners and managers, the latter will pursue a value maximization policy which is in the interests of all the shareholders. This is clearly a simplified assumption for several reasons: a) it is recognized that family owned firms can pursue objectives that are in the interests of the controlling family (such as giving management positions to its members) but not of the minority shareholders; b) when managers enjoy perks that reduce profits; this has no consequences on the overall welfare of the controlling family but can seriously hurt the interests of minority shareholders. In the case of business groups these problems are exacerbated further given the possibility that the controlling owner may choose to divert resources from companies where he/she has higher shares to the detriment of companies where he/she has lower shares.

Despite the relevance of these issues for the family firms in general and business groups in particular, it is an under researched area. For this reason I will dedicate chapter 4 to discussing the ownership structure of business groups and assessing to what extent the financial explanation can be extended to small (family-owned) business groups.

2.4 The entrepreneurship perspective on business groups

The phenomenon of business groups in SMEs has only recently received attention, mainly from entrepreneurship researchers. Even then it has not been a direct interest; rather, it is the result of studies of a connected phenomenon: that of habitual entrepreneurs, i.e. entrepreneurs who have started more than one business during their lifetime. Following a few seminal articles (MacMillan, 1986; Starr and Bygrave, 1991), literature on this phenomenon grew rapidly during the nineties (see issue No. 4, Vol. 22 1998 of Entrepreneurship Theory and Practice dedicated to ‘habitual’ entrepreneurs). Although we lack a clear picture on the extent of this phenomenon in different countries, it can be said that the impact of ‘multiple business ownership’ in small firms seems relevant in all the industrialised countries (Donckels *et al.*, 1987; Birley and Westhead, 1993; Scott and Rosa, 1996; Rosa and Scott, 1999c).

Within the habitual entrepreneurs category it is possible to distinguish two types (Westhead and Wright, 1998b): ‘serial entrepreneurs’, i.e. entrepreneurs who sell their original business but at a later date inherit, establish, and/or purchase another business; and ‘portfolio entrepreneurs’, i.e. entrepreneurs who retain their original business and establish and/or purchase or inherit other businesses. Both categories are referred to as ‘habitual entrepreneurs’. In contrast ‘novice’ entrepreneurs are entrepreneurs on their first business start-up (Birley and Westhead, 1993; Wright *et al.*, 1997). The terms ‘multiple venture entrepreneurs’ has also been used (Starr and Bygrave, 1991). In this study I am specifically interested in ‘portfolio entrepreneurs’, i.e. entrepreneurs who start or acquire new businesses while retaining those previously established, thus setting up a business group. The two concepts (portfolio entrepreneur and business group) refer to the same phenomenon although from different perspectives: **business group** refers to the set of companies owned by the same entrepreneur; **portfolio entrepreneur** refers to the person owning the set of companies[30].

We now have a sufficient number of studies on the phenomenon of habitual entrepreneurs to be able to divide them in two broad categories: the first is mainly concerned with exploring the differences between novice and habitual entrepreneurs with reference to personal characteristics, the gestation process, the features of the new ventures, and

[30] Companies are by definition owned by more than one person. Sometimes they all play important roles in them so we need to think of them as an entrepreneurial team. Owners of companies in the small business sector are often members of the same family; for this reason the economic and management literature about groups often uses the term ‘family’ as a label to indicate the set or persons owning a company.

so on; the second category of studies focus on the characteristics of the entire group of businesses brought about by the activity of habitual entrepreneurs.

2.4.1 Comparison between habitual and novice entrepreneurs

The first strand of literature on habitual entrepreneurs is the largest. Its main aim is detecting the differences between novice and habitual entrepreneurs and examining how these differences affect the characteristics and performance of the new ventures (Birley and Westhead, 1993; Kolvereid and Bullvåg, 1993; Wright *et al.*, 1997b, 1997a; Alsos and Kolvereid, 1998; Westhead and Wright, 1998b, 1998a; Ucbasaran *et al.*, 2003c; Westhead *et al.*, 2003; Westhead *et al.*, 2005; Ucbasaran *et al.*, 2006). The common hypothesis of these studies is that habitual entrepreneurs should be advantaged over novice entrepreneurs in starting new businesses. These advantages refer both to the identification of new business opportunities and to the exploitation of these opportunities through the start-up of new organizations.

Ucbasaran *et al.* (2003b) find that there are differences in the process of opportunity identification between novice and habitual entrepreneurs: specifically, they find that with the same amount of information, habitual entrepreneurs are more likely to identify business opportunities than novice entrepreneurs. Moreover, habitual entrepreneurs are more likely to emphasize the importance of spontaneity and alertness in the identification of new business opportunities and are more opportunistic and alert to recognizing new business opportunities than novice entrepreneurs. Not only does the process of opportunity recognition seem different between novice and habitual entrepreneurs, but also the outcomes: habitual entrepreneurs reported significantly higher levels of innovativeness in their new opportunities than novice entrepreneurs. To explain these differences, the literature on habitual entrepreneurs has focused on the entrepreneur's learning process. The theoretical approach most often used in this literature is that of human capital. Human capital is a somewhat loose concept that encompasses the practical knowledge, acquired skills and learned abilities of an individual that make him/her potentially productive in some activities. In the case of habitual entrepreneurs, the knowledge, skills and abilities are those required for the start-up of new firms: i.e. the recognition and exploitation of new business opportunities. Strictly speaking the human capital concept is somewhat inappropriate in this context; human capital is normally thought of as the result of an explicit 'investment' in education and training. In the case of habitual entrepreneurs, such accumulation is the involuntary result of an activity (the start-up of a business) that has been carried out for reasons other than the accumulation of knowledge and skills.

The improvement of entrepreneurs' human capital is the result of two distinct mechanisms: learning and experience. There is an important difference between the two mechanisms: while the learning process of how to start a business can be considered as a 'general purpose device', and for this reason it can be useful for any subsequent start-up, experience appears to be more 'localized' in terms of sectors and geographical areas. Ucbasaran et al. (2008, pp. 61-71) also make a distinction between general and specific human capital. General human capital refers to education and managerial experience, while specific human capital refers to aspects that are more closely related to entrepreneurial processes: entrepreneurial team experience, motivations for establishing new ventures, perceived entrepreneurial skills, and so on.

The human capital – i.e. skills, experience, network relations, etc. - accumulated by habitual entrepreneurs in their previous start-up(s) is expected to differentiate their behaviour in subsequent start-ups from novice entrepreneurs; for this reason, other things being equal, businesses started by habitual entrepreneurs are expected to perform better than businesses started by novice entrepreneurs. Though some studies found empirical evidence to support the former hypothesis - i.e. the presence of differences in the start-up process between novice and habitual entrepreneurs - (Westhead and Wright, 1998b; Westhead *et al.*, 2003), empirical studies have not found support for the latter hypothesis – i.e. that business started by habitual entrepreneurs should perform better than businesses started by novice entrepreneurs (Kolvereid and Bullvåg, 1993; Westhead and Wright, 1998b). As stated by Carter and Ram (Carter and Ram, 2003):

> "The "popular truth" not upheld by the evidence, however, is that the experience of previous venture ownership endows habitual entrepreneurs with a greater propensity for business success. Within the research literature, there is almost no evidence to support such a view" (Carter and Ram, 2003, p. 372).

There are several explanations for this apparent contradiction between this reasonable hypothesis and the empirical evidence. As already noted by Starr and Bygrave (1991) previous start-up experience can result in both assets and liabilities when considering the subsequent start-up of a business. Liabilities may refer to biases and blindspots as a result of previous entrepreneurial experience:

> "... through experience, an entrepreneur may develop the inertia of conventional wisdom which may be challenged by others who bring a fresher perspective. The negative impact of expertise might be considered <u>the liabilities of staleness</u>." (Starr and Bygrave, 1991 , p. 222, text underlined in the original)

Also in the case of network relationships developed through past start-up experience, Starr and Bygrave (1991) suggest that they can bring problems as well as advantages in subsequent start-ups. In fact, experienced entrepreneurs might favour familiar circles and customary relationships over the unknown, thus hindering their ability to innovate (what they call the liability of sameness). Starr and Bygrave (1991) also point out other potential negative effects of previous successes. For example, successful entrepreneurs tend to spend more capital on subsequent ventures, not paying the same attention to reducing fixed costs, increasing flexibility and reducing risks which they applied successfully in their resource-constrained first venture (what the authors call the liability of costliness).

Besides the question of whether past start-up experience can be considered an asset or a liability for subsequent start-ups, there is also an important methodological problem when comparing the performances of novice and habitual entrepreneurs. When searching for a positive relationship between previous start-up experience and subsequent start-up success, the following assumptions are implicitly made:

1. It is possible to identify and measure a set of personal skills and attitudes that influence the ability to recognize and exploit business opportunities;
2. It is possible to directly connect the level of those skills and attitudes to the probability of success in new venture creation;
3. The ‘quality’ of entrepreneurs (i.e. the ‘stock’ of entrepreneurial skills and attitudes) were at an equal level before their first start-up or the differences are much lower compared to what entrepreneurs can gain through the start-up experience.

If assumption 1 is not satisfied, there would be a problem in the identification of the variables that are enhanced during the start-up process and that are expected to be different depending on whether the entrepreneur is a novice or a habitual entrepreneur. In the case of assumption 2, the problem is that of controlling for all the other variables influencing the probability of the success of a new venture, so that it is possible to isolate the relationship between entrepreneurial attitude and skills and new venture success. These two aspects are discussed at length in the literature on habitual entrepreneurship; in fact, they are at the core of this literature.

Less importance has been given to the third question. The assumption of an almost 'equal' distribution of entrepreneurial attitudes and skills prior to the first start-up is quite strong both from a theoretical and an empirical point of view. From a theoretical point of view there are several models of entrepreneurial behaviour that start from the opposite hypothesis: i.e. of an unequal distribution of entrepreneurial attitudes in the population (Kihlstrom and Laffont, 1979; Holmes and Schmitz, 1990). If this is the case, it is the initial stock of entrepreneurial capabilities that matter the most, compared with the gains achieved through the start-up experience. From an empirical point of view, there are several studies acknowledging differences in entrepreneurial attitudes within the population (Chen *et al.*, 1998; Freytag and Thurik, 2007; Ardagna and Lusardi, 2008). Moreover, there can be other employment conditions - such as functional responsibility within a firm - that can allow people to enhance their entrepreneurial skills (for example in people management). If we do not retain the hypothesis of an equal distribution of entrepreneurial attitudes and skills in the population before the first start-up attempt, it could be that the stock of 'entrepreneurial attitudes and skills' of a novice entrepreneur is higher than that of an habitual entrepreneur, even though the latter had the opportunity to improve them during previous start-ups.

When considering portfolio entrepreneurs (i.e. those entrepreneurs that start new businesses while retaining ownership and control of those previously established), there is an additional problem; the relationship between the new business and the businesses already established businesses needs to be taken into account. In fact, much of the literature on habitual entrepreneurs does not consider the entire growth process of business cluster formation by habitual entrepreneurs and focuses on the last start-up, thus not giving enough importance to the relationships between the new ventures and the ones already set up by the entrepreneur. If the new business is in some way related to the previous one (as it is in the majority of cases) it could be that the poor performance of the new business is partially compensated by the synergies (and enhanced performance) of the established businesses. In making their decisions, portfolio entrepreneurs take into account the overall performance of the businesses they control over time rather than considering them independently.

2.4.2 Portfolio entrepreneurs and entrepreneurial processes

The second strand of studies on habitual entrepreneurs focuses on the characteristics of the entire group of businesses brought about by the activity of habitual entrepreneurs. The main aim of these studies is to explain the nature and processes of new business development by habitual entrepreneurs and the characteristics of the resulting groups (or clusters) of companies. These issues were analysed initially by Rosa (1998) and Rosa and Scott (1999a). Their approach involved mapping out each group and interviewing the entrepreneurs to investigate how and why each company was added to the group.

These authors were interested in understanding the overall growth of activities under the control of an entrepreneur rather than paying attention to the performance of specific businesses. The results were complex, showing that the reasons and strategies for adding each new company were often different and varied considerably according to circumstances. Diversification, normally related to the current businesses, tended to predominate as a reason for setting up new firms; nevertheless, serendipity also played a role as few entrepreneurs predicted in advance where the next additional business would come from. These studies revealed that entrepreneurial processes are associated with the growth of medium-sized groups, but they were exploratory in nature and do not attempted to develop general hypotheses for the formation and growth of business groups in the small business sector.

Rosa (1998) points to a number of interesting questions and further developments that could arise from the study of habitual entrepreneurs. For example, it is not clear how far aggregate value in the cluster of firms created by habitual entrepreneurs outperforms that of the single firm entrepreneur; i.e. whether the creation of a business group in the small firm sector should be seen as a defensive strategy because of a lack of growth in the original business or as way of attaining growth when market structures become more segmented and competitive (Rosa, 1998 , p. 59). Rosa (1998) also introduced the concept of 'entrepreneurial performance' to distinguish performance through creating a cluster of ventures rather than through growing a single one.

> "Comparing the latest firm started by a habitual entrepreneur with that started by a novice entrepreneur ... can be potentially misleading without taking a more holistic view of how growth in capital assets and employment is achieved over all business activities." (Rosa, 1998 , p. 58)

A theoretical study that follows this line of reasoning is that of Sarasvathy and Menon (2004). They suggest separating the performance of firms from the performance of entrepreneurs:

> "For the one time entrepreneur, the firm is an end in itself; whereas for the multiple entrepreneur, each firm, whether successful or failed, is an instrument of learning that enables him or her to achieve better performance over time." (Sarasvathy and Menon, 2004, p. 9).

Sarasvathy and Menon (2004) are interested in modelling serial entrepreneurship as a temporal portfolio; moreover, serial entrepreneurship provides a viable strategy for the entrepreneur to improve his or her own expectations of success for firms they start subsequently. It is not the performance of any single business that matters but that of the entire set of businesses started by the entrepreneur over time. Though the authors are interested in modelling the behaviour of serial entrepreneurs, they do not make specific assumptions about whether or not entrepreneurs retain their successful businesses (thus becoming portfolio entrepreneurs) or sell them before starting a new one (as is assumed for serial entrepreneurs). This aspect is irrelevant in their model as its aim is to try and separate the probability of success and failure of entrepreneurs and firms. Nevertheless, it is central to my reasoning because I am specifically interested in portfolio entrepreneurs and the problems arising from managing and developing a set of different businesses simultaneously.

There are several studies that use a 'career' approach to study not only the decision to become an entrepreneur (i.e. to start-up a business), but also that of persisting in that career. These studies support the consideration of the entire career path of an individual rather than analyzing his/her status at a certain point in time during a single event.

In their investigation of what determines ‘entrepreneurial persistence’, i.e. maintaining an entrepreneurial career after the first start-up, Burke et al. (2008) acknowledge that entrepreneurial persistence is not synonymous with firm survival as successful entrepreneurs may be associated with rapid change of ventures. One of the aims of this study is to distinguish between characteristics that encourage individuals to become entrepreneurs (attempting their first start-up) and those that encourage persistence in these entrepreneurial careers. The authors do find differences between the factors that influence people to become entrepreneurs and those explaining persistence in an entrepreneurial role. Given the data set used by Burke et al. (2008) these factors refer to prior personal and family characteristics while there is no information available on the characteristics of the businesses controlled by entrepreneurs.

Dyer (1994) gives some suggestions to develop a theory of the ‘entrepreneurial career’, which he defines as the career of those who found organizations. His starting point is the fact that while “… entrepreneurship researchers have put so much emphasis on understanding the factors that influence someone to start a new business, little work has been done to understand how these individuals progress through various roles throughout their careers” (Dyer, 1994 , p. 7). He analyses several aspects of the entrepreneurial career and discusses how career roles and dilemmas vary across different stages of the career. He recognizes that roles and dilemmas in mid-career – after the start up phase - are different from those in the early phases: “ To manage growth, entrepreneurs often must change from a ‘doing role’ to a ‘delegating role’ since they must rely on others to get work accomplished” (Dyer, 1994 , p. 14). The problem of delegation is more complex in the case of portfolio entrepreneurs as delegation can refer not only to the management of established businesses but also to the start-up of new businesses. Until now, the latter question has not been taken into consideration by the literature.

In a recent article Wiklund and Shepherd (2008) point out another methodological question related to the comparison between novice and habitual entrepreneurs. The literature equates a business start-up to the establishment of a new company; this is by definition true in the case of a novice entrepreneur, but not necessarily so in the case of habitual entrepreneurs. In fact, the latter also have the choice of developing the new venture within one of the already established companies. According to Wiklund and Shepherd (2008) when comparing business start-ups by novice and portfolio entrepreneurs, the literature only considers a subset of the latter as some of them can choose to develop the new venture within the company they already own. Their methodological point is to "…conceptually and empirically separate the act of entrepreneurship from its organization" (Wiklund and Shepherd, 2008, p. 702). Within their approach the 'portfolio' is defined in terms of opportunities and they are interested in analyzing the way habitual entrepreneurs organize the exploitation of these opportunities. In doing this, they distinguish between the 'internal' mode of organizing, where the new venture is developed within the established company, and the 'external' mode of organizing, where the new venture is developed by setting up a new company.

> "We contrast exploiting the opportunity within the organizational context where the opportunity is discovered (an existing firm) with the creation of a new firm …. We refer to these as internal vs. independent organizational modes" (Wiklund and Shepherd, 2008, p. 704).

The main aim of Wiklund and Shepherd (2008) is to compare novice and habitual entrepreneurs; for this reason the choice between internal and external modes of organizing is not central to their investigation. The only hypothesis they put forward in this regard is that "… experts would be more prone than novices to choose the new organization mode because it offers greater control over the new entry". As a result: "Habitual founders are more likely than novice founders to use an independent firm as the organizing mode for portfolio entrepreneurship." (Wiklund and Shepherd, 2008, p. 706). The latter hypothesis seems somewhat strange because it is unclear how the organizing modes of habitual and novice entrepreneurs might be compared given the fact that the latter have no other choice than to start a new company. The choice between the 'internal' and 'external' mode of organizing a new venture is meaningful only in the case of portfolio entrepreneurs who already have a company under their control. Moreover, Wiklund and Shepherd (2008) do not consider one of the main features of the 'external' mode of organizing: i.e. the possibility it gives to alter the ownership structure of the new business and to isolate the risk.

2.5 A synthesis of the theoretical approaches to business groups

Figure 2.4 presents a synthesis of the theoretical approaches developed so far to address the phenomenon of business groups and the type of groups to which they refer. I distinguish business groups as belonging to 4 types according to their size – large or small - and the prevailing aspect considered by researchers: vertical ownership relations (pyramids) or horizontal management of diversified activities. Figure 2.4 indicates the papers that initiated the theoretical approach and the main contributors. The distinction between large and small groups is admittedly blurred, as any attempt at finding a unique cut-off to distinguish between large and small firms will be. In the case of large groups, authors usually refer to the largest companies in a country; the main companies of these groups are generally listed on stock markets and their shares are publicly traded. In fact, the relationship between business groups and financial markets is one of the key issues of the literature on large groups.

In general, explanations that emphasize financial aspects refer to the pyramidal (vertical) structures, based on several layers of controlled companies within the same group. On the contrary, explanations emphasizing the organizational nature of business groups refer to the horizontal nature of these structures: i.e. the collection of different activities within a common ownership. In the case of contributors referring to emerging economies both aspects are considered.

Figure 2.4 highlights the fact that only a few theoretical papers refer to small groups while most of the empirical and theoretical literature refers to large groups.

Figure 2.4 – Theoretical perspectives on business groups

	Large groups		Small groups	
	Pyramidal	Horizontal	Pyramidal	Horizontal
1. The group as an organizational form				
1.1 corrupted M-form	(Williamson, 1970; Williamson, 1975) (Chandler, 1982a)			
1.2 mechanism for reducing transaction costs		(Goto, 1982) (Kester, 1992)		
1.3 mechanism for overcoming market inefficiencies in emerging economies	(Ghemawat and Khanna, 1998; Khanna, 2000) (Khanna and Yafeh, 2005) (Chang, 2006b; Peng and Delios, 2006)			
2. The group as a financial mechanism				
2.1 separating control rights from cash flow rights	(Hilferding and Bottomore, 1981) (Brioschi *et al.*, 1990) (Morck and Yeung, 2003)			
2.2 the group as an internal capital market	(Daems, 1978) (Buzzacchi and Pagnini, 1995)			
2.3 maximizing family wealth and 'tunnelling' from minority to controlling shareholders	(Johnson *et al.*, 2000) (Dewenter *et al.*, 2001) (Bertrand *et al.*, 2002)		(Almeida and Wolfenzon, 2006)	
3. The group as a way for managing growth				
3.1 diversification in turbulent markets		(Gerlach, 1995) (Shimotani, 1997)		
3.2 entrepreneurial dynamics				(Rosa and Scott, 1996) (Rosa, 1998) (Iacobucci, 2002)

2.6 Empirical and theoretical gaps

As discussed in the previous sections, business groups have been widely investigated by several strands of literature. Nevertheless, the literature refers mainly to large groups and up to now has focussed on financial issues. On one hand, this does not acknowledge the relevance of business groups in the small business sector; and on the other hand, the financial explanations cannot easily be extended to small groups that are characterized by the concentration of ownership and the association between ownership and control. In the case of small firms, it is more appropriate to considered a business group as an organizational device used by entrepreneurs to enlarge the activities under their control. Nevertheless, the entrepreneurial processes at work and their relations with other aspects, such as the diversification strategies, are still under-investigated.

The limits of current theories in explaining the ‘ubiquitous’ phenomenon of business groups is expressed by several authors.

In their review of the empirical and theoretical literature on ‘habitual entrepreneurs’, Wright, et al. (1998) indicated 29 directions for future research. As examined in Section 2.4., the entrepreneurship literature has focussed on the comparison between habitual and novice entrepreneurs when considering opportunity discovery and exploitation or the performance of new ventures. Less attention has been given to other directions indicated by Wright et al. (1998), that are more closely connected to the study of business groups. For example, as a first point they indicate that “Studies should examine the full scope of the activities of entrepreneurial individuals, rather than focusing solely upon individual businesses” (Wright *et al.*, 1998, p. 16). They also point out to empirical gaps in the field. As a third point they call attention to the fact that "National-level studies need to be conducted which measure the scale and nature of habitual entrepreneurship..." (Wright *et al.*, 1998, p. 16). These two gaps, among others, will be specifically addressed in this study.

The dissatisfaction for available theories is also expressed by researchers studying the phenomenon of business groups. Referring to a large number of emerging economies, Khanna and Yafeh (2005) examine several hypotheses that could explain the presence and characteristics of business groups: facilitating mutual insurance among member firms, enabling them to share risks, smoothing income flows and reallocate money from one to another. However, they fail to substantiate their hypotheses with empirical evidence and conclude that "other reasons are more likely to explain the ubiquity of business groups around the world" (Khanna and Yafeh, 2005, p. 301). I suggest that the economic and managerial literature on business groups has given too much emphasis on financial aspects, thus undervaluing the role of business groups as an organizational device used by entrepreneurs to growth and manage their portfolio of businesses. This is one of the gaps addressed in the present study.

Also in the literature that considers the role of institutional factors in explaining business groups there is increasing dissatisfaction for the theoretical approaches used by researchers. After reviewing the post-crisis restructuring of business groups in Asian countries, Chang (2006b) suggests researchers should not "… approach business groups as a special entity specific to each East Asian country. Research on business groups can be better appreciated by a larger academic community if business groups are treated as a general form of diversified corporations that are commonly found in every part of the world" (Chang, 2006b, p. 414). Among the several issues that still need to be better investigated, Chang acknowledges the fact that the analysis of business groups can provide an interesting setting for exploring entrepreneurship:

> "Founders of business groups are often private entrepreneurs. A historical analysis of the growth of business groups can highlight how each entrepreneur started up his/her own business and expanded it to create a group while overcoming many difficulties". (Chang, 2006b, p. 415)

However, up to now little has been done along this direction.

The last citation by Chang (2006b) could well represent the broad scope of the present thesis as it takes into consideration business groups founded by private entrepreneurs. Its main purpose it to assess to what extent the entrepreneurial processes contribute to understanding their formation and growth. By entrepreneurial processes I mean all the "... functions, activities and actions associated with perceiving of opportunities and the creation of organizations to pursue them" (Bygrave and Hofer, 1991, p. 14).

Given the fact that the formation of a business group is the common way through which entrepreneurs expand the activities under their control, we still lack a model explaining why and when the formation of business groups is more likely and how we can predict their characteristics. Despite the importance of new business creation for established companies' growth and profitability Zahra *et al.* (2006) note that:

> "...little attention has been given to the process by which new businesses are created within established companies. ... The scarcity of research on the topic stems from the complexity of the processes involved and the long gestation period of many of these initiatives." (Zahra *et al.*, 2006)

This is even more so in the case of small firms. Entrepreneurship literature has focused on comparisons between novice and habitual entrepreneurs in relation to the characteristics of the businesses they develop, but leaves several unanswered questions concerning the causes and the processes of the business groups' formation and dynamics.

As a result of the literature review and of the gaps previously highlighted, the main research questions addressed in this thesis are summarized below by specifying the central questions and related sub questions.

1. The *main research question* of this thesis is that of understanding the role of entrepreneurial processes in the formation of business groups. Specifically, the study addresses the following issues:

1.1 why and when entrepreneurs decide to exploit new ventures by setting up a new company rather than developing the new venture within the established firm;

1.2 whether there are other people involved in the growth of business groups and their role in the start-up of new ventures;

1.3 what are the nature of these teams and how they evolve over time.

Given the exploratory nature of these questions they will be addressed with qualitative methods, based on retrospective interviews with portfolio entrepreneurs. A detailed account of the research design is provided in the next chapter. The results are analysed in Chapter 6.

2. According to a theory recently proposed by Almeida and Wolfenzon (2006) the business group is a device used by the entrepreneur to manipulate the

ownership structure of new businesses in order to maximize the financial wealth of his/her family (I labelled it as the 'financial explanation'). The predictions of this theory have yet to be empirically tested. Specifically, this study addresses the following questions:

2.1 assessing whether and to what extent the empirical predictions of the financial explanation about group structure (vertical versus horizontal structures) and the ownership structures of new companies are verified by the available evidence about business groups in the small business sector;

2.2 discussing how the financial explanation relates to the results of the qualitative analysis about the role of entrepreneurial processes in business group formation.

The empirical verification of the financial explanation is based on quantitative methods referring to the population of Italian small groups. The results are discussed in Chapter 4.

3. The literature on habitual entrepreneurs has not resolved the question of whether the advantages of habitual over novice entrepreneurs in setting up new businesses are related to some form of specialization in the entrepreneurial activity per se or whether they originate from the accumulation of idiosyncratic knowledge and resources in the original activity. The latter question refers to the relationships between the new activities and the one already established by entrepreneurs (diversification strategies). Specifically, the study addresses the following questions:

3.1 Assessing to what extent the setting up of new firms by habitual entrepreneurs is the result of diversification in new sectors rather than the expansion of the original business;

3.2 Analyse the degree of diversification in business groups and how the setting up of new companies relate with the overall structure and dynamics of groups.

These questions are addressed by using quantitative methods referring to large samples of business groups and examining a few case studies. The results are reported in Chapter 5.

Finally, given the different theories proposed to explain the presence and characteristics of business groups and the entrepreneurial perspective introduced by this research it is a specific aim of the thesis that of proposing an integrated framework to related the different theoretical explanations and assess their relative importance in explaining the empirical evidence on business groups. This is done in Chapter 7.

Chapter 3 - Research design and methodology

This chapter provides a discussion and a justification of the methodology and analytical methods used to address the research questions discussed in the previous chapter. It also provides a description of the sources of data used in this study. Collecting, organizing and analysing data is a time consuming and resource absorbing activity. For this reason there is a trade-off between the ideal set of information needed to address the research questions and those that can be efficiently obtained given the available time and resources. As described in detail in section 3.3, I use several data sets, some already available from statistical agencies or other sources (indirect or secondary sources) and others specifically collected for this study (direct or primary sources).

The methodology used to analyse data is as important as the data itself. Some authors would even question the idea that data can exist independently of the theories and methods to interpret them. This is especially true in the social sciences where data about a phenomenon cannot be collected without some prior concepts which allow us to define entities and to give meaning to information about them (Bryman, 2001). This means that the ways data are collected and elaborated are not neutral with respect to theoretical models and approaches used to interpret the reality. In our case, the collection of data about business groups is necessarily dependent on an ‘a priori’ definition of what a business group is. Moreover, not all available data are appropriate to the chosen definition. For example, official statistics on business groups are collected on the basis of a specific definition of what constitutes a group. This definition fits the aims of statistical agencies but not necessarily those of researchers. Data and information collected directly can overcome this limit but their collection is much more costly than those which are publicly available.

Another problem with empirical data is that the breath of coverage of the population is normally inversely related to the amount of information per unit of analysis. For this reason I will use several sources of information that differ in terms of population coverage and amount of information: from statistical information referring to the population of business groups, yet containing only a little information about them, to direct interviews with entrepreneurs which allow me to gain a much richer picture of the phenomenon while referring to a small number of cases.

The chapter is organized as follows. The next section discusses some methodological issues about theoretical and empirical research in the fields of management and entrepreneurship. Section 3.1 presents the research strategy adopted to address the questions raised in the previous chapter. Section 3.3 illustrates the characteristics of indirect and direct sources of data that will be used in the remaining chapters. In describing these data sets, the section also provides a general overview of the phenomenon of business group in Italy and in the Marche region.

3.1 Research methods and techniques

Entrepreneurship is an interdisciplinary field (Herron *et al.*, 1991; Ripsas, 1998; Zahra and Dess, 2001; Busenitz *et al.*, 2003). This is reflected not only by the variety of topics included under this heading, but also by the different methodologies used by entrepreneurship scholars. Indeed, in the entrepreneurship field we can observe a wide variety of methodological approaches both in theory building and in applied work: from the positivist approach and quantitative methods which are typical of economics and psychology, to the inductive approaches and qualitative methods that are more common among sociologists and anthropologists. This reflects not only the fact that entrepreneurship has attracted the interest of several disciplines, but also the variety and complexity of issues that entrepreneurship scholars try to address (Chandler and Lyon, 2001; Davidsson and Wiklund, 2001; Ucbasaran *et al.*, 2001; Grant and Perren, 2002). Given the close connection existing in the social sciences between the issues addressed and the methodology used, it is no surprise that entrepreneurship researchers have chosen the methods that are best suited to address their specific research questions.

There has been a thorough debate in the last decades about the possibility of defining a distinctive domain for the field of entrepreneurship (Shane and Venkataraman, 2000). Over the years, there has been a shift from approaches that focus on the characteristics of people who become entrepreneurs, to the processes that characterize entrepreneurial activity: i.e. discovery, evaluation and exploitation of new business opportunities (Gartner, 1988; Casson, 1990; Davidsson, 2008). Nevertheless, several contrasting issues remain. Some authors (Gartner, 1985; Vesper, 1990; Brush *et al.*, 2003) associate entrepreneurship with the creation of new organizations (new venture creation).

> "*Entrepreneurship is the creation of new organizations*. … If we are to understand the phenomenon of entrepreneurship in order to encourage its growth, then we need to focus on the process by which new organizations are created." (Gartner, 1988, p. 26, italics in the original).

Other authors do not view the creation of new organizations as the characteristic feature of entrepreneurial activity and define entrepreneurship as "… the discovery, evaluation and exploitation of future goods and service" (Eckhardt and Shane, 2003, p. 336). In this definition it is the characteristics of opportunities that matter; 'entrepreneurial opportunities' are defined as "… situations in which new goods, services, raw materials, markets and organizing methods can be introduced through the formation of new means, ends, or means-ends relationships" (Eckhardt and Shane, 2003, p. 336). As a result, entrepreneurial decisions are 'creative' decisions and cannot be reduced to optimizing or satisficing decisions in which ends and means are taken as given[31].

Apart from the different importance placed on opportunities rather than organizations, a common characteristic of recent contributions to the definition of entrepreneurship is the importance given to 'entrepreneurial processes'. The study of entrepreneurial processes means the analysis of the people, activities and circumstances that are involved in the discovery of new business opportunities, their evaluation and structuring and their exploitation through the set-up and development of new ventures.

Despite the growing consensus on the defining of the domain of entrepreneurship, (Cornelius *et al.*, 2006) there remains a lively debate on methodological issues (Low and MacMillan, 1988; Chandler and Lyon, 2001)[32]. Apart from specific questions, one of the main concerns is the absence of a 'dominant paradigm' in the field (Gartner *et al.*, 2006). As a result, in 2001 Low argued that entrepreneurship research was still in its 'adolescence' with a modest level of academic legitimacy (Low, 2001, p. 17). More recently, Gartner *et al.* (2006) noted that "most entrepreneurship scholars appear to bring with them the community of some other 'home' disciplines, be it psychology, sociol-

[31] This aspect of 'creation' as the distinguishing feature of entrepreneurial activity is stressed by the work of Sarasvathy (Sarasvathy, 2001, 2003; Dew *et al.*, 2004).
[32] Methodological controversies are common in all the social science fields. In the case of entrepreneurship this is accentuated by the interdisciplinary nature of the field.

ogy, economics, finance, or strategic management" and that "…many of the issues that entrepreneurship scholars address are primarily oriented to core issues embedded in other disciplines" (Gartner *et al.*, 2006, p. 324).

An issue that has raised specific attention among entrepreneurship researchers is that of theory building (Amit *et al.*, 1993; Phan, 2004; Zahra, 2007). The question can be split into two aspects: the first is whether there is a need (and possibility) to develop a 'theory of entrepreneurship' distinct from theories used in the fields of economics, psychology, finance, etc.; the second refers to the methodology used by entrepreneurship scholars to develop theory in the field.

In the case of the first question, the most commonly shared opinion is that by its nature entrepreneurship is an integrative area of inquiry and that for this reason it will continue to borrow theories and concepts from other, more established, areas of the social sciences (Low, 2001; Busenitz *et al.*, 2003; Gartner *et al.*, 2006).

In the case of the second question, concern has been raised about the need for more 'theory-driven' research and for improved quality in theory building (Zahra and Dess, 2001). It is often recognized that qualitative methods are important specifically because they can help to build grounded theory in a field where there is not a well developed paradigm (Brush *et al.*, 2003, p. 320). In contrast, other authors emphasize the use of mathematical modelling (as opposed to the wide use of 'conceptual framework') as a way of adding structure and rigour to theory building (Lévesque, 2004). The latter claim contrasts with a large number of scholars who have cast doubt on the possibility of developing formalized theories of entrepreneurship in the way that is typical of economics (Baumol, 1968; Barreto, 1989; Casson, 1990; Baumol, 1993a; Baumol, 1993b). This is because (mainstream) economics is mainly defined by its method rather than by its issues: “It [economics] is about building models that are tested, or that can at least be tested in principle. Hence, is it no surprise that idea that cannot be modelled formally tend to be ignored in economics” (Bianchi and Henrekson, 2005, p. 356). It is difficult to model entrepreneurial processes formally in the way mainstream economics does, since they elude analytical tractability. Formal models can be useful in two ways: for considering specific aspects of entrepreneurial behaviour, as suggested by Lévesque (2004); or to capture the dynamics of the whole population of entrepreneurial firms (Bianchi and Henrekson, 2005).

For these reasons, I have chosen to use a research strategy that involves the use of both quantitative and qualitative methods. In general, the latter distinction is associated with deductive and inductive methods in theory building and with post-positivist rather than constructivist approaches to knowledge. Quantitative methods are generally used to test propositions deduced by formal models developed on the basis of a few assumptions; qualitative methods use case studies as their strategy of enquiry and grounded theory for model building; they emphasize the context and settings of participants and their meaning and interpretation of phenomena.

Quantitative methods, based on statistical analysis of large sets of data, are used to test the theories proposed by the literature; namely, the financial and the diversification theories. I derive the main empirical propositions emerging from the latter theories and assess to what extent they are confirmed by available data.

Besides the empirical test of available theories, the main aim of this thesis is to assess whether and to what extent the consideration of entrepreneurial processes add to our understanding of business groups and whether it is able to fill the gaps left by other theoretical approaches. To achieve these aims, it is necessary to use qualitative methods; specifically, I have used case study analysis and direct interviews with entrepreneurs. There are two main reasons for this choice of qualitative methods. So far few studies have been done on this topic and we do not have a consolidated theory from which to derive propositions that could be tested with available data. For this reason, I carried out an exploratory study aimed at developing a coherent set of theoretical propositions on business group formation in the small business sector. With this aim, it is necessary to look at the complexities of the processes involved and allow the entrepreneurs the freedom to make their own interpretations and give their own explanations, rather than trying to get them to verify pre-imposed hypotheses. Another reason for using qualitative methods is that the expression of entrepreneurial processes in the form of quantifiable variables is difficult and they are better described and analysed through narrative statements and visual models.

Initially I planned to use a sequential mixed strategy: firstly, using quantitative methods to test available theories, followed by qualitative methods aimed at exploration and model building. I have ended up using a strategy of concurrent methods in which the two approaches have been mixed to raise the efficacy in the use of quantitative and qualitative techniques (Creswell, 2003).

The process of theory building is made by integrating the results of qualitative and quantitative analyses. In the qualitative analysis I used some of the techniques of grounded theory. I started interpreting the interviews on the basis of some pre-defined issues. New issues and concepts has been added as they emerged from the views and motives expressed by interviewed entrepreneurs; I then refined these issues and concepts to derive some general propositions. These propositions has been compared with the results obtained from the case studies and quantitative analyses of secondary sources

(Stake, 1995). The combination and comparisons of results obtained from interviews, case studies and quantitative analysis have been beneficial to the overall process of model building. For this reason there is a discussion of several theoretical papers in the final chapter. This discussion is functional to theory building; the chapter integrates the result of direct interviews with some proposed theoretical approaches for interpreting the observed patterns of entrepreneurial processes.

I use different research strategies to address the research questions (Bryman, 2001, Chap. 2; Chandler and Lyon, 2001): specifically, cross-sectional data are used to explore the main characteristics of the phenomenon of business groups; longitudinal data are used for analysing the dynamic patterns of business groups; and retrospective case study analysis based on direct interviews is used to explore the reasons and motives of entrepreneurs to set up a business group. These research strategies are used to address different research questions but also to address the same questions in different ways.

Several analytical techniques are used, both quantitative and qualitative, according to the specific research questions. In the case of quantitative methods I make use of descriptive statistics for characterizing the phenomenon of business groups; I use correlation analysis and multiple regression for exploring relations between variables. Data management and quantitative elaborations have been made using STATA 9.0. Qualitative elaborations have been made by using the software QRS NVivo 7.0. This helped in the transcription of the interviews and in coding the text.

3.2 The unit of analysis

An important methodological question in empirical studies is the definition of the unit of analysis. Researchers addressing the study of business groups have used different units of analysis: a) the group as a whole, as is the case of the organizational (Williamson, 1975; Chandler, 1982a) and the institutional approaches (Ghemawat and Khanna, 1998); b) the companies belonging to groups, as is the case of the literature on internal capital markets (Daems, 1978; Buzzacchi and Colombo, 1996) and tunnelling (Bertrand *et al.*, 2002); c) the controlling owner(s), as in the case of the 'equity leverage' hypothesis (Brioschi *et al.*, 1990) and of recent financial explanations for privately owned groups (Almeida and Wolfenzon, 2006).

The owner perspective is also adopted by the literature on habitual entrepreneurs. As discussed in Section 2.4 we can identify two different approaches within the entrepreneurship literature. The first is concerned with assessing the differences between novice and habitual entrepreneurs when starting new businesses (Ucbasaran *et al.*, 2008); for this reason, the main unit of analysis is represented by the entrepreneur (owner-manager of the businesses) while a secondary unit is represented by subsequent start-ups. The second approach is concerned with analysing the role of entrepreneurial processes in determining the presence of portfolio entrepreneurship (Rosa, 1998); for this reason the main unit of analysis is represented by the entrepreneur and the secondary unit is represented by the whole set of companies under his/her control.

This thesis follows the latter approach. For this reason, the empirical analysis refers to both units of analysis: the **group** and the **entrepreneur** who controls it.

Because a business group is, by definition, a set of companies, it is obvious that to examine the features of a group it is necessary to study the characteristics of the companies that make up that group. Nevertheless, these individual companies are not considered as a unit per se, but as instrumental for understanding the characteristics of the group and the behaviour of entrepreneurs. It must also be taken into consideration that most of the statistics available refer to the single company rather than the group as a whole (see the discussion in Section 2.2); in order to obtain information about the group, it is necessary to collect and aggregate data referring to the single companies that form the group.

Given the aims of this study (see Section 2.6), I consider only those groups where it is possible to identify the presence of one or a few people who own and control the group and who are directly involved in the management of its companies (i.e. the owner-manager). This is the situation normally observed in the small business sector, though it is not unusual to observe large firms that are also characterized by concentration of ownership and the association between ownership and control. I focus on small and medium sized groups is because this is the area that has the most theoretical and empirical gaps (see Section 2.6).

Firms with concentrated ownership and association between ownership and control are also referred to as ‘family firms’. Also in the literature on business groups, family ownership is often used as a criteria for characterizing them (Almeida and Wolfenzon, 2006). There is no agreement in the literature about the definition of ‘family firm’ (Westhead and Cowling, 1998; Steier *et al.*, 2004). Several criteria can be used, either in isolation or in combination: the percentage of shares owned by the members of the same family; the involvement of family members in the management of the company; and the transfer of ownership and control from one generation to another (Chua *et al.*, 1999; Steier *et al.*, 2004; Chrisman *et al.*, 2005, p. 556).

Some researchers us a very broad concept of family firms, as those companies in which a single family owns more than a specific percentage of shares. Oswald *et al.* (2009) delimit family firms as those in which a single family holds at least 15% of the shares. Morck and Yeung (2004) use the following criteria of family control to distinguish family firms: (1) the largest group of shareholders in a firm is a specific family, and (2) the stake of that family is greater than either a 10% or 20% control of the voting shares. These definitions of family firms are suited for studies on listed companies and in countries like the USA where there is a prevalence of large, publicly held firms. In all other countries, publicly held firms are the exception rather than the rule and ownership of firms is much more concentrated (La Porta *et al.*, 1999). This is even more so in the small business sector; in fact, the majority of SMEs are closely held firms and their shares are not publicly traded. For the definition of business groups I have used the 50% of shares as a cut off for identifying the control of a firm: legal units are considered as belonging to a group when the same owner (or coalition of owners) owns at least 50% of it. This means that all the groups examined in this study are family owned groups. They are also family controlled, as members of the family retain key positions in the control (board of directors) and management of the companies. Moreover, in the groups examined it is possible to identify a 'dominant' entrepreneur, i.e. a person who played the major role in the start up and development of the group and who retains key positions in the ownership and control of companies. Descriptive statistics about the ownership structure of business groups are discussed in Section 3.3 when analysing the data sets used in the empirical section.

There is also a high level of ownership concentration and direct involvement of owners in the control and management of companies because in the empirical analysis I consider groups belonging to the small business sector: i.e. small and medium sized groups. The theoretical definition and empirical identification of the small business sector is problematic. Though the size of firms is the obvious criteria in discriminating between small and large firms, the empirical application of this criteria is not straightforward because of the difficulties in identifying a quantifiable dimension and a cut-off value for delimitating the two aggregates (Storey, 1994). Depending on the sectors examined, the national context and the specific aims of researchers, several discriminating values have been proposed. Some of them are based on inputs, such as the number of employees or the amount of capital; others are based on output, such as the value of sales or the level of production.

In order to empirically delimit the small business sector I have used the number of employees as this is the dimension most commonly used in the empirical literature and the one available in all the data sets used in the empirical analysis. Because most of the empirical analyses refer to the manufacturing sector I decided to use the cut off values proposed by the EU for delimiting SMEs in this sector: i.e. 50 employees for small firms and 250 employees for medium sized firms. As observed the small business sector in general, also in the case of business groups their size distribution is highly skewed towards the smaller size (statistics on the size distribution of business groups are discussed in Section 3.3 . When appropriate, I provide evidence that the empirical results are robust to the use of different size classes.

Most of the quantitative and qualitative analyses carried out in this thesis refer to the manufacturing sector. This is because of the availability of data on this sector and because of its relevance for innovation and competitiveness in industrialized countries. It is possible that agriculture and service sectors present similar problems with regard to the issues examined in this thesis, but also have their own specific features (Carter, 1998; Westhead and Wright, 1999); their inclusion would have required a different, comparative approach. By limiting the analysis to the manufacturing sector I can rely on a more homogeneous basis for the analysis.

3.3 Data collection and analysis

The application of quantitative and qualitative methods has been based on data and information collected from several sources, including publicly available data (secondary sources) and direct interviews (primary sources). Through the study I use four data sets, each one having a different geographical coverage, number of observations and amount of information per observation (see Figure 3.1).

The first two data sets (ISTAT and Capitalia) are secondary sources, produced by large institutions. The other two data sets are primary sources, with data collected specifically to address the research questions of the present study.

The first two sources have the advantage of covering the population of Italian business groups: specifically, the population of joint stock companies in the case of the ISTAT data set and the manufacturing companies with more than 10 employees in the case of the Capitalia data set. In both cases, data refer to a specific year; for this reason they do not allow us to consider dynamic aspects. The other data sets are much smaller in terms of cases considered and population represented, but the information gathered allows me to analyse the evolution of business groups over time. The latter data sets contain much more information on the characteristics of business groups than the former.

The different sources are used to study different aspects of the phenomenon; the comparison of results obtained using different data sets is important for validating them. All the data sets examined in the empirical section exclude sole proprietorships and partnerships from the analysis. This is because information on ownership structure that is essential for the identification of business groups is more easily accessible for limited companies than for sole proprietorships and partnerships.

Figure 3.1 – Data, information and methods used in the empirical analyses

Data set	**ITALIAN BUSINESS GROUPS**	**ITALIAN MANUFACTURING FIRMS**	**MARCHE BUSINESS GROUPS**	**MARCHE ENTREPRENEURS**
Source	ISTAT (Italian Statistics Agency)	Capitalia	Aristide Merloni Foundation (Fabriano)	Direct interviews
Geographical coverage	Italy	Italy	Marche region	Marche region
Number of groups (approximately)	30,000	1,386 companies belonging to a group	About 100	18
Population coverage	All companies in the private sectors organized as a joint-stock company	Representative sample of Italian manufacturing firms with more than 10 employees	All companies with between 50 and 500 employees in the manufacturing sector	Medium-sized groups of the Marche region in the manufacturing sector
Time span	2001	2003	1995-2005	Entrepreneur experience
Main information	- companies per group - location of companies - activity of companies - size of companies - ownership structure	- ownership structure - size of companies - activity of companies	- companies per group - location of companies - activity of companies - ownership and control structure - dynamics of groups over time	Entrepreneurial background Growth strategies Reasons for starting new companies Structure of ownership and control Relationships between companies
Issues addressed	Typology of groups Degree of diversification Ownership structure	Ownership and control structure	Growth strategies Degree of diversification and groups dynamics	Growth strategies Entrepreneurial processes Team dynamics

The exclusion of sole proprietorship and partnership precludes the consideration of very small firms (micro-firms). However this does not represent a significant limitation for the aims of this study, for two reasons: sole proprietorships and partnerships are more common in the service sector, especially the retail sector; because I focus on manufacturing the exclusion of sole proprietorships and partnerships exclude a very small percentage of firms. Besides this, there is a more important reason that is linked to the specific object of this study. Business groups emerge as the result of a growth strategy followed by entrepreneurs expanding their original activity by creating new ventures. The empirical evidence shows that this is more likely when the original firm survives and goes beyond a certain threshold; in fact, the presence of business groups is negligible in firms with less than 10 employees but increases steadily after that. For this reason, the study of the phenomenon is better carried out considering small and medium sized firms rather than micro firms.

3.3.1 The ISTAT data set

The ISTAT data set is the result of the first attempt made by the Italian National Statistics Agency (ISTAT) to build a map of business groups in the Italian economy. It responds to an EU stimulus for the agencies of each member state to collect information on business groups and it is based on the norms and regulations issued by the European Council and Eurostat for the definition of business groups (Eurostat, 2003).

Groups are identified through control linkages between pairs of legal units. The operational guidelines indicated at European level for the identification of control for statistical purposes are the followings: i) a legal unit directly owns at least 50% plus one of the voting rights in another legal unit; ii) a legal unit owns an equal share of voting rights, with respect to other units, in another legal unit; iii) a legal unit owns, by means of other subsidiaries, at least 50% plus one of the voting rights in another legal unit; iv) a legal unit fully consolidates the balance sheet of another legal unit and no other unit consolidates the same legal unit. The algorithm used to empirically identify business groups applies these operational guidelines to the shareholdings matrix thus deriving a control matrix.

The ISTAT business group data set is built up by integrating three different statistical sources: i.e., (i) the archive of all shareholders of non-listed companies; (ii) the archive of shareholders of listed companies; (iii) the archive of firms' consolidated accounts. These sources are sufficient to guarantee a complete coverage of the shareholders' structure of all Italian joint stock companies. The information on company ownership coming from these three sources is integrated, and chains of direct and indirect control between companies are constructed by applying an algorithm. To proceed with the development of the algorithm for the construction of the chains of control, some new concepts have been developed, such as the 'first controlling unit' and the 'ultimate controlling unit'. The 'first controlling unit' is the 'nearest legal unit that controls another legal unit in a hierarchical order, also by means of indirect and cross shareholdings'; the 'ultimate controlling unit' is 'the last legal unit in a hierarchical order of controls that is not controlled by any other legal unit'. The algorithm calculates all control links in a recursive way, which allows it to summarise all information deducible from both direct and indirect shareholdings into a legal unit in order to find its 'first controlling unit'. Then, having found all the links between any 'first controlling units' it allows the identification of the 'ultimate controlling unit' of the whole group (see Figure 3.2). The ISTAT data set also identifies those groups in which there is no single company at the top because the vertex directly owns several companies (see Figure 3.3). They will be referred to as informal groups.

Figure 3.2 – Example of a pyramidal structure

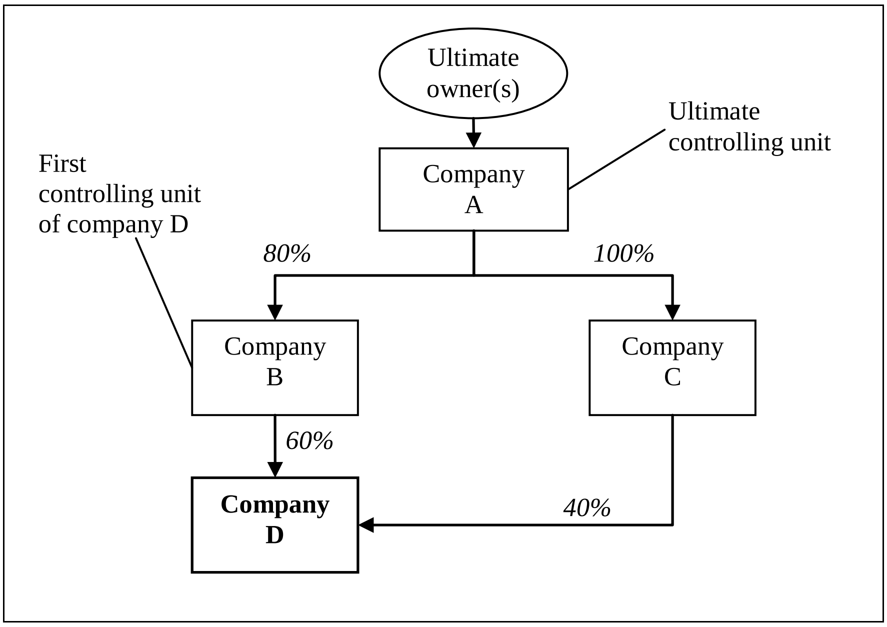
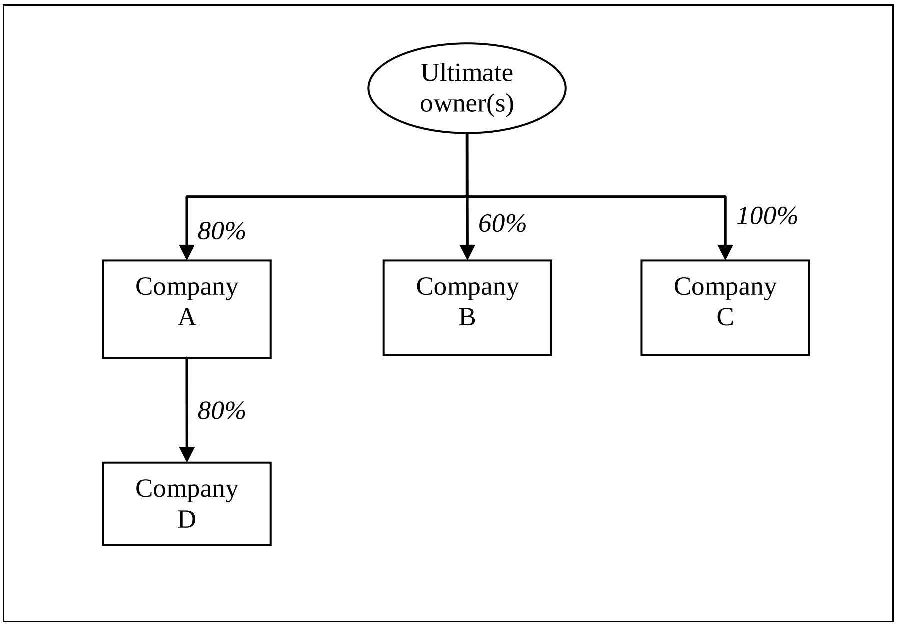


Figure 3.3 – Example of an "informal" group



When all the companies belonging to the same group (that is, controlled by the same ultimate owner) have been identified they are given a unique code that specifies the group which they belong. The data set also identifies the position of companies within the group pyramid; the ultimate controlling unit is allocated position 1, then 2 and so on.

Another limitation of the ISTAT data set is that it considers foreign companies controlled by business groups but does not supply information about them (location, activity, size, etc.). For this reason, the analyses based on the ISTAT data set refer only to domestic units. This is not an important limitation for the purposes of this research. When expanding their production or commercial activities in foreign countries companies are obliged to set up new legal units. It is only in the case of domestic activities that entrepreneurs face the choice between internal growth and the setting up of a new legal unit. For this reason, the analysis of the determinants of business groups will be based on the consideration of domestic units.

Groups are complex structures, being composed of several units. Statistics on business groups – such as the number of companies and employees, the degree of diversifications, etc. – are the result of aggregation and elaboration of data and information about the individual companies composing the group. In fact, the original record produced by ISTAT refers to individual companies, this being the basic statistical unit (Table 3.1).

The ISTAT data set contains 115,455 legal units forming 36,383 groups. All the data and statistics are based on elaborations of these original records. In the empirical analysis I make use of data and information about the group as a whole (such as the number of companies, the degree of diversification, etc.) and about the individual companies (such as the share of capital owned by the vertex, its activity, etc.). For this reason, from the original dataset two different datasets have been created: one on the business groups and one on the individual companies.

Table 3.1 – Original record structure of the ISTAT dataset

Field	Description
cod_grpcf	Code identifying the company
cod_grpgru	Code identifying the group to which the company belongs
ateco91	ATECO 1991 at 5 digits (see Appendix B)
dip01	Number of employees
vaf01	Amount of sales
fg01	Legal form
procom	Code for the municipality
q	Share of direct and indirect ownership by the vertex
qd	Share of direct ownership by the vertex
qid	Share of indirect ownership by the vertex
Liv	Position of the company within the pyramid structure

The two datasets map one into another in the following way: a) each record of the group dataset must correspond to at least two records (companies) in the company data-set; b) each company dataset record may correspond to only one record in the group dataset (a company must uniquely belong to a group).

Not all the groups comprised in the ISTAT dataset are useful for aims of this study. Some groups are composed entirely of foreign companies (for which we do not have information) or financial companies (types 1 and 2 of Table 3.2). These groups will not be considered in the analysis.

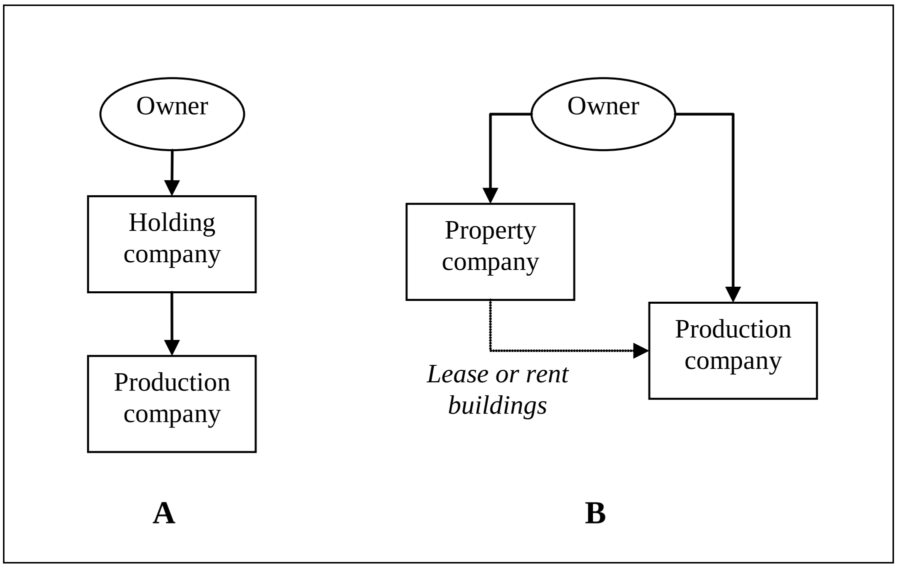
Table 3.2 – Business groups included in the ISTAT data set by types

Types of groups	Absolute value	%	Cumul. %
1. Only foreign and financial companies	671	1.9	1.9
2. Only financial companies	1502	4.1	6.0
3. One production company and one or more foreign companies	2604	7.2	13.1
4. One production company and one or more financial companies	5867	16.1	29.3
5. Groups with at least two domestic production companies	25739	70.7	100.0
Totale	36383	100.0	

Source: Elaborations on the ISTAT data set

I also eliminated groups which are composed of one production company and one or more foreign companies (type 3) because of the lack of information on foreign companies. Type 4 deserves some additional notes. These are groups composed of one production company and one or more financial companies (96% of them have only two companies). The financial company is a holding company or a property company. The holding company is set up as a layer between the entrepreneur(s) who own the production company and the production company itself (Figure 3.4-A). The property company is set up to own the buildings where the production activity is carried out; it then rents these buildings to the production company (Figure 3.4-B).

Figure 3.4 – Structure of "pseudo groups"



In both cases, this structure is either for fiscal advantages or to better protect the property and financial position of the controlling family in case of failure of the production company. I have called these groups "pseudo groups". Excluding these pseudo-groups, the remaining data set is composed of groups that have at least two production domestic companies.

Even excluding pseudo-groups, the majority of groups are formed by only two companies (see Table 3.3). Groups with less than 11 companies represent 97.6% of the total. The companies belonging to these groups number 92,474, with an average of 3.4 companies per group. It is evident from the distribution of Table 3.3 that this average is strongly influenced by the presence of some very high values; the median and the mode are both equal to 2.

The predominance of groups with a few companies is the result of the large presence of small groups. Indeed, there is a positive relationship between the number of companies in a group and its size[33]. Because of the selection criteria adopted, groups with 2 companies are formed only by production domestic companies. Groups with more than two companies can also include financial and foreign companies.

Table 3.3 – Groups by number of companies in the group

Number of companies	Frequency	Percentage	Cumulative Percentage
2	14,746	57.3	57.3
3	6,026	23.4	80.7
4	2,078	8.1	88.8
5	959	3.7	92.5
6-10	1,319	5.1	97.6
11-100	579	2.2	99.9
More than 100	32	0.1	100.0
Total	25,739	100.0	

Source: Elaborations on the ISTAT data set

Table 3.4 confirms that the business group is a way of controlling business activities adopted not only by large firms, but also by small and medium-sized firms. Almost half of the groups have less than 10 employees and 96% of them have less than 500 employees.

[33] The R-Pearson coefficient between the two variables is .49, significant at the 1% level.

Table 3.4 – Business groups by class of employees and number of companies

Class of employees	Companies in the group							Total	Percentage	Cumulative percentage
	2	3	4-5	6-9	10-99	100-499	500-			
1-9	5,494	1,678	323	42				7,537	29.3	29.3
10-19	3,090	1,152	387	71	5			4,705	18.3	47.6
20-49	3,533	1,410	708	172	42			5,865	22.8	70.3
50-99	1,452	848	597	224	51			3,172	12.3	82.7
100-249	855	609	590	304	125			2,483	9.6	92.3
250-499	205	200	243	174	128			950	3.7	96.0
500-999	77	81	116	125	139	3		541	2.1	98.1
1000-	40	48	73	100	195	23	7	486	1.9	100.0
Total	14,746	6,026	3037	1212	685	26	7	25,739	100.0	200.0

Source: Elaborations on the ISTAT data set

Because I am specifically interested in analysing entrepreneurial groups, i.e. groups owned and controlled by the same entrepreneur (or by a small team of entrepreneurs), I selected the groups using the following criteria: a) the group does not exceed 500 employees overall; b) the group is not controlled by a foreign company. Since a group is formed by at least two companies, the limit of 500 employees in the group guarantees that the average employees per company is no more than 250. The latter coincides with the limit set by the EU for the definition of SME in the manufacturing sector.

Given the overwhelming presence of family firms in the Italian economy, even among large firms, this threshold is sufficiently tight to ensure that all the groups considered are owned and controlled by one or a few entrepreneurs. By eliminating large groups and foreign controlled groups, I end up with 24,202 groups (see Table 3.5)[34]. They will be the basis for the analysis carried out in the following sections.

[34] Probably not all of those groups which we considered foreign controlled are owned by foreign citizens, as in some cases people control domestic companies through foreign ones. Normally this is done for fiscal reasons and the holding company is located in specific countries with the most favourable fiscal legislation (Holland is a typical example). These cases should be of negligible importance in the case of small groups.

The ISTAT data set allows us to characterize the companies belonging to groups for four aspects: the size, in terms of sales and employees; the location, at the municipality level; the activity, at 5 digits ATECO codes[35]; the share of the company owned by the group (by definition, this share is at least 50%). Based on these variables I constructed a series of descriptive statistics referring to the group and tabulated frequencies and contingency tables for each of them.

Table 3.5 – Groups by size and ownership

	Small groups (less than 500 employees)	Large groups (500 employees and more)	Total
Domestic controlled	24,202	890	25,092
Foreign controlled	510	137	647
Total	24,712	1,027	25,739

Source: Elaborations on the ISTAT data set

This analysis is useful as a first step in describing the characteristics of the phenomenon. It must be emphasized that this is also one of the first analyses conducted on such a large scale for the Italian economy. It is also worthwhile to underline some of its limitations; the most important one is that it is a cross sectional analysis allowing us to obtain a picture of the situation in 2001 but not to analyse dynamic aspects of groups. Other limitations stem from the limited amount of information available for each company. For example, we do not have information about the year in which companies were set up, or whether they have been set up or acquired by the group, etc.

The first categorization of business groups can be made analysing the number and types of companies belonging to them. I divided the companies belonging to groups into three categories: production domestic companies, financial companies and foreign com-

[35] ATECO is the acronym for the classification system of economic activities used by ISTAT. The structure is similar to the classification codes used in other countries (like the SIC). Five digits represent the highest level of disaggregation allowed by the classification. We will also often use the 2 and 3 digit levels to delimit industries. The classification codes at 2 digit level is illustrated in Appendix B.

panies. Foreign companies will not receive much attention in the following analysis for two reasons. The first is theoretical: to be able to operate abroad, entrepreneurs need to set up independent legal units; the presence of foreign companies is interesting for analysing the internationalisation patterns of groups, but not for explaining why they set up new companies when expanding their activities. The second reason is a practical one: the ISTAT data set does not contain information on foreign companies (activity, location, size, etc.). Financial companies are defined as those companies with the following ATECO codes: 65, 66, 67 and 70[36]. These codes identify companies running financial activities and property companies. Production domestic companies constitute more than 90% of companies owned by groups (see Table 3.6). The tiny percentage of foreign companies owned by groups depends on the fact that I am are considering only small groups. The presence of foreign companies is closely related to the size of the group (they are the 12.6% of the companies owned by groups with more than 500 employees). The average number of companies per group is slightly less than 3, although the median value is 2. Indeed, 60% of the groups considered in the analysis are composed of two companies (which by definition are two production companies).

Table 3.6 – Companies belonging to groups per type of company

	Production	Financial	Foreign Controlled	Total
Average	2.63	.25	.03	2.87
Median	2.00	.00	.00	2.00
Min	2	0	0	2
Max	67	35	16	87
Total	63,465	5,955	86	69,506
%	91.3	8.6	0.1	100.0

Source: Elaborations on the ISTAT data set

[36] ATECO is the acronym identifying the classification system of economic activities used by ISTAT. For the legend of ATECO codes see Appendix B.

One of the most important features of groups is the degree of concentration of activities in the companies of the group. According to this value of concentration, we can separate 'satellite system' groups from 'peer' groups. The first type is characterized by the fact that most of the activity is concentrated in one company of the group; the second type is characterized by the fact that there is no lead company and all the companies are of similar size. In calculating indices of concentration, I will refer only to production companies. The reason for this is that most of the financial companies (particularly those in small groups) do not perform any kind of activity and are set up only for fiscal reasons (as discussed before).

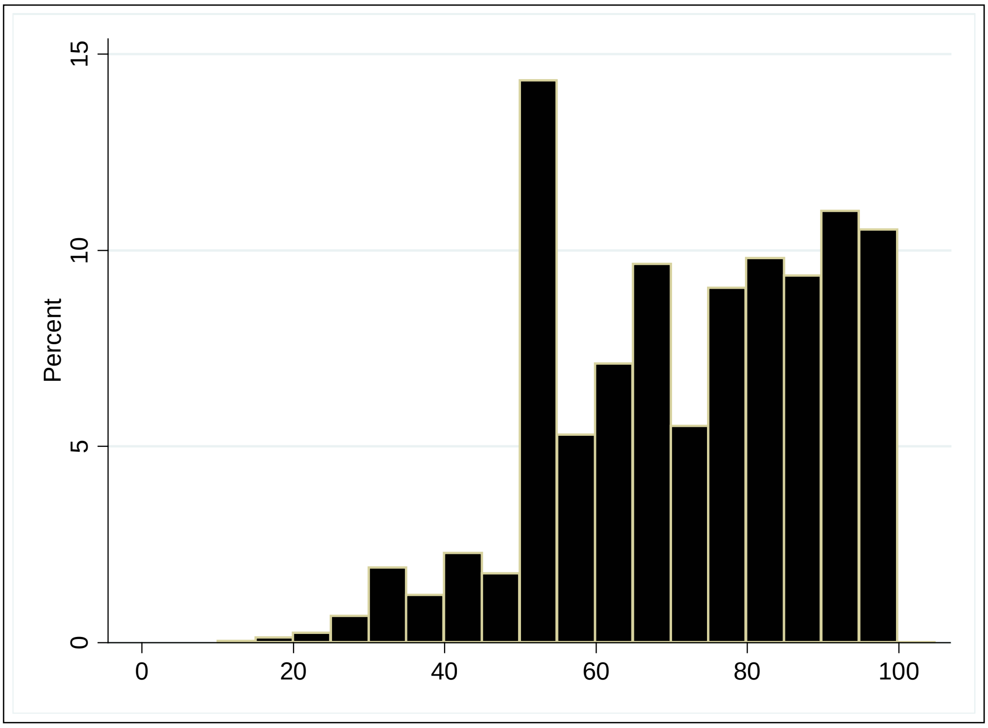
As a first step towards analysing the degree of concentration of activities in the companies of the group, I used a simple index, based on the ratio of the employees of the largest company in the groups to the overall employees. I used the employees rather than sales volume because employees are more reliable in capturing the actual distribution of activities between the companies of the group. The use of sales can have two distorting effects: on the one hand, the level of sales is strongly influenced by the degree of vertical integration (a commercial company can have a large volume of sales even though it has little production activity); on the other hand, there could be duplication of sales figures where a company of the group sells its output to another company within the same group. Descriptive statistics of the employee concentration index are presented in Table 3.7, while the distribution is presented in Figure 3.5. The level of concentration is rather high, as might be expected in the case of small groups. The frequency distribution shows the presence of several modal values around 50% and 65%; i.e. around one half and two thirds of total employees.

Table 3.7 – Degree of concentration of employees (employees in the largest company / total employees) - 24,202 small groups

Statistics		Value
Average		71.8
Median		74.3
Mode		50.0
Min		10.8
Max		99.8
Percentiles	25	57.1
	50	74.3
	75	87.5

Source: Elaborations on the ISTAT data set

Figure 3.5 – Groups by the degree of concentration of employees (employees on the largest company / total employees) - 24,202 small groups



Source: Elaborations on the ISTAT data set

3.3.2 The Capitalia data set

The Capitalia data set is the result of a periodical survey (every three years) carried out by the study branch of Capitalia (one of the largest banks in Italy, which merged with Unicredit in 2007). Capitalia surveys a representative sample of the population of

Italian manufacturing firms with more than 10 employees. Over time the Capitalia survey has gained a reputation as one of the most reliable sources of information on Italian manufacturing firms; for this reason the data set is widely used by the scientific community. The data set I use is the latest available; the survey was conducted in 2004 and data refers to the period 2001-2003. Besides general information on the size and activity of firms, the survey has several sections referring to the characteristics of employees, investment and innovation, internationalisation processes, etc. The sections of most interest for the purposes of this research are those referring to the ownership and control structure of companies and whether or not they belong to a business group.

In the case of the ownership structure of firms, the survey asks for information on the type and share of the first three owners. The survey also tells us whether these owners directly exercise control of the firm. The unit of analysis of the Capitalia data set is the company and not the group. For this reason, information about the group is collected in an indirect way, when the company declares it belongs to a group during the survey interview. The questions included in the ‘group section’ are the following: 1. whether the company belongs to a group or not (of crucial importance for the following questions); 2. the position of the company within the group pyramid (i.e. head of the group, in an intermediate position or just controlled); 3. the overall companies belonging to the group; 4. the year of set-up of the group; 5. whether the companies in the group belong to the same sector; 6. whether other companies in the group (besides those interviewed) carry out industrial activities; 7. whether there are operative relationships between the companies belonging to the group; 8. the overall number of employees in the group.

The Capitalia data set is particularly interesting for studying the ownership structure of companies belonging to a group. It also allows a comparison between those companies which belong to a group and those that don't. Table 3.8 shows the share of companies belonging to groups by sector of activity[37]. Table 3.9 shows the share of companies belonging to groups in total. The latter table demonstrates that the presence of business groups is strongly influenced by the size of companies considered and the sector to which they belong.

Table 3.8 - Companies belonging to a group by sector and class of employees.

	Class of employees					Total
	11-49	21-50	51-250	251-499	500-	
Supplier dominated	39	117	276	73	69	574
Scale intensive	27	49	108	26	68	278
Specialized suppliers	17	68	223	64	70	442
Science based	11	11	29	18	23	92
Total	94	245	636	181	230	1,386

Source: Elaborations on the Capitalia data set

Table 3.9 – Companies belonging to a group by sector and class of employees (percentage of total companies)

	Class of employees					Total
	10-49	21-50	51-250	251-499	500	
Supplier dominated	7.2	17.1	33.7	77.7	78.4	25.8
Scale intensive	15.8	24.9	43.9	76.5	93.2	38.6
Specialized suppliers	8.8	20.1	48.1	84.2	97.2	38.6
Science based	26.8	22.9	52.7	81.8	79.3	47.2
Total	9.9	19.3	40.2	80.1	87.8	32.3

Source: Elaborations on the Capitalia data set

[37] Sectors are defined according to the Pavitt (1984) classification of industrial activities. The Pavitt classification is based on the different innovation regimes characterizing industries and distinguishes four categories: Science based, Specialized suppliers, Scale intensive and Supplier dominated. See Appendix C for an extended definition of these sectors and for an explanation of how Pavitt sectors and ATECO codes correspond to each other. In some cases, the classification of economic activities on the basis of technological and innovation regimes is more useful than traditional classifications based on the homogeneity of products and raw materials (textiles, leather, paper, etc.). We will make extensive use of the Pavitt classification in chapter 5, when analysing the diversification strategies of groups.

3.3.3 The Marche region data set

The data set on the Marche region is a longitudinal data set of the manufacturing groups in the Marche region (Italy). It has been built by collecting data on business groups for the period 1995-2005. Compared with the ISTAT and the Capitalia data sets, the Marche data set allows the analysis of the dynamics of business groups. The availability of data on business groups in the Marche region is the result of the interest of the Aristide Merloni Foundation in promoting the analysis of the growth process and performance of the main manufacturing firms operating in the region[38].

The Marche is a small, highly industrialised region in central Italy. It belongs to the set of the north-east-central (NEC) regions of Italy (Friuli, Veneto, Emilia Romagna, Tuscany, Umbria) which, following World War II, experienced an intensive process of industrialisation, mostly based on small firms concentrated in industrial districts. Indeed, according to the last industry census conducted in 2001, over 50% of the employees were working in units with less than fifty employees. Like the other NEC regions, the Marche is specialized in 'traditional' industries (such as clothing, footwear and furniture) and medium tech industries (such as electrical domestic appliances, metal work and industrial machinery). During the last decades, the latter industries have become increasingly important, while traditional sectors have declined in terms of employees and output.

Given the recent industrialization process, most of the companies and groups covered by the data set were set up in the seventies and the eighties, and the founding entrepre-

[38] The Aristide Merloni Foundation is a non profit organization named after the founder of the Merloni manufacturing industries in Fabriano. The aim of the foundation is to contribute to the economic development of the Marche region.

neur is still running the company. The data set contains information on about 250 manufacturing companies and about 100 groups. For each group, the data set contains data on the following aspects:

a) the companies controlled by the group and their activities;
b) the structure of ownership and control;
c) the economic and financial performance of the group (where there a consolidated balance-sheet is available) and of their main companies.

Data contained in the Merloni Foundation data set are collected from company annual reports. This information is supplemented by data on ownership and control (from the Chamber of Commerce) and with data and information on company products and activities (from company websites and other sources). This data set will be used to study the growth patterns of groups and to test the different theoretical perspectives explaining group formation.

For the reasons explained in the previous section, I excluded those groups with more than 500 employees overall. I also excluded from the analysis groups owned by foreign multinationals. The longitudinal analysis is based on a panel involving all the firms with between 50 and 500 employees. I followed these firms for a ten year period with specific regard to group dynamics: that is, the formation, acquisition, selling, liquidation or consolidation of companies belonging to the group. There are several problems in building a longitudinal data set on business groups: some of them are common to any longitudinal study and some are specific to the nature of business groups. A common problem with a panel study is the sample attrition caused by failures. In our case, the percentage of failed firms is very small as we are not dealing with new firms.

From a statistical point of view, one of the main problems for the analysis of longitudinal data on business groups is how to organize and represent this data. In the case of cross sectional data on business groups, they are typically represented as a hierarchical graph with companies as nodes and ownership relationships as links between nodes. The data are organized in two distinct data sets: one about groups and the other about the companies belonging to groups. The two data sets are linked using the same criteria previously examined referring to the ISTAT data set (see Section 3.3.1). In this case, information about groups and companies is replicated for several years.

Table 3.10 shows the groups analysed by industry and size in terms of employees. As expected, given the industrial structure of the region, there is a prevalence of groups belonging to traditional (low tech) industries, such as fashion (textiles, clothing and footwear) and mechanical industries.

Table 3.10 – Business groups by industry and size

	Class of employees				Total
	<50	50-249	250-499	500-2499	
Fashion	2	13	3	3	21
Furniture		11	2	2	15
Mechanics	2	15	4	2	23
Electronics	1	7	1		9
Other industries	3	14	1	1	19
Total	8	60	11	8	87

Source: Elaborations on Merloni Foundation data set (2001)

Most of the groups are medium-sized according to the number of employees. The presence of groups exceeding 500 employees depends on the fact that the table refers to 2001, an intermediate year in the period considered (1994 and 2005). At the beginning of the observation, all groups had under 500 employees. Some of the groups examined have disappeared during the period of observation because of acquisition by other groups or because of failure. In 2001 there were 407 companies belonging to these 87 groups with an average of 4.7 companies per group.

To organize the data in a longitudinal structure, the data set of the companies belonging to groups are replicated for several years; this poses considerable problems for the representation and analysis of data.

3.3.4 Direct interviews

The Marche region data set offers a rich array of data and information on business groups and their evolution over time. However, it is based on publicly available data and does not allow us to understand some aspects of the processes behind the formation and evolution of business groups. Specifically, we lack information on the circumstances and motivations that have induced entrepreneurs to start up new firms rather than expanding the one(s) already established. For this reason why I carried out a qualitative survey based on direct interviews with a sample of entrepreneurs. The choice of qualitative methods was determined by the exploratory nature of this part of the study. Indeed, its aim is to develop a framework for understanding the role of entrepreneurial processes in business group formation. For this reason, interviews focus on the analysis of the context of new venture creation by established entrepreneurs and on the reasons expressed by entrepreneurs themselves for the setting up (or acquisition) of new companies. As is common in qualitative analysis, purposive sampling rather than statistical sampling was used (Silverman, 2000, p. 104; Bryman, 2001, p. 324). The entrepreneurs interviewed were chosen from the population of small groups (those not exceeding 500 employees) located in the Marche region included in the Merloni Foundation database (described in the previous section). From these groups, I selected the cases that were specifically relevant to the aims of the study. The selection criteria were: a) the group was founded and is still controlled by the interviewed entrepreneur; b) the group contains more than two manufacturing companies, providing a sufficiently rich context for analysing the development process. These selection criteria isolated about 30 groups. The results reported here refer to 18 groups whose entrepreneurs agreed to be interviewed. The main characteristics of the groups interviewed are presented in Table 3.11. The small number of case studies analysed does not limit the aim of the research; in fact, as the interviews progressed, I became convinced that I had covered all the main issues and that the informative value of further interviews was rapidly decreasing.

In-depth interviews have been carried out with the entrepreneurs that founded and developed these groups. In those cases where an entrepreneurial team existed (often members of the same family) I interviewed the person who played the most important role in the group formation and development. The aim of the interviews was to collect data and information not publicly available. In particular, information about the origin of the group, the circumstances of the growth process and the reasons for starting up new companies.

The interviews were based on a semi-structured questionnaire divided in to five main topics: the beginning of the entrepreneurial activity; the growth strategy followed after the formation of the original activity; the reasons for setting up new companies; the dynamics of the group; and the present structure of the group. For each topic, a set of specific questions was identified. The interview guide is illustrated in Appendix A.

Table 3.11 – Characteristics of the groups interviewed

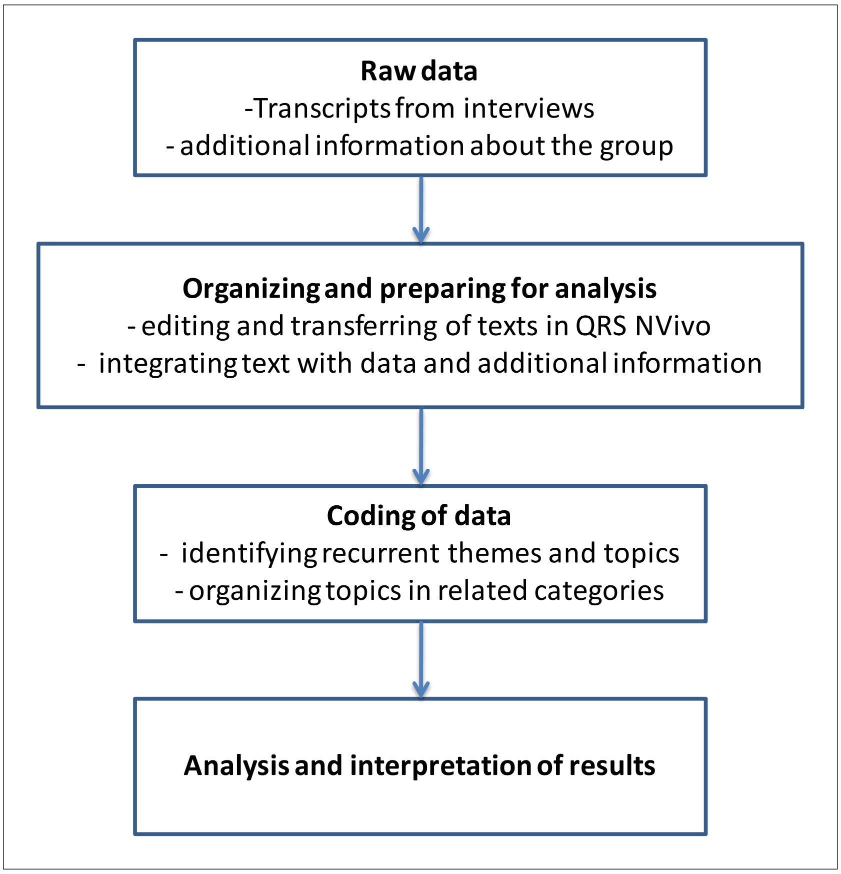
Case	Original activity	Main direction of expansion	Companies in 2005	Overall employees
1 Accorroni	Heating systems	Wide spectrum of products and services for air conditioning	5	85
2 Babini	Office furniture	Office furniture, home furniture and accessories	8	444
3 Beta Rotoli	Paper rolls for printers and calculators	Several segments of paper roll market Design and production of cash registers and other small electrical household appliances	7	222
4 Clabogroup	Ice cabinets	Bar coolers, ice-cream sellers and confectioners,	5	307
5 EBora	Moulds for metal working	Moulds for different types of industry and applications	2	149
6 FAAM	Batteries for motor vehicles	Several segments of the battery market Electric vehicles (scooters, cars, etc.)	9	154
7 Finproject	Footwear; shoe soles	Several segments of footwear soles (leather and synthetic), compound production for synthetic soles	3	293
8 Fioretti	Chemical treatment of metals	Printed circuits Assembly of electronic components Systems for car safety	4	142
9 Fiorini	Paper sacks (for industrial use)	Several types of paper sacks (for industrial use) and paper bags	8	210
10 Isopack Adriatica	Expanded Polystyrene	Design and production of complete packaging. Moulds for expanded polystyrene	4	72
11 Loccioni	Industrial electric systems	Industrial automation systems for household appliances, automotive and aerospace industries	3	205
12 Lube	Modular kitchen furniture	Different segments of the kitchen furniture market General household furniture	9	313
13 Meccanica Generale	Moulds for plastic	Product development and engineering. Mould design and construction. Try-outs and moulding.	4	210
14 Pigini	Publishing	Printing industry Cartoon industry Products and services for the printing industry	7	216
15 QS GROUP	Industrial automation for metal working	Complete range of activities for the design of automation systems in manufacturing plants	5	244
16 Ragaini	Radiators	Different types of radiators and heating accessories	7	399
17 Somacis	Printed Circuits	Several types of multi-layer printed circuits Other products related to the main business (rapid prototyping, membrane keyboards, etc.)	6	223
18 Tecno Plast	Moulds for plastic	Moulds for different industries. Product development.	4	116

Source: Merloni Foundation data set and direct interviews.

I chose the semi-structured interview because of its flexibility and because I did not want to impose a predefined pattern of analysis on the interview results. Flexibility is important because of the differences in the structure and in the patterns of development of groups. I also wanted the entrepreneur to give her/his account of the group formation, rather than encouraging them to choose from suggested explanations. Although there are several hypotheses for explaining group formation, in the interviews I asked the entrepreneurs about their reasons for setting up new firms, leaving them free to give their reasons. All the interviews took place in the offices of one of the entrepreneur's companies. The interviews were carried out between 2003 and 2005. In a few cases, a follow up after the first interview was done in order to clarify some aspects of the interview or to collect additional data. The overall process of data collection and analysis is illustrated in Figure 3.6.

All the interviews were recorded (in digital format) and transcribed by a word processor for analysis. In preparing the transcriptions for the analysis, I have not adopted the strict conventions of conversation analysis (CA). In some cases, the words used by the entrepreneurs interviewed have been changed to maintain consistency in the analysis. For example, one entrepreneur referred to his group as a network. I retained the original word in the raw transcript as it indicates the specific way in which the entrepreneur sees the relationships between his controlled companies; in editing the text however, the word *network* was changed into *group* since within this research project the term 'network' is used with a different meaning. The edited transcripts were transferred to QRS NVivo to facilitate the process of coding. I started by codifying the text according to pre-defined topics which I considered relevant to business groups. Other topics were progressively added as they emerged from the interviews. Finally, all the topics were rationalized by merging those that expressed similar concepts and by relating them under more general categories.

Figure 3.6 – Process of data analysis of qualitative interviews



Chapter 4 - Ownership structure and agency problems in business groups

The prevailing justification for the presence of business groups in developed countries is that they are a device for manipulating the ownership and control of business activities. This argument is particularly relevant in the case of pyramidal groups (see the definition in Section 2.1). In chapter 2 I refer to it as the ‘financial explanation’ of business groups. The justification for the presence of pyramids is the separation of *control rights*, that remain in the hands of the ultimate owner, from *cash flow rights*, which are shared with the non-controlling owners; a situation I refer to as *equity leverage* (see Section 2.3.3). This separation is better achieved when companies are listed on stock markets and there are a large number of minority shareholders. There are two facts that do not support the *equity leverage* hypothesis: on the one hand, business groups are widespread among privately owned non-listed companies where the phenomenon of equity leverage is barely relevant (see Section 2.2); on the other hand, a significant difference between control rights and cash-flow rights is seen only in a tiny minority of large groups (Franks and Mayer, 2001; Faccio and Lang, 2002).

Until recently, the financial explanations for business groups were considered relevant only in the case of large groups. As discussed in Section 2.3.3, Almeida and Wolfenzon (2006) put forward a model that extends the financial explanation to privately owned small groups as well, which they refer to as ‘family groups’. It is out of the scope of this chapter to review in detail the assumptions and development of the AW model. It is interesting to focus on the empirical predictions of the model and test some of them using the data available on Italian business groups. This is important for verifying to what extent the financial explanation can help understanding of the presence of business groups in the small business sector.

The aims of this chapter are the following: 1) review the implications of the financial explanation of business groups in the case of privately owned groups; 2) give the first empirical verification of the Almeida and Wolfenzon (2006) model using the data available on Italian business groups; 3) assess to what extent the financial explanation justifies the presence of business groups in the small business sector and examine the aspects this theory leaves unexplained.

4.1 The financial explanation of family-owned groups

The basic idea of the AW model is that business groups are used by entrepreneurs to manipulate the ownership structure of new businesses in order to maximize the financial wealth of his/her family (see Section 2.3.3). This is achieved by two basic mechanisms: by privately appropriating the cash flow of controlled companies to the detriment of minority shareholders (cash flow advantage); and by using the cash flow of the controlled company to finance new businesses (financing advantage). In section 3 of their article, Almeida and Wolfenzon (2006) discuss the following 10 predictions that can be derived from their model:

1. It is possible to observe pyramids in which the controlling family has high cash flow stakes in member firms, in which case the separation between ownership and control is not large…

2. The family might strictly prefer to create a pyramid, even when restrictions on the issuance of dual-class shares are not binding…
3. Pyramids tend to be created over time, following good performance of existing family firms…
4. Separate companies in pyramids are more likely to correspond to separate industry ventures by the controlling family, and are less likely to be in the same industry…
5. Diversion is higher for firms placed in a pyramid than for firms controlled directly by the family …
6. Firm value and firm performance are lower in pyramid-owned firms than in unaffiliated firms or horizontal structures …
7. Family business groups should be more prevalent in countries with poor investor protection…
8. Family business groups are more likely to be organized as pyramids, especially in countries with poor investor protection…
9. Firms in pyramids are larger, or they are more likely to belong to capital intensive industries…
10. When a new firm is added to a pyramidal structure, the existing non family shareholders of the pyramid realize a negative return (Almeida and Wolfenzon, 2006, pp. 2662-2668).

Not all of these predictions are relevant for this study. I am interested in explaining why business groups emerge and their characteristics; for this reason, I will examine those predictions of the AW model that directly address these issues: i.e. predictions 1, 2, 3, 4, 7, 8, 9.

Prediction 7 is widely claimed; in fact, most of the literature about business groups refers to emerging economies. We do not have enough statistical evidence to compare the weight of business groups in different countries; data available seem to question this proposition, as business groups are also a relevant and growing phenomenon in developed countries (see chapter 2). This means that the presence of ‘poor investor protection’ is not a necessary condition for the existence of such structures.

Prediction 9 is partially verified by Italian data. Because the presence of business groups increases with the size of firms, companies belonging to business groups are larger than the average in the same industry (Cainelli and Iacobucci, 2007). It is also true that the presence of business groups in scale intensive sectors is higher than average (see Table 3.9, p. 107). Moreover, the industries where business groups are more widespread belong to Science-based sectors (see Table 3.9 p. 107); in these industries it is not only the need for capital that justifies the presence of business groups, but also the greater possibility of diversification in related activities as a result of the exploitation of the wide knowledge base typical of these sectors (see the discussion of this aspect in Chap. 5). By concentrating on financial aspects, the AW model considers the business group only as a device for raising capital rather than as an organizational form suited for developing new business opportunities.

Predictions 3 and 4 on the dynamics of group formation and the degree of diversification of member companies will be specifically addressed in chapter 6 and 5 respectively.

In the next two sections I focus on the predictions of the AW model that are more closely associated to the financial explanation of business groups. Specifically, I address the following two issues:

- the prevalence of pyramidal versus horizontal structures (predictions 2 and 8);
- the degree of ownership concentration in controlled companies and their determinants (prediction 1 of the AW model).

4.2 Group structure: pyramidal versus horizontal structures

The AW model specifically addresses the question of when we should observe a horizontal rather than a pyramidal structure. The level of diversion plays a key role: i.e. the amount of cash flow that the controlling family can privately appropriate to the detriment of minority shareholders. When the non-diverted cash flow of the new firm is positive, the family will choose the horizontal structure; if the family chooses the pyramidal structure, it must share the non-diverted revenue with outside shareholders of the established firm. When the non-diverted revenue is negative, the family would prefer to set up the new company in a pyramid structure for two reasons: a) external investors are less willing to contribute to the financing of the new company (thus the importance of using the cash accumulated in the established company); b) the pyramid allows the family to share the negative (non diverted) cash flow with the minority shareholders of the established company. As a result, a new firm is less likely to be owned through a pyramid in the following conditions (Almeida and Wolfenzon, 2006, p. 2647): i) the new firm generates higher revenues; ii) the new firm requires a smaller investment; iii) investor protection increases.

It is not easy to verify any of these hypotheses given the difficulties in assessing the degree of diversion in firms or the ex-ante revenue forecasts. In any case, the AW model predicts that pyramids are generally preferred to horizontal structures (prediction

1). This should be even more the case in since Italy is considered a country with a comparative low level of investor protection (La Porta *et al.*, 2000; Leuz *et al.*, 2003).

In the case of pyramidal structures, their detection and analysis is made possible by the fact that in their annual report, joint stock companies are obliged to disclose information about the companies they control. In the case of horizontal structures, their detection is not easy because owners are physical persons. The ISTAT data set is the only one allowing us to perform such an analysis as it is built on the basis of ownership data at the level of physical persons and contains information about the level of the pyramid to which each company of the group belongs (see Section 3.3.1). As in other empirical analyses contained in the thesis, I take into consideration groups with less than 500 employees (small and medium sized groups).

In the case of groups composed of two companies there are only two possible structures: one vertical and one horizontal (Figure 4.1). Out of the 14,629 small groups composed of two companies, about two thirds show a vertical structure and one third shows a horizontal structure (Table 4.1).

Figure 4.1 – Structure of groups composed of two companies

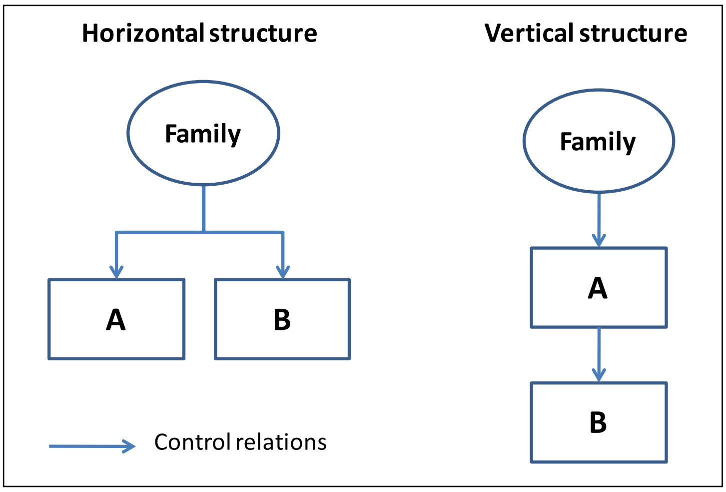


Table 4.1 – Vertical and horizontal structures in groups with two companies

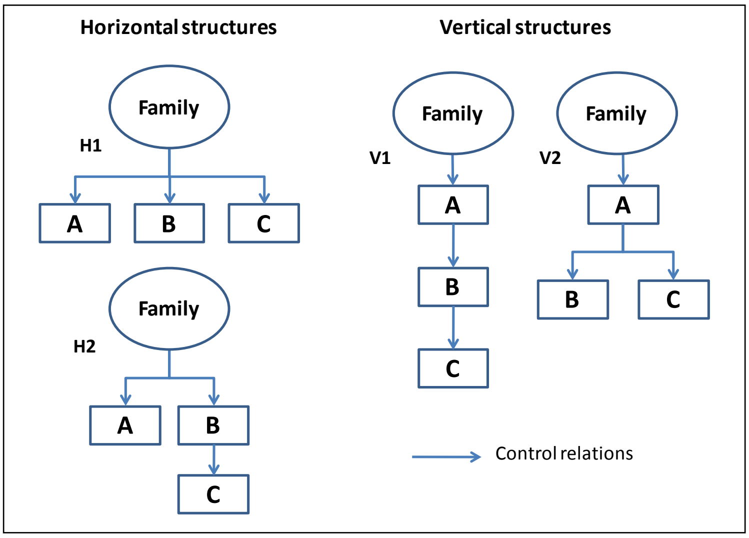
	Number of groups	%
Vertical structure	9,478	64.8
Horizontal structure	5,151	35.2
Total	14,629	100.0

Source: Elaborations on ISTAT data set

In the case of groups with three companies, there are more possibilities in terms of horizontal and vertical structures because of the presence of hybrid forms (Figure 4.2).

Table 4.2 shows the distribution of groups composed of three companies according to their possible structures.

Figure 4.2 – Structure of groups composed of three companies



As expected, the increase in the number of companies per group determines the increase in the presence of vertical (pyramidal) structures; the latter represents almost three-quarters of all groups. The largely prevailing structure (almost two-thirds of the total) is what I call a ‘V2’ structure, with a company at the top and two other companies controlled by the first one.

Table 4.2 - Vertical and horizontal structures in groups with three companies

	Number of groups	%
Pure vertical (V1)	668	11.8
V2	3,500	62.1
Pure Horizontal (H1)	937	16.6
H2	533	9.5
Total	5,638	100.0

Source: Elaborations on ISTAT data set

The latter structure, i.e. one company at the top controlling all the other companies (two-level structure), is also the prevailing structure in groups with four companies, where it represents 41.7% of the total (Table 4.3) and in groups with 5 companies where they represent one third of the total (Table 4.4).

Table 4.3 - Vertical and horizontal structures in groups with four companies

	Number of groups	%
Pure Vertical	31	1.6
V (1-3)	785	41.7
V (1-2-1)	340	18.1
V (1-1-2)	184	9.8
Pure Horizontal	231	12.3
H (3-1)	129	6.9
H (2-2)	152	8.1
H (2-1-1)	30	1.6
Total	**1,882**	100.0
Total vertical	1,340	71.2
Total horizontal	542	28.8

Source: Elaborations on ISTAT data set

The prevalence of vertical structures is in accordance with the AW model prediction. Also in small groups, companies tend to be controlled through another company (normally the one at the top) rather than directly by entrepreneurs (and their family members). Because of the difficulties in measuring the degree of diversion by controlling entrepreneurs, it is impossible to assess whether the prevalence of pyramidal (vertical) structures is determined by the 'payoff advantage', i.e. the appropriation of diverted cash flow, rather than by the ‘financing advantage’, i.e. the possibility of using the accumulated cash flow in established companies. Both mechanisms could be at work although I think that the latter is preeminent, giving the high level of ownership concentration observed in controlled companies (see the analysis in the next section).

Table 4.4 - Vertical and horizontal structures in groups with five companies

	Number of groups	%
Pure vertical	40	4.9
V (1-1-3)	46	5.7
V (1-2-2)	80	9.8
V (1-3-1)	132	16.2
V (1-4)	273	33.6
V (2-1-1-1)	1	0.1
V (2-1-2)	4	0.5
V (2-2-1)	17	2.1
V (2-3)	52	6.4
Pure horizontal	70	8.6
H (4-1)	34	4.2
H (3-2)	55	6.8
H (3-1-1)	9	1.1
Total	**813**	**100**
Total vertical	645	79.3
Total horizontal	168	20.7

Source: Elaborations on ISTAT data set

According to the AW model, pyramids prevail because of the convenience for the family to exploit the ‘pay-off advantage’ of control and/or to use the cash flow available in the established company (‘financing advantage’). The evidence of group dynamics in the small business sector is not always in accordance with this hypothesis. At the beginning of their development, some of the groups examined in the survey expanded as ‘informal groups’ (i.e. groups composed of companies directly owned by members of the same family) and it was only at a later stage that the entrepreneur decided to create a holding company at the top of the group. This means that the structures observed in a cross section are influenced by the age of groups considered and the initial structure and motivation could be different from those observed at later stages.

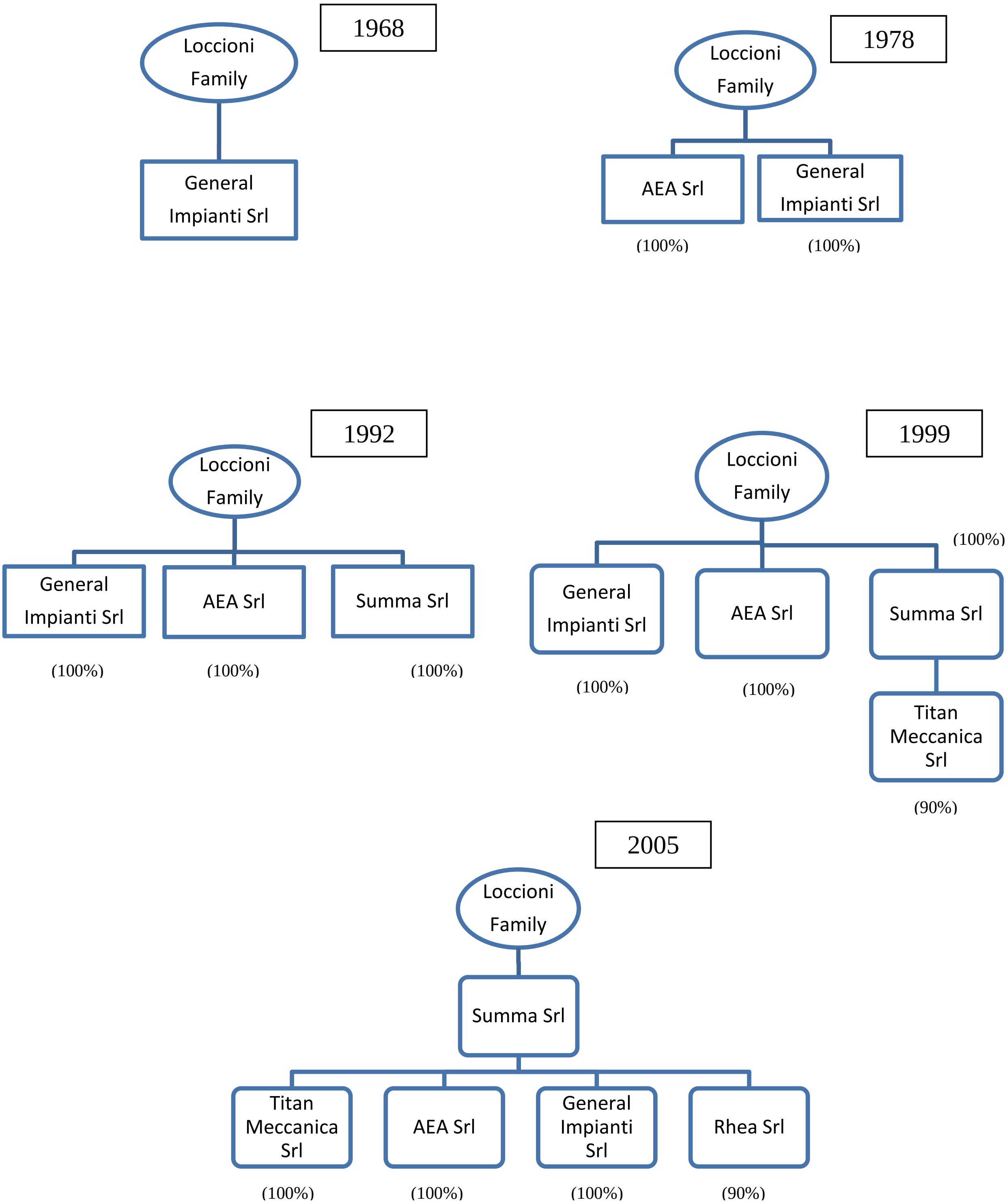
The prevailing motive for such evolution is the need to rationalize the ownership of companies as a response to the expansion of family members over time.

> Case #17, Somacis – At a certain point of time, we end up with six families holding the shares of the main company. Some of them were not directly involved in the management of the company and were more interested in dividends; the others were more interested in reinvesting the cash flow in the company… To avoid confusion in the control of the company, we created a holding company where all the shares have been transferred, which will own all the companies of the group. In this way, people who are responsible for companies can concentrate on the business without being bothered by the problems arising from dealing with different shareholders.

Another important motivation is the centralization of the financial management of the group; in this case, the holding company at the top plays the same role as the general direction in a multidivisional company by centralizing the cash flow of controlled companies and allocating them according to their investment needs. Whatever the causes, the result of this evolutionary pattern is that the sequence for the creation of the pyramidal structure is reversed from that hypothesized by the AW model.

One example of the above mentioned pattern is the Loccioni group whose evolution is illustrated in Figure 4.3. After the setting up of two manufacturing companies, at the beginning of the nineties the entrepreneur set up a service company supplying R&D activity and other services to the manufacturing companies.

Figure 4.3 – Evolution of the Loccioni group (in parenthesis the ownership percentage of the family)



In 2006 the service company became the holding company for the group. In this case the two main companies of the group (General Impianti and AEA) were 100% owned by the entrepreneur and his wife. For this reason the evolution of the group was not influenced by the need to raise capital from external (to the family) shareholders. The *payoff advantage* and the *financing advantage* were both ‘sterilized’ by the absence of external owners. On the contrary, the last two companies (Titan Meccanica and Rhea) were set up by one of the companies of the group (Summa) recently transformed into a holding company.

This case illustrates a typical pattern of development of family based groups from an informal to a pyramidal group. It also highlights another feature typical of family groups: i.e. the high concentration of ownership in the hands of the family members. The three main companies (General Impianti, AEA and Summa) are 100% owned by the entrepreneur and his wife. Only the last two companies (Titan Meccanica and Rhea) were not 100% owned when they were founded because they were set up by involving former employees for the development of specific businesses. In the case of Titan Meccanica, the group later acquired the full ownership of the company.

The high level of ownership concentration helps to explain why, in the case of small groups, the advantages of the pyramidal structure are not as relevant as supposed by the AW model. The main explanation for the high level of ownership concentration observed in small groups is the agency costs of outside equity (i.e. equity provided by people external to the entrepreneur’s family). I examine the empirical evidence on ownership concentration in the next section and discuss the problems arising from the presence of agency costs of outside equity in the last section.

4.3 Ownership concentration in business groups

Because the AW model does not rely on the traditional argument of separating cash-flow rights from control rights, it accounts for situations characterized by a high concentration of ownership of controlled firms.

> Although pyramidal firms are associated with lower ultimate ownership compared to firms controlled directly by the family, our model does not necessarily require (as the traditional argument does) that the ultimate ownership concentration in a pyramidal firm be small in an absolute sense. (Almeida and Wolfenzon, 2006 p. 2641)

As is clear from the latter statement, the AW model makes two predictions; a) ownership concentration is not necessarily low in pyramidal firms (as is supposed by the equity leverage hypothesis); b) families are expected to hold smaller ownership stakes in firms which they control through pyramids, relative to firms they own directly. These predictions about ownership concentration can be tested in the Italian case using the ISTAT and the Capitalia data sets; in fact, these data sets contain information on the percentage of company equity owned by the ultimate owner. According to the ISTAT data set, the average share of the ultimate owner in controlled companies is 81.3%; in 20% of cases companies are 100% controlled by the vertex and in more than one third of cases the vertex owns at least 95% of shares. Besides the modal value of 100%, the distribution of shares shows the presence of other noticeable values: 80%, 70%, 60%, 51% and 55% (see Table 4.5).

The share of ownership of controlled companies is rather high, and generally much larger that what is needed to secure the control of companies; this is in accordance with the prediction of the AW model. This means that separating cash flow rights from control rights is not always the justification for creating a group structure.

Table 4.5 – Companies belonging to small groups by share of the ultimate owner

Share of vertex	Freq.	Percent	Cum.
50	104	0.2	0.2
51	3,010	5.9	6.2
52	795	1.6	7.7
53	364	0.7	8.4
54	262	0.5	9.0
55	1,389	2.7	11.7
56	286	0.6	12.3
57	246	0.5	12.8
58	282	0.6	13.3
59	162	0.3	13.6
60	3,998	7.9	21.5
61	199	0.4	21.9
62	194	0.4	22.3
63	247	0.5	22.8
64	202	0.4	23.2
65	748	1.5	24.7
66	310	0.6	25.3
67	1,124	2.2	27.5
68	263	0.5	28.0
69	154	0.3	28.3
70	2,970	5.9	34.2
71	168	0.3	34.5
72	182	0.4	34.9
73	181	0.4	35.2
74	148	0.3	35.5
75	1,586	3.1	38.6
76	269	0.5	39.2
77	116	0.2	39.4
78	190	0.4	39.8
79	168	0.3	40.1
80	3,175	6.3	46.4
81	150	0.3	46.7
82	157	0.3	47.0
83	225	0.4	47.4
84	186	0.4	47.8
85	852	1.7	49.5
86	146	0.3	49.8
87	160	0.3	50.1
88	226	0.5	50.5
89	210	0.4	50.9
90	4,480	8.8	59.8
91	224	0.4	60.2
92	212	0.4	60.7
93	240	0.5	61.1
94	315	0.6	61.7
95	3,328	6.6	68.3
96	488	1.0	69.3
97	621	1.2	70.5
98	1,917	3.8	74.3
99	3,389	6.7	81.0
100	9,635	19.0	100.0
Total	50,653	100.0	

Source: Elaborations on ISTAT data set

A significant presence of 'external' (to the vertex) shareholders - i.e. shareholders with more than 20% of shares - is observed in less than half of the companies controlled by groups. The AW model makes some predictions about the level of ownership concentration on the basis of the position of companies within the pyramid and whether they are controlled directly by the family or through other companies. In the case of the ISTAT data set, we have information about the position of companies within the group structure but not about the nature of the owners (see the analysis in the previous section). In the case of the Capitalia data set (see Section 3.3.2) we have less detailed information about the position of companies within the group structure, but more information about the type of owner. On the basis of their position within the group, the ISTAT data set classifies companies in ten different levels, from the vertex (head of group) down to the bottom of the pyramid. Almost all of the companies (97%) are within the first three levels[39]; for this reason, in the classification of levels I have grouped all the companies in only three levels, by associating all the subsequent ones to the third level. Table 4.6 shows the share owned by the controlling owner (vertex) according to the position of companies within the pyramidal structure.

Table 4.6 – Share of the ultimate owner by position within the group (% values)

	Frequency		Mean	Percentiles		
	Total	Valid cases		25	Median	75
	n.	n.	%	%	%	%
Vertex	14,171					
First level	48,238	44,132	81.2	66.0	86.0	99.0
Second level	16,215	14,363	85.0	70.0	94.0	100.0
Third level -	7,090	6,328	87.9	76.0	99.0	100.0
Total	85,714	64,823	82.7	67.0	90.0	99.0

Source: Elaborations on ISTAT data set

[39] This is also because of the large prevalence of groups with only a few companies and two-level structures rather than pure vertical structures (see the analysis in the previous section).

This evidence confirms that on average there is little separation between cash flow rights and control rights in companies belonging to groups at all levels of the pyramidal structure. Unfortunately, the ISTAT data set do not have information on the ownership of vertex firms; i.e. those firms that are supposed to be controlled by physical persons.

The Capitalia data set (see Section 3.3.2) allows a more detailed analysis of the ownership structure of companies belonging to business groups, since it has information not only on the share of ownership but also on the type of owner (physical person or legal person). The Capitalia data set refers to manufacturing firms with more than 10 employees (see Section 3.3.2). For this reason, the companies considered are all productive, domestic firms. The Capitalia data set does not provide information on the exact level of the pyramid to which the company belongs. Nevertheless, the questionnaire asks the company belonging to a group whether: a) it controls other companies but is not controlled by a company (head of the group); b) it is controlled by a company and control other companies (intermediate position); c) it is controlled by a company but does not control other companies (bottom of the pyramid). The typology of owner and the position within the pyramid structure allows to test the difference between the ownership structure of companies owned directly by the family and those owned through established companies. The Capitalia data set confirms that ownership concentration increases along the pyramid (Table 4.7).

Table 4.7 – Share of ownership of companies belonging to business groups – 480 groups with less than 500 employees – 2003 (percentage values)

Position within the group	First Owner	Second owner	Third owner	Others	Total
Head of group	52.3	24.0	9.7	14.0	100
Intermediate	71.9	14.7	6.0	7.4	100
Only controlled	79.2	13.5	4.0	3.3	100
Total	67.7	17.7	6.5	8.1	100

Source: Elaborations on Capitalia data set

It also shows that when one company is controlled by another, the average share is higher than when it is at the head of the group, and then controlled by physical persons. In fact, the main difference in ownership concentration is observed when comparing the company at the top of the group (directly owned by physical persons) with the companies controlled by other companies; in the latter case the position within the pyramid is less relevant in influencing ownership concentration.

The latter result is in opposition to the prediction of the AW model on the level of ownership concentration in horizontal and pyramidal structures.

We can assume that the concentration of ownership is related to variables other than the type of owner (physical persons of companies) and the position of the company in the group. To assess the robustness of the previous analysis, I performed a multivariate analysis, taking into account other variables that can potentially influence ownership concentration. Specifically, I controlled for the size of the company (measured by the number of employees), the overall size of the group and the technological regime to which the company belongs. For the latter variable, I used the ratio of R&D expenditure on sales as a proxy for the innovation intensity of the firm's production. The expectation is that the coefficient for this variable is positive because of the greater difficulty in raising external capital in the presence of investment in R&D. In the case of company size, we expect a negative coefficient; the reason being that the larger the size of the company, the higher the need for external capital. In the case of the overall size of the group, we do not have a clear expectation. On the one hand a larger group should be able to generate enough internal cash-flow to autonomously finance new companies; on the other hand, the size of the group can have a positive influence on its ability to raise external capital. The result of the multivariate analysis is presented in Table 4.8.

Table 4.8 – Share of the first owner in companies belonging to groups (t test in parenthesis)

	OLS Coefficients[a]				
	1	2	3	4	5
The first owner is a person	-28.74** (-12.07)	-22.06** (-7.20)	-21.08** (-6.80)	-21.30** (-6.88)	-21.67** (-7.01)
The company is controlled by another company		13.20** (4.21)	14.87** (4.62)	15.56** (4.70)	15.79** (4.78)
Size of the company (ln of company employees)			2.18* (2.18)	4.54* (2.49)	4.58* (2.52)
Size of the group (ln of group employees)				-2.70 (-1.33)	-2.89 (-1.42)
Technology intensity of production (R&D on sales)					61.14 (1.65)
Number of observations	462	462	462	462	462
F	145.6	96.4	67.5	52.6	44.1
R^2	0.24	0.28	0.29	0.29	0.30

a. Robust coefficients; the regression also includes a constant term.
Legend: ** significant at 1%; * significant at 5%.
Elaborations on Capitalia data set.

The multivariate estimates confirm the robustness of previous results even when controlling for the influence of other variables: the share of the first (controlling) owner is higher when a company is controlled by another company than when it is controlled by physical persons[40]. The 'financing advantage', i.e. the use of cash flow from established firms appears to be a more important reason for creating a pyramid than the need to change the ownership structure and raise external (to the controlling family) capital. The technological intensity of production shows the expected sign but is not statistically significant; this is probably due to measurement problems. Contrary to expectations, the coefficient of the size of the company shows a positive sign, but is significant only at 5%. The coefficient of the size of the group has a negative sign but it is not statistically

[40] As the estimates are based on cross section data, it must be assumed that the intention was to capture associations between variables rather than causal relations.

significant. Moreover the two variables add very little to the explanatory power of the model: the R^2 of the regression remains unchanged after introducing them.

I have replicated the same analysis on the ISTAT data set (see Table 4.9). In this case we have the advantage of considering the population of companies belonging to business groups and also the structure of groups (vertical or horizontal according to the AW model terminology). However, we do not have information on the nature of the owner. To account for the different structures of groups, the estimates have been separated according to the number of companies in a group. In the case of 2-companies groups we can compare the concentration of ownership in vertical structures with those of companies in horizontal structures (see Figure 4.1). According to the AW model "the ultimate ownership concentration level observed in any pyramidal structure is lower than that observed in any horizontal structure." (Almeida and Wolfenzon, 2006, p. 2657).

Table 4.9 – Share of the first owner in companies belonging to groups composed of two companies (t test in parenthesis)

	OLS Coefficients[a]		
	1	2	3
The company is controlled by another company (vertical structure)	2.21 (8.05)**	2.21 (8.05)**	2.24 (8.00)**
Size of the company (ln of company employees)		-0.21 (-2.02)*	-.15 (-1.08)
Size of the group (ln of group employees)			-0.09 (0.57)
Number of observations	16459	16459	16459
F	64.8	34.3	22.9
R^2	0.004	0.004	0.004

a Robust coefficients; the regression also includes a constant term.
Legend: ** significant at 1%; * significant at 5%.
Elaborations on ISTAT data set.

Contrary to the AW model, companies controlled in pyramidal structures show a higher level of ownership concentration than companies in horizontal structures (controlled directly by the vertex). The coefficient of the variable is robust to different specifications. In the case of the size of the company the coefficient has the expected sign (negative); However its statistical significance is at 5% and the sign is not robust to different specifications. The introduction of the size of the group makes the coefficient unstable, also because of multicollinearity problems[41]. These results are confirmed also in the case of groups composed of three companies (Table 4.10).

Companies controlled through vertical structures (Figure 4.2) show a higher level of ownership concentration (share of the vertex) than companies in horizontal structures. The size of the company shows the expected (negative) size, although it does not seems robust to different specifications of the model.

Table 4.10 – Share of the first owner in companies belonging to groups composed of three companies (t test in parenthesis)

	OLS Coefficients[a]		
	1	2	3
The company is controlled by another company (vertical structure)	2.14 (5.51)**	2.13 (5.50)**	2.06 (8.00)**
Size of the company (ln of company employees)		0.07 (0.57)	-0.46 (-2.92)**
Size of the group (ln of group employees)			1.01 (5.58)**
Number of observations	9570	9570	9570
F	30.4	15.39	20.78
R^2	0.003	0.003	0.006

a Robust coefficients; the regression also includes a constant term.
Legend: ** significant at 1%; * significant at 5%.
Elaborations on ISTAT data set.

The size of the group shows a positive association with ownership concentration. This is contrary to the hypothesis that the size of the group could facilitate the raising of

[41] Because we are dealing with groups with only two companies, there is a strong relationship between the size of a company and the size of the group to which the company belongs.

external capital by its member companies. It gives support to concept of the role of the group as an internal capital market with the head of the group pooling financial resources which are then invested in the controlled companies.

4.4 Agency problems in family-owned groups

The empirical results obtained in the previous sections on the prevailing structures of groups and the ownership concentration of member companies allow us to critically discuss some of the conclusions of the AW model and propose a different explanation for the observed patterns of ownership structure in family-owned groups. As predicted by the AW model, vertical structures (pyramids) prevail over horizontal structures; this is true in general and also in the case of small groups. This evidence confirms that when entering a new business portfolio entrepreneurs tend to use the cash flow generated by the business(es) already established; in the AW model this is called ‘financing advantage’.

If the established business is 100% owned by the entrepreneur (or members of his/her family) whether the new business is owned directly by the family or through a company already established is irrelevant; the entrepreneur can use the cash flow from the established business to pay the dividends and invest them in the new business; or s/he can use the cash flow of the established company directly to acquire shares in the new business[42]. However, things are different if there are other owners in the established company; in this case, these two possibilities are relevant for the entrepreneur because he/she receives as dividends only part of the cash flow generated by the estab-

[42] Though the two situations are indifferent in terms of cash flow, they can be different in terms of tax, depending on the fiscal position of the owners.

lished company. As owner-manager he/she could use the entire cash flow accumulated in the established company to set up the new businesses. This is one of the main agency problems between minority and controlling shareholders in family owned companies; the owner-manager can decide to pay less dividends and use the accumulated cash flow to finance new businesses (or use it for perks). The minority shareholders might be more interested in receiving dividends than leaving the cash flow in the company.

Whatever the ownership structure of the established company, the ‘financing advantage’ hypothesis is not a sufficient condition for justifying the setting-up of an independent legal unit. In fact, the same strategy (i.e. using the accumulated cash flow) can also be implemented by developing the new business within the legal boundary of the established company. If a new company is set-up, this is done for other reasons which must be one (or both) of the following: i) to separate the risks between the established business and the new one, and ii) to modify the ownership structure of the new business and raise outside equity, i.e. equity capital provided by subjects other than the entrepreneur and his/her family members.

The financial explanation stresses the importance of the latter reason - i.e. the raising of outside equity – to justify the creation of a pyramid; in fact, the AW model predicts that the share of the controlling family is higher in horizontal structures (those in which companies are directly owned by the family) than in vertical (pyramidal) ones (those in which companies are owned by established companies). This prediction is not confirmed by the empirical evidence; ownership concentration is higher in companies owned through pyramidal structures than in companies directly owned by physical persons. This is due to the fact that the AW model relies only on financial motives while no importance is given to the identity of outside shareholders and to the motivations for acquiring shares in the new business; in fact, it is hypothesized that these motivations are purely financial (i.e. the expected return on invested capital).

In extending the financial explanation from large groups and listed companies to privately owned companies, the AW model underestimates the agency costs of outside equity in privately-owned companies. As clearly stated by Myers (2000, p. 1005) "Applied corporate finance accepts outside equity as a fact of life but does not really explain how managers' and stockholders' interests becomes sufficiently aligned". In our case the interests to be aligned are those of the controlling entrepreneur and the minority investors in controlled companies. In business groups the agency costs are due to two different causes: a) on the one hand, there is a conflict of interest between minority owners and the owner-manager (Schulze *et al.*, 2001); b) on the other hand, the controlling owners can divert resources from the companies of the group in which they have a larger share to the detriment of companies in which they have a lower share (Morck and Yeung, 2003).

The first authors that have given adequate importance to agency costs in explaining the ownership structure of firms are Jensen and Meckling (1976). Agency costs are the result of costs incurred by a firm in terms of lower performance because of its unwillingness or inability to deal with agency problems, and because of costs incurred through for incentives and monitoring activity to deal with information asymmetries and to align the interests of an agent with the interests of a principal[43]. Compared with the abundant literature about agency costs in publicly held firms – as a result of the separation between ownership and control – there is very little work on the agency costs in privately held firms both at a theoretical and at an empirical level (see Section 2.3.3).

[43] For an in-depth discussion about the nature and origin of these costs, see also Milgrom and Roberts (1992, pp. 491-505).

In their seminal work, Jensen and Meckling (1976) model the choice faced by the 'owner-manager' of a closely held company (the entrepreneur in our case) when he/she need to raise additional capital to finance a new business. They identify three possibilities: a) inside equity (equity capital provided by the entrepreneur); b) outside equity (equity capital provided by external investors); c) debt. Apart from 'inside equity' (i.e. the cash flow accumulated in the established business) the other two forms present agency costs. Given agency costs, entrepreneurs will consider the raising of external capital only in cases where investment in the new business opportunity exceeds the finances available to the entrepreneur or the cash flow available from the established business.

Given the amount of external resources which the entrepreneur needs to raise, Jensen and Meckling (1976) model the choice between equity and debt in the following way. Given:

B = debt;

C_0 = outside equity;

E = B + C_0 = total amount of external capital;

$q = C_0 / (B + C_0)$= share of equity capital on total ($0 \leq q \leq 1$);

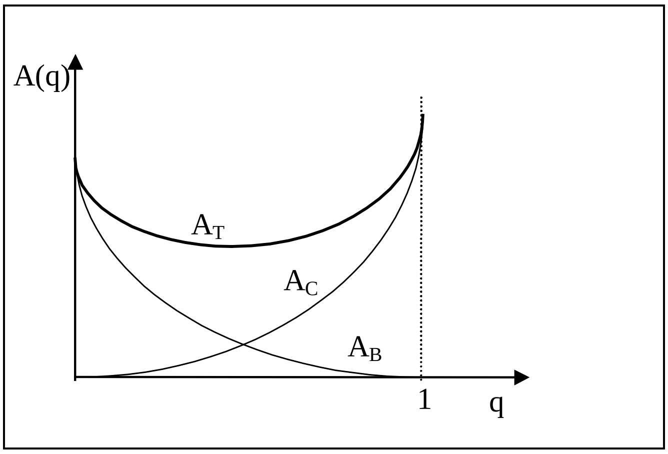
$A_B(q) =$ agency costs of debt;

$A_c(q) =$ agency costs of outside equity;

$A_T(q) = A_C(q) + A_B(q)$ = total agency costs;

Agency costs are represented as a function of q. Given the amount of external finance needed by the entrepreneur, he/she will choose the combination of debt and equity that minimizes the agency costs of external financing (see Figure 4.4). According to this representation of agency costs, $A_B(q)$ is decreasing in q, while $A_C(q)$ is increasing in q and both functions are convex functions[44]. This means that when raising external capital entrepreneurs will always choose a mix of debt and outside equity.

Figure 4.4 – Agency costs of outside equity, debt and total



Source: adapted from Jensen and Meckling (1976, p. 344)

The concentration of ownership and the association between ownership and control (which is typical of family firms) do not solve the agency problems that are typical of firms in which there is a separation between ownership and control. This is because it gives rise to two different sources of agency problems: a) it hampers the performance of firms compared to those in which there is a separation between ownership and control (Schulze *et al.*, 2001); b) it introduces agency problems between controlling and minority shareholders (Morck *et al.*, 1988). Much of the literature on agency costs in family firms has focused on the first problem (Oswald *et al.*, 2009). In our case, we are inter-

[44] Jensen and Meckling are convinced about the positive sign for the first derivative of the function, i.e. that agency costs are an increasing function of outside equity, but they are not convinced about the sign for the second derivative, i.e. whether it is a convex or a concave function (Jensen and Meckling, 1976, p. 346).

ested in the second type of problem; i.e. the possible conflicts and agency costs between controlling shareholders and minority shareholders[45].

Agency costs of outside equity depend primarily on the possibility for the owner-manager, thanks to his/her control position, to appropriate pecuniary and non-pecuniary benefits to the detriment of the value maximization of the company. The likelihood of this private appropriation is supposed to increase with the share of outside shareholders; in fact, the owner-manager gets all the benefits while sustaining its cost only as a proportion of his/her share. This is anticipated by outside equity providers who, after providing the capital, then spend resources on monitoring the owner-manager: participating in board meetings, demanding financial and business reporting, evaluating business decisions, etc. Such monitoring activity may well be considered an impediment to the freedom and speed of decision-making on the part of the entrepreneur; not only may this reduce the possibility for him/her to privately appropriate resources, it can also limit the chances of success for the new business.

When comparing the agency costs between publicly traded and closely held companies, it must taken into account that in the latter case the main problem for minority shareholders is the reduced possibility of liquidating the investment in the case of conflicts with controlling shareholders (even if they simply want to change their investment position). There is no a market valuation of the shares and difficulty in finding a buyer can significantly open the gap between the perceived value of the shares and the price at

[45] The latter problems are linked to the former. If a family-controlled company hampers its performance by providing excessively for the welfare of the family (for example assuring above market salaries to its members) this will not reduce the overall welfare of the family but will have an impact on minority shareholders.

which they can be sold. Buying a minority share in a closely held company can result in being 'trapped' in case of divergent interests with the controlling owner[46].

It must also be considered that closely held firms are not subject to the controls and regulations of publicly held firms, thus raising the costs of monitoring activity. Given the costs for collecting and analyzing information on the performance and the prospects of a company, in the case of publicly traded firms, these costs can be shared by a large number of actual and potential investors. In the case of closely held firms, the same costs are to be sustained only by one or more investors[47].

Agency costs of minority shares in privately held (or family owned) companies are much higher than those of publicly traded firms; so much so that it is very difficult for entrepreneurs to raise outside equity to finance new businesses[48]. This is even more the case for a new business started by an established entrepreneur. The possible reputation that he/she has acquired in the previous start up is counterbalanced by the additional agency costs observed in business groups, due to possible diverting of resources between the companies of the group.

Apart from the level of agency costs of minority shares in family owned groups, the behaviour of these costs as a function of the amount of capital raised differs from that hypothesized by Jensen and Meckling (1976), as depicted in Figure 4.4. To demonstrate why this is so, we must analyze in detail the sources of agency costs and how they are related to the amount of outside equity.

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[46] For this reason private equity operations and venture capital operations require detailed contracts which specify the circumstances in which investors will liquidate their shares.
[47] This greatly reduces the incentive to collect and provide information for closely held companies.
[48] The difficulties in raising equity capital due to asymmetry of information and agency costs has been discussed and empirically verified by the abundant literature on the 'finance gap'. For a review of the main arguments and conclusions see (Storey, 1994).

The major sources of agency costs are determined by the need to reduce the asymmetry of information and the moral hazards between controlling owners and minority shareholders. They are the result of the ex-ante evaluation of the business in order to determine its prospects and risks and also the ex-post monitoring activity. The latter activity can consist of direct participation on the board of directors, external auditing or the implementation of formal control systems.

The amount of outside equity and the corresponding share in the business increases the *incentive* of minority shareholders to spend resources for evaluation and monitoring activities. This does not necessarily raise its costs; in fact, for the most part they are fixed with respect to the amount of equity and the share of ownership[49]. Also in the case of the bonding costs sustained by the owner-manager – such as the limitations in the speed and flexibility of the decision process - they are for the most part fixed with respect to the share of minority shareholders[50].

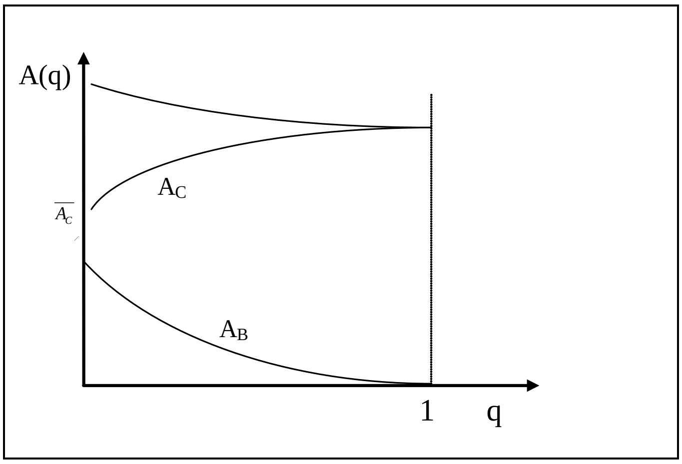
Therefore, if agency costs of outside equity are for the most part fixed and only slightly dependent on its amount, the function $A_C(C_o)$ is a convex rather than a concave function and presents a point of discontinuity in q=0, being $A_C(0)=0$ and $\lim_{C_o \to 0} A_C(C_o) = \overline{A_C}$ where $\overline{A_C}$ represents the fixed part of the agency costs. As a result, the behaviour of $A_C(C_o)$ is better described by the line in Figure 4.5. This means that the

[49] The misalignment of incentives between the owner-manager and outside investors (and consequently the need for monitoring activity) can be minimized through the use of ex-ante shareholder agreements (Chemla *et al.*, 2007). These agreements are common in situations where only some shareholders are involved in managing the company, such as joint ventures, venture capital baked companies, etc. Also in this case, the costs of collecting information and drawing up these agreements are fixed and do not depend on the share of outside equity.

[50] Myers (2000) assumes that the incentive for managers to privately appropriate perks does not depend on the share of outside equity but only on its presence. If this is the case, the incentive for external investors to invest in monitoring activity also would not depend on their share of equity.

agency costs per unit of external capital $A_C(C_o)/C_o$ is a continuously decreasing function with the minimum value in *q=1*.

Figure 4.5 – Agency costs of outside equity in privately owned companies

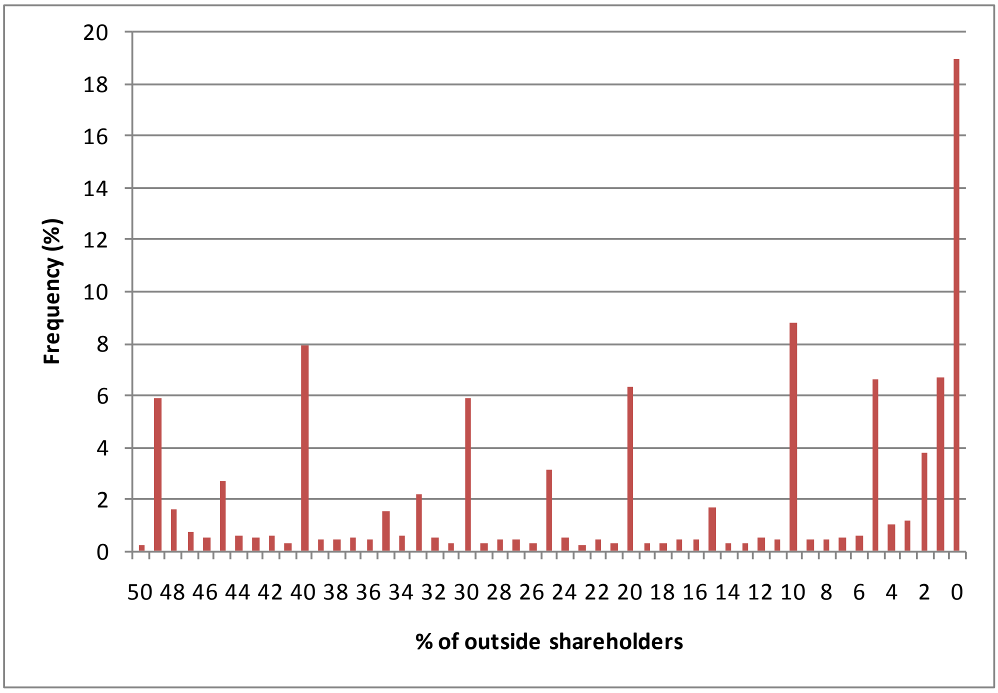


Given the difficulties in liquidating minority shares in privately held companies, mitigating conflicts of interest between controlling and minority shareholders depends on the possibility for the latter to influence the behaviour and decisions of the former. It is expected that this possibility will increase with the share of ownership. Together with the decreasing function of agency costs per unit of outside equity, this reinforces the expectation of a dichotomous distribution in the presence of minority shareholders; either they are not present at all or their share is high.

From the above discussion it is possible to derive the following conclusions: a) given the high level of agency costs of outside equity, when financing new businesses entrepreneurs will prefer to use the cash flow accumulated from already established businesses rather than raising outside equity[51]; b) in cases where outside equity is used, its share is expected to be high in order to minimize the agency costs per unit of capital. The Almeida and Wolfenzon (2006) model also reaches this latter conclusion, though for different reasons.

The first proposition is confirmed by empirical data: the modal value of outside shareholders in companies controlled by small groups is 0 (see Figure 4.6)[52].

Figure 4.6 – Share of outside shareholders of controlled companies in small groups (relative frequencies)



Elaborations on ISTAT data set.

Considering that the presence of shareholders with 1% or 2% of share is instrumental to maintaining the limited liability, more than one fourth of companies controlled by

[51] This conclusion is similar to the one reached by the peaking order theory, which considers that in financing new businesses managers prefer to use the available cash flow rather than raising external capital and outside equity (Myers and Majluf, 1984).

[52] We must consider that when a company 100% owned, the owner looses the limited liability accorded to joint stock companies. For this reasons in most cases we observe the presence of one or a few shareholders who hold just a few percentages of the stock. Their presence is instrumental to maintain the status of a limited company.

small groups do not have outside shareholders. What is not confirmed by the data is the expected dichotomous distribution in the presence of outside shareholders; in fact, modal values are evenly distributed between 49% and 10%. This means that there are other mechanisms at work that allow for the presence of low shares of outside equity even if the agency costs per unit of capital raised is expected to be very high.

The empirical evidence on the share of minority shareholders in companies controlled by groups hardly reconciles with agency theory, unless we are able to identify the presence of mechanisms able to mitigate the conflict of interest between minority and controlling shareholders, thus reducing the agency costs of outside equity. The interviews with entrepreneurs help to solve this apparent contradiction and identify the mechanisms at work. In fact, by examining the people involved in the ownership of companies subsequently started by portfolio entrepreneurs, it emerged that the presence of minority shareholders was never justified for purely financial reasons (i.e. return on capital) because the people that supplied equity capital were directly involved in the management of the company.

Though this would not completely eliminate potential conflicts of interest with the controlling shareholders, direct involvement in the management of the company eliminates the asymmetry of information between the two categories of shareholders and significantly raises the contractual power of minority shareholders. In some ways they become ‘insiders’.

The involvement of minority shareholders in the management of the company cannot be explained by attempts to reduce agency costs. In fact, in these cases the causal relationship hypothesized by agency theory is reversed. It is not because of the need to raise external capital that other people are involved in the ownership and control of new companies; on the contrary, minority shares are given as an incentive to external subjects in order to secure their involvement in the start-up of the new business. This explains why in so many cases the minority shares in controlled companies are quite low (10 to 20%).

If the main reason for setting up a new company and altering its ownership structure is not that of raising additional capital, but to involve other people in the management of the new business, several questions remain:

a) why do entrepreneurs need to involve other people when starting a new business and what are their specific roles;
b) why are people given minority shares in the new business to perform such role rather than using alternative contractual arrangements.

These questions will be analysed in depth in chapter 6.

Chapter 5 - Diversification strategies and business groups formation

The organizational perspective on business groups emphasises the role of such structures in developing and managing diversified activities (Chandler, 1982a). This hypothesis has been advanced and verified using data on large groups with only limited attention paid to SMEs (Rosa and Scott, 1999a). Nevertheless, it remains one of the most widespread hypotheses on the nature of business groups.

> "Although their [of business groups] exact features differ from country to country because of distinct economic, social, and cultural environments, they also have important similarities. Most notably, *business groups pursue unrelated product diversification under centralized control*" (Chang, 2006b, p. 407, italics added)

Throughout this chapter I will refer to this hypothesis as the 'diversification hypothesis'. The aim of this chapter is to explore to what extent this perspective is able to explain the phenomenon of business groups in the small business sector.

The idea of the business group as an organizational structure mimicking the M-form (multidivisional structure) in order to manage a diversified portfolio of businesses is broadly confirmed by the evidence discussed in the previous chapter: indeed, the prevailing structure of groups is that of one company at the top which controls several others (see Section 4.2). Following the classification proposed by Almeida and Wolfenzon (2006) I considered these as 'vertical structures' because companies are not controlled directly by the family. However, it is the ‘horizontal’ form that is prevalent in such groups, with companies playing the same role as the divisions in a multidivisional company.

Although the ‘diversification hypothesis’ seems at first glance more congruent with the empirical evidence than the ‘financial hypothesis’ (particularly the ‘equity leverage’ hypothesis) several questions remain unanswered. The use of business groups in pursuing unrelated diversification seems a common strategy for large groups in emerging economies (Peng and Delios, 2006). It is not clear to what extent this hypothesis may be valid in developed countries, where well functioning financial markets should, theoretically, reduce the advantage of unrelated diversification, and in the small business sector, where firms are supposed to be single business or related diversifier. So far, the analysis of diversification patterns of business groups has been carried out only through case studies. In this chapter I will use the data sets on Italian business groups to examine the overall patterns of diversification in small groups (those with less than 500 employees) as well as the Marche data set to examine the growth strategies of groups over time. The quantitative information available from the above mentioned data sets will be supplemented with the qualitative information collected through direct interviews. The chapter is organized as follows: section 1 discusses the problems in the definition and measurement of diversification; section 2 analyses the degree of diversification observed in the population of Italian business groups; section 3 examines the pattern of diversification as a result of the growth process observed in business groups; section 4 lays out the main conclusions and discusses the limits of the ‘diversification hypothesis’ in explaining business group formation.

5.1 Nature and measures of diversification

In examining the diversification strategies of firms, one of the main issues regards the way in which diversification is defined and measured. Traditionally, diversification has been defined as the entry of a firm into a new sector. The boundaries between the sectors - also referred to as industries (Jacquemin and Berry, 1979), segments (Denis *et al.*, 1997), or lines of business (Montgomery, 1994) - are generally deduced from the classification system of activities adopted by statistical agencies. Apart from the problem of identifying the appropriate level of aggregation (2, 3, 4 or 5 digits), the use of classification codes has several drawbacks, already noted by Penrose (1959). The main problem of using classification codes for measuring diversification is their "failure to tap the dimension of relatedness" (Hall and St. John, 1994, p. 154). A method that partly overcomes this problem has been suggested by Jacquemin and Berry (1979): they use the entropy index of concentration, which makes it possible to separate the diversification 'within' an industry group (defined as a 2-digit SIC code) from the diversification 'across' industry groups. Although this is a richer way of measuring diversification, it also has some drawbacks: the first is that it still relies on classification codes in order to define the industry boundaries; the second is that it fails to relate the 'amount' of diversification to the growth strategy followed by firms.

To overcome these limits, some authors have proposed qualitative measures of diversification, based on a direct (but subjective) valuation of the degree of relatedness between activities controlled by a firm. The first to use this method was Rumelt (1974) who defined four types of diversification strategies, based on the following indices: a) the specialisation ratio (SR) defined as the share of sales coming from the main activity; b) the correlation ratio (RR), defined as the share of sales coming from related activities. The typologies of diversification strategies resulting from the values of the two indices are illustrated in Figure 5.1.

Figure 5.1 – Diversification strategies according to Rumelt[a]

Typology	Values of RS and RR
Single business	SR ≥ 95%
Dominant business	70% ≤ SR < 95%
Related business	SR < 70% e RR ≥ 70%
Unrelated business	SR < 70% e RR < 70%

[a] From Rumelt (1974), p. 11-32.

The qualitative measures of diversification overcome the problems of using classification codes, but introduce an inevitable degree of subjectivity in discriminating between related and unrelated activities and in the assessment of the degree of 'relatedness'. The other shortcoming of qualitative measures is that they can be used for small samples but not for large data sets where the only information available is the classification codes attributed to firms or lines of business. Moreover, several studies have demonstrated that the two criteria produce similar results when assessing the degree of diversification of firms (Chatterjee and Blocher, 1992; Hoskisson *et al.*, 1993)[53].

I use the quantitative measures based on classification codes when analyzing the diversification of business groups in Italy, and supplement quantitative measures with qualitative information from the case studies of groups operating in the Marche region.

The literature on the causes and consequences of diversification is overwhelming; this issue has attracted the attention of economists (especially evolutionary economists) and management researchers (especially those following the resource-based approach).

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[53] Chatterjee and Blocher (1992) investigates the ability of continuous measures to discriminate between Rumelt's categories. The results suggest weak convergent validity for Rumelt's measures but good capacity of continuous measures to discriminate between Rumelt's measures. The result of this study is challenged by Sambharya (2000) who finds little evidence to support the construct validity of the diversification measures and argues that the convergent, discriminant, and predictive validity of both the strategic and SIC-based continuous measures were low to moderate at best.

The two most important issues in the literature on corporate diversification are: a) the reasons for diversification; b) the relationship between diversification and performance. Closely associated to these issues is the direction of diversification. The resource-based view (RBV) of the firm, originating from the work of Penrose (1959), stresses the importance of related diversification. According to the RBV, the growth of firms is based on the accumulation of idiosyncratic resources; for this reason, it is expected to follow a coherent pattern of development around the initial activities (Teece *et al.*, 1994). This is not only a positive prediction (that is, for explaining the actual behaviour of firms) but also a normative prescription: firms ought to diversify in related businesses in order to exploit the idiosyncratic resources that are the basis of their competitive advantage. According to this perspective, we should observe a positive relationship between related diversification and performance and a negative relationship between unrelated diversification and performance. Finance researchers make less stringent hypotheses on the direction of diversification, and generally favour the hypothesis of a negative relationship between (unrelated) diversification and firm performance. The 'agency' perspective used by financial researchers considers diversification as the result of managers pursuing their expansion objectives at the expense of shareholders (Amihud and Lev, 1981). Other theoretical perspectives, such as the 'market power view', has also gained the attention of industrial economists (Carlton and Perloff, 2005).

A review of this abundant literature is beyond the scope of this research for two main reasons[54]: i) most of the literature on diversification refers to large firms while I am interested in analysing the nature and role of diversification in SMEs; ii) most of the lit-

[54] Several surveys have been already proposed (Ramanujan and Varadarajan, 1989; Montgomery, 1994; Martin and Sayrak, 2003).

erature concentrates on the diversification-performance relationship while my main interest is the impact of diversification on the organization of firms. Therefore, I will take for granted the theoretical approaches proposed by the literature and concentrate on the empirical analysis of diversification in business groups, with the aim of verifying to what extent the ‘diversification hypothesis’ is able to explain the observed phenomena.

At an empirical level, the study of diversification can be grouped into two strands of literature: cross-sectional studies of the relationship between corporate diversification and firm value (the so called ‘diversification discount’) and longitudinal studies analyzing the patterns of corporate diversification over time. The first problem, i.e. the performance-diversification relationship, is the one that has received most attention: “Cross-sectional evidence on corporate diversification is abundant, but systematic evidence on how firms evolve over time is scarce. … longitudinal information might be useful in understanding diversification” (Matsusaka, 2001, p. 425). In the following analysis I will first explore the degree of diversification in business groups using cross sectional data (ISTAT data set); I will then concentrate the attention on the pattern of diversification as a result of firms’ growth over time.

Because this study deals with groups in the small business sector, before starting the empirical analysis, it is worthwhile examining the studies that addressed the issue of diversification in SMEs. While the literature on diversification by large firms is prolific, only a few studies have addressed the issue of diversification in SMEs (Lynn and Reinsch, 1990; Sandvig and Coakley, 1998; Dass, 2000; Sandvig, 2000). In these studies it has been hypothesised that diversification in SMEs occurs: a) as a survivalist strategy (Robson *et al.*, 1993); b) as a result of entrepreneurial ‘dynamics’ (Donckels *et al.*, 1987); c) as the result of family capital accumulation (Scott and Rosa, 1996).

The study of Robson et al. (1993) is particularly interesting for this research. They find that in the case of smaller firms (those with less than 30 employees) employment growth is higher for non-diversified than for diversified firms. For the other size classes (up to 200 employees) there is no significant difference in the rate of growth between diversified and non-diversified firms. From these results, the authors draw two main conclusions: the first is that in very small firms, entrepreneurs lack the resources and skills to manage activities in diversified businesses, hence the negative relationship between diversification and growth; the second conclusion is that in small firms diversification can be considered a survivalist strategy adopted to counterbalance a decline in the original business, rather than the result of a growth strategy (Robson *et al.*, 1993, p. 47).

One of the limitations of the Robson et al. (1993) work is that the authors associate the firm with the legal entity. We know that when the size of the firm increases, growth is achieved not only through the expansion of the existing company, but also through the setting-up or the acquisition of new companies. Growth appears to be mainly the result of an entrepreneurial process "… in which the entrepreneur is constantly identifying and evaluating new opportunities … Over time a significant 'portfolio' of surviving ventures (acquired or founded) can be built up" (Rosa, 1998, p. 44). Empirical research by Rosa (1998) and Rosa and Scott (1999b) demonstrates that related diversification is commonly associated with growth strategies where entrepreneurs seize opportunities arising from existing activities. Unrelated diversification, where there is an entry into a new business area, is relatively uncommon in the smaller business environment, and is less growth oriented. Rosa (1998) shows that both related and unrelated forms of diversification can lead to new companies being added to the group. The consideration of business groups, rather than the single legal units, is more appropriate when studying the relationship between growth and diversification, also in the case of SMEs.

Moreover, the growth process in SMEs shows a lower degree of planning than one might expect in a managerial firm and the decision to pursue a diversified activity is often the product of serendipity and opportunism. Serendipity and opportunism can lead to rapid decision-making to diversify into a new company. This could result in a higher probability of seizing opportunities with no relationship to the ones already established. Rosa (1998) shows, however, that the planning of new ventures is less intense when the entrepreneur is doing well. Only when problems became urgent did entrepreneurs pursue a strategy of survivalist diversification. This was usually a carefully planned process, and often involved unrelated diversification. This research thus points to complex diversification strategies followed by entrepreneurs in response to favourable and unfavourable economic climates.

A few papers compare diversification strategies in large and medium-sized firms. In general these works adopt the agency costs view and focus their attention on the relationship between ownership concentration and diversification. Amihud and Lev (1999) found that ownership concentration is negatively associated with diversification, thus confirming the agency costs hypothesis. Anderson et al. (2000) reached the same conclusion; however they suggested that firms can use alternative governance mechanisms as substitutes for CEO ownership and conclude that agency costs do not provide a complete explanation for the magnitude and persistence of the valuation discount associated to conglomerate diversification. Aw and Batra (1998) studied the relationship between size and diversification (product and geographical) for firms located in Taiwan and concluded that diversification is not just a large firm phenomenon, although the most common form of diversification for Taiwanese firms is geographic rather than product diversification. They found that the positive relationship between firm size and product diversification, typically found in developed countries, is valid only for the largest exporting firms. Bethel and Liebeskind (1998) demonstrated that the legal organization of firms does influence the degree of diversification. Specifically, firms organized as a group of subsidiary companies show a higher degree of diversification than firms organized as a single legal unit (multidivisional firms). I put forward the hypothesis that the causal relationship runs in the opposite direction and that the group is the organizational form adopted by entrepreneurs and managers to pursue a diversification strategy.

5.2 Degree of diversification of business groups

Companies belonging to business groups can be broadly divided into three categories (Iacobucci and Rosa, 2005): foreign companies; financial companies (like holding companies, property companies, etc.); and production domestic companies. Foreign-based companies are not relevant for the study of the relationship between diversification and business group formation as by definition they must be managed as independent legal units. Financial companies are normally set up because of fiscal advantages or as an instrument for controlling production companies[55]. For these reasons, we concentrate the attention on production domestic companies. As well as representing the main companies in terms of employees and sales, in small groups they are particularly relevant for understanding the reasons why entrepreneurs set up new legal units rather than developing new ventures within established companies. For that reason I consider only groups

[55] The typical case is a holding company owning the production companies of the group.

with at least two production companies located in Italy (see also the discussion in section 3.3.1).

There are several ways of measuring the degree of diversification: some of them are based on qualitative scales defining the type of relationship between two activities; others are based on quantitative measures based on classification codes. In the case of the ISTAT data set, we have no choice between the two methods because the only information on the activities of companies is their classification code. To assess the relative importance of different activities within the same group, I use the number of employees in each activity. An alternative measure would have been that of sales. I prefer the number of employees because it gives a better measure of the importance of the different activities; in the case of sales, there could be potential distortions arising from duplication of sales in case where there is a buying-supplying relationship between companies in the same group.

If x_{ij} represents the employees of the group in industry *i*, *i=1,…,n*, and j is an index of the companies in the group *j=1…m*, then $q_{ij} = \frac{x_{ij}}{X}$, with $X = \sum_j x_{ij}$, is the share of employees of company j on total. I define the primary activity of the group as the activity of the largest company: $x_m = \max x_i,\ i = 1,...,n$. As a result $\frac{x_m}{X} = q_m$ can be considered as a specialization index. I determined those ratios for the companies of the groups examined at 2, 3, 4 and 5 digit-level industry classification codes[56]. The degree of specialization of groups is very high (which means that the degree of diversification is,

[56] In a previous study (Iacobucci and Rosa, 2005) we have shown that this index produces the same result as other more sophisticated indices (such as the Herfindahl and the Entropy indices) based on consideration of the relative importance of employees in all the companies.

conversely, very low)[57]. At the level of two digits, 50% of the groups have a specialization index higher than 95% (Table 5.1). This result does not change in any significant way when we consider more narrow definitions of the sector of activity. The degree of specialization remains very high even at the 5 digit level.

Table 5.1 – Ratio of the employees in the same ATECO to the total employees of the group (percentage values) – 24,202 small groups

		5 digits	4 digits	3 digits	2 digits
Average		80.96	81.62	82.86	85.84
Median		86.00	88.00	90.00	95.00
Mode		100	100	100	100
Min		11	11	11	11
Max		100	100	100	100
Percentiles	25	67.00	67.00	68.00	75.00
	50	86.00	88.00	90.00	95.00
	75	100.00	100.00	100.00	100.00

Elaborations on the ISTAT data set.

The degree of specialization is obviously influenced by the degree of concentration of employees in the largest company (given that ATECO codes are univocally attributed to each company). For this reason, I calculated an index of specialization that excludes the largest company: $q_a = \frac{x_i - x_m}{X - x_m}$, where x_i represents the overall employees of the group in industry *i* and x_m the employees in the largest company (by definition belonging to the industry *i*). The index is 0 if the other companies of the group are in a different sector than the largest company (absence of specialization); 100 if all the other production companies of the group are in the same sector of the largest company (maximum specialization)[58].

[57] The result does not change if we consider the total number of employees instead of the employees in production companies (i.e. if we include also the employees in commercial and financial companies). The average degree of specialization at 5 digits is 79.5 instead of 80.9; the median is 85 instead of 86.
[58] We expressed the index in percentages.

This index gives a different picture of the degree of specialization (Table 5.2). In more than half of the groups, the employees in other companies are occupied in a different activity than the largest company. In this case, there is also a larger difference in the averages depending on the number of digits considered. The descriptive statistics reveal a dichotomous distribution: i.e. either the groups diversify or they do not. This is due to the large presence of groups with only two production companies. If we consider the groups with more than two companies the percentage of groups that show complete specialization (index=100) falls dramatically, while the percentage of those showing an index=0 increases.

Table 5.2 - Ratio of employees of the same ATECO to the overall employees excluding the largest company in the group (percentage values) - 24,202 small groups.

		5 digits	4 digits	3 digits	2 digits
Average		31.13	33.48	37.92	48.27
Median		.00	.00	.00	.00
Mode		0	0	0	0
Min		0	0	0	0
Max		100	100	100	100
Percentiles	25	.00	.00	.00	.00
	50	.00	.00	.00	.00
	75	84.00	95.00	100.00	100.00

Elaborations on the ISTAT data set.

From the analysis of the degree of diversification of company activities it can be affirmed that groups show a low degree of diversification when considering their activities as a whole. However, this is not the case when we consider the activities of the companies leaving the largest one aside. This supports the hypothesis that new companies are added to the group (either by creating new ones or by acquiring existing ones) in order to diversify from the primary activity. Even at the two digits level (which is a rather broad definition of industry) this is true for more than 50% of groups[59].

This empirical evidence on the degree of diversification in small groups raises two questions: i) given the large share of groups in which all the activities belong to the same industry, understanding why entrepreneurs have chosen to manage them as a separate legal entity may be important; ii) when we observe diversification from the primary activity it would be important to analyse the direction of such diversification, i.e. the relationship between primary and diversified activities. I will concentrate firstly on the latter question and will subsequently discuss the former issue.

Several studies have demonstrated that firms tend to diversify in activities that show a high degree of relatedness or coherence (synergies) with existing activities (Teece *et al.*, 1994; Piscitello, 2000; Breschi *et al.*, 2003; Piscitello, 2005). This seems true also in the case of small groups: the degree of unrelated diversification is rather low as entrepreneurs expand their control in activities that are closely connected to the original one (Iacobucci, 2002).

I define a first index of diversification as the share of firms with a different activity to the largest one (Table 5.3). The same index is calculated using employees rather than firms (Table 5.4). While the percentage of firms performing diversified activities is positively linked to the size of the group, the same is not true when the percentage of diversified activities is measured in terms of employees. This means that smaller groups

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[59] We must consider that the way we measure diversification, by attributing a unique code to each company, while appropriate in characterising group diversification underestimates the effective level of diversification in the cases where different activities are performed by the same company. This could happen particularly in the case of the largest company.

also diversify and that their ability to set up diversified companies is equal to that of larger groups[60].

Table 5.3 –Share of diversified firms by class of employees of the group and industry aggregation (percentage values)

Class of employees	2-digit	3-digit	5-digit	Groups (abs. value)
2-9	27.63	33.54	36.81	7,460
10-19	28.85	34.22	38.08	4,663
20-49	29.88	35.30	39.16	5,768
50-99	32.03	37.56	41.62	3,082
100-249	34.34	41.14	45.58	2,367
250-499	37.17	44.58	49.22	862
Total	29.96	35.74	39.53	24,202

Elaborations on the ISTAT data set.

Given the positive relationship between the size of the group and the number of firms, one can hypothesize that this result is influenced by the number of companies per group. However, this is not the case as the absence of a relationship between the presence of diversified activities and the size of the group is confirmed even taking the number of companies per group as fixed.

Table 5.4 – Share of diversified employees in secondary activities by class of employees in the group and industry disaggregation (percentage values)

Class of employees	2-digit	3-digit	5-digit	Groups (abs. value)
2-9	51.74	62.85	69.02	7,460
10-19	52.17	61.97	69.1	4,663
20-49	52.34	62.08	69.07	5,768
50-99	51.49	60.85	67.86	3,082
100-249	50.84	62.32	69.57	2,367
250-499	48.49	59.79	66.55	862
Total	51.73	62.08	68.87	24,202

Elaborations on the ISTAT data set.

The importance of diversified activities also depends on the technological regime of the industry to which the group belongs (Sandvig, 2000; Breschi *et al.*, 2003;

[60] In groups with just two firms the index is either zero or one. For this reason, we calculated the index excluding the groups with two and three companies and get the same result.

Macpherson and Holt, 2007). Table 5.5 shows the degree of group diversification by Pavitt sectors (Pavitt, 1984)[61].

Scale intensive sectors present a share of diversified activities in line with the average; dominated suppliers (i.e. traditional sectors) present values below the average; science-based industries and specialized supplier industries show above-average values. These results are broadly in accordance with the RBV of the firm. Firms in specialized supplier and science based industries have a more broad and complex knowledge base that can be fruitfully applied to different activities (Breschi *et al.*, 2003).

Table 5.5 – Share of diversified activities (3-digits) calculated on employees by Pavitt sectors (7,999 small groups)

Pavitt classification of manufacturing activities [a]	Share of diversified activities (%)	Share of diversified activities, excluding the largest company (%)	Number of observations[a]	Average employees	Average number of companies
Dominated supplier	14.08	65.98	3,090	74.55	2.91
Scale intensive	15.86	67.75	2,830	72.96	2.99
Science based	19.00	76.07	514	77.46	2.92
Specialized suppliers	16.86	70.46	1,565	78.44	2.90
Total	15.57	68.13	7,999	74.94	2.94

[a] Pavitt classification considers only manufacturing activities (See Appendix C).
Elaborations on the ISTAT data set.

As the degree of diversification is related to the number of companies in a group (and to its size) the average value observed in science based sectors could depend on the fact that groups in these sectors are larger than the average. To take into account the influence of these variables I performed a multivariate analysis of the degree of diversification using a set of independent variables such as the size of the group, the number of

[61] Pavitt (1984) proposed a taxonomy of manufacturing industries based on their innovation regime. The taxonomy classifies industries in four sectors: supplier dominated, specialized suppliers, scale intensive and science-based. Although the Pavitt classification does not take into consideration all the elements characterising the technological regime of industries (Breschi *et al.*, 2000), the taxonomy is widely used in the literature as a first characterization of the innovation regimes that characterize manufacturing industries. The associations between industry codes and Pavitt sectors are shown in Appendix C.

production companies, the degree of concentration of employees in the largest company and dummy variables for the dominated suppliers and science-based sectors[62]. The results are shown in Table 5.6.

Contrary to expectations, the coefficient of group size turns out to be negative and statistically significant for all the independent variables as well as for all model specifications. When the size of the group is measured in terms of number of companies, the variable shows a positive relationship with the degree of diversification. This evidence confirms that while companies are added with the aim of diversifying from the original activity, the diversification strategy is not necessarily dependent on the size of the group.

Table 5.6 – Degree of diversification (3-digits) and group's characteristics

	Share of diversified companies	Share of employees in diversified activities		Share of diversification in secondary activities
Number of production companies (ln values)	33.34** (35.49)	22.01** (35.6)	6.05** (9.72)	17.01** (10.98)
Size of the group (ln of employees)	-2.28** (-9.01)	-3.68** (-22.11)	-1.63** (-10.69)	-4.68** (-9.79)
Concentration of employees in the first company	19.87** (11.14)		-56.33** (-44.97)	39.41** (11.93)
Dominated suppliers	-2.51** (-3.54)	-2.50** (-5.32)	-1.61** (-4.16)	-5.11** (-3.78)
Science-based	3.39** (3.15)	1.38 (1.73)	1.73** (2.88)	5.15* (2.49)
Scale intensive	-1.60* (-2.21)	-1.79** (-3.64)	-1.44** (-3.55)	-3.28* (-2.38)
Specialized suppliers			Reference	
N. Obs.	7,845	7,845	7,845	7,845
F	245.7	290.8	648.5	37.6
Adj. R^2	0.16	0.20	0.44	0.03

Legend: ** significant at 1%; * significant at 5%
Elaborations on the ISTAT data set.

[62] As already noted, these econometric estimates (based on cross section observations) are intended as descriptive statistics; they are able to measure connections between variables but not to capture causal relationships.

Although not intended to explain the phenomenon, this evidence is compatible with a pattern of growth in which diversification is a ‘substitute’ strategy for growth in the same industry. It gives support (or at least is compatible with) the ‘survival hypothesis’ (Robson *et al.*, 1993) according to which small firms diversify when there is no possibility of growth within the original sector. The coefficient of the concentration variable deserves some comment; the positive sign of the coefficient is obvious in the case of the share of employees in diversified activities. More interesting are the positive (and statistically significant) coefficients in the other two measures of group diversification (the share of diversified employees on total and the share of diversified employees on secondary activities). It means that - all things being equal - the concentration of activity in one industry motivates entrepreneurs to find ways to diversify[63]. This evidence is also compatible with the hypothesis that one of the main reasons for diversification in small firms is to reduce the financial risk of owners (Rosa, 1998). The concentration of ownership in the activities controlled determines a sub-optimal portfolio diversification of entrepreneur’s wealth; this could induce him/her to diversify in unrelated business to reduce specific risk.

In the case of the technological regimes to which groups belong, the findings confirms our expectations; taking the specialized suppliers as the reference sector, groups belonging to dominated supplier and scale intensive industries show a lower degree of diversification while the contrary is true for groups with primary activity in science-based industries.

[63] It is worthwhile to note that the signs and statistical significance of coefficients are robust even when we exclude groups with two companies.

To further analyse the degree of diversification by groups, I also used the entropy index proposed by Jacquemin and Berry (1979)[64]. Table 5.7 shows the values of the index by size of groups and number of production companies.

Table 5.7 - Entropy index of diversification (5-digits level) in small groups by class of employees and number of production companies (24,202 groups).

Class of employees	Class of production companies						Total
	2	3	4-5	6-9	10-49	50-	
2-49	0.33	0.59	0.81	1.18	1.31		0.39
50-249	0.24	0.42	0.63	1.00	1.54		0.38
250-499	0.23	0.33	0.53	0.86	1.24	2.81	0.50
Total	0.30	0.49	0.65	0.96	1.40	2.81	0.40

Elaborations on the ISTAT data set.

The table confirms that the degree of diversification is positively related to the number of companies but not to the size of the group. On the contrary, taking as fixed the number of companies the degree of diversification decreases with size[65]. This evidence confirms the result of the previous econometric estimates; it is further evidence which strengthens the hypothesis that in small firms diversification is a defensive move rather than a way of achieving growth. Firms that diversify are those which are less able to grow in the original business.

Overall, these results suggest the presence of two growth patterns of business groups. On the one hand, there are those which achieve fast growth within the original industry; for this reason, they do not need to exploit diversification until they become sufficiently

[64] The entropy is defined as: $E = \sum_{i=1}^{n} q_i \ln \frac{1}{q_i}$, where q_i is the share of activity i on the total activities of the firm. The index is 0 when there is no diversification and ln(n) in case of equidistribution between the n activities in which the firm operates.

[65] The higher value of the Entropy Index in groups in the class 250-499 employees compared to the smaller groups (last column of Table 5.7) is due to the absence of groups with more than 50 companies in the latter.

large. On the other hand, there are firms which start diversifying when they are very small, probably because they are not able to grow within the original industry; in the latter case diversification appears to be a defensive strategy because of poor performance (in terms of growth and profitability) in the original industry (Robson *et al.*, 1993; Rosa, 1998).

Given the value of the entropy index at 5-digits, we can divide it into two components: the first capturing diversification between sectors (i.e. the presence of activities in different 2-digit codes); the second component captures diversification within the same sector (i.e. between 5-digit codes belonging to the same 2-digit industry)[66]. The share of the two components by size of groups is shown in Table 5.8.

Table 5.8 – Entropy index of diversification in small groups by class of employees

Class of Employees	Entropy index at 5 digits	Within (2 digit) sector component	Between (2 digit) sector component	Number of groups
2-49	0.39	0.07	0.32	17,891
50-249	0.38	0.11	0.27	5,449
250-499	0.50	0.16	0.34	862
Total	0.40	0.09	0.30	24,202

Elaborations on the ISTAT data set.

Contrary to expectations the 'between sector' component does not show a significant correlation with size. On the contrary, the 'within sector' component show a positive relationship with size. This confirms that it is easier for small firms to enter new sectors of

[66] Although the entropy index has not a fixed range of variation, it has the advantage of being decomposed to measure different levels of diversification. Given two levels of diversification (i.e. 5-digit and 2-digit levels) the index can be decomposed in the following way:

$$E = \sum_{i=1}^{n} q_i \ln \frac{1}{q_i} = \sum_{j=1}^{S} \sum_{S} q_j (E_W) + E_A$$

Where q_j is the share of employees of groups in the same 2-digits industry, with $j = 1,\dots,s$ and $s \leq n$; $\sum_{j=1}^{s} q_j E_W$ = component of diversification 'within' the same 2-digit industry; E_A= component of diversification 'between' 2-digits industries. See also Baldwin et al. (2000) for a discussion of the use of the entropy index for the measure of diversification.

activity, probably because that entry is conducted on a small scale; conversely, growth is mainly achieved within the same industry rather than through diversification.

Table 5.9 shows the values of between and within industry diversification by size of group and Pavitt sectors.

Table 5.9 – Share of ‘within’ and ‘between’ industry diversification by class of employees and Pavitt sectors (7,999 small groups)

Pavitt sectors [a]		2-49	50-249	250-499	Total
Dominated supplier	Total	0.37	0.34	0.53	0.37
	Within	0.07	0.12	0.19	0.10
	Between	0.29	0.22	0.35	0.27
Scale intensive	Total	0.40	0.41	0.50	0.41
	Within	0.08	0.10	0.16	0.09
	Between	0.32	0.31	0.34	0.32
Science-based	Total	0.45	0.43	0.54	0.45
	Within	0.04	0.06	0.18	0.06
	Between	0.41	0.37	0.35	0.39
Specialized suppliers	Total	0.41	0.41	0.45	0.41
	Within	0.07	0.12	0.13	0.09
	Between	0.34	0.29	0.32	0.32
Total	Total	0.39	0.38	0.50	0.40
	Within	0.07	0.11	0.16	0.09
	Between	0.32	0.27	0.34	0.30
Number of groups		4,537	2,958	504	7,999

[a] Pavitt classification considers only manufacturing activities (See Appendix C).
Elaborations on the ISTAT data set.

In the overall manufacturing sector, almost 80% of the diversification is between sector diversification, while the within sector represents slightly more than 20%. This result is similar to the value found by Baldwin et al. (2000, p. 23) for Canadian corporations[67]. Besides the absolute level, what is interesting to note is the behaviour of the two components by size of group and Pavitt sectors. Groups operating in science-based industries tend to diversify in different 2-digits sectors while groups in traditional indus-

[67] They use data at plant level rather than company level.

tries rely more on differentiation within the same industry. This is congruent with evolutionary models of diversification as science-based industries are characterized by a broader knowledge base that enables firms to exploit their resources and capabilities in wide variety of products and services (Teece *et al.*, 1994; Breschi *et al.*, 2000; Cantwell *et al.*, 2004).

5.3 Patterns of diversification in business groups

As previously mentioned, literature on diversification has focused its attention not only on the degree of diversification but also on its direction. To analyse the direction of diversification researchers have used two approaches. The first requires the definition of a measure of relatedness between industries and the analysis of whether the actual diversification of firms matches this map. The second approach identifies the patterns of diversification of firms to see whether there are regularities in them. The presence of the same pattern in firms belonging to the same industry is considered as an indirect measure of relatedness between the activities that are most commonly associated. Whenever this approach is followed, the first step is that of analysing the associations between the activities of the companies belonging to the same group.

We can assess the associations of ATECO codes in business groups using a dummy variable which indicates if an association between two codes is present or not within a group. Given an industry $j=1,2,\ldots,J$ defined as the primary industry of the group and all the possible complementary industries $k=1,2,\ldots,K$, I define the association variable a_{jk} as:

$$a_{jk} = \begin{cases} 0 \text{ if group operating in industry j does not have a company in industry k} \\ 1 \text{ if group operating in industry j has at least one company in industry k} \end{cases}$$

The index reveals the presence of associations between primary and secondary industries without measuring the relative importance of the two. It considers only the associations between the primary and secondary activity and not associations between secondary activities. Out of 24,202 small groups, 8,589 have all the companies in the same two-digits code (no diversification) and those remaining have at least one company in a different 2-digit code. By observing the frequency of associations between primary and secondary activities it is possible to analyse what the typical patterns are (if any) of diversification. Table 5.10 shows the associations between primary and secondary activity in groups on the basis of the a_{jk} index. Two aspects are immediately evident: a) the importance of the forward integration in the wholesale sector (code 51) in order to better control the distribution of products; b) the widespread control of business services (code 74) which in most cases are an input of the manufacturing process. Less generalized is the control over information services (code 72), with the exception of the office equipment and computer manufacturers, given the synergies between the two activities. Another largely present association is with the real estate sector (code 45). Except for the case of non-metal products (code 26), for which the real estate sector is the primary sector for sales, in the other industries the control of real estate firms by manufacturing groups is the result of speculative investment or tax reduction strategies (see the discussion on this point in Section 3.3.1).

Table 5.10 – Associations of primary and secondary activities in small groups (% on total groups)

	11	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	40	41	45
11																													33.3
13															66.7														
14															43.0														29.5
15																													9.6
16																													
17							17.7											5.7							5.7				
18						25.7																							9.5
19							14.1							6.3											6.3				
20															5.4		7.1								25.0				12.5
21											17.9			10.4															9.0
22																													
23			6.9												13.8												6.9		27.6
24				5.1										11.2				7.0											5.1
25													8.1				12.2	18.7											
26			11.6															5.8											32.8
27																	26.5	18.4											
28																8.5		26.5											8.5
29														7.6			19.9			5.1									7.9
30																		6.6											
31																	10.1	19.6			6.2	5.8							11.6
32																	6.5	7.5		15.9									5.6
33																	6.3	13.1		10.0	7.5								9.4
34																	26.2	14.8		6.6									
35																	13.7												17.8
36									7.3					5.8			11.5	6.3											5.8
37													8.3		5.6														11.1
40																													29.0
41																													38.1
45															5.4														
50																	5.2						7.1						7.1
51				6.8													6.2	7.2											5.6
52							7.1																						5.1
55				5.4																									16.1
60																													
61																								6.7					
62						6.3	6.3											12.5	6.3		6.3			6.3					25.0
63																													6.3
64																					9.3						7.4		13.0
71																		5.9											15.5
72																													5.8
73													7.1					6.3											5.4
74																		5.5											12.0
80																													
85																						5.6							12.1
90																										5.7			20.3
92											6.2																		11.0
93																													11.3
Total																		5.9											8.3

Continued

Table 5.10 (continued)

	50	51	52	55	60	61	62	63	64	71	72	73	74	80	85	90	92	93	Total	Absolute value
11													33.3			33.3			100	3
13																33.3			100	3
14		6.7											6.0						100	149
15		33.3	11.6	8.0									8.8						100	249
16													100.0						100	1
17		14.9	7.8										7.8						100	141
18		14.9	14.9										7.4						100	148
19		29.7	9.4								6.3								100	64
20		11.6																	100	112
21		19.4																	100	67
22		13.0	5.9								10.5		24.1				12.1		100	323
23	6.9	10.3											6.9						100	29
24		28.5																	100	214
25		11.4																	100	246
26		15.4																	100	241
27		18.4																	100	98
28		12.1											5.3						100	695
29		16.1											7.0						100	633
30		26.2	6.6								27.9		6.6						100	61
31		13.0											5.1						100	276
32		15.9									9.3		8.4						100	107
33		20.6											6.3						100	160
34	23.0																		100	61
35		6.8				6.8		9.6											100	73
36		16.2	9.4										8.9						100	191
37		11.1														27.8			100	72
40		5.4											10.8			9.7			100	93
41																28.6			100	21
45		14.1	6.2	9.8									17.0						100	1,774
50		14.9		6.8	11.3			5.2					7.8						100	309
51			13.6										9.0						100	2,886
52		31.4		5.5									8.6						100	1,283
55		9.6	10.3										14.2				6.5		100	634
60		15.4						27.2					7.2						100	279
61					10.0			56.7											100	30
62	6.3	6.3						6.3		6.3			6.3						100	16
63		9.8		9.5	20.6								13.4						100	461
64					5.6						18.5		18.5				7.4		100	54
71	8.9	9.9											12.5						100	304
72		16.2	6.1										27.7						100	1,164
73		7.1									7.1		28.6						100	112
74		9.8	5.4	5.1							11.9								100	3,342
80		8.7									20.7		29.3						100	92
85		8.1	5.6	11.3							6.5		21.0						100	124
90		5.7			8.9								11.4						100	123
92		10.3	5.7	10.8									14.7						100	436
93		9.0		6.4							5.2		16.5				5.2		100	345
Total		12.1	6.0								5.1		9.8						100	18,299

Elaborations on the ISTAT dataset. For the legend of ATECO codes see Appendix B.

Within the manufacturing sector the industry that shows the most diffuse association with others is the construction of machinery (code 29). This is especially true for mechanics and transportation industries, while other industries (such as textiles, clothing, leather, wood, etc.) do not show the same propensity for controlling this type of activity. In the case of the transportation industry (codes 34 and 35), control regards not only the production of machinery, but also metal products (code 28). This is probably explained by the importance of these products as input in the production of transportation equipment. The control of basic metal production (code 27) is not relevant for any industry. This is because the output of early metal production does not present a high degree of specificity so that users of these products (such as metal work or machinery construction firms) do not need to integrate this activity. At the same time, groups whose primary activity is in basic metal production (code 27) are significantly integrated into metal working and machinery production[68]. Outside the mechanical productions, the only activity that shows a diffuse association with other activities is the paper industry and plastics industry (code 25). There are different reasons for this; in the case of the association between paper products and plastic products it could be for the complementarity of output. In the case of the chemical industry it is because of forward integration (the same is observed in the opposite direction, with rubber and plastic producers integrating backwards in chemical productions).

Although chemical products enter almost all production processes, the chemical industry (code 24) does not show diffuse associations with other manufacturing activities

[68] For the relevance of backward and forward relations along the production chain see the input-output coefficients contained in Appendix E.

(except with the plastics industry just mentioned). The fact that chemical production is not diffusely present as a secondary activity is probably for two reasons; on the one hand it could be for the same reason as basic metal production previously mentioned: i.e. most chemical products show a low degree of specificity so firms do not need to control them. On the other hand, chemical production requires a knowledge base that is not easily transferable from other industries[69].

Business groups operating in the so-called ‘traditional’ industries (such as textiles and clothing, leather and footwear, wood products, etc.) are the ones that show lower degrees of associations with other manufacturing activities. In the case of wood products (code 20) the only significant associations are with the metal work industry (code 28) because of the complementarity in some productions (for example doors and windows made of both wood and metal) or forward integration with the furniture industry (code 36). In the case of the textile industry, the only relevant association is with the clothing industry (code 18) which is clearly motivated by forward integration. The clothing industry shows a significant association with the textile industry (backward integration) but also with the leather industry (code 19). In the latter case it is the complementarity of output that motivates the association. The food and beverage industry is the only one that does not show any significant association with other manufacturing activities; indeed its most important association is with wholesale and the retail activity. This is understandable given that most food products are perishable goods and so control of the distribution chain is fundamental to ensure the speed and the conditions by which such products reach final consumers.

[69] Most chemical productions are also subject to economies of scale and therefore entry in this industry is not easy.

From the analysis of the associations between industry codes within business groups, it emerges that the majority of them are motivated by control of the production chain rather than unrelated diversification. The importance of vertical relationships between companies belonging to the same group does not come as a surprise; in fact, as examined in chapter 2, there are authors who have stressed such relationships in the interpretation of business groups (Kester, 1992). Moreover, from an empirical point of view, it is not easy to distinguish between related diversification and vertical integration unless one has direct information on the exchange flows between units belonging to the same group[70]. Given the different causes that motivate the two strategies, it is interesting to try and separate vertical integration (which refers to the control of activities within the same production chain) from diversification (which includes the remaining cases) whatever the motivations for entering a new field of activity.

At the same time, we must take into account that in about one third of the group all the companies belong to the same industry; this raises the additional question of why entrepreneurs decided to set up legally independent units when the degree of diversification appears to be either very low or nil (according to classification codes).

To answer these questions, we need qualitative information about the activities and growth patterns of groups that allows us to go beyond the information provided by classification codes.

[70] Some researchers use the term diversification to refer to both, distinguishing between 'horizontal' and 'vertical' diversification (Baldwin *et al.*, 2000).

5.3.1 Direction of growth

A more in-depth analysis of the growth and diversification strategies of small groups is possible using the information available from the Merloni Foundation data set; the data set refers to manufacturing groups located in the Marche region (see Section 3.3.3).

In order to examine the growth pattern of these groups I have classified the companies belonging to them into four categories, defined according to the relationship between the activity carried out by each company and that of the original company: differentiation, vertical integration, related and unrelated diversification. In this way I am able to associate the companies belonging to a group to a specific growth direction. The definition of these four growth directions are given in Figure 5.2.

Figure 5.2 – Growth directions from original activity

Types	*Description*
Horizontal or vertical differentiation	Activities which are similar to the original one, aimed at exploiting special market niches (e.g. men's clothing in the case of a women's clothing producer)
Vertical integration	Activities belonging to the same production chain and for which there are significant supplier-acquirer relations within the group (e.g. a textile company in the case of a clothing producer)
Related diversification	Activities that show some links to the original one in terms of technology or marketing
Unrelated diversification	Activity that does not show any significant link to the original activity

In addition to the types shown in Figure 5.2 there are other categories of companies in business groups: i) the original company, i.e. the first company set up by the entrepreneur and in relation to which the categories of Figure 5.2 are defined; ii) commercial companies, created for trading purposes; and iii) financial companies (including holding companies) created for governance reasons or for tax planning reasons. These categories can be considered as instrumental for the running of groups and are of little importance in terms of employees or assets (see the discussion in Section 3.3.1)[71].

The distribution of companies belonging to the manufacturing groups in the Marche region by type and location is shown in Table 5.11. Slightly less than one third of companies are commercial or financial companies. If we exclude these and consider only the production companies, the average number of companies per group is about 3.5.

Table 5.11 - Companies belonging to manufacturing groups in the Marche region by type and location (2001)

Type of company	Location		Total	%		
	Italy	Abroad		*On total*	*Excluding commercial and financial companies*	*Excluding original, commercial and financial companies*
Original	87		87	*21,4*	*21,4*	
Differentiation	98	34	132	*32,4*	*32,4*	*65,0*
Vertical integration	45	2	47	*11,5*	*11,5*	*23,2*
Related diversification	14		14	*3,4*	*3,4*	*6,9*
Unrelated diversification	10		10	*2,5*	*2,5*	*4,9*
Commercial	17	64	81	*19,9*		
Financial	17	19	36	*8,8*		
Total	288	119	407	*100,0*		
% on row	*70,8*	*29,2*	*100,0*			

Source: Elaborations on Fondazione Merloni data set.

Slightly less than one third of the companies are located abroad. Most of these companies are commercial companies set up to support the penetration of foreign markets through export. Almost all the production companies located abroad can be classified as differentiation because they produce the same products as the original one but adapted to the specific needs of the foreign markets. No companies operating in related or unre-

[71] Actually, commercial companies can be considered as a form of vertical (forward) integration. However, we limited the definition of vertical integration to production activities.

lated businesses are located abroad. This supports the hypothesis that internationalization is a substitute strategy for product diversification and it is therefore unlikely that both strategies will be observed at the same time (Davies *et al.*, 2001).

Related diversification justifies the setting up of less than 10% of companies, and an even smaller percentage of employees and sales. It also concerns less than 10% of groups (8 out of 87). Unrelated diversification concerns a very low percentage of new companies and groups (6% and 5% respectively). The results from the interviews also shows that unrelated diversification can often be interpreted as an incidental move by entrepreneurs - the serendipity mentioned by Rosa (1998) - rather than the result of a planned strategy.

The Merloni Foundation data set includes medium sized groups that not only have survived through the years, but have also shown significant growth. This is further evidence of the ‘survival’ or ‘defensive’ hypothesis (Robson *et al.*, 1993; Rosa, 1998): diversification (especially unrelated diversification) is more likely in smaller firms that are not able to grow in their original business. When significant growth is observed in SMEs (as it is the case of the groups examined), it is more likely that it is achieved through expansion of the original business or in activities that are closely connected to it. This is the case with vertical integration and differentiation.

Vertical integration concerns about a quarter of the companies belonging to groups. As noted in other studies about vertical integration in manufacturing (Caves and Bradburd, 1988; Joskow, 2005) it mainly concerns backward integration rather than forward integration. The cases analyzed indicated that the main aim for setting up or acquiring those companies is to secure control of some phases of the production chain.

The reasons expressed by interviewed entrepreneurs help understanding the logic underlying the setting-up or acquiring companies that control specific phases along the production chain.

> "We had problems with our supplier [of compound for footwear soles] over the quality and compliance of supply agreements. For this reason, we decided to set up a company for the production of compound and started producing plastic granules. We rented premises and bought the necessary equipment. One of the shareholders of the new company was formerly a technician for our supplier." (Case #7 – Finproject)

> "At the beginning of the nineties we perceived the need on the part of our customers for finished product: i.e. the printed circuit with all the components already in place. Among our customers there was a company that performed a service of this kind. Our group entered this company with a share of 41.5%. The company continued to perform its previous activity. When one of our customers had this need [for the finished product] we worked together to satisfy it." (Case #17 – Somacis)

The group form seems particularly appropriate for the control of vertically integrated activities, especially in the case of backward integration. In fact, the legal autonomy of companies reduces the risks associated with vertical integration by facilitating the ability of controlled firms to acquire and sell in the market (Kester, 1992).

Excluding commercial and financial companies, 60% of the companies subsequently set-up or acquired by entrepreneurs can be classified as differentiation from the original business. This is further evidence that group structures are used by entrepreneurs also when the degree of diversification is very low; in fact, differentiated activity is mostly classified within the same code (even when taken at 5 digits). The expansion in different segments of the same market justifies the large number of groups whose companies belong to the same classification code (see Section 5.2). Given the importance of product differentiation as a reason for setting up a group, I will deepen the analysis of this aspect in the next section, also taking advantage of the information gathered through direct interviews.

5.3.2 Horizontal and vertical differentiation

Given the empirical importance of differentiation in the growth strategies of groups, it is worthwhile examining this aspect in more detail. It is connected to the increasing vertical and horizontal segmentation of markets. Vertical segmentation refers to the different quality levels characterising products within the same market; horizontal segmentation refers to products with different characteristics within the same quality level[72]. Despite its increasing importance, differentiation is ignored by classification codes: in fact, products belonging to different segments of the same market are classified within the same code (even when we consider the maximum level of disaggregation). Although associated to the same classification code, products belonging to different segments can have dramatic differences in terms of production technology and marketing processes, especially where vertical differentiation is concerned. Taking the example of a clothing firm, there is quite a difference between operating in the production and distribution of casual clothing and the prêt-a-porter or haut-couture segments. The differences in the organization of production and marketing activities between these two segments are so

[72] The distinction between vertical and horizontal differentiation was introduced by Lancaster (1979) and is commonly used in models of product differentiation (Caves and Williamson, 1985; Shaked and Sutton, 1987; Sutton, 1991).

high that it is difficult to find firms operating at the same time in both. Nevertheless, all the above-mentioned segments of the clothing market are included within the same 5-digit ATECO code (or the same 4-digit SIC code).

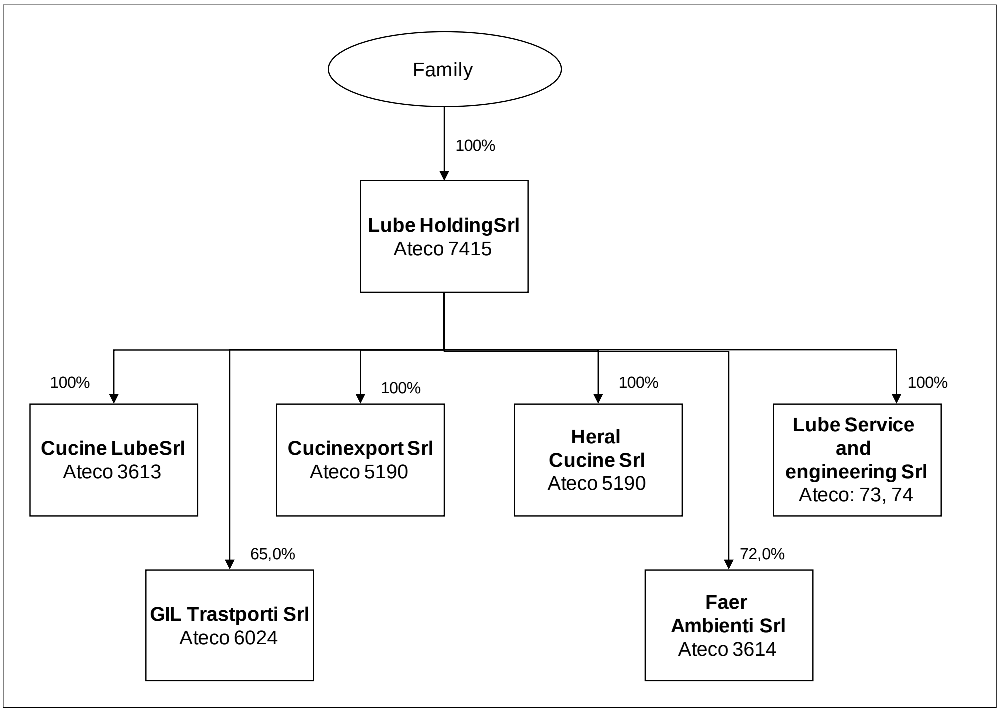
The failure of taking into account product differentiation is a major problem in our case for two reasons: a) because of new technological and demand conditions, markets are becoming more and more segmented and expansion in these segments represents one of the most important ways through which firms grow; b) in most cases, to enter a new market segment implies modifications in firms’ activities and in the external relationships with customers and suppliers no less than those arising from conventional diversification. These differences also justify the need for organizational differentiation when entering into new segments of the same market.

Cases of product differentiation are very common in the manufacturing groups as demonstrated by the large number of groups with companies all belonging to the same industry. Examples of these groups can also be found in the Marche region. For example, in groups belonging to the furniture sector it is common to observe companies producing the same type of furniture, but of different quality; the motivation for the legal autonomy of companies is because they use different brands, different distribution channels, and they organize the manufacturing process differently.

To better understand the logic behind the expansion in related segments of the same industry it is worthwhile examining in details the structure of one of the groups examined, case #12, Lube (see Table 3.11).

The Lube Group is an interesting case of a kitchen producer organized in a group of companies that mimic a multidivisional organization, with companies dedicated to specific segments of the market and companies performing centralized activities. The group presents itself as an ‘industrial group’; indeed, all the companies are closely connected to the main business. In the 2006 annual report, the group is depicted with the logo of the companies (see picture on the left). With the exception of Lube Volley (a sports company sponsored by the group) all the other companies are functional to the main businesses of the group. In terms of ownership structure, all the companies are owned by the holding company which is controlled by the entrepreneur’s family (see Figure 5.3).

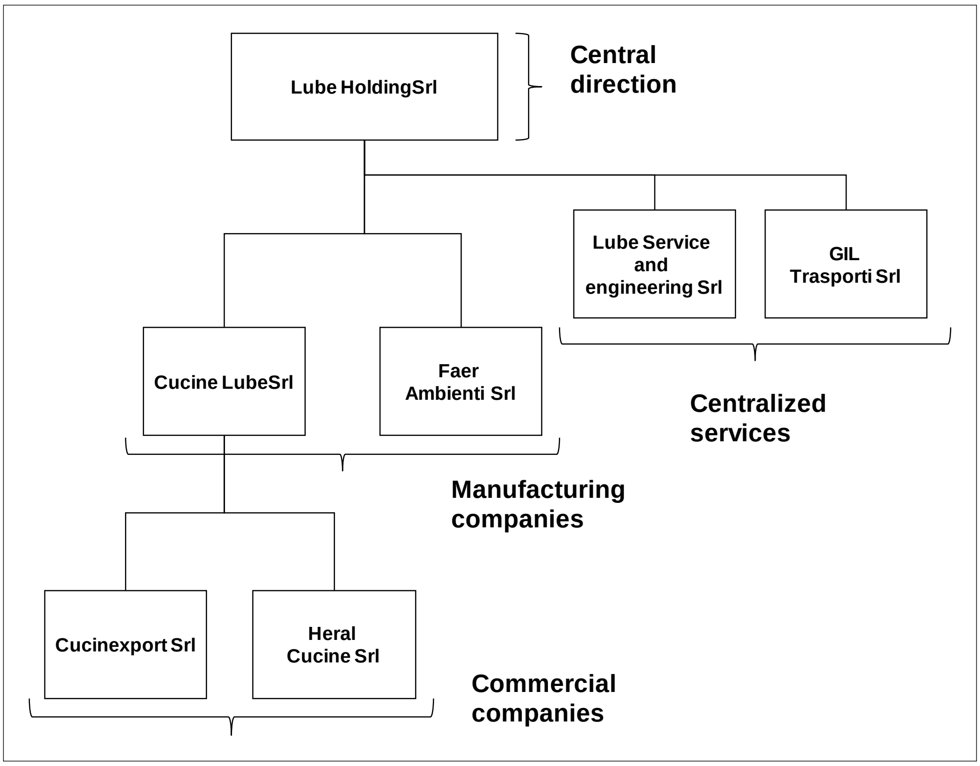
Figure 5.3 - Ownership structure of the Lube group in 2006



Cucine Lube is the main company in terms of sales and employees. Cucinexport and Heral Cucine are commercial companies, which sell specific lines of kitchens produced by Cucine Lube and devoted to specific market segments. Each brand is aimed at a specific market target. In 2005 about 70% of the kitchens produced by Cucine Lube were sold through the Lube brand and 30% were sold through the two commercial companies. Faer Ambienti can be considered as a related diversification, as it produces furniture for bedrooms. The other two companies (Lube Service and Engineering and GIL Trasporti supply services for the other companies in the group. The first one centralizes all the administration, research and development and marketing services; the second one supplies transportation services (covering about 50% of the group's needs).

If one considers the activities performed by the companies of the group, it can be represented as a multidivisional structure (see Figure 5.4).

Figure 5.4 - Organization of activities in the Lube group



In the case of the manufacturing companies, legal autonomy is justified by the fact that they operate in different segments of the furniture market with different brands and production organization. This is also the case for the two commercial companies, as they sell the same product (kitchen furniture) but to different market segments.

This same phenomenon is observed in groups belonging to the fashion industry and in other industries as well. Although most of the groups expanded their activities within the original sector, the entrepreneur decided to set up new companies in order to manage the expansion in different segments of the same market. I have deliberately chosen groups belonging to supplier dominated industries (Pavitt, 1984) because these sectors are the ones in which the technological regime does not favour related diversification (Teece *et al.*, 1994; Breschi *et al.*, 2000); nevertheless, groups are also present in these industries as a result of horizontal or vertical differentiation in different market segments.

The importance of market segmentation for justifying the legal autonomy of companies emerged clearly from the interviews. The entrepreneurs indicated the need to focus resources as one of the main reasons for setting up a new company, even when it is dedicated to a production that seems very close to the existing ones. The following case refers to a group operating in the production of paper bags. Originally it produced paper sacks for the cement industry but during its development the group enlarged its product range while remaining within the same industry (according to the industry classification): i.e. the production of paper sacks and bags. For each new product, the entrepreneur created separate companies to address different customers and production needs.

> "In 1984 we began producing paper shopping bags. At first we were the only company in Italy able to produce paper bags with handles and we began supplying the main distribution chains. … *[The respondent then described the formation of two new companies, one producing 1Kg paper sacks in 1988 and another producing*

> *sacks for the cement industry]* …The setting up of a new company was justified by the fact that the production was completely different *[from the original one]*. Compared with other paper bags the technology is completely different, the machinery is different."… "Apart from differences in technology, there is a completely different way of operating. In one case *[the original company]* there are large lots for which you need maximum efficiency. In the other sectors quality is important and you need to focus on other issues as well as efficiency. <u>As each company works with a different production philosophy, it is better to keep them apart</u>." (Case #9 Fiorini**)**

The following case refers to an entrepreneur producing car batteries, initially differentiating in different segments (from starting batteries to traction batteries) and later diversifying in activities further along the production chain (like electric vehicles).

> "The idea of setting up a group of independent companies came from these diversifications in traction batteries and electrical vehicles. The logic behind these new companies is as follows: FAAM [the original company] experiments with new activities and products. As soon as it sees that the latter are promising businesses a new company is set up with the aim of developing the new activity. This is because it is possible to create a healthy competition between the different activities (motivating people responsible for them to produce more and better quality). At the same time, the relative performance of the different activities is more easily measurable and comparable. For a new business you need a new, focused, organization" (Case #6 FAAM).

5.4 Diversification strategies and business group formation

The analysis carried out in the previous sections demonstrates the importance of diversification strategies as a motivation for the formation of a business group. The main results emerging from the empirical analysis are as follows.

The first is the relevance of diversification strategies in the small business sector. The degree of diversification is not directly related to the size of groups as diversification is also seen in smaller companies; this means that a diversification strategy can occur soon after the beginning of the life of the enterprise, when the growth of the original business is below expectations. Diversification can also occur because the entrepreneur wants to reduce the financial risks associated with the concentration of investment in the original activity. In both cases, diversification in smaller groups appears as a result of a 'defensive' or 'survival' strategy rather than as a way for fostering growth.

Overall, the previous analysis confirms that the business group is the organizational form used by entrepreneurs to pursue a diversification strategy. In fact, the degree of diversification is positively related to the number of companies owned rather than to the size of the group. However, there are several cases in which the degree of diversification would not justify the high level of organizational autonomy associated with the legal autonomy of companies. In fact, in most cases diversification takes the form of differentiation: i.e. the entering into new segments of the same industry. Traditionally this has not been considered as proper diversification, particularly since differentiation is ignored by classification codes of economic activity. Moreover, as emerged from case studies, the new market conditions stress the importance of strategic and operative autonomy also in the case of firms operating in apparently similar activities but devoted to different segments of the same market. Moving to a different segment sometimes requires the same changes in resources and capabilities as applying the technological or market know-how of the firm in other industries.

The empirical evidence also highlights the relevance of business groups as an organizational form to control activities along the same production chain; i.e. vertical integration. Although some authors have stressed the importance of business groups for the control of activities along the production chain (Kester, 1992), this perspective has been rather neglected in recent times. Kester (1992) referred his analysis to large groups; elaborations on the ISTAT dataset demonstrate that there are no big differences between small and large firms when pursuing vertical integration strategies or in the use of the group to carry out this strategy.

Although the idea of business groups as a way of 'managing diversified activities under centralized control' finds empirical support, this proposition is not completely convincing as an explanation of the phenomenon. Diversified activities (especially those within the same sector) can also be managed through organizational forms other than a business group. The need to give operative and strategic autonomy to diversified activities does not necessarily imply the need to give legal autonomy to the new organizational unit. In fact, we have also seen cases of firms with a high degree of diversification that are organized in a multi-divisional structure rather than through a business group. To explain when and why a diversification strategy results in the formation of a business group, we need to examine the specific advantages of giving legal autonomy to the organizational units devoted to managing diversified activities. The answer to this question is that legal autonomy allows entrepreneurs to differentiate the ownership structure of new activities. Specifically, it allows entrepreneurs to raise equity capital from external shareholders. This aspect is stressed by the financial interpretation of business groups. However, we have seen in chapter 4 that the financial explanation is not able to explain ‘per se’ the observed phenomena and leaves some questions unanswered.

An aspect that up to now has received little attention from both the financial or the diversification explanations refers to the dynamics associated with the start-up of new businesses. Current theories do not distinguish between the problems arising from the *start-up* of new activities (new venture creation) and those posed by the *management* of these activities at later stages. The interviewed entrepreneurs stressed the importance of setting up a new company for the initial development of a new business; when the business is consolidated there are other organizational forms that can be used to manage the bundle of resulting activities efficiently. This suggests that business groups are dynamic devices which are expanded or contracted (in terms of number of companies) by entrepreneurs depending on the development stage of new ventures. These aspects will be analysed in detail in the next chapter.

Chapter 6 - Entrepreneurial processes and business groups dynamics

The ‘financial’ and the ‘diversification’ explanations both contribute to understanding important aspects of the phenomenon of business groups; however, they still leave some questions unanswered, especially in the case of small groups.

As demonstrated in the previous chapter, in most cases the degree of diversification observed in these groups is very low and does not explain the legal autonomy accorded to new business units. In fact, there are other organizational arrangements (like the divisional organization) that could efficiently achieve the same aim.

Legal autonomy allows the entrepreneur to modify the ownership structure of new businesses. The financial explanation stresses this aspect by considering the group as a mechanism for raising equity capital from external shareholders (outside equity) in order to maximise the return on capital invested by the controlling family (Almeida and Wolfenzon, 2006). However, the financial explanation is not completely convincing in explaining the presence and characteristics of business groups. The degree of ownership concentration of controlled firms is higher than we expected. The financial explanation also does not provide a convincing explanation on how to solve the problem of agency costs of minority shareholders in privately held companies. This questions the hypothesis that the main motivation for legal autonomy is the raising of outside equity. Moreover, in small firms ownership is normally associated with control and management. As a result, the modification of ownership structure for a new activity is inevitably associated with the modification of its control structure: it is not the capital per se that matters but the people who provide it, since they are going to be directly involved in the management of the new business.

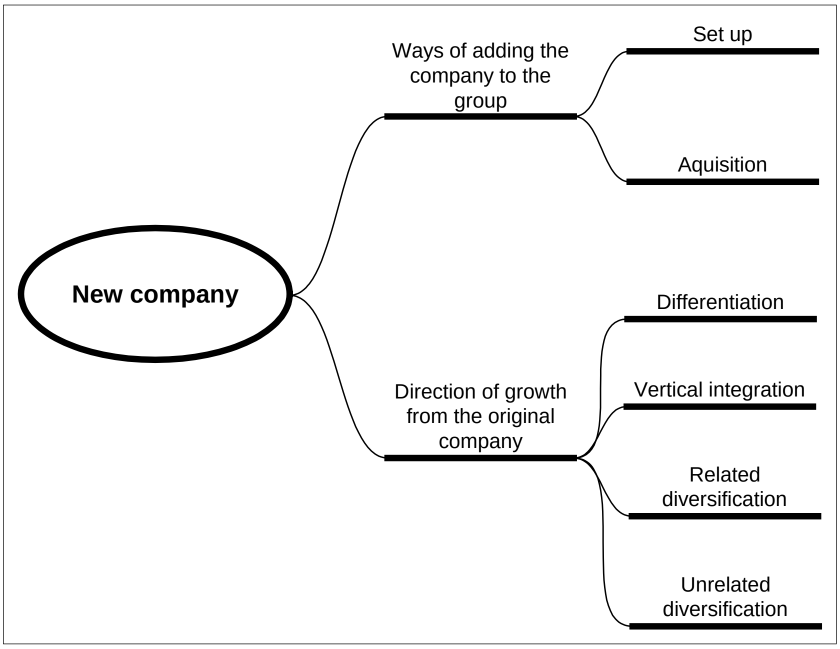
These observations are the result of direct interviews with entrepreneurs who chose to build a business group. The methodology of the survey and the characteristics of groups interviewed are illustrated in Section 3.3.4. The data and information collected through the interviews allowed the analysis of the processes involved in the decisions to enlarge the companies in a group as well as to shrink it. The elaboration and comparison of case studies provides a better understanding of the mechanisms behind new venture creation by portfolio entrepreneurs and the entrepreneurial processes involved in the formation and development of business groups.

The chapter is organized as follows. Section 1 reports the results of direct interviews with portfolio entrepreneurs and examines the different mechanisms of entrepreneurial team development. Section 2 highlights the main propositions about the entrepreneurial processes involved in the formation of business groups.

6.1 New venture creation and team formation

After listening to the interviews and transcribing them for computer treatment, I started the analysis by coding the events that resulted in the formation and development of the group: i.e. the setting up or acquisition of new businesses. At the beginning the analysis was mainly concentrated on examining the direction of growth and the economic relationships between the new company and the original company. This resulted in the tree nodes illustrated in Figure 6.1. For each new company added to the group I attached two attributes: one specifying whether the company was set up or acquired by the entrepreneur, the other specifying the relation with the original company (according to the categories illustrated in Chapter 5). The labels attached to nodes do not necessarily coincide with the expressions used by entrepreneurs; they have been chosen as a useful way of synthesizing the descriptions of each topic and grouping the cases into meaningful categories. For example, entrepreneurs often used the term 'diversification' to indicate whatever new activity they started after the original one, irrespective of the degree of diversity with the original business. According to our classification some of these new activities were proper diversification while others were labelled as 'differentiation' or 'vertical integration'.

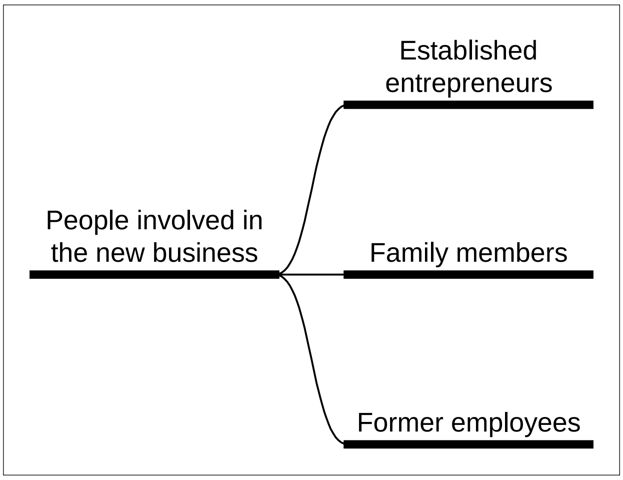
Figure 6.1 – Tree nodes about the new companies



The results from interviews made clear that the most common form of group enlargement was based on the setting up of new companies rather than the acquisition of established ones.

At the beginning the focus of analysis was on understanding the growth strategies followed by entrepreneurs (as discussed in Chapter 5). As interviews progressed the issue of team building became more and more an important issue. In setting up of a new company the entrepreneurs often involved other people in the ownership and control of the new business. These people were not just supplier of capital but were asked to play an entrepreneurial role in the start-up of the new business. Other nodes were then added to gain more insights on the phenomenon of entrepreneurial team building. These nodes referred to the nature of the person involved and the relations with the entrepreneur. After reviewing and comparing the cases I categorized them in three types: other established entrepreneurs; family members; former employees (see Figure 6.2).

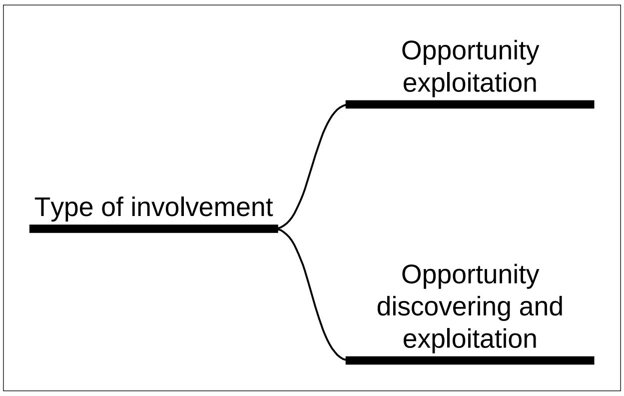
Figure 6.2 – Tree nodes about the people involved in the entrepreneurial team



When coding the interviews for the types of people involved in new businesses I expected the typology of family members (especially sons and daughters of the entrepreneur) to be the most frequent. In fact, it is often suggested in the Italian media that one of the reasons for forming a group is the willingness of entrepreneurs to involve family members. This was not the case. It gradually emerged from interviews that the most widespread situations were those in which the entrepreneurs involved former employees or established entrepreneurs. The reasons for this will be analysed in details below.

As interviews progressed it became clear that team development was a key issue in explaining the formation of business groups by habitual entrepreneurs. For this reason other nodes were added to the transcripts that were helpful in analysing the circumstances of team building and the reasons for involving other people. One of the most important aspects was whether the people involved in the team participated in the discovery of the new business or were involved only in the exploitation phase (see Figure 6.3). Another classification referred to the specific roles played in the new business by members of the entrepreneurial team.

Figure 6.3 - Tree nodes about the type of involvement in the new business



Given the relevance of team development in explaining business group formation, I concentrated the analysis of interviews on this issue with the aims of finding the existence of common patterns in team development across cases and to better understand the relation between group formation and the involvement of other people in the new businesses.

At the end of chapter 4, when discussing the financial explanation of business groups, I underlined that one of the main problems with this explanation is that it underestimates the agency costs associated with outside equity, i.e. equity provided by people external to current owner(s) and not involved in the management of the company. This is especially true in the case of small firms. The presence of agency costs makes it very difficult to observe the acquisition of minority shares in privately held companies for financial reasons (i.e. return on invested capital)[73]. This means that either the new company will be 100% owned by the vertex of the group or that the presence of minority shareholders is explained by reasons other than the raising of outside equity alone.

The latter conclusion is strongly supported by the results of the interviews with portfolio entrepreneurs. When minority shares of a new company have been given to people outside the entrepreneur's family, these people became directly involved in the management of the new company. This means that as the group expands, other people besides the founding entrepreneur assume an entrepreneurial role within the group by actively participating in the ownership and control of new businesses; i.e. there is an enlargement of the entrepreneurial team[74]. The survey revealed the presence of different motivations for such enlargement. Three different patterns emerged: the first is when joint ventures are set up with established entrepreneurs; the second is when the entrepreneur gives a stake in the new company to an employee to secure his/her involvement in the development of the new business (I called this process 'employee involvement'); the third pattern is when the new business is established as a result of the inspiration of

[73] In the case of minority shares acquired by private equity investors (such as venture capitalists), the operation requires detailed selection procedures and complex contractual arrangements, both aimed at reducing the agency costs associated with it. However, these operations concern a tiny, though qualitatively important, minority of smalls and medium sized businesses, operating in high tech industries. The consequences of the high level of agency costs of outside equity, with regard to the Italian private equity industry, is underlined by Colombo *et al.* (2007).

[74] Ensley et al. (2000) define a team of entrepreneurs as " ... a group of individuals, each of whom has a significant ownership interest in a small, individually owned and operated business, and each of whom plays a significant role in the management of that business" (Ensley *et al.*, 2000, p. 64). According to Watson at al. (1995a) a venture team is two or more individuals who jointly establish and actively participate in a business in which they have an equity (financial) interest.

an 'intrapreneurial' employee who has played a major role in the discovery and development of the business and is given a minority share in the new company.

6.2 Patterns of entrepreneurial team development in business groups

In this section I will examine these three patterns in detail, reporting the quotations of entrepreneurs about some of the most interesting cases. The quantitative relevance of the three patterns in the groups interviewed is shown in Table 6.1. For reasons explained in chapter 3 I consider only domestic production companies (i.e. I exclude foreign and financial companies).

About half of the companies owned by the entrepreneurs interviewed involved one of the three mechanisms mentioned above. In the other cases, the companies are 100% owned by the entrepreneur or his/her family members.

Of the three patterns involving an enlargement of the entrepreneurial team joint ventures and 'employee involvement' are more common than intrapreneurship. One of the explanations for this is that in the groups interviewed (with only one exception) I did not observe any 'codified' process to accommodate intrapreneurs wanting to develop their own business. It is possible that the majority of such former employees have simply left the company to start their own business. For this reason, the majority of cases of 'intrapreneurship' that I observed were not part of a 'codified' process within the group and were accommodated by the entrepreneur as and when they emerged. It is also worthwhile noting that, by definition, I am considering cases in which the entrepreneur retains the majority share of the new company (i.e. the new company is still part of the group).

Table 6.1 – Companies set up by portfolio entrepreneurs by type of entrepreneurial team

Case #	Companies established by enlarging the entrepreneurial team				Domestic production companies (b)	(a) / (b) %
	Joint venture with established entre-preneurs	'Employee involvement'	Intra-preneurship	Total (a)		
1 Accorroni	1			1	1	100
2 Babini					1	0
3 Beta Rotoli	1	1		2	3	66.7
4 Clabogroup	1			1	3	33.3
5 EBora					2	0
6 FAAM	1			1	2	50.0
7 Finproject		2	1	3	3	100
8 Fioretti	1		1	2	2	100
9 Fiorini					3	0
10 Isopack adriatica	1		1	2	4	50.0
11 Loccioni	1			1	2	100
12 Lube		2			4	50.0
13 Meccanica generale		1		1	1	100
14 Pigini	2	2	1	5	5	100
15 QS GROUP		1		1	2	50.0
16 Ragaini					6	0
17 Somacis		1	1	2	3	66.7
18 Tecnoplast					3	0
Total	9	8	5	22	50	44.0

(a) (b) Excluding the original company and the acquired companies

From the interviews also emerged situations in which the portfolio entrepreneur encouraged and supported the entrepreneurial aspirations of former employees while retaining a minority share in the capital of the new company (spin-off). These cases are excluded from the analysis as I only consider businesses in which the established entrepreneurs retain a majority stake.

6.2.1 Joint venture with established entrepreneurs

The first pattern is when a new company emerges as a joint venture with established entrepreneurs. This case is rather widespread across the groups.

> "…we had *[at the beginning of the seventies]* an important customer in Rome to whom we sold paper rolls for telex. Demand was growing and we decided to buy a new automatic machine. I talked about the idea to the [above mentioned] customer. We went to Germany together to see the machine and we then decided to set up a joint venture for this new production" (Case #3, Beta Rotoli)

> I always had the idea that the future of printing was in the rotary press. Then there was an opportunity with an Italian newspaper that wanted to print in the Marche region. We set up a new company in which the newspaper company took one third and we took the remaining two thirds (Case #14, Pigini)

In these and other cases, the involvement of other entrepreneurs is for two reasons: to raise capital for the initial investment, thus spreading the risk, and to secure the demand for the new product.

The formation of a joint venture is a common motivation for the setting-up of a new company. The phenomenon has been studied at length by the managerial literature which explored the motivations for such alliances, the optimal ownership structure and the possible causes of success and failure. Most of this literature refers to large firms. However, some attention has been given to entrepreneurial alliances as a way of entering new businesses (Hoskisson and Busenitz, 2002; Ripollés-Meliá and Sánchez-Peinado, 2006). Hoskisson and Busenitz (2002) develop a framework for understanding when various organizational entry mode choices – corporate venturing, acquisitions and joint ventures - are most likely to be appropriate. They identify two key factors explaining corporate choices: market uncertainty (i.e. the lack of knowledge about the future direction of a market) and learning distance (i.e. the extent to which a firm's current capabilities are similar to the capabilities needed for the new business). The authors suggest that joint venture is the most appropriate mode of entry when both market uncertainty and learning distance are high.

Ripollés-Meliá and Sánchez-Peinado (2006) also consider joint ventures by small firms as an effective way of overcoming entry barriers in new markets. In their study they find that "…firms prefer methods, such as joint ventures or contractual agreements, in order to overcome the entry barriers existing in R&D and marketing-intensive sectors. Therefore, empirical evidence confirms the importance of relying on the support of an incumbent firm in order to access technological assets and market know-how" (Ripollés-Meliá and Sánchez-Peinado, 2006 , pp. 381-382). Contrary to the Hoskisson and Busenitz (2002) hypothesis, they find that the degree of diversification between the established and the new business does not influence the choice of entry mode.

This conclusion is in accordance with the results of case studies, as most of the joint ventures refer to businesses that are close to the ones already established by the entrepreneur. From the interviews it emerged that the need for raising additional capital (spreading of risk) and the reduction of market uncertainty (by involving customers) is more important than overcoming learning difficulties.

6.2.2 Employee involvement

The second pattern is when a former employee is given a minority stake in a venture discovered and initiated by the owner-entrepreneur. This is the most interesting pattern in terms of its quantitative importance and its significance for this study. The former employee does not participate in the opportunity discovery phase, but only in new venture development. The following examples belong to this pattern.

> "The new company was set up as a rib of the original company. Initially, the original company made both moulds and production lines. The two activities could not coexist for technical reasons. However, the new company could also work for other customers. The new company was set up in 1990 with an employee I trusted and who is now the production supervisor of the new company. I gave autonomy and trust to this employee." (Case #15, QsGroup)

> "As well as printed circuits, we began to produce membrane keyboards. It was low technology by our standards. The product was initially developed within the original company at the end of the eighties but never reached large volumes. It was a languishing department because no one was really interested in it. I found a person who took a 10% share in the new company and who was interested in developing it… It was an activity that already existed in the original company, but if it had remained there it would have died." (Case # 17, Somacis)

> "In 1975 we decided to split the company in two: the original company remained focussed on leather soles while the new one (UNITAL) would specialize in the production of plastic soles... Some of the technicians employed in the original company became minority shareholders of the new one. They were directly involved in the management of the new company as heads of production departments. During the following years the group continuously enlarged its product range to be ready to cover all the needs of both current and potential customers. In 1975 the VBP Leather Sud was created... Also in this company minority shares

were given to a few technicians who were directly involved in the management of the company. We needed someone we could trust to manage the specialized factories. We thought that involving these people in the ownership of the companies was the best way to get them involved in the management of the companies....” (Case #7, Finproject)

“In the [now closed] business of professional training there was a group of 5 people employed in printing. When the business was closed there were two possibilities; selling the printing activity or starting a company to work for external customers. The employees started looking for new customers… We then decided to start a new company. I gave 40 per cent of the ownership to 2 former employees (20% each) who are responsible for the management of the company. At present it is one of the largest printing company in central Italy” (Case #14, Pigini)

This pattern is widespread both among and within cases. The association of former employees in new businesses responds to several, sometimes overlapping, needs. First the raise of additional capital and the spread of risk. Second to involve people with specific expertise and competences. Besides the above mentioned needs, from the interviews also emerged that an important reason for involving other people in new venture is to overcome the entrepreneur’s limitations in the availability of time and attention to dedicate to the start-up of the new business while retaining ownership and control of the existing ones. When questioned about this the entrepreneurs interviewed responded that just installing a manager to be in charge was not good enough. A new venture requires particularly high levels of motivation, interest and dedication. This was combined with a shrewd appreciation of the need to prevent employees establishing the same business in competition and stealing customers[75].

> "This is a design company that we set up at the beginning of the Nineties…. At that time there was a high request of designers by the mechanical companies of our district. We had trained employees that were particularly valuable for the other small firms… we set up a design company. Employees who wanted to resign were offered a share of the new company. The new company worked for us but also for other customers … It was a great idea. We retained the three or four people that wanted to leave and start on their own. It was also a chance for involving other employees, such as the head of technicians… In this way we were able to stop the bleeding" (Case #13, Meccanica Generale)

6.2.3 Intrapreneurship

The third pattern is when the new venture arises from the activities of an 'intrapreneurial' employee. In this pattern, the former employee actively participates in the new business from the opportunity discovery phase. In this case, the portfolio entrepreneur plays a supporting role (in terms of financial resources, market credibility, network relationships, etc.) in the development of the new business.

> "In the same period *[the end of the Seventies]* a young man who was employed in one of our companies and was also a friend suggested we start a commercial activity that he would supervise. At the beginning my brother and I took a 60% stake and the former employee 40%. For some years, this company developed the commercial activity but then this employee champed at the bit and started a production

[75] We will examine these aspects in more detail in the last section of this chapter.

> activity for one of our companies … This new company grew rapidly, driven by this former employee and helped financially and commercially by the group.” (Case #8, Fioretti)

> “There was a designer who was employed for some time in a company of the group. He had a difficult character. After some time he resigned and went to France to work for a cartoon firm. I had always wanted to enter the cartoon industry. After a few years he resigned from the French firm and came back to Italy and proposed some ideas to me. I proposed setting up a company together. I gave him 30% of the new company although he did not pay anything in cash.” (Case # 14, Pigini)

> “... a former employee of our main supplier of plastic material (compound) suggested we start a company for producing this plastic material. As we were not satisfied of with suppliers of raw materials (both in terms of quality and price) we set up a new company producing plastic granules for soles. We gave a minority share (25%) to the technician who suggested this new activity (he was a chemist) and who took the main responsibility for running the company.” (Case #7, Finproject)

In all the cases the original entrepreneur retained control of the new company, although giving a significant stake to the former employee. The latter played the key role both in structuring the new business and in developing it; moreover, the new business received full support from the established entrepreneur and remained part of the group.

Overall, the interviews show that whatever the nature of the associated entrepreneur - established entrepreneurs or former employees - the development of an entrepreneurial team to structure and exploit new business opportunities is an important aspect associated with the setting up of new companies by established entrepreneurs[76].

When the enlargement of the entrepreneurial team involves a former employee, established entrepreneurs are using two different skills. In the first pattern (employee involvement) the entrepreneur is recognising and utilising the entrepreneurial attitudes of employees to manage the new venture creation phase. In the second pattern (intrapreneurship) the established entrepreneur is accommodating the intrapreneur's project within the group to his/her benefit. It is not by chance that people involved in the enlargement of the entrepreneurial team were former employees. In fact, the employee relationship allowed the entrepreneur to evaluate the entrepreneurial attitude of his/her employees and develop the necessary trust in order to get them on board and part of the entrepreneurial team.

The work of the resulting team is rather different according to the history and the present structure of groups. Normally, the associated entrepreneurs are only involved in the management of one company with, little or no involvement in the other companies of the group. It is only the founding entrepreneur and members of his/her family who play a pivotal role for the group as a whole.

6.3 Entrepreneurial teams and business groups dynamics

From the interviews it emerged that the development of a group of companies and the associated enlargement of the entrepreneurial team, is particularly important for

[76] The involvement of former employees is far more common than the involvement of an entrepreneur's family members. This challenges a thesis put forward by some Italian researchers according to which one of the main reasons for the presence of business groups is the willingness of entrepreneurs to give entrepreneurial roles to family members, sons in particular (Depperu and Capello, 1990).

supporting new venture creation. The setting up of a legal independent company is especially important in the new venture creation phase. This was expressed very clearly by one entrepreneur:

> "The logic behind these new companies is as such: [the original company] experiments on new activities and new products. As soon as it sees that the latter are promising business a new company is set up with the aim of developing the new activity. This is done because it is possible to create a healthy competition between the different activities, motivating people responsible for them to produce more and better. At the same time the relative performance of the different activities are more easily measurable and comparable. For a new business you need a new, focused, organization". (Case #6, FAAM)

Once the ventures have been developed, rationalization in managing established activities prevails. In some cases this has resulted in the merger of part or all the companies of the group.

In two of the cases examined (case #7 and case #15) after having set up a group of several companies, the entrepreneurs then decided to merge most of the production companies and set up a multidivisional company. This was now motivated by managerial efficiency.

> "In 1989 we decided to rationalize the group … and decided to merge the different companies. Despite the merger, from an operational point of view the factories remained autonomous. Specialization was retained at the level of production units." (Case #7, Finproject)

> “In 2003 we decided to merge all these companies *[those production units operating in the same sector: i.e. industrial automation]*. Within the new company we created four divisions that reproduced the specialization of the merged companies.” (Case #15, QS GROUP)

The collapse into a divisionalised organization is less likely when the group has been developed through the enlargement of the entrepreneurial team, given the reduced autonomy and motivation of the associated entrepreneur who is now managing a division rather than an independent company. Another problems arising from the merging of companies in a group is how to determine the value of a minority share in an individual company and transform it into a minority share of the group as a whole.

The case study cited above (#7, Finproject) is particularly relevant in this regard[77]. The group was formed by entering into different segments of the same market (footwear soles) but also integrating activities along the production chain (production of plastic compound). In each of these companies, there were different minority shareholders who helped the entrepreneur in the start-up of the new companies. According to the entrepreneur, the existence of buying and supplying relationships between the companies within the group was a potential source of conflict of interest between shareholders and the companies of the group. For this reason, he decided to merge most of the companies forming the group. The minority shares in the single companies were transformed into minority shares in the merged company; for example, the 25% shareholder that helped with the setting up and running of the company producing plastic compound for the companies producing soles was given an 8% share in the new company. Besides the

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[77] For the whole story of the group see Appendix D.

problems in determining the values of shares in the individual companies, the new organization inevitably reduced the autonomy of the different business units and reduced the role of their former CEO to a head of a division. It is also for this reason that the former shareholder of the compound company later exited from the group ownership, due to disagreements with the entrepreneur about the strategy of the group.

> "We merged the different companies to avoid a possible conflict of interests between shareholders, as there were complex buying-supplying relations between companies. We made the valuations of the different companies and determined the exchange rates between shares. All the shareholders of the different companies became shareholders of the merged company... The shareholder who had 25 per cent of one company [producing plastic compound] became a 8 per cent owner of the merged company. He did not agree with the merger as the activities of the compound business were growing faster than the other businesses of the group. Eventually he sold his share in the group" (Case #7, Finproject)

The latter case points out to the more general question of the dynamics of entrepreneurial teams. In all the cases examined, the presence of a 'dominant' entrepreneur is a clear feature; this is the entrepreneur who started the original company and who retains the majority of ownership in all the companies of the group.

Harper (2008) defines the situation where there is a lead entrepreneur and at least one sub-entrepreneur as a 'nested entrepreneurial team'.

> "The nested entrepreneurial team applies hierarchical principles of direction and subordination. ... The lead entrepreneur creates and propagates an overarching business conception or vision for the team. He communicates and imposes a new overarching ends-means framework that serves to fix the parameters within which

> the subentrepreneur discovers and exploits localized opportunities.” (Harper, 2008, p. 622)

These hierarchical principles partially apply in the case of ‘employee involvement”. In the case of ‘intrapreneurship’, the role of the associated entrepreneur is more proactive than is hypothesized in the ‘nested’ schema. However, the employees who have been given an entrepreneurial role in new ventures play a more pro-active role in its structuring and development than is hypothesized by Harper (2008) in the interaction between a lead entrepreneur and a sub-entrepreneur. This is why I prefer the term ‘dominant entrepreneur’ and ‘associate entrepreneur’ (rather than “lead” and “sub”) when referring to the different roles played by members of the entrepreneurial teams in business groups. The person who is associated to the entrepreneurial team in a specific business is the primary responsible in the start-up and management of that business.

Previous empirical studies have demonstrated that even when it is possible to identify a lead entrepreneur (i.e. someone who is in a position to control the entrepreneurial team) there is no evidence to support the hypothesis that lead entrepreneurs possess greater skills than other entrepreneurial team members (Ensley *et al.*, 2000, p. 70). In fact, in some of the case studies (the Rainbow company within the Pigini group and the RICO company within the Fioretti Group) the venture managed by the associated entrepreneur experienced great success and over the years ended up as one of the biggest companies in the group. In both cases, this also resulted in an increase of the share of the associated entrepreneur in the two companies.

> Case #8, Fioretti – “The new company was growing rapidly. I told the minority partner [who was responsible for managing the company] that I would give him

> 50% of the company if it reached the same turnover as the main company of the group. This happened at the end of the nineties. I had never thought of owning a company as a joint venture but I made this promise and I had to keep it.”

Kamm *et al.* (1990) recognize that the distribution of ownership in an entrepreneurial team may be equal or unequal. However there is little theoretical work or empirical evidence about what causes this distribution and how it evolves over time. In business groups the ownership distribution at start-up has the main function of distinguishing the roles between the dominant and the associated entrepreneur. Minority shares are instrumental in the involvement of other people in the start-up and management of new ventures; the majority share is what allows the portfolio entrepreneur to maintain a ‘dominant’ position. Even if the new venture is the responsibility of the associated entrepreneur, through the majority share the portfolio entrepreneur retains the right to intervene in the control of the new business at any time.

The empirical survey demonstrates that the formation of a business group allows entrepreneurs to form a wide range of team patterns according to the characteristics of the new venture, the circumstances that led to its start-up and the people involved. It also demonstrates that the roles within the team change over time according to the performance of new ventures.

While, the ‘dominant entrepreneur’ can play different roles in the individual companies of the group, it is difficult to have more than one dominant entrepreneur within the same group. There was more than one dominant entrepreneur in those cases where the original business was founded by more than one entrepreneur with no clear prevalence of one over another: in the Clabo Group and the Fiorini groups they were two brothers;

in the Babini group they were two close friends. In all three cases, the group eventually broke up and the two entrepreneurs retained a part of the group each.

> "My brother is a good person and is very clever at doing things by himself. For this reason he does not like delegating. At the end of the nineties we had about one hundred employees and had good prospects of entering foreign markets. We made a commercial agreement with a large company in northern Italy but we were unable to serve it adequately because we retained an artisan rather than industrial philosophy … [At that time] the main business was customized furnishings [for bars]; the other business [standardized ice cabinets] was considered as subordinate to the main one. My vision was the opposite, to keep the artisan production as a support for the industrial products … The reason for separating was a different business philosophy. Besides this there were also disagreements on the ways family members should be involved in managerial positions… Eventually we came to the point where we decided to separate and each of us took one of the companies" (Case #4, Clabogroup).

The problems that can arise if there are two dominant entrepreneurs in the same group demonstrate that a business group in the small business sector should be considered as a whole, subject to a unique vision and strategy, rather than a portfolio of different businesses. This is also further evidence that entrepreneurial teams can have both advantages and disadvantages, especially when considered over a long period of time rather than just at the start up phase (Cooney, 2005). Entrepreneurial teams are more likely to survive when there is heterogeneity in team composition and in the distribution of power within the team members rather than when there is a team of peers. This is true for the individual companies and for the group as a whole.

6.4 Propositions emerging from the qualitative analysis

The results that emerge from the analysis of the interviews with portfolio entrepreneurs can be synthesized in the following propositions about business group formation and dynamics:

Proposition 1: Business groups are the result of the development of new businesses by established entrepreneurs, mainly inspired by related diversification opportunities.

Proposition 2: The setting up of a new company is especially advantageous in the start-up phase, as it helps to focus resources on the development of the new product, process or service. When the activities reach their mature stage, companies are more likely to be merged as a result of a rationalization process.

Propositions 3: The setting up of a new company is more likely when portfolio entrepreneurs need to enlarge the entrepreneurial team, both to exploit opportunities he/she already discovered or to accommodate and support business opportunities discovered by novice entrepreneurs.

Proposition 4: The accommodation of outsiders can be crucial in maximising the growth potential of the new venture, through providing energy, knowledge and commitment to the success of the new venture, which the portfolio entrepreneur cannot do him/herself owing to other commitments.

Proposition 5: The entrepreneurial teams developed by habitual entrepreneurs are predominantly formed by former employees. This is because the employee relation allows the entrepreneur to evaluate the entrepreneurial attitude of the employee and develop the trust relationship needed to make him or her part of the entrepreneurial team.

Proposition 6: Groups developed by enlarging the entrepreneurial team are less likely to collapse into a divisionalised structure when the development phase of the new businesses is complete.

The fundamental process explaining business group formation in the small business sector is new venture creation by established entrepreneurs. Until now, the reasons for giving legal autonomy to new ventures were associated with the degree of diversification of the new venture from established ones and/or to the need to raise external capital. The results of the empirical survey suggest that there is another important reason for explaining business group formation by habitual entrepreneurs: the development of an entrepreneurial team through the involvement of other people in the ownership and control of new ventures. The empirical analysis showed that this is done for three main reasons: the formation of joint ventures with established entrepreneurs; the deployment of employees' entrepreneurial attitudes to enhance the success and growth possibilities of the new ventures; and the accommodation of entrepreneurial projects proposed by intrapreneurs. As reported by entrepreneurs interviewed, the employer-employee relationship gives the entrepreneur the advantage of familiarity with the attitudes of the employee and a stronger basis for developing the trust needed to bring him/her onto the entrepreneurial team.

Several questions on the mechanisms involved in the enlargement of the entrepreneurial team need to be theoretically explained and better understood. Established entrepreneurs are supposed to be more experienced than their employees in new venture creation; therefore, why is there a need to involve other people for developing the new business? What are the limits that established entrepreneurs are trying to overcome? If, as emerged from case studies, the raising of external capital is not the main motivation for involving other people in the development of new ventures, why do they receive minority shareholdings? Why not use other organizational arrangements that would achieve the same aim without modifying the ownership structure of new ventures?

To answer these questions it is necessary to analyse the resources and capabilities needed by established entrepreneurs when creating new ventures and how they can be provided or enhanced by enlarging the entrepreneurial team. I will also discuss why ownership is a critical attribute for people who play an entrepreneurial role in new business development.

Chapter 7 - A model of business group development in the small business sector

This chapter develops a conceptual model to explain the reasons for the formation of business groups in the small business sector. Specifically, the model highlights the role of entrepreneurial processes (i.e. those associated with the exploitation of new business opportunities) as determinants for business group formation. In doing so, this chapter integrates the results of the empirical analysis carried out in the previous chapter. It also discusses some theoretical models that help explain the results synthesized in the propositions advanced at the end of chapter 6.

The results that emerge from the analysis of case studies are in accordance with models of entrepreneurship that focus on the distinction between managerial and entrepreneurial tasks (Holmes and Schmitz, 1990) and that stress the importance of time allocation between established businesses and new ones (Gifford, 1998). The latter aspect has been somewhat overlooked by the empirical literature on habitual entrepreneurs and yet it is fundamental for a better comprehension of observed phenomena.

The chapter is organized as follows. Section 1 highlights the importance of new venture creation in SMEs and analyses the mode of organizing these new ventures by portfolio entrepreneurs. Section 2 discusses the problem of time allocation between established and new businesses faced by portfolio entrepreneurs. Section 3 reviews the entrepreneurial processes involved in new venture creation and discusses why ownership is a key requisite. Section 4 synthesises the main results of the thesis and develops a conceptual model to explain business groups formation in SMEs.

7.1 New venture creation in SMEs and mode of organising

Literature on corporate entrepreneurship has emphasised the importance of new business creation for established company growth and profitability (Burgelman and Sayles, 1986; Zahra *et al.*, 1999b). Entering into new businesses can be important for fostering growth in the case of small firms as well[78]. This is for several reasons: a) as a result of a strategy of product differentiation, given the increasing segmentation of markets; b) as a way of securing the supply of key services or components (vertical integration); c) as a result of the difficulties in expanding the established business which encourages a related diversification strategy; d) as a way of reducing financial risk when the entrepreneur's wealth is concentrated in one business.

When SMEs enter new businesses, the role of the entrepreneur remains fundamental. Indeed, in SMEs the entrepreneur retains key positions in the ownership, control and direction of the firm. If the ability to recognise and exploit new business opportunities after the first start-up is fundamental for the success of entrepreneurs and the growth of SMEs, it would be interesting to analyse the factors that influence this ability.

The literature on habitual entrepreneurs has focussed on the entrepreneur's learning process and human capital accumulation (see Section 2.4).

[78] The relevance of new venture creation as determinants of growth in SMEs has been somewhat overlooked by researchers. Indeed, it is usual to think of SMEs as organizations devoted to a specific product/market combination. According to this view, the growth of SMEs is normally associated with the expansion of activities within the same business. Thus, the main obstacles to SME growth have usually been associated with the attraction of resources (see the abundant literature on the finance gap) or to do with the coordination of those resources as the size increases and firms pass through different stages of growth (Steinmetz, 1969; Greiner, 1974; Churchill and Lewis, 1983).

Ucbasaran *et al.* (2003a) suggest that entrepreneurs attract other people to join the ownership and control of new ventures to compensate for his/her personal human capital deficiencies. Building an entrepreneurial team seems particularly important for maintaining control of multiple businesses (Slevin and Covin, 1992); empirical studies found that portfolio entrepreneurs are more likely than novice entrepreneurs to start new businesses with teams rather than as sole owners (Westhead and Wright, 1998a; Alsos *et al.*, 2006).

Within the human capital accumulation hypothesis, this evidence is rather puzzling: an habitual entrepreneur should have more knowledge, skills, network capability and financial wealth than a novice entrepreneur, allowing them to start new businesses by him/herself rather than by building an entrepreneurial team. The most cited explanation for this evidence is that of ‘human capital integration’. When habitual entrepreneurs expand the scope of their business activity by setting up or acquiring new businesses, they need partners to gain access to a greater depth of expertise as well as access to wider networks (Ucbasaran *et al.*, 2008, p. 64). This explanation seems appropriate when the entrepreneur involves other entrepreneurs with demonstrated experience and capabilities in specific activities (the joint venture type discussed in the previous section); it seems less appropriate when ‘novice’ entrepreneurs, such as former employees, are involved.

The interviews with entrepreneurs revealed another issue that is particularly relevant in the case of portfolio entrepreneurs; the development of a new business generates a conflict in allocating time and attention between the running of established businesses and the development of new ones. This issue has not been given much importance by the literature on habitual entrepreneurship, although it is sometimes referred to in general discussions of the phenomenon (Rosa, 1998).

The allocation of time and attention by entrepreneurs is critical for the start-up of new ventures as it involves a high degree of pro-activity and cannot easily be delegated. It must be done by the entrepreneur him/herself or by people playing an entrepreneurial role. In the case of portfolio entrepreneurs, this generates a trade-off between the time and attention he/she can dedicate to established businesses rather than exploiting new business opportunities. This trade-off can be mitigated by involving other people in the start-up of the new business. This problem is highlighted by Rosa (1998) referring to the diversification strategy of a portfolio entrepreneur operating in the advertising sector:

> "His diversifications start with a strategic wish to start operating in a new market area, but the start-up of the new business does not take place until the right market opportunity and the right managing director is found to delegate to and run it. ... Under this model of diversified growth, there is no theoretical limit to expansion, as long as capable managing directors can be found and motivated to run the new businesses." (Rosa, 1998, p. 53)

Because habitual entrepreneurs are supposed to be among the 'capable' people to start up and run the new business, it is clear that the main reason for involving other people arises from the time constraints of the portfolio entrepreneur, given his/her involvement in managing the previously established businesses. In the previous citation, Rosa refers to the people involved in the new businesses as 'managing directors'; this seems to indicate that they are salaried managers, rather than owners of the new business.

Literature on habitual entrepreneurship is not always clear about the 'mode of organising' the new businesses by habitual entrepreneurs (Wiklund and Shepherd, 2008); by mode of organising I mean how ownership, control and direction of the new business is arranged. In the case of serial entrepreneurs, the new business is necessarily organised as a new company; in fact, in this case it is supposed that before starting the new business the entrepreneur has dismissed (closed down or sold) the established one. In the case of portfolio entrepreneurs, the mode of organising the new business can be varied, according to whether the new business has legal autonomy or not (depending on the set-up of a new company) and according to the role given to other people in the start-up of the business (see Figure 7.1).

Figure 7.1 – Mode of organizing new ventures by portfolio entrepreneurs

		Delegation of entrepreneurial activities		
		No	Yes	
			Salaried managers	With ownership involvement
Mode of organizing	Develop the new business as a **new unit** within the existing company	1 Multidivisional	2 Intrapreneurship	
	Develop the new business as a **new company** (thus creating a business group)	3 Business group with concentrated ownership and control	4 Business group with concentrated ownership and delegation of control	*5* *Business group with entrepreneurial team development*

When a portfolio entrepreneur is considering the exploitation of a new business opportunity, the first question about the mode of organization is whether to develop it within the boundaries of the established company (as a new business unit) or as a new company. Together with this choice, it must also be decided whether and to what extent to involve other people playing an entrepreneurial role. In the case of a business unit developed within the established company, the involvement of other people is based on employee-employer relationships; incentive contracts based on performance measures can be arranged with people involved in the development of the new business; however, the ownership structure of the new business remains the same as the established company.

When the new business is developed as a new company, more options are open to the entrepreneur in terms of the ways of organising the ownership, control and management of the new business. All the three possibilities comprised in the bottom part of Figure 7.1 have been observed in the case studies: new companies owned and controlled by the established entrepreneur with no involvement of other people in the entrepreneurial activity; new companies fully owned by the entrepreneur but with salaried managing directors; new companies in which other people are given a minority stake in order to strengthen their involvement in entrepreneurial activity.

Involving other people in the start-up of a new company is crucial for the ability of portfolio entrepreneurs to exploit new business opportunities; this is done not just for financial motives (raising outside equity) or capability constraints, but to overcome the limits of portfolio entrepreneurs in allocating time and attention between established and new businesses. There are two conditions for the success of such involvement: i) the first is that the person involved in the start-up of the new venture must be trusted by the entrepreneur both in terms of expected behaviour and entrepreneurial attitudes; ii) to assume an entrepreneurial role the person involved in the start-up of the new venture must also be involved in the ownership of it. The latter situation is referred to as the enlargement of the entrepreneurial team.

Figure 7.2 shows the relationships between new venture creation by portfolio entrepreneurs, business group formation and the enlargement of the entrepreneurial team.

Figure 7.2 – New venture creation and entrepreneurial team development

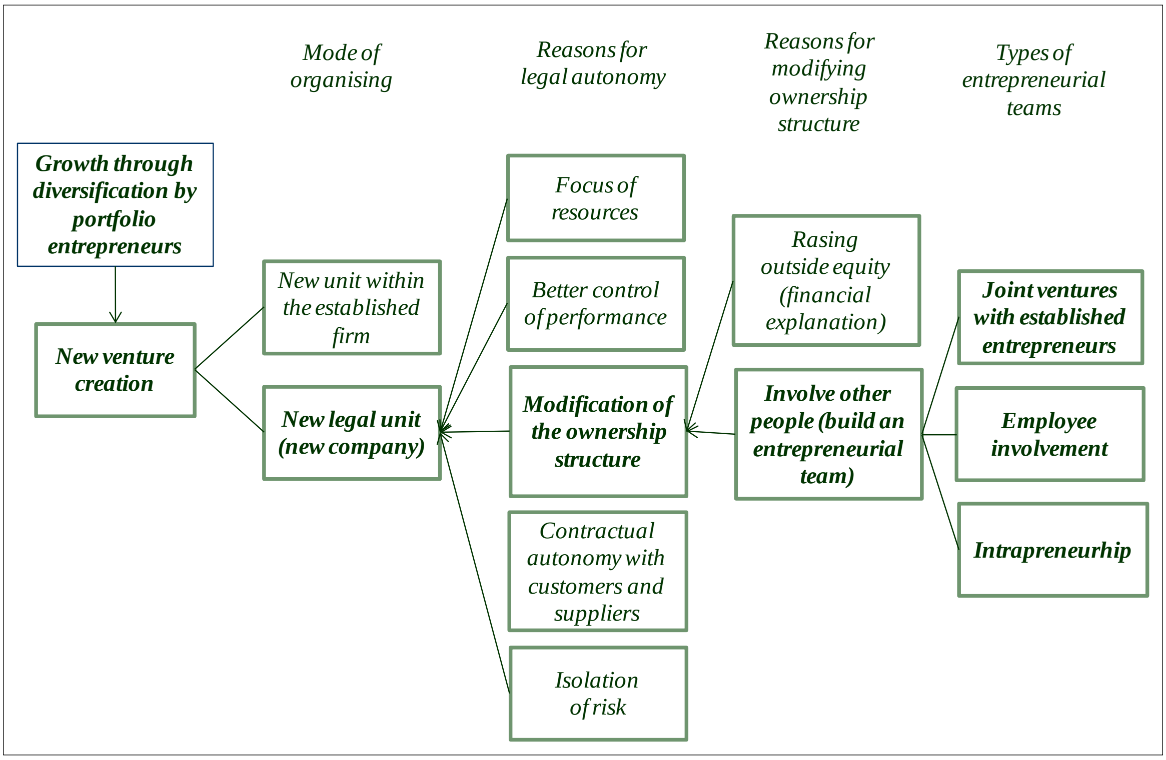

Figure 7.2 clarifies that the development of an entrepreneurial team is not the only reason why portfolio entrepreneurs might decide to set up a new company to exploit a new business opportunity. However, the qualitative analysis revealed that this is one of the most important reasons, and needs to be theoretically explained. The next sections are dedicated to demonstrating why the allocation of time and attention is a crucial issue in the case of portfolio entrepreneurs and why ownership is critical to playing an entre-

preneurial role; both questions are important for understanding why portfolio entrepreneurs choose to set up a new company when exploiting a new business opportunity.

7.2 The time constraints of portfolio entrepreneurs

The issue of time allocation has not received much attention in the literature on habitual entrepreneurs, although it is accounted for in some theoretical models of serial and portfolio entrepreneurship. Two models are particularly interesting for the purposes of this research: the Holmes and Schmitz (1990) model and the models proposed by Gifford (1992b, 1992a). All these models rely on the distinction between 'entrepreneurial' and 'managerial' activities. The entrepreneurial activity is defined by Gifford as:

> "...the perception of an opportunity for profit and the necessary decision making for, and acceptance of responsibility for the outcome of, its exploitation." (Gifford, 1998, p. 5).

In the case of the Holmes and Schmitz (1990) model, the distinction between entrepreneurial and managerial activity is even simpler: "There are two tasks in the economy, developing products and producing products previously developed" (Holmes and Schmitz, 1990, p. 267). The first task is performed by entrepreneurs, the second by managers. Both the Gifford (1998) and the Holmes and Schmitz (Holmes and Schmitz, 1990) models assume the presence of different individual specialization; i.e. they assume the presence of differences in the ability of individuals to perform entrepreneurial rather than managerial activities. These differences can be the result of different factors: attitudes toward risk, 'innate' quality, learning and experience, investment to enhance entrepreneurial capabilities, etc. Whatever the origin of these differences, there are always people who are more willing to act as entrepreneurs and people who prefer to work as salaried employees. This assumption is also commonly found in the literature on habitual entrepreneurs (Alsos and Kolvereid, 1998), although its consequences in explaining the behaviour of portfolio entrepreneurs are not developed[79].

The Holmes and Schmitz (1990) model explains the presence of serial entrepreneurs based on differences in individual abilities to develop business opportunities (start-ups). When entrepreneurial abilities are not evenly distributed among the population, it pays for some individuals to specialise in developing new businesses while others specialise in managing already established businesses. People specialising in entrepreneurial activity (entrepreneurs) will be involved in successive start-ups. The model assumes that each individual is endowed with an indivisible time unit in each period so that s/he has to choose whether to spend this time managing a previously established business or starting a new one. If the latter course of action is decided on, the entrepreneur must discontinue (close) or sell the previous business (i.e. the model allows for serial but not portfolio entrepreneurs). The Holmes and Schmitz (1990) model is somewhat extreme in its assumptions of an indivisible time unit in each period although it explicitly recognises one of the most important resources of entrepreneurs - their time.

The problem of allocating time between alternative tasks is particularly relevant in the case of portfolio entrepreneurs; those entrepreneurs that start new businesses while retaining ownership and control of the previous ones. The literature on habitual entre-

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[79] There are other models of entrepreneurship based on individual specialization. Kihlstrom and Laffont (1979) propose a model in which individuals differ in their attitude toward risk; more risk-averse individuals become workers (fixed-wage employees) while less risk-averse individuals become entrepreneurs (receive risky profits from running firms). The model assumes that all individuals are equal in their ability to perform entrepreneurial as well as “normal” labour functions and they differ only in their willingness to bear risks. A weakness of this model (from the point of view of this thesis) is that it does not distinguish between starting up a firm and managing it; both tasks are assumed to be entrepreneurial (i.e. risk bearing) activities.

preneurs generally does not consider this problem, assuming that the time available to entrepreneurs is unlimited, or that there are no agency costs in delegating the running of established businesses to hired managers. This is an extreme hypothesis as the indivisible time unit of the Holmes and Schmitz (1990) model. The reality is something in between: when a new business opportunity arises, portfolio entrepreneurs have to decide how to share their time between the management of established businesses and the start-up of new ones.

This problem is at the core of the entrepreneurial models developed by Gifford (Gifford, 1992a, 1998). Her models focus on the consequences stemming from the allocation of limited entrepreneurial attention between current activities (the management of established businesses) and the search for new opportunities and their exploitation. This means recognising that entrepreneurial activity has an opportunity cost and that in the case of portfolio entrepreneurs this opportunity cost refers not only to the alternative of a salaried job (as in the case of a novice entrepreneur) but also to the attention paid to the management of established businesses.

The key aspect of the Gifford model is that "… the entrepreneurial role of being alert to profit opportunities and deciding how to reorganize productive resources to capture those profits requires the entrepreneur's attention, which, like anyone else's, is limited." (Gifford, 1998, p. 6). The use of the term 'attention' rather than time is not by chance: giving attention to specific tasks means not only dedicating time to them but also employing the physical and mental resources so that the allocation of time is productive. Attention is synonymous with dedication, commitment, obligations to other people, diligence, enthusiasm and will. Though some of these attributes are also relevant in the case of managerial work, they are especially relevant in the case of entrepreneurial activities as they imply the fulfilment of 'non-routine' tasks within an uncertain environment.

> "The type of decisions I have in mind as requiring entrepreneurial attention are the ones that cannot be routinized, that require individual consideration of the unique circumstances of each decision" (Gifford, 1992b, p. 293).

Possessing entrepreneurial capabilities is not enough for starting a new venture; people also need the motivation to spend their time and give their attention to this task rather than other possible tasks.

7.3 Entrepreneurial activity and ownership

Business entry (start- up) is a fundamentally different activity than managing a business (Gartner and Vesper, 1994). The main entrepreneurial activities (and decisions) involved in the start-up of a new business are the following:

a) setting the objectives and the plan of activities;
b) contracting with suppliers to attract necessary resources and communicating with customers about the new product or service;
c) hiring, monitoring and compensating the employees involved in the new venture.

It is questionable why these activities are classified as 'entrepreneurial' rather than 'managerial'; managers responsible for a business do the same things. What distinguishes 'entrepreneurial activity' from 'managerial activity' is, above all, the *context* in which these activities are performed. Entrepreneurial activities are those performed before and after the start-up. Decisions taken around the start-up (and the resulting activities) are subject to what is defined as 'structural uncertainty' (Knight, 1921; Kirzner, 1979). Structural uncertainty is a situation for which there is no past experience to rely upon and where the decision maker is partially ignorant about possible alternatives and their consequences (Langlois and Robertson, 1995; Sautet, 2000). This situation requires interpretation and judgment about technology and market information and a high level of pro-activity in decision making; it requires imagination and critical judgment in identifying problems and in generating and evaluating trial solutions (Harper, 1996). Moreover, decisions must be continuously adjusted to results and this requires a high degree of attention and commitment by people responsible for them. For these reasons there is also less scope for delegating the decision making process and resulting activities.

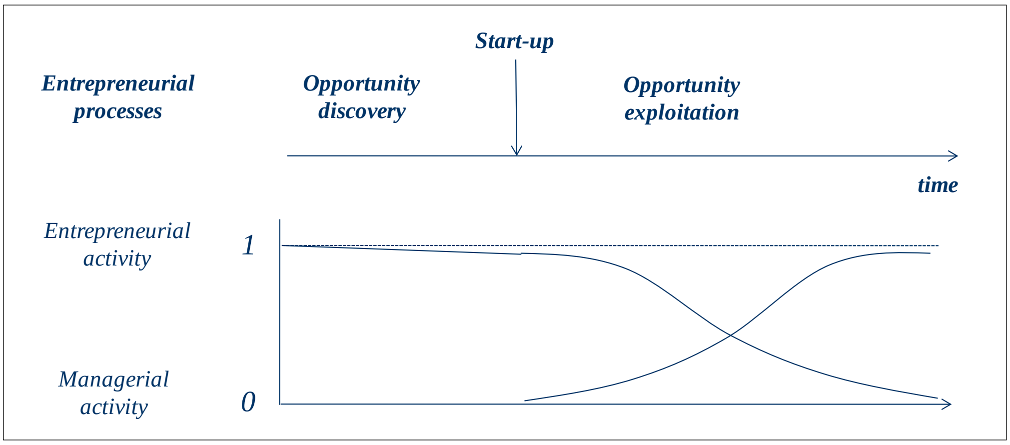
Recent studies have stressed that the entrepreneur's role involves not just the ability to 'recognise' existing opportunities, as if they were objectively present in the environment waiting only for someone to grasp them. Their recognition implies a creative way of organising the abundant and disparate information from the environment in order to build new business opportunities (Baron, 2004; Ward, 2004). Thus, what is critical in new venture creation is not opportunity recognition but rather the **exploitation** of the perceived opportunity. This view is effectively synthesised by Ardichvili et al. (2003, p. 113) according to whom: "While elements of opportunities may be 'recognized', opportunities are made, not found". It is this 'making' of business opportunities that requires a high degree of dedication and attention on the part of the entrepreneur during the start up phase, thus generating the conflict in time allocation between the running of established activities and the development of new ones.

According to Harper (2008)"... entrepreneurship is best conceived as a dynamic problem-solving process in which entrepreneurs learn in the light of experience and feedback from the market" (Harper, 2008, p. 613). Opportunity identification has little value until the entrepreneurial idea is put into practice and its validity is tested; this is not a 'one shot' game but a process that requires dedication and attention in order to adjust the entrepreneurial idea to market conditions and maximise its possibility of success. The importance of the exploitation phase is also more and more recognised by researchers who follow the Austrian view, whose initiators stressed the importance of entrepreneurial alertness and opportunity identification. "The only way the entrepreneur-promoter can exploit his/her discovered opportunity is by the implementation of a firm" (Sautet, 2000, p. 75). This is because of the need to hire the necessary resources and persuade them to make the specific investment needed to exploit the business opportunity. "The entrepreneur-promoter can exploit his/her discovery having only seen through some parts of the fog of uncertainty and relying on resource owners to see through other parts of the fog. The emergence of the firm can be seen as the simultaneous exploitation of profits by different entrepreneurs" (Sautet, 2000, p. 76). The involvement of employees in the ownership of new ventures is the way through which portfolio entrepreneurs secure the availability of key human resources for the exploitation of a new business opportunity.

Decisions are made at a specific point in time; however, the resulting actions are not 'instantaneous' and require time to be accomplished. In the case of new venture creation, the period of time needed for its discovery and exploitation span around a pivotal point: the start-up. This could be the set-up date of a new company or the date in which a board has decided to invest in a new business unit. Besides the possibility of identifying a specific point in time, it is important to note that start-up represents a solution of continuity within the opportunity discovery and exploitation processes. This is especially evident when we consider the amount of human and financial resources invested in the new venture. Although it is possible to imagine a continuum of resource commitment from the first vague identification of a new business idea, its evaluation and refinement and finally its exploitation, there is a discontinuity in resource commitment between the identification and the exploitation phase which coincides with what is identified as the start-up of a new business.

Immediately after the start-up, most of the decisions and activities maintain their 'entrepreneurial' nature; as the new venture grows and reaches a mature state, entrepreneurial activities decline in favour of 'managerial' decisions and activities. It is very difficult to determine when the start-up phase finishes and the management of the business takes pre-eminence. It is typical a 'fuzzy' transition (Kosko, 1993); however, we know that the two different states are clearly identifiable at the beginning and at the end of the spectrum (see Figure 7.3).

Figure 7.3 – Entrepreneurial processes and entrepreneurial activity.



Whatever its length, after the start-up there is a period of time during which entrepreneurial activities prevail, implying that one or more people are needed who are qualified to carry them out. 'Qualified' means not only having the capabilities to perform entrepreneurial activities, but also being in the *position* to take decisions and execute them. In a partnership, the power to take and execute entrepreneurial decisions is in the hands of the owners who jointly run the company. In limited companies or closely held corporations, this power is in the hands of the board of directors and the staff delegated by the board: the CEO, when present, is the person who concentrates these responsibilities.

The nature of entrepreneurial decisions and activities (as briefly synthesised above) makes it very difficult to delegate them to salaried managers, even if they are involved in the board and appointed as CEO. The future contingencies and outcomes associated with the start-up of a new business are many and unpredictable; for this reason, it would be very expensive, if not impossible, to write incentive contracts for salaried managers[80]. This situation also raises the cost of monitoring salaried managers once they have been appointed to the position. Entrepreneurial activities must be the responsibility of a **person who has a direct involvement in the ownership, control and management of the new business;** this gives him/her the necessary incentives and authority to perform them efficaciously and efficiently.

Entrepreneurial activity requires a high level of human-specific investment and ties the individual to the new business in a way that is much greater than that observed in the case of a salaried manager.

> It [new business creation] vests the individuals, who, to a large extent, defines himself or herself in relation to it. It occupies a large part of the individual's life (ac-

[80] Alvarez and Barney (2004) suggest another argument to explain this. If it was possible to write incentive contracts for managers, this means that knowledge about the new business opportunities and its potential results is 'common' knowledge. In this case, the salaried manager, hired to take advantage of this opportunity, will appropriate most of the economic rents associated with it.

> tivities, goals, means, social status, etc.), and enables or constrains the individual to learn and change his or her relations network. (Bruyat and Julien, 2001, p. 169)

To induce people to make this kind of investment and commitment, it is necessary to involve them in the ownership of the new business and give them primary responsibility in its management.

This is why portfolio entrepreneurs need to give ownership shares in new business in order to enlarge the entrepreneurial team; in doing so, the portfolio entrepreneur raises the amount of entrepreneurial resources available to exploit new business opportunities and partially solves the problem of time allocation between established and new businesses. What distinguishes the creation of an entrepreneurial team from the hiring of salaried managers is that the former requires direct involvement in the ownership of the new business. In fact, an entrepreneurial team is a group of people who share the ownership, control and management of a venture (Kamm and Nurick, 1993; Watson *et al.*, 1995b).

An alternative to forming an entrepreneurial team is to appoint salaried managers to manage established or new businesses. This is the method reported by Rosa (1998, p. 53) when considering the Duir case (see the citation at p. 215). Rosa (1998) suggests that the involvement of other people in the ownership of companies is more likely in the case of established businesses rather than new ones.

> The clusters identified in the case studies were complex and often involved partnerships between different owners (either family members, or with corporate partners). ... The partnerships were often necessary to manage each business while the driving entrepreneur turned his or her mind to a new project (Rosa, 1998 , p. 58).

Though not explicitly mentioned, the reason for associating partners in established businesses is to allow the entrepreneur to allocate more time and attention to new projects. The evidence from case studies shows that it is more common to observe the involvement of other people in the ownership and control of new businesses rather than the hiring of salaried managers to manage established ones. Involving people in the ownership and management of companies not only integrates specific resources (as in the case of joint ventures with established entrepreneurs), it also saves the entrepreneur's time so he/she can focus his/her attention on new business start-ups that would otherwise be diverted to the management of the established businesses. To involve other people in the entrepreneurial activity, it is necessary to give them a share in the ownership of the new business; thus the need for setting up a new legal entity.

The role of ownership in the definition of entrepreneurship has been debated at length. It is still an unresolved question whether ownership of a business is a necessary condition for entrepreneurship. It is generally recognised that an entrepreneur is someone who owns, controls and manages a business. This is the main reason why entrepreneurship is so often associated with the small business sector where it is common to observe the association between ownership and control (Gartner and Shane, 1995). According to this view the ownership of a (small) business and the start up of a new one are the most common ways to conceptualise entrepreneurship. Some authors have questioned this definition of entrepreneurship by stressing the fact that entrepreneurship is about creating new ventures or organisations rather than just owning and running a business (Gartner, 1988; Timmons, 1999). It is a shift of emphasis from what an entrepreneur is to what an entrepreneur does. Of course it cannot be the case that there are people who are forever entrepreneurs versus people who are non-entrepreneurs, but that some people at certain times in their lives perform entrepreneurial activities. When defined in this way, ownership does not seem a necessary condition for the presence of entrepreneurship: indeed, in the literature on corporate entrepreneurship, the intrapreneur is not necessarily required to own the business he/she has contributed towards identifying and starting up (Zahra *et al.*, 1999a).

Being involved in the start up of a new business as a salaried manager, without any ownership of it (as observed in some intrapreneurial activity), hampers the ability of people to perform an entrepreneurial role. The empirical evidence on business groups shows that one of the ways used by portfolio entrepreneurs to 'delegate' the entrepreneurial function is that of giving minority shares in the new business. This has several consequences: i) making the people partially responsible for the outcome of the business; ii) enhancing their authority in resource allocation and coordination; iii) offering incentives to people to get human capital investment (expertise, contacts, etc.) that are business-specific; iv) preventing them from easily 'resigning' from managing the business, in cases where profits do not match expectations[81].

New business opportunities are often the result of 'tacit' or personal knowledge that reflects unique experience on the part of the individual. This means that articulating business opportunities and getting others to understand them is difficult to achieve at low cost (Alvarez and Barney, 2004). Being involved in the ownership of the new business is a signal of shared belief in the profit opportunity associated with the new business.

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[81] This is done not only to prevent the potential loss of specific human capital but also to reduce the risk of a salaried manager starting a business of his/her own to exploit the new business opportunity once he/she has gained enough knowledge about it.

To better understand the relevance of ownership in entrepreneurship it is worthwhile analysing in more detail how the roles played by entrepreneurs are related to the ownership of the business. Kaldor (1934) was among the first to analyse the roles played by entrepreneurs and their consequences for the size and performance of the firm. According to Kaldor (1934, p. 67) the entrepreneurial function consists of three functions: 1) risk, or rather uncertainty bearing (on capital) ; 2) supervision; 3) co-ordination. Kaldor is especially interested in analysing which of the three factors is fixed in the short term, thus representing a burden to the growth of the firm (the exploitation of new business opportunities in our case). He dismisses the first factor (risk bearing) as in joint stock companies it can be easily spread among many individuals. He also dismisses the supervisory role (i.e. checking that people do what they have been asked to do and that the results of their work is as expected): "An army of supervisors may be just as efficient (provided it consists of men of equal ability) as one supervisor alone". (Kaldor, 1934, p. 68). According to Kaldor the coordinating function characterises the role of the entrepreneur. The coordinating role is the fixed factor in the short term because of the difficulties in 'splitting' and delegating it: it must be the decision-making process of a single person. Kaldor recognises that in modern organisations the co-ordinating role is not necessarily attributed to a single individual but to a board. However, it is essential to recognise that while in the case of supervision the division of labour works smoothly, in the case of the co-ordination activity it remains a single-minded activity: "...all the members of that Board will, in all important decisions, have to keep all the alternatives in their minds-in regard to this most essential mental process there will be no division of labour between them - and that it will not be possible, at any rate beyond a certain point, to increase the supply of co-ordinating ability available to that enterprise merely by enlarging the Board of Directors.” (Kaldor, 1934, p. 69). Not only can co-ordinating activity not be ‘divided’ and delegated, it is also efficiently performed by a few (or just one) persons. Because each member of that board will have to go through the same mental processes, the advantages of a collective decision consist solely in the checking and counter-checking of each other's judgments. If the Board consists of people of equal ability, this will not improve the quality of their decisions; if the abilities of the different members are markedly unequal, the co-ordinating ability could be improved by dismissing the board and leaving the single most efficient individual in control (Kaldor, 1934, p. 69). According to Kaldor the co-ordinating activity is the “...function which determines what sort of contracts should be entered into: which carries out the adjustments to the given constellation of "data."” (Kaldor, 1934, p. 68). The key aspects of the co-ordinating role are: i) making contracts to secure adequate resources for the new business; ii) adjusting those contracts to the continuously changing conditions of the environment. Both functions are critical in the early stages of a new business and require particular dedication and commitment on the part of the entrepreneur; they also require that the person in charge has enough *authority* and *credibility* regarding external subjects.

In the case studies, control of the new businesses is shared by the established entrepreneur (who retains the majority of shares) and another person (who is given a minority stake); the established entrepreneur supports the new business with capital and experience while dedicating only a fraction of his/her time to it. The ‘associated’ entrepreneur, on the contrary, is fully dedicated to the new business and performs the co-ordinating role. This ‘division of labour’ between a dominant entrepreneur, who supplies the financial resources for the new business and gives credibility to it thanks to his/her past record, and the associated entrepreneur, who dedicates his/her attention on a full time basis at the start-up, is beneficial for the successful performance of the new business.

Hellmann (2007) specifically examines the problems of attracting resources for the development of a new venture: “...the venture needs to have credibility to get a partner’s commitment, but also needs to have commitments from partners to have credibility” (Hellmann, 2007, p. 82). This problem had already been noted by Birley and Norburn (1985). In examining the differences between large and small firms in strategy formation and implementation, they observe that the main problem for new businesses is that of assembling (i.e. attracting) the resources needed to put a viable plan into action. In this process, credibility is a key factor: “Credibility is fundamental, and many would-be owners fail at the outset because they cannot step off the credibility merry-go-round. ... the bank will not lend without an order, the customer will not place an order without evidence that the product can be supplied, the supplier will not give credit, the landlord requires a deposit and guarantees, and the skilled worker is reluctant to leave guaranteed employment” (Birley and Norburn, 1985, p. 83-84). Attracting the key resources needed to launch a new business is much more of a challenge for an individual entrepreneur than for an established company; there are several ways an entrepreneur can mitigate this problem but all are expensive or can only partially resolve it (Bhidé and Stevenson, 1999). In the case of a new business started within a group, the credibility problem is partially resolved by the fact that the established entrepreneur can transfer the credibility he/she already developed through his/her success in established businesses.

7.4 A conceptual model of business group formation in SMEs

This section synthesises the results of the empirical analysis and of the theoretical discussion by drawing a conceptual model to describe the role of entrepreneurial processes in business group formation and growth in the small business sector. The conceptual model makes explicit statements about the hypothesised functional relationships between the different variables included in the model.

Conceptual models are more appropriate when the aim is the consideration all the entities and variables involved in the analysis, the relationships between them, the motivations explaining the observed behaviour and the contextual factors that influence these relationships and motives; these aspects are often referred to as the what, how, why and when (Whetten, 1989). The development of a mathematical model could help to clarify the causal relationships between variables (i.e. the how and why) but at the expense of drastically reducing the variables under consideration and the contextual factors (i.e. the what and when). Mathematical models are more appropriate when dealing with quantitative (or measurable) variables rather than qualitative variables (Lévesque, 2004).

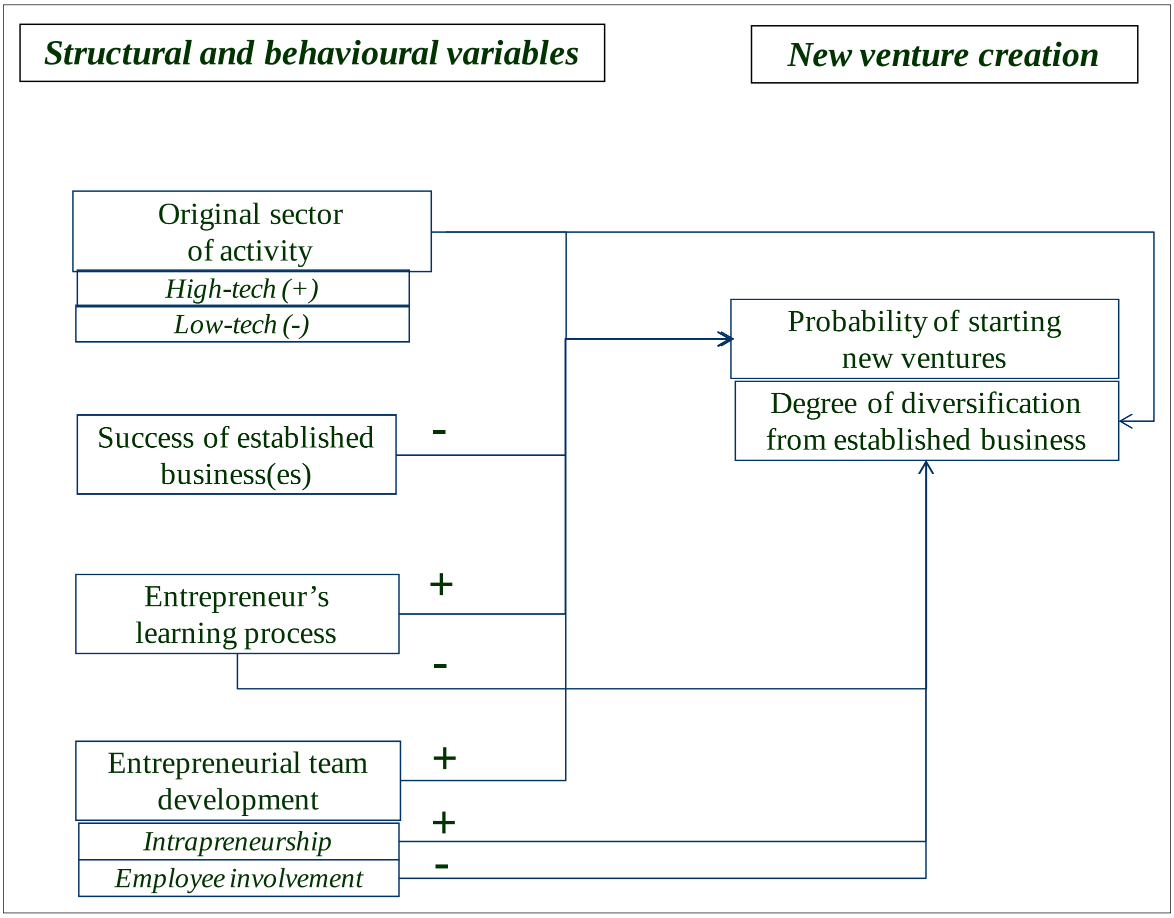
First of all it is worthwhile clarifying the objects involved in the analysis, i.e. the what and who. The object of this study is **new venture creation by established entrepreneurs** (quadrant B of Figure 7.4); its aim is to understand the circumstances and motives explaining why this can give rise to a business group, i.e. a portfolio of independent companies owned by the same entrepreneur (box B.1 of Figure 7.4). Basically, this question regards the 'mode of organising' the exploitation of new ventures by established entrepreneurs. This depends on the characteristics of the venture and the circumstances under which the new venture is developed.

Figure 7.4 – Novice and habitual entrepreneurs

Business / venture	Company	Entrepreneur: New	Entrepreneur: Established
New	New	A.1 Novice entrepreneurs (genuine start-up)	**B.1 Habitual entrepreneurs with a portfolio of independent companies (business group)**
New	Established	A.2 Corporate entrepreneurship	B.2 Habitual entrepreneurs with a portfolio of businesses within the same company
Established	New	C.1 Spin-off involving novice entrepreneurs	D.1 Spin off by established entrepreneurs
Established	Established	C.2 Generational passage C.3 Acquisitions by novice entrepreneurs	D.2 Acquisitions / inheritance by established entrepreneurs

To represent the entities (subjects, structural variables, goals, etc.) involved in the model and their relationships, it is worthwhile separating those influencing the probability of observing the creation of new ventures, from those explaining the mode of organising the new venture. This separation is made for the purpose of simplifying the graphical representation of the variables and of their relationships. Besides the problems associated with the graphical representation, this separation would be justified, within the logic of the model, only if we could think of the process under analysis as a two-step, sequential process: in the first step the entrepreneur decides whether or not to start a new business; in the second step the entrepreneur decides what is the best 'mode of organizing' it according to the characteristics of the business and the circumstances under which it is developed. In practice (and in theory) this separation is not justified for two reasons. On the one hand, the decision to start a business is influenced by the availability of certain ways of organising it; this is because the mode of organising influences the probability of success of the new venture, thus influencing the start-up decision. On the other hand, the same variables can influence both the probability of starting a new venture and the way in which it is organised. These aspects will be taken into account when discussing the conceptual model. Figure 7.5 highlights the main factors affecting the probability of observing new venture creation by habitual entrepreneurs.

Figure 7.5 – Factors affecting new venture creation by established entrepreneurs



The main structural variable influencing the probability of an established entrepreneur starting a new business is the sector of his/her original activity. In general, operating in high-tech sectors allows the entrepreneur and the organisation to acquire a broader knowledge base than when operating in low-tech sectors, thus enhancing the possibility to diversify into other business activities. This factor also has a big influence in the degree of diversification of the ventures subsequently started; entrepreneurs operating in traditional (low-tech) sectors are more likely to follow a differentiation strategy by entering in different segments of the same market rather than diversifying in new sectors.

The success of the original business, measured in terms of growth, has a negative influence on the probability of starting new ventures. At first this seems counterintuitive because a successful entrepreneur is supposed to have more experience and wealth than an unsuccessful one, but this conclusion is not supported by the empirical evidence. Entrepreneurs who are successful in developing their original business are more likely to concentrate on it rather than diversifying into new businesses. On the contrary, entrepreneurs who encounter difficulties in expanding their original business are more likely to turn their mind to other ventures[82].

The main difference between an established and a novice entrepreneur should be in the enhanced capability of the former to start-up new businesses thanks to the learning process during the previous start-ups. The empirical evidence of business groups demonstrates that this learning process is ‘sector-specific’; i.e. it does not raise the probability of success in starting whatever new business but ventures that are closely connected with the original one. This means that once an entrepreneur has initially entered an in-

[82] It is possible that when successful businesses reach a mature stage (i.e. slow or no growth) the entrepreneur decides to invest in other businesses. In this case the diversification strategy appears to follow the same motives as those normally discussed when referring to large, managerially oriented companies. It is also worthwhile mentioning that when the original business reaches a mature stage it is easier for the entrepreneur to delegate its direction to salaried managers and concentrate his/her time and energy to other businesses.

dustry it is likely that most of the businesses he/she will subsequently be involved are closely related to this industry.

The other important factor affecting the probability of observing new venture development by established entrepreneurs is their willingness and ability to enlarge the entrepreneurial team; i.e. to involve other people in the ownership, control and management of new businesses. In the case of intrapreneurship, there is also a positive influence on the degree of diversification of the new business; businesses proposed by former employees show a higher 'distance' from established businesses than opportunities proposed by the established entrepreneur. When the new business is promoted by the established entrepreneur the degree of diversification is lower than in the case of intrapreneurship. Figure 7.6 highlights the main factors explaining the choice between the different modes of organising a new venture by an established entrepreneur.

Figure 7.6 – Factors affecting the way of organising new ventures by established entrepreneurs

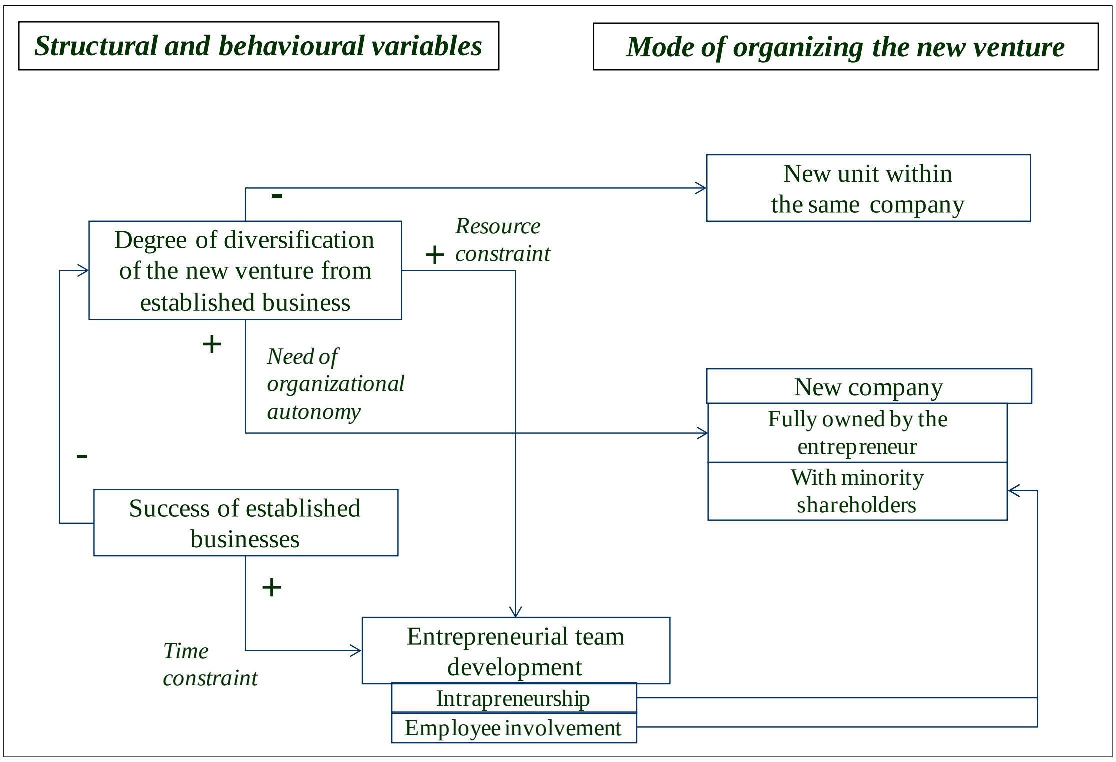


Figure 7.5 does not list all the possible modes of organising, but considers only the three main options: i) a new organisational unit within the established company; ii) a new company fully owned by the habitual entrepreneur; iii) a new company in which the entrepreneur involves minority shareholders.

One of the most important factors explaining the choice of starting a new company to develop a new business is the degree of diversification from an established (often the original) business; the main reason for this choice is because of the need to give organizational autonomy to the new business. The legal autonomy helps to focus resources, which is especially beneficial in the start-up phase. It also enables the contractual autonomy of the new business, so that each company is able to adapt its contractual relationships with customers and suppliers (for example the terms of payment) to its specific needs. This aspect is particularly important for businesses that rely on an extended network of external suppliers. Contractual autonomy is also relevant in the case of new businesses along the same production chain, as it facilitates the selling of output to the market thus reducing the risks associated with vertical integration. Finally, the legal autonomy also allows the entrepreneur to isolate the risk of the new business from established businesses.

The degree of diversification has a positive influence on the probability of involving other people in the ownership and control of the new business; in this case the main reason is to overcome resource constraints by the established entrepreneur, which could be a financial constraint or a capability constraint. Starting a new company is a necessary condition for giving minority shares to people involved in the ownership and control of the new business, thus involving them in the entrepreneurial team.

In the cases examined, the constraints were not limited to financial resources or industry-specific capabilities, they were also made up of entrepreneurial capabilities: i.e. the specific capabilities needed to start up and develop new ventures. At first this seems to contradict the fact that habitual entrepreneurs should be more capable of carrying out entrepreneurial functions than the other people involved, who in most cases were novice entrepreneurs.

This contradiction disappears when we take into consideration the fact that the time and attention available to entrepreneurs is limited and that portfolio entrepreneurs have to share their time and attention between the running of established business(es) and the development of new ones. In such circumstances, the involvement of other people in the ownership, control and management of the new business aims to motivate and empower those people to perform an entrepreneurial role in the new business. This is critical for enhancing the probability of success of the new venture.

Chapter 8 - Conclusions

This chapter summarises the main findings of this research and relates them to the current debate in entrepreneurship literature.

This thesis provides theoretical and empirical contributions to three diverse but interrelated issues: business groups, with specific regard to those in the small business sector; habitual entrepreneurs, with specific regard to portfolio entrepreneurs; and entrepreneurial teams.

On the one hand, exploring entrepreneurial processes helps understanding the formation and characteristics of business groups in the small business sector; on the other hand, the analysis of business group formation and dynamics sheds light on theories of habitual entrepreneurs and entrepreneurial teams.

The chapter also discusses the limitations of this study and how it could be developed further.

8.1 Key findings

The main aim of this thesis was to establish whether, and to what extent the consideration of entrepreneurial processes improves our understanding of the formation and growth of business groups. It aimed at explaining why it is common to observe business groups in the small business sector and the reasons entrepreneurs choose this organisational form.

The thesis demonstrates that available theories on business groups - the financial and the diversification theories - are not able, per se, to explain the empirical evidence on business groups in the small business sector. The main reason for this is that these theories do not take into consideration the problems faced by portfolio entrepreneurs when exploiting new business opportunities.

The ‘diversification hypothesis’ considers the business group as an organisational form suited to efficiently manage diversified activities (Chandler, 1982a; Goto, 1982; Chang, 2006a). This interpretation finds empirical support in the case of large groups where the companies forming the group normally operate in different industries under a strategy of conglomerate diversification (Ghemawat and Khanna, 1998; Peng and Delios, 2006). The legal autonomy accorded to these diversified activities is justified by the need to give them strategic and operative autonomy, as well as to spread risk (Gerlach, 1997; Khanna and Yafeh, 2005). Small and medium sized groups present two aspects that contradict this interpretation. In most cases the degree of diversification observed in business groups is very low and would not justify the setting up of a new company. As demonstrated in chapter 5 of this thesis, companies belonging to groups of SMEs are the result of a differentiation policy (entrance into different segments of the same market) or of a vertical integration strategy (i.e. the control of activities along the production chain). In both cases, the new activities show a low degree of diversification and close synergies with the original activity. There are alternative organisational structures – namely the divisional organisation – that could be used by entrepreneurs to manage these forms of diversification. The second aspect of dissatisfaction with the diversification theory is that it does not differentiate between the start-up of a new business as opposed to the management of it. In so doing, it implies that there are no differences in the organisational problems associated with the start up of a business compared with those arising at later stages.

The financial explanation of business groups stresses the importance of legal autonomy as a way of manipulating the ownership structure of new businesses. This gives entrepreneurs the opportunity to raise outside equity: i.e. equity capital provided by investors from outside the controlling shareholders (Myers, 2000). In the case of large groups with companies listed on the stock exchange, this is done with the aim of separating ownership from control; according to the financial interpretation, pyramidal groups are created to allow the ultimate owner (typically a family) to minimise the capital invested to control large, publicly owned companies (Morck and Yeung, 2004).

This interpretation is not relevant in the case of groups in the small business sector where the companies are privately held and the degree of ownership concentration is very high. A recent theoretical paper (Almeida and Wolfenzon, 2006) has extended the financial interpretation of business groups to privately held (family owned) small groups. The basic idea of this model is that when entering new businesses, entrepreneurs make them legally autonomous in order to raise equity capital from external (to the controlling family) shareholders. By doing this, the controlling family maximises its financial wealth through two mechanisms: by using the cash flow accumulated in established businesses (financial advantage) and by diverting to their advantage part of the cash flow generated by the new businesses (payoff advantage). In the Almeida and Wolfenzon (2006) model it is taken for granted that the entrepreneur retains the control and management of the new business while the minority shareholders are purely investors. This thesis demonstrates that the latter hypothesis is a major limitation of the Almeida and Wolfenzon (2006) model. In the case of small groups (and small firms in general), the presence of minority shareholders can hardly be of a purely financial nature because of the high level of agency costs of outside equity in privately held companies. This means that the raising of outside equity cannot be the main reason for the creation of an autonomous company. This conclusion is supported by the results of the survey conducted using a sample of portfolio entrepreneurs (discussed in chapter 6). From the interviews with entrepreneurs it emerged that the presence of minority shareholders in a new business is instrumental to associating other people in the start up of the new venture. The causal relationship is the opposite of that hypothesised by the financial explanation: it is not much so the aim of raising outside equity that determines the involvement of external shareholders as the need to involve and motivate people in the start up of the new business that induces portfolio entrepreneurs to sell minority shares in it.

The results emerging from case studies and their integration with theoretical models of entrepreneurship made it possible to develop a new explanation of business group formation and growth (discussed in chapter 7). According to this explanation, entrepreneurial processes associated to the start-up of new businesses by portfolio entrepreneurs play a crucial role. When considering entering into a new business portfolio entrepreneurs face two problems: a) how to take advantage of the synergies with established businesses while guaranteeing the necessary focus on, and autonomy of the new business; b) how to share time and attention between the management of established businesses and the start-up of the new venture. The start-up phase is critical for the success of the new business (Ardichvili *et al.*, 2003). It requires complete dedication of time and attention by the entrepreneur to continuously adjust the planned actions to the unforeseen events and unpredictable contingencies that are typical of the start-up phase.

One of the ways in which portfolio entrepreneurs mitigate or overcome these problems is through the setting up of a new company, thus creating or enlarging a business group. The legal autonomy granted to the new venture helps focus resources and monitor results. It also enables the contractual autonomy of the new business, so that each company is able to adapt its contractual relationships with customers and suppliers (for example the terms of payment) to its specific needs. Contractual autonomy is also relevant in the case of new businesses along the same production chain because it facilitates the selling of output to the market, thus reducing the risks associated with vertical integration.

In addition to these reasons and more than anything else, legal autonomy allows entrepreneurs to modify the ownership structure of the new business and give minority shares to people involved in the start-up of the new venture. The formation and enlargement of the business group coincides with the enlargement of the entrepreneurial team; i.e. of people who play entrepreneurial roles within the group. This thesis (chapter 7) demonstrates why involvement in the ownership is a necessary condition for performing an entrepreneurial role in the start-up of a new venture. The start-up entails the following activities: a) setting the objectives and the plan for the business; b) contracting suppliers to attract necessary resources and launching the new product or service to customers; c) hiring, monitoring and compensating the employees involved in the new venture. Future contingencies associated with the start-up are too many and unpredictable; for this reason it would be very expensive, if not impossible, to appoint salaried managers for these activities and draw up incentive contracts for them. They must be the responsibility of an entrepreneur: a person who has a direct involvement in the ownership, control and management of the business; this gives him/her the necessary incentives and authority to perform an entrepreneurial role. By involving other people in the start-up of new ventures, portfolio entrepreneurs overcome the problem of time allocation between established and new activities, thus enhancing their ability to enter new businesses while retaining ownership and control of the ones already established.

The empirical analysis revealed the existence of three different types of entrepreneurial teams (which can coexist within the same group): joint venture with established entrepreneurs, employee involvement and intrapreneurship. The first is when new ventures are set up with other established entrepreneurs. The second is when the entrepreneur gives a share of the new company to an employee to secure his/her involvement in the start-up of a new venture (employee involvement). The third is when the new business is established as a result of the inspiration of an 'intrapreneurial' employee who then takes major responsibility for the development of the business. Besides joint ventures with established entrepreneurs, it is the phenomena of 'employee involvement' and 'intrapreneurship' that is the most widespread and the most interesting. In the case of 'employee involvement' the established entrepreneur draws on employee skills to enhance the capabilities of exploiting new business opportunities. Entrepreneurial attitudes are encouraged in employees for the exploitation of new business opportunities, while opportunity recognition remains a prerogative of the established entrepreneur. In the second type (intrapreneurship) the entrepreneur facilitates and financially sustains employees who want to develop their own businesses. In the latter case the established entrepreneur must reconcile the new project within the group activities and accommodate the emerging entrepreneur within a coherent team.

As well as the discovery and analysis of these three forms, the thesis provides a more general contribution to understanding the dynamics of entrepreneurial teams in situations where there is a ‘dominant’ or ‘lead’ entrepreneur and one or more ‘associate’ or ‘sub’ entrepreneurs. The few theoretical and empirical works available on these situations refer to individual business and do not consider the functioning of teams in a multi-business situation (as it is the case of a business group). Moreover, the literature has concentrated on the structure of the entrepreneurial team at the start-up and does not consider the evolution of the team over time (Ensley *et al.*, 2000; Harper, 2008). Business groups are flexible organisational structures which accommodate a wide range of team types: from the hierarchical model between a lead and a sub-entrepreneur (Harper, 2008) that is observed in ‘employee involvement’, to the ‘tutoring’ model that is observed in the case of ‘intrapreneurship’. The different types depend on the characteristics of the new venture, the circumstances that led to its start-up and the people involved.

The portfolio entrepreneur remains the ‘dominant’ figure for the group as a whole; he/she retains a leading position in the original company of the group and majority ownership in all the companies. However, the portfolio entrepreneur does not necessarily play a ‘leading’ role in all the new ventures; when an associate entrepreneur is present, it is he/she who plays the major entrepreneurial role in the new business. The dominant entrepreneur provides the majority of equity capital, facilitates the access to external resources (thanks to the reputation gained by the group), and supports the associate entrepreneur in the main strategic decisions. The group form allows the entrepreneurial tasks needed for the start up of a new business to be shared, which is beneficial for the success of the new business. This division of the entrepreneurial work is shared between the dominant entrepreneur and the associate entrepreneurs. This makes it possible to differentiate team interactions within the same group according to the circumstances that led to the start-up of each new business and the role that the dominant and the associate entrepreneur plays in each of them. The empirical survey also showed that the roles within the team can change over time according to the performance of the new venture. When the new business is particularly successful, the associated entrepreneur increases his/her role in the business; this was clear because of the increased number of shares owned by the associated entrepreneur in the company.

The analysis of entrepreneurial teams in business groups helps resolve one of the main problems with the theory on entrepreneurial teams. The theoretical literature on entrepreneurship stresses the ‘individual’ nature of the cognitive and behavioural processes that result in entrepreneurial activity (Kirzner, 1979; Casson, 1982). This is not easily reconcilable with the idea that entrepreneurial processes (opportunity recognition and exploitation) can be the result of a team activity (Harper, 2008). The formation and dynamics of entrepreneurial teams in business groups demonstrates that in each phase of the entrepreneurial process it is possible to identify a ‘lead’ entrepreneur who is the person responsible for the discovery or the exploitation of the new venture. The ‘division of labour’ between entrepreneurs is made in such a way that it allows ‘one’ entrepreneur to play a leading role in each phase. It is also interesting to note that the presence of entrepreneurial teams is more easily observed in the exploitation phase (start-up) rather than in the opportunity discovery phase. This is because during opportunity discovery, cognitive processes are preeminent which are highly subjective by nature (Harper, 2003). In the exploitation phase there is more scope for organisational processes that facilitate the division of labour between people. Moreover, the setting up of a new company allows differentiation in the roles of team members in the ownership, control and direction of the new business.

The importance of having one ‘lead’ entrepreneur emerges also at the level of the business group as a whole. Case studies highlighted the difficulties in the coexistence of more than one ‘dominant’ entrepreneur within the same group; this situation happened when the original business was set up as a partnership between family members or friends. When this happened, the group eventually broke up because of divergent visions and strategies developed by the original partners as time passed and the group enlarged. With reference to entrepreneurial team theory, this confirms that entrepreneurial teams can have both advantages and disadvantages, especially when team dynamics are considered over a long period of time rather than just at the start up phase. Moreover, it demonstrates that in the long run, teams in which there is a single leader are more likely to survive and grow than teams made up of peers. The difficulties in the coexistence of two dominant entrepreneurs is further proof that business groups in the small business sector must be considered as an entrepreneurial construct, subject to a unitary vision and strategy.

The literature about family owned firms has considered the advantages and disadvantages of involving members of the family in the ownership and management of firms (Miller and Le Breton-Miller, 2006). This thesis demonstrates that when considering the involvement of other people, portfolio entrepreneurs enlarge the set of people who can potentially be involved in the entrepreneurial team by considering the employees in established companies a possible team members. The reason for this is that the employer-employee relationship allows the entrepreneur to know and evaluate the attitudes of employees and to develop the relationship of trust needed to associate him/her in the entrepreneurial team (Zahra *et al.*, 2006).

Overall, this thesis demonstrates that in the small business sector the business group is an organisational suited not so much to ‘manage’ a portfolio of diversified businesses as to enhance the probability of success in the start-up of new ventures. Further confirmation of this conclusion is that the setting up of a new company is especially beneficial in the start-up phase. Once the new business has consolidated, the need for maintaining legal autonomy diminishes and the group tends to reduce to a divisionalised organisation. The analysis of several case studies suggests the existence of an **evolutionary pattern** of business groups with phases of expansion of the number of companies when new businesses are added and contraction (merging) when the businesses are consolidated. In some cases the number of companies is not reduced but the structure of the group is rationalised through the creation of holding companies and better defined centralised and autonomous activities. This confirms that in the case of small firms, the group is a device for managing growth through the exploitation of new businesses rather than achieving efficiency in their management.

Theories of habitual entrepreneurs have emphasised the accumulation of human capital to explain the (supposed) superior capabilities of habitual entrepreneurs in discovering and exploiting new business opportunities. By studying the diversification patterns of business groups this thesis demonstrates that the accumulation of capital and experience is mostly specific to the business originally established. The new businesses started by portfolio entrepreneurs are closely related to the original one; in most cases they are set up to exploit different market segments within the same industry.

The enlargement of the entrepreneurial team by portfolio entrepreneurs when exploiting new businesses is not easily reconciled within the human capital accumulation hypothesis. According to the latter hypothesis, established entrepreneurs are supposed to have an advantage over novice entrepreneurs when starting up new businesses. In the cases analysed, established entrepreneurs have given entrepreneurial responsibilities to ‘novice’ entrepreneurs (mostly, former employees). The enlargement of the entrepreneurial team is aimed not so much at integrating specific knowledge and resources as to overcome the problem of dedicating time and attention to the new business during the start-up phase. Entrepreneurs who decide to exploit new business opportunities - while retaining the ownership and control of the established ones - face the problem of allocating time and attention between the established and the new activities. This thesis demonstrates why this is not a trivial problem. The start-up phase requires a high degree of ‘proactivity’ by the people in charge and dedication to ensure the timely and effective solutions to the problems continuously arising, since these problems are not easily foreseeable and cannot be dealt with by routine procedures. One of the ways portfolio entrepreneurs solve this problem is by involving other people in the ownership and management of the new ventures. Giving ownership stakes in the new business to other people and making them responsible for the start-up phase (i.e. enlarging the entrepreneurial team) increases the probability of success of the new venture.

Zahra (2005) highlighted the challenge for family firms to remain ‘entrepreneurial’ after the initial start-up and also the importance of involving other family members to this aim. This study demonstrates that through the development of a business group, entrepreneurs are able to enlarge the entrepreneurial team by drawing on entrepreneurial attitudes and capabilities of a wider base of people than just family members. People involved in the new ventures were predominantly former employees of the portfolio entrepreneurs. This is because the employee relationship allows entrepreneurs to evaluate the entrepreneurial attitudes of his/her employees and develop the necessary trust in order to get them to become a part of the entrepreneurial team. In this process of ‘employee involvement’, the capabilities shown by portfolio entrepreneurs are not only those traditionally associated with the recognition and exploitation of new businesses, but also those associated with entrepreneurial team building; this is an aspect which has received little attention in the literature on habitual entrepreneurs.

The presence of business groups increases with firm size; this confirms that the proportion of entrepreneurs that diversify their activity is positively connected to the size of their established business. Moreover, by comparing the degree of diversification of groups (i.e. entrepreneurs who have decided to diversify their activity) it emerges that there are no significant differences in the degree of diversification between small and large groups. This means that once an entrepreneur has decided to diversify, his/her ability to carry out this strategy does not depend on size. This result can be justified considering that the entrance of small firms in new industries is likely to be done on a small scale, while in the case of larger firms they tend to enter new markets on a larger scale (Dunne *et al.*, 1988; Dunne and Hughes, 1994).

Another finding of the present study regards the motivations for entrepreneurs to diversify. Cross sectional analysis on the population of Italian groups reveals that there is a negative relationship between the concentration of activities (employees or sales) in the main company and the degree of diversification. This suggests that diversification is a *substitute* strategy for growth in the original business. Cross sectional evidence cannot be considered an appropriate empirical test for this hypothesis; however, this finding is compatible with the theory that diversification in smaller firms is the result of a defensive (or survivalist) strategy, pursued when entrepreneurs encounter difficulties in their original activity (Robson *et al.*, 1993; Rosa, 1998).

In most cases diversification takes the form of differentiation: i.e. the entering into different segments of the same industry. Traditionally, this has not been considered as true diversification, particularly since differentiation is ignored by classification codes of economic activity. However, the new market conditions stress the importance of strategic and operative autonomy in the case of firms operating in apparently similar activities but devoted to different segments of that same market. Moving to a new segment sometimes requires the same changes in resources and capabilities as applying the technological or market know-how of the firm in completely differnt industries.

The empirical evidence also highlights the relevance of business groups as an organisational form to control activities along the same production chain; i.e. vertical integration. The presence of vertical integration within business groups was detected using a new methodological approach (Fan and Lang, 2000; Acemoglu *et al.*, 2004) based on information drawn from the input-output table; this can be used to determine when activities belong to the same production chain. For every pair of industries, from the input-output table it is possible to calculate the percentage of input of one industry acquired from all the other industries and the percentage of output of one industry sold to all the other industries. For example, in a group belonging to the clothing industry (code 18) backward integration is present if the group owns a company in the textile industry (code 17) given that the input-output table shows a positive inter-industry coefficient between the two industries. Quantitative analyses based on the ISTAT dataset demonstrate that there are no significant differences between small and large firms when pursuing vertical integration strategies or in the use of the group to carry out this strategy. The group is an organisational form particularly suited to carrying out vertical integration strategies; in fact, the legal autonomy of firms belonging to the same group reduces the risks associated with vertical integration by facilitating the ability of controlled firms to sell in the market. This result is confirmed by the analyses conducted on the Marche dataset and by the interviews with entrepreneurs.

This is the first study on diversification patterns of small groups conducted on such a large scale (the population of groups in the Italian economy). Moreover, the possibility to compare this quantitative analysis with the results obtained from the longitudinal analysis and the qualitative survey helped to strengthen empirical results and to build the theoretical models.

Studying the formation and evolution of business groups poses several methodological problems because business groups are complex systems, characterised by the presence of several companies, different architectural structures and a multi-business context. Most of the statistical information and data on firms are collected and organised on the basis of single legal units rather than groups. In order to analyse the characteristics of business groups and their evolution over time, it was necessary to develop specific data sets to organise and elaborate data on both the group as a whole and the individual companies composing it. To this end, the cross sectional information on groups was organised in two different datasets: one on the business groups and one on the individual companies. The two datasets map into each other in the following way: a) each record of the group dataset must correspond to at least two records (companies) in the company dataset; b) each record of the company dataset can correspond only to one record in the group dataset (a company uniquely belongs to a group).

It is not easy to analyse the evolution of business groups over time since they modify not only the quantity of input and output but also the number of firms and their ownership relationships. In the case of input and output variables (such as employees or sales) it is possible to obtain synthetic measures at group level by summing up the values observed in the individual companies. However, not all the variables produce reliable results; for example, in the case of sales there could be duplication of sales figures where a company of the group sells its output to another company within the same group.

Ownership relationships are more difficult to analyse and synthesise yet these relationships are rather important as they define the 'architecture' of business groups in terms of vertical (pyramids) or horizontal structures. This aspect is receiving increasing attention in the literature as the choice of different structures responds to specific entrepreneur aims. For this reason, the analysis of business structures has been used in this study not just for describing the current reality of business organisations, but also for discriminating between different theoretical hypotheses about business groups. Throughout the study the graph representation of business groups has been used where the nodes represent the companies of the group and the arches represent the ownership relationships between companies.

The empirical evidence demonstrates there is also a prevalence of pyramidal structures in the case of small groups; this means that portfolio entrepreneurs prefer to use the accumulated cash flow from established businesses when starting new ventures. Besides the analogies in the formal structures of small and large groups, this study demonstrates that the reasons for the presence of business groups in the small business sector are different from those put forward to explain the presence of large groups. Specifically, this study demonstrates that the consideration of entrepreneurial processes can greatly contribute to explaining the presence and characteristics of business groups in the small business sector.

8.2 Research limitations

All research work has its limitations for several reasons: besides the abilities and motivation of the researchers involved, there are invariably resource constraints and the associated lack of appropriate data and information. Awareness of these limitations and of their potential impact on the theoretical and empirical results is vital.

This thesis focuses on the problems and circumstances that induce entrepreneurs to set up a new legal unit rather than pursuing new business opportunities within the established organisation. According to Bygrave and Hofer (1991)

> "*An Entrepreneurial Event* involves the creation of a new organization to pursue an opportunity… *The Entrepreneurial Process* involves all the functions, activities, and actions associated with the perceiving of opportunities and the creation of organizations to pursue them" (Bygrave and Hofer, 1991, p. 14).

In this study the entrepreneurial event is associated with the setting up of a new company by habitual entrepreneurs. Not all the sources of data used in this thesis offer the same degree of validity in identifying and measuring this construct (Chandler and Lyon, 2001).

In the case of indirect sources (the ISTAT and Capitalia data set) there is no information on whether or not the companies belonging to groups have been set up to exploit business opportunities. Because of this gap in knowledge, commercial, financial and property companies were excluded from the analysis, since they are often set up for other reasons than the pursuing of a new business opportunity; the analysis was restricted to 'production' companies (either manufacturing or service). Direct information about business groups in the Marche region and those collected through direct interviews confirm that in the case of small groups, production companies are almost always the result of the entrepreneur exploiting new business opportunities. Other processes that could have resulted in the adding of new companies – such as the breaking up of existing activities or acquisitions of already established businesses - are common in large groups but a marginal phenomenon in small groups.

Companies (or the entire group) can be inherited by the controlling entrepreneur. I can't control for this when using indirect sources (like the ISTAT and the Capitalia datasets); nevertheless, these are the sources which have been used to analyse the general characteristics of business groups. In the case studies of business groups in the Marche region, I have interviewed all the entrepreneurs that directly founded the group[83].

There is a big debate in economic and management sciences about the repeatability and consistency of results that are obtained by using interviews and case studies and the possibility of deriving (inferring) general results from their analysis.

Economists are the social scientists that give the least importance to interviews because they argue that people's intentions and goals can be 'presumed' by researchers under the hypothesis of 'rationality' of behaviour (either absolute or bounded). This is the position taken by Almeida and Wolfenzon (2006) in developing their model on business groups, which is based on the hypothesis of a wealth maximisation goal on the part of entrepreneurs. The limit of this position is clearly highlighted by Bewley (2002):

> "The danger of this position is that investigators put too much power in their own hands by assuming they know better than decision makers what their motives are.

[83] In a few cases the interviewed entrepreneur inherited a small business but it was he/she who developed the group.

> Why should an investigator's prejudices take precedence over those of the people studied? If you give yourself the right to ignore evidence, such as what decision makers say, there is little limit to what you can assert" (Bewley, 2002, p. 349-350)

It can also be argued that what people say about their motives can be interesting, whether or not they are able to explain the 'real' motives behind their behaviour; it reveals how they interpret the situation and the nature of their worries. Human behaviour is always interesting, whether it is rational or not, and we should want to understand it (Bewley, 2002, p. 350). Given the aim of this study, I chose direct interviews to get a direct account of entrepreneur behaviour and to understand motivations and insights that were not addressed by the available theories. In fact, the main motivation for this study was the dissatisfaction with available theories on business groups. Besides the reliability of the interviews as a tool for inferring the motives of human behaviour, there is also a debate about whether the use of a single case study is superior to the use of multiple case studies (Eisenhardt, 1989; Dyer and Wilkins, 1991). I preferred the use of several case studies because of the variety of situations that characterise the phenomenon of business groups and because it was an exploratory study aimed at discovering new issues. New cases were added until they no longer advanced comprehension of the phenomenon.

Although the case studies were not selected as a random sample I am confident that the results are reliable when extended to other samples. The groups that I chose for case studies, though located in one region (the Marche region) show similar characteristics to those observed at national level. Given that the institutional context under which entrepreneurs take their decisions is similar across the country, there is no reason to believe that those located in the Marche region show anomalous behaviour. The comparison between the groups examined in this study and the cases reported in other countries (Rosa, 1998; Loiseau, 2001) show noticeable similarities in the structure and dynamics of business groups. This suggests that most of the empirical findings of this research are not country specific. However, the theoretical framework developed to synthesise the main results of the study do not include country-specific variables.

8.3 Management and policy implications

The basic approach of this thesis was analytical, i.e. developing a theoretical framework to explain the evidence on business groups in the small business sector. The thesis does not develop a performance analysis, useful for management strategy, or a welfare analysis, useful for policy implementation. Nevertheless, the empirical and theoretical findings of this study suggest some management and policy implications.

In the case of management, the most important result is the recognition of the group structure as an organisational form specifically suited to facilitate the start up of new businesses. As such, the group structure cannot simply be reduced to a “corrupted” divisional structure. Though mimicking an M-form in some aspects, the business group presents specificities of its own. The most important one is the possibility of changing the ownership structure of a new business and set it in order to maximize the probability of its success. This is not a trivial matter because in the new economic conditions, organisational and governance issues overlap more and more (Rajan and Zingales, 2000). Given the increasing demand for quality and innovation, the control of physical capital has declined as a source of rent and most of all as a condition to appropriate the growth opportunities associated with business activity; on the contrary, the role of human capital has become more and more important. At the same time, the need for fostering innovation and entrepreneurial behaviour within established firms is becoming fundamental for their ability to compete and grow (Kanter, 1989; Stopford and Baden-Fuller, 1994; Zahra *et al.*, 1999c). In these new conditions, the ability to motivate people and to encourage them to make the specific investments that are needed for the exploitation of new business opportunities has become of critical importance. The business group appears to be a mechanism which can help entrepreneurs exploit new business opportunities while retaining some of the advantages of centralised control.

Instead of considering the group as a peculiarity of emerging economies or as an 'anomalous' structure resulting from capital market imperfections, it should be considered as organisational form specifically suited for the development of new businesses and, as such, it should be given adequate space in the management literature[84]. The cases analysed in this research show that the business group can be a very flexible structure; it can mimic an M-form but also enable better 'fine tuning' between centralisation and autonomy. Compared with the M-form, the business group also has the important advantage of legal autonomy of its business units. This allows entrepreneurs to change the ownership structure of the new business, thus involving other people who can play an entrepreneurial role within the group.

The available theories stress the importance of 'market imperfections' when explaining the presence and characteristics of business groups: the imperfections in capital markets, in the case of the financial theory and the backwardness of capitalistic institutions, in the case of the literature on emerging economies. This thesis demonstrates that the main driving forces behind the formation and development of business groups are to

[84] Despite the relevance of business groups in emerging and developed countries, it is rare to find sections dedicated to this organisational form in management manuals.

be found in strategic and organisational aspects rather than market imperfections: specifically, the exploitation of new business opportunities and the efficient management of diversified activities.

For these reasons, the legal systems (taxation, corporate and commercial law, etc.) should incorporate the idea of the group not only as a financial and fiscal device to be regarded with suspicion (Morck and Yeung, 2004), but as an efficient organisational form. Of course, business groups are also used by entrepreneurs and managers for the purposes of tax avoidance as well as to manipulate the ownership structure of companies in order to maximise returns for the controlling owners. Recognising this fact is quite different to making an automatic association between business groups and these practices.

The debate about the relationship between fiscal policy and business groups is particularly lively in the USA where there was a recent proposal to abolish the inter-company dividend taxation; some authors (Morck and Poterba, 2005; Morck and Yeung, 2005) maintain that this taxation was introduced (in the 1930s) with the specific aim of eliminating business groups and that it should be maintained to prevent the phenomenon of pyramidal groups and equity leverage.

The problem is not the presence of business groups as such. As showed in Section 2.1 groups are present in a range of types and a response to a variety of motives. Policy makers should try and discourage inefficient (or undesirable) behaviour but should not reduce the possibilities available to entrepreneurs and managers to organise the control of business activities in ways than can enhance potential growth and efficiency.

8.4 Further development

Several questions emerged during this research. Here I highlight those that appear as the most promising for further investigation.

When entering into new activities, portfolio entrepreneurs prefer to set up new companies rather than acquire established ones. While the setting up of new firms is a common phenomenon in each firm size range, the probability of observing acquisitions of established firms is positively related to the size of the acquiring firm. This could be the result of the characteristics of the new business but also of the problems faced by small firms in managing an acquisition process. Small and medium sized firms can lack the resources and capabilities needed for acquiring firms and integrating them within the established businesses. A better understanding of the factors affecting the different capabilities behind the start-up or the acquisition of new ventures can therefore help the growth possibilities of small firms.

The thesis has underlined the role of the business group as a way of enlarging the entrepreneurial team. This is done by giving a minority share in the new venture to people involved in the start-up phase. It would be interesting to better understand what factors influence the share given to other people and whether this has any influence on the performance of the new business. In the case studies a reverse causal relationship is observed; the share of the associated entrepreneur was enlarged as a result of the success of the new venture. There is a large amount of literature on the optimal share to be given to managers to resolve the agency problems in publicly held firms. In the case of business groups, a minority share is instrumental for involving people in the start-up of a new venture. It is possible that in this case the factors involved are different from the case of large firms.

Most of small groups are family owned and managed. This thesis revealed that the ownership and control structure in business groups is more complex than in individual firms. Indeed, in some cases the group is formed in order to involve people from outside the entrepreneur's family in playing an entrepreneurial role. This means several aspects of the debate about family firms should be reconsidered. The multi business context of business groups can offer interesting insights to better understand the internal dynamics within the controlling family as well as the relationships with 'outside' entrepreneurs involved in the ownership and management of individual companies.

Agency costs play a major role in the possibility of acquiring outside equity in privately-held firms. In business groups this question is overcome by the fact that minority shareholders are given a pre-eminent role in the management of the business in which they have a stake; actually, the minority share is instrumental to this involvement rather than the raising of equity. Given the importance of outside equity for the ability of firms to grow and diversify, it will be interesting to further analyse, on a theoretical and empirical level, the factors affecting the possibility of privately held firms to reduce the agency costs attached to minority shares, thus enhancing the possibility for firms to raise outside equity when entering into new businesses.

The analysis of entrepreneurial teams within business groups demonstrates that there is a wider range of possibilities in the typology of teams besides the 'extreme' cases of the 'nested' and the 'peer' teams (Harper, 2008). Further theoretical and empirical work is needed on this issue to develop a more comprehensive typology of entrepreneurial teams and the factors affecting the forms chosen by entrepreneurs.

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