

Habitual entrepreneurs, entrepreneurial team development and business group formation

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Abstract

This paper contributes to the literature on habitual entrepreneurs by focusing on the role of entrepreneurial team development and entrepreneurial processes in business group formation. This is a potentially important, although neglected, area of research. On the theoretical side it reviews the three main approaches to habitual entrepreneurs - human capital accumulation, individual specialization, financial and agency theories – and discusses their contribution for explaining entrepreneurial team development by portfolio entrepreneurs. On the empirical side the paper analyses the presence of external shareholders in the companies owned by the same entrepreneur by taking advantage of a large dataset on business groups in the Italian economy. Overall the results are consistent with the main hypotheses derived from the individual specialization approach and the finance approach. The presence of other entrepreneurs in the companies of the group is positively related with the size of the group and the size of the company. It is lower in companies that are owned by other companies of the group rather than directly. However, the paper did not find significant relationships between entrepreneurial team development and the sector of activity of the companies.

1. Introduction

In the last decade there has been increasing research interest in habitual entrepreneurs; i.e. entrepreneurs who have established more than one business throughout their career. One of the main aims of this research has been to assess differences between novice and habitual entrepreneurs; specifically whether and why the latter have advantages in starting new firms. The answer to this question has important implications for the understanding of entrepreneurial processes and for the design of policies to promote entrepreneurship.

The theoretical approach used mainly by researchers to address this issue is that of human capital accumulation. By learning from past experience habitual entrepreneurs should have a higher probability of success (or lower probability of failure) in creating new ventures than novice entrepreneurs. The literature demonstrates there are differences between novice and habitual entrepreneurs in the gestation process of new ventures (Alsos & Kolvereid, 1998) and in the way they start new businesses (Westhead & Wright, 1998), but has not been conclusive on the superior performance of habitual entrepreneurs over novice ones in the start-up of new businesses (Birley & Westhead, 1993; Kolvereid & Bullvåg, 1993).

When entrepreneurs develop new ventures while retaining the ownership and control of a previously established business, they become portfolio entrepreneurs (i.e. they build up a business group). Alternatively, if the previous business is sold or discontinued before starting a new one, we have serial entrepreneurs. Up to now, the theoretical literature has not explicitly addressed the question of how and when we are more likely to observe portfolio or serial entrepreneurs. The answer to this question will also address the question of why and when we are likely to observe business groups, i.e. sets of companies owned and controlled by the same entrepreneur. This issue has been debated at length also by sociologists and economists (Granovetter, 1994; Khanna, 2000; Almeida & Wolfenzon, 2004). Indeed, the terms portfolio entrepreneurs and business groups refer to the same object although from a different perspective. The former, mainly used by entrepreneurship researchers, refers to the person (or the team) that developed the group. The latter, mainly used by economists and sociologists, refers to the outcome of portfolio entrepreneurs: i.e. the set of business successively developed and contemporaneously owned and controlled.

The relationship between habitual entrepreneurship and business group formation has recently received some attention (Rosa & Scott, 1996; Carter, 1998; Rosa, 1998; Iacobucci, 2002). These studies offer several hypothesis and empirical evidence about the causes and characteristics of business groups and the process through which they are established by habitual entrepreneurs. Nevertheless several research questions are still unanswered. In a recent survey of the literature Carter and Ram (2003) suggest researchers should concentrate attention on the “contexts” in which portfolio entrepreneurship occurs – i.e. the influence of structural variables – and on the “processes” that are used by entrepreneurs to develop the group. They claim that existing empirical research on habitual entrepreneurs concentrate its attention on measuring the frequency of the phenomenon while “... little attention has been accorded to the actual process of portfolio entrepreneurship and the circumstances in which it arises” (Carter & Ram, 2003, p. 371). We agree with the authors in their request for more empirical research in this area. We also suggest that another problem of the existing literature on habitual entrepreneur is that it sometimes lacks a thorough discussion of the theory underpinning research conclusions. This is a major drawback when trying to elucidate empirical evidence and interpret the relationships between the relevant variables. This paper aims to contribute to the literature on habitual entrepreneur by focusing on the role of entrepreneurial team development in business group formation. Up to now this issue has received scanty attention, both at a theoretical and an empirical level.

Several empirical studies have demonstrated that portfolio entrepreneurs have more equity partners than novice entrepreneurs when starting a new business (Rosa, 1998;

Westhead & Wright, 1998; Westhead, Wright, & Ucbasaran, Forthcoming). In a recent paper we have also analysed the different forms and aims with which portfolio entrepreneurs involve other entrepreneurs (both novice and established) in the development of new ventures (Iacobucci & Rosa, 2004). This empirical evidence raises several research questions: why do experienced and wealthy entrepreneurs need other people when starting new businesses while novice entrepreneurs are more likely to manage the start-up process by themselves? Does the performance of subsequent start-up depend on experience and learning by habitual entrepreneurs or on their ability to involve other people in new ventures thus leveraging on their financial and professional resources? The answers to these questions have important implications for the understanding of the phenomenon and for policy design to promote entrepreneurship.

Economic literature on business groups shows the opposite problem to entrepreneurship literature; it often relies on formal models based on very simplified assumptions and little consideration for the actual contexts and processes of the phenomenon. Nevertheless, it offers some interesting insight for considering variables and relationships sometimes overlooked in empirical research. Starting from these premises the main aim of this paper is to discuss the theoretical justifications underpinning the development of entrepreneurial teams by habitual entrepreneurs. It makes the following contributions. It identifies and discusses the main theoretical approaches used (implicitly or explicitly) by researchers to explain the phenomenon of habitual entrepreneurs: the human capital approach, the individual abilities approach and the financial approach. It highlights some issues that have been up to now neglected or overlooked by empirical and theoretical research - like the time allocation problem between management and entrepreneurial tasks - and discuss their implications for the understanding of habitual entrepreneurship. It discusses when and why we expect habitual entrepreneurs - specifically portfolio entrepreneurs - to involve other people in the new businesses. It offers a preliminary test of the proposed theoretical framework by relying on a large dataset on business groups in the Italian economy.

The paper is organized as follows. In section 2 we review the theoretical literature explaining the existence and characteristics of habitual entrepreneurs (especially portfolio entrepreneurs). In section 3 we develop a theoretical framework to identify the conditions under which habitual entrepreneurs are more likely to end up forming a business group. In section 4 we illustrate the methodology used for collecting and analysing data. In section 5 we analyse the empirical results. In section 6 we draw the main conclusions and the implications for further research.

2. Theoretical approaches to habitual entrepreneurs and business groups formation

One of the problems of existing literature on habitual entrepreneur is that it sometimes lacks a discussion of the theories underpinning research conclusions. This is due to the difficulties in constructing a theoretical framework for habitual entrepreneurs, given the complexity of the phenomenon. In the case of portfolio entrepreneurs the theory should explain three distinct phenomena: a) why some individuals are more likely than others to expand the activities under their control (by engaging in successive start-ups); b) why this is done by setting up new legal units instead of enlarging the existing one; (c) why team approaches business start-up are more common amongst portfolio entrepreneurs. Probably no single theoretical model can explain all aspects of the phenomenon. We must necessarily rely on different models each of which is able to explain or predict a few outcomes in a specified context.

The absence of a consolidated theoretical background to explain the presence of habitual entrepreneurs sometimes makes it difficult to interpret empirical results. Several studies found that portfolio entrepreneurs have more equity partners than novice entrepreneurs when starting a business (Rosa, 1998; Westhead & Wright, 1998; Westhead

et al., Forthcoming). This raises key questions when trying to explain the superior performance of new firms set up by portfolio entrepreneurs (compared with those of novice entrepreneurs): does this superior performance depend on experience and learning by portfolio entrepreneurs or on their ability to involve other people in new ventures thus leveraging on their financial and professional resources? Moreover, if the advantages of portfolio entrepreneurs over novice ones depend on the learning and experience they acquired in previous start-ups why do they rely on other people in subsequent start-ups?

In this section we review the main theoretical background used, explicitly or implicitly, by existing literature on habitual entrepreneurship. The review is organized according to the main theoretical approaches used by researchers in the field: a) human capital accumulation; b) individual specialization; c) finance and agency theories. In the next section we will try and synthesize these approaches in order to develop a tentative framework to explain the existence and characteristics of portfolio entrepreneurs.

Human capital accumulation

The theoretical approach most often used by the literature on habitual entrepreneurs is that of human capital. Human capital is a somewhat loose concept that stands for the practical knowledge, acquired skills and learned abilities of an individual that make him or her potentially productive in some activities. When referred to habitual entrepreneurs, knowledge, skills and abilities are those for the start-up of new firms (recognition and exploitation of businesses opportunities). Strictly speaking the use of the human capital concept is somewhat inappropriate in this context; human capital is normally thought of as the result of explicit 'investments' in education and training (hence the word "capital"). In the case of habitual entrepreneurs such accumulation is the involuntarily result of an activity (the start-up of businesses) that has been carried out for other reasons than the accumulation of knowledge and skills.

The improvement (accumulation) of entrepreneurs' human capital is the result of two distinct mechanisms: a) learning; b) experience.

The learning mechanism is the first advocated by the literature: MacMillan (1986) claimed that habitual entrepreneurs (or "business generators" as he calls them) "...after several attempts recognize their mistakes and correct them in subsequent ventures – they build an 'experience curve' for entrepreneuring" (MacMillan, 1986, p. 242, quotation marks in the text). There are some explicit assumptions in the "learning" hypothesis: a) that a "technology of entrepreneurship" exists so that it can be acquired through "learning by doing"; b) that this technology can be replicated in subsequent start-ups. Almost all the subsequent authors on the subject use the learning argument; some of them accentuate the fact that "entrepreneuring technology" is based on "tacit knowledge" and for this reason it can be acquired only by "doing" and not by any form of education and training (Alsos & Kolvereid, 1998). Besides the question of whether or not a learning curve for "entrepreneuring" exists, some authors have expressed doubts about the fact that the learning process is automatically beneficial in subsequent start-ups. This is because the change in the external conditions surrounding the exploitation of new business opportunities can make the acquired knowledge useless or counterproductive (Starr & Bygrave, 1991; Wright, Robbie, & Ennew, 1997).

A second approach to human capital accumulation is that of "experience". Even setting aside any learning process, the start up and management of a successful venture should allow the entrepreneur to accumulate "personal resources" that would be beneficial for subsequent start-ups. The most important of these resources are personal networks and reputation. The personal network developed in the first start-up is important both for new opportunity discovery and for the start-up phase (Alsos & Kolvereid, 1998; Westhead & Wright, 1998). Reputation depends not only on personal knowledge but also on the track-record of previous start-up(s); this is important for attracting the resources needed to implement new businesses.

There is an important difference between learning and experience: while the learning process on how to start a business is a general one and for this reason should be applicable to any subsequent start-up, experience appears to be more “localized” in terms of sector and geographical span.

Empirical evidence about the businesses subsequently set up by habitual entrepreneurs (especially portfolio entrepreneurs) demonstrates that the new venture are closely associated with the first one (Rosa, 1998; Iacobucci & Rosa, Forthcoming). In most cases subsequent start-ups appear to be a development of the (successful) initial business rather than the beginning of a new entrepreneurial course. This means that the “experience” effect dominates the “learning” effect and that both are highly “localized” and path-dependent.

Specialization in entrepreneurial activity

Some authors have used the argument of individual specialization to justify the presence of habitual entrepreneurs:

“Many individuals may seek solely to continue to manage the organization in its initial post-entrepreneurial phase. In contrast, habitual entrepreneurs may be viewed as those whose comparative advantage in intensive judgemental decision-making is so great that rather than engage in such routine activities, they seek to move on to other entrepreneurial tasks” (Wright et al., 1997, p. 252).

The basic idea of this approach is that individuals differ in their abilities, risk attitude, etc.; for this reason some are more able (and prefer) to do managerial tasks while others prefer entrepreneurial tasks.

Economists have proposed several 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. They differ only in their willingness to bear risks. A weakness of this model (from our point of view) is that it does not distinguish between starting-up a firm and operating (managing) it; both tasks are assumed to be entrepreneurial (i.e. risk bearing) activities.

Holmes and Schmitz (1990) have developed a model that justifies the presence of serial entrepreneurs based on differences in individual abilities to develop business opportunities (start-up). These differences can be the result of innate characteristics or of investment in education and training; moreover they are given and not influenced by start-up activity (learning and experience effects are ruled out from the model). When entrepreneurial abilities are not evenly distributed among the population it pays for some individuals to specialize in developing businesses while others specialize in managing already established businesses. People that specialize in entrepreneurial activity (entrepreneurs) will be involved in numerous start-ups. The model supposes that each individual is endowed with an indivisible time unit each period so that s/he has to choose whether to spend this time managing a previously established business or starting a new one. In the latter case the entrepreneurs must discontinue (close) or sell the previous business (i.e. the model only allows for serial and not portfolio entrepreneurs). The model is highly formalized and for this reason very simple in its assumptions. Beside the plausibility of these assumptions and the empirical significance of its conclusions, the Holmes and Schmitz model provides some interesting insight for the analysis of serial and portfolio entrepreneurs: a) habitual entrepreneurs (in this case serial entrepreneurs) can be justified by the presence of individual differences in entrepreneurial abilities without considering human capital accumulation through the start-up process; b) it introduces the consideration of the most important resource for entrepreneurs: i.e. their time.

Both aspects have been substantially overlooked by entrepreneurship literature, although sometimes referred to in general discussions of the phenomenon. The problem of

time allocation between alternative tasks is specifically important for the analysis of portfolio entrepreneurs; when retaining the ownership and control of previous businesses, they have to decide how to share time between the managing of established businesses and the set-up of new businesses. The non-sharing hypothesis of the Holmes and Schmitz model seems too strong and contradicts empirical evidence. Nonetheless most entrepreneurship literature does not consider this problem, as if the time available to entrepreneurs is unlimited, or as if there are no agency costs in delegating the running of established businesses to hired managers.

Finance and agency costs

There is another strand of theoretical literature that explicitly addresses the question of why and when we are likely to observe portfolio entrepreneurs: i.e. why entrepreneurs develop their activities by setting up (or acquiring) new companies, thus resulting in the formation of a business group. At the basis of such literature, that we label as the “financial approach”, there is a somewhat different concept of entrepreneurship than the one used by models based on human capital and individual abilities. This approach stresses the financial dimension of entrepreneurship by considering entrepreneurs as those (risk bearing) individuals who invest capital in order to accumulate wealth. For this reason, the financial approach emphasizes the aspects pertaining to the functioning of capital markets and the agency costs between subjects who finance the firm (banks and external shareholders) and the entrepreneur who controls it.

The main aim of this literature is to explain the existence of business groups, specifically the pyramidal group, which is the most widespread form of multiple business ownership. The widely accepted explanation for the existence of pyramidal groups is based on the possibility of separating ownership and control. By separating control rights (associated with direct shareholdings of companies) from cash flow rights (depending on the compounded shares across the layers of the pyramid) the group form allows an entrepreneur to control a larger amount of capital than would have been possible with his/her current wealth (Morck & Yeung, 2003). This mechanism is referred to as “equity leverage”. In this interpretation a fundamental role is played by the relationship between the group and the stock market: in fact, the mechanism of “equity leverage” is fully displayed when there is large share of dispersed shareholders in the companies so that the entrepreneur can minimize the share needed to control a company. This mechanism is also beneficial for entrepreneurs as long as they can extract private benefits from control (“tunneling”).

The interpretation of the pyramidal group as a financial device for equity leverage and resource “tunneling” is appropriate only for groups where there are traded firms and when there is a significant divergence between control and cash flow rights. Recent empirical evidence has demonstrated that this situation, although rather common in developed and developing countries, regards only a few of the largest groups in each country. On the contrary, most groups are composed of small and medium sized companies, not listed on the stock exchange and where there is not a significant divergence between control rights and cash flow rights. Moreover, the pyramid is often composed of just one layer.

Starting from this premise Almeida and Wolfenzon (2004) have recently proposed a model to explain the presence of pyramidal groups even when the aim of the controlling entrepreneur is not that of separating ownership and control. Specifically, their model has two aims: a) to explain why business groups exist (why an entrepreneur controls multiple independent firms); b) to explain why groups are preferably organized as pyramids (the entrepreneur uses a controlled firm to set up a new firm instead of owning the latter directly). The model relies on two assumptions: a) the presence of poorly functioning capital markets and b) limited investor protection. In these conditions, established entrepreneurs (when successful) are advantaged in setting up new firms even if novice entrepreneurs would have been more efficient owners. This is because established entrepreneurs can use the cash flow generated by the existing business with limited need to access capital markets. Strictly speaking this explains why established entrepreneurs have an advantage over novice

entrepreneurs in pursuing new business opportunities but not why they do so by creating new companies. Almeida and Wolfenzon justify the setting-up of a new company as the aim of established entrepreneurs to maximize their resources for investment by attracting capital from outside investors. Moreover, the control of the new company allows the established entrepreneur to extract private benefits from it, to the detriment of minority shareholders.

Although the Almeida and Wolfenzon model introduces some novelties in the explanation of business groups, their basic argument rests on the financial advantages of this structure compared with other possible arrangements in the ownership structure of the companies controlled. This is not the only limitation of the model. Even remaining on the financial side the hypothesis of poor investment protection makes it very difficult for entrepreneurs to sell minority shares in new companies, because of the high transaction costs (Jensen & Meckling, 1976). In fact, the minority shares are often owned by other entrepreneurs (members of the entrepreneurial team) directly involved in the control and management of the company.

Contrary to models of human capital and individual specialization, those relying on financial arguments do not consider the problems arising from starting and managing businesses. The only information relevant about the new business is whether it has a positive or negative NPV or the amount of financial resources that the controlling entrepreneurs can divert to the detriment of minority shareholders.

3. Business group formation and entrepreneurial team development

The review of theoretical models of habitual entrepreneurs suggests some basic reasons for the involvement of other people when an established entrepreneur decides to start a new business.

The first is a financial argument. Entrepreneurs set up new companies with the aim of raising external finance. This allows them to enlarge the activities controlled while minimizing the amount of personal capital invested to do so. Moreover, they can take advantage of the benefits of control. For this reason, minority shareholders are not expected to play a significant role in the management of the new companies (they are pure financiers). We know from empirical evidence, however, that this motive applies to only a few of the largest groups, when minority stakes in listed companies are owned by dispersed shareholders. In the case of non-listed companies minority shareholders are commonly involved in the control of the company; otherwise the agency cost of external equity is too high.

The second argument is based on the time allocation problem between the management of established businesses and the start-up of a new one. This problem has been almost completely neglected by existing literature, although it seems to be of crucial importance for portfolio entrepreneurs. The start up of a new business is a time consuming job and one that needs almost complete dedication, especially in the initial phases. The "time allocation" problem has sometimes surfaced in the literature but has not received specific attention.

"Parallel founders are even slower than novice founders in implementing many activities [start-up activities] ... Many parallel founders are delaying initiating several business development activities until the second year. Since their existing business(es) may take up a considerable amount of their time, they may not have sufficient time available to develop their new business" (Alsos & Kolvareid, 1998, p. 110)

The time allocation problem is solved by serial entrepreneurs who sell (or otherwise dispose of) the established business before starting a new one. Portfolio entrepreneurs, however, need to delegate control to managers to operate the established businesses if they are to free up time. Even in this case they cannot dedicate themselves full time to the new business because managers need to be monitored. The easier the possibility to delegate the management of established businesses, the higher the probability that the entrepreneur will retain ownership and control while developing new businesses.

"This low-technology business is a substantial source of income, but it is managerially undemanding: 'well, I had time on my hands' (interview transcript). Since 1983 he [the

interviewed entrepreneur] has embarked on a series of investments into newly founded high-technology companies. In one of these companies, ..., he is now a full-time director ...” (Rosa & Scott, 1999, p. 536).

Empirical evidence on portfolio entrepreneurs demonstrates that the time allocation problem can be overcome not only by delegating the management of established business to hired managers but also by involving other entrepreneurs in the start-up of the new venture; i.e. by enlarging the entrepreneurial team. The entrepreneurial team can be formed by members of the same family or by people successively involved by the entrepreneur in the new businesses. Case studies of portfolio entrepreneurs demonstrate that in general it is possible to identify a “dominant” entrepreneur while the other members of the team play an ancillary or instrumental role (Rosa, 1998). In a recent work based on direct interviews to a sample of portfolio entrepreneurs we identified three patterns of team development in business groups (not necessarily alternative): the formation of joint ventures with established entrepreneurs; the leveraging on employees’ entrepreneurial attitudes to enhance the success and growth possibility of the new ventures; the accommodation of entrepreneurial projects proposed by intrapreneurs (Iacobucci & Rosa, 2004). The second motive was the dominant one. This confirms that the enlargement of the entrepreneurial team is mainly aimed at removing the limits in the time available for the entrepreneur to pursue new business opportunities. The time allocation problem cannot *per se* explain why habitual entrepreneurs are more likely to involve other people in new venture start-up. This is because the enlargement of the entrepreneurial team has also been observed in serial entrepreneurs who, by definition, do not face this problem.

It is possible that human capital accumulation by habitual entrepreneurs also plays a role in entrepreneurial team development. Established entrepreneurs have had the time to get to know and develop trust relationships with other people who it is worthwhile involving in the new venture (this aspect is evident from the case studies as most of them are former employees of the entrepreneur). We can expect the involvement of other shareholders in the companies successively set up by the entrepreneur to be positively associated with the size of the companies already controlled by the entrepreneur and with the difficulty in delegating the management of them. When the financial motive is not prevalent, we can expect the stake in the new venture to be significant but lower than when the financial motive is prevalent.

Another reason why a portfolio entrepreneur involves other entrepreneurs when starting new ventures is to acquire specific competences needed for the new business. We can expect this reason to become relevant when the new business is different from the established one. For this reason we can expect the presence of external shareholders in the new companies to be more likely when the new venture is a diversification move from established business(es).

4. Data and methodology

To investigate issues of human capital and external recruitment of expertise is a complex, and no single data base can provide all the answers. The ideal approach is to select a large random sample of relatively newly formed and established business groups, to gather in depth quantitative and qualitative data on the nature of the firms and the entrepreneurs that run them; their motivations, strategies and competencies; and finally to follow them up longitudinally for many years.

In the absence of resources to undertake such a longitudinal study, we have concentrated on the first half of this agenda. Fieldwork by Iacobucci has focused on the preparation for analysis of large scale data sets of business groups, supplemented by in depth qualitative interviews of portfolio entrepreneurs selected from the large data sets. As the qualitative data are not yet fully analysed, this paper concentrates exclusively on the statistical analysis of the business group data set. This data-set of business groups in the Italian economy has been recently developed by ISTAT (the Italian statistics agency). It

contains information on more than 30,000 business groups and more than 100,000 firms belonging to them. Data refer to 2001. It is one of the largest data sets available on business groups and the first ever built on business groups for the population of Italian companies. Specifically, it contains data on all limited companies belonging to a group. As already mentioned, a business group is a set of companies legally distinct but belonging to the same owner(s). From the empirical point of view groups have been identified through ownership linkages between individuals and legal units and between legal units. An individual or a legal unit is said to control a company when: i) the individual or the legal unit directly owns at least 50% plus one of the voting rights in the company (direct control); ii) an individual or a legal unit owns, by means of other companies, at least 50% plus one of the voting rights in another legal unit (indirect control).

The original dataset is composed of 115,455 legal units forming 36,383 groups. Not all these groups are useful for our analysis. As we are specifically interested in entrepreneurial groups - i.e. groups owned and controlled by the same entrepreneur or by a family - we selected a sub sample of groups according to the following criteria:

- the group is composed of at least two productive companies (this excludes groups composed of one production company and one financial company)
- the group does not exceed 500 employees overall;
- the group is not controlled by a foreign company.

Because a group is formed by at least two firms, the limit of 500 employees guarantees that the average number of employees per firm is no more than 250. Given the overwhelming presence of family firms in the Italian economy this threshold is sufficiently tight to ensure that all the groups considered are owned and controlled by one or a few entrepreneurs (and their families' members). By eliminating large groups and foreign controlled groups we end up with 24,202 groups controlling 69,506 legal entities. Of these legal entities, 91.3% are production companies and the rest are financial or foreign controlled companies. The following analysis is based on the characteristics of production companies.

5. Data analysis

More than 80% of business groups have no more than 3 companies; the majority being composed of just two companies (Table 1). In fact, the average number of companies per group is slightly less than 3 and the median value is 2. This result is explained by considering that groups are the result of firms' growth and that in a cross-section there is a prevalence of groups in their embryonic stages (as happens in the case of the size distribution of firms). Two other features of groups are interesting in order to analyse the general characteristics of this phenomenon: the degree of concentration of activities within the companies and the degree of diversification of their activities.

To measure the degree of concentration we used a simple index based on the ratio between the largest company in the group and the overall employees (taking into consideration only the production companies). We used employees instead of sales because they are more reliable in capturing the actual distribution of activities between the companies of the group. As expected in the case of small groups, the level of concentration is rather high (Table 2). It is also reasonable to expect a negative relationship between the degree of concentration of activities and the number of companies in the group. This hypothesis is confirmed. The Pearson coefficient of correlation between the degree of concentration and the number of production companies in the group is -0.34 (significant at the 1% level). It could also be reasonable to expect a negative relationship between the degree of concentration and the size of the group. Surprisingly this expectation is not confirmed by data. The Pearson coefficient of correlation is positive and significant at 1% level, although its value is not very high (0.09). This result is rather intriguing as it can be compatible with different hypotheses about the dynamics of business groups. Moreover, it suggests the existence of complex patterns of development rather than a simple linear growth through the successive

adding of new companies. We suggest here some possible explanations. We can hypothesize that when an entrepreneur is very successful in one business s/he lacks the stimulus and time to concentrate on the development of other businesses. For this reason, the higher the rate of growth of established business(es) the lower the rate of set-up or acquisition of new companies. Another hypothesis can be the existence of a development pattern with phases of expansion and contraction of companies (Iacobucci & Rosa, 2004). During the expansion phase new firms are set up to foster growth but at later stages rationalization prevails and some of the companies are merged.

The ISTAT data set makes it possible to analyse the presence of external (to the controlling entrepreneur or family) shareholdings in the companies of the group. According to the definition of control adopted in the construction of the dataset, external shareholdings range from 0 to 50%. External shareholdings refer to controlled companies and not to the companies at the top of groups. Of the former companies, about 20% are fully controlled by entrepreneurs and another 20% have stakes of external shareholders under 10% (Table 2). A small external ownership is instrumental for justifying the limited liability accorded to joint-stock companies. For this reason, we considered external shareholdings under 10% as instrumental and these companies as fully owned by the entrepreneur (or the family).

According to the time allocation problem we can expect the presence of external shareholders to be positively related to the overall size of the group, given the difficulty in sharing time between the management of existing activities and the development of new companies. The financial approach would make the opposite prediction as larger groups have more internal funds available to finance new companies. According to the financial explanation we can also expect a positive relationship between the presence of external shareholders and the size of the single company. Moreover, the financial explanation would also predict that the presence of external shareholders is higher for companies in scale intensive sectors, because of the higher capital to employee ratio in these sectors. The human capital explanation would predict a higher presence of external shareholders in companies that diversify from the core business of the group. This is because the accumulation of human capital is closely associated with the sector of activity; in this case the reason for the presence of external shareholders is not to raise finance but to acquire expertise in new fields. For the same reason we can expect the presence of external shareholders to be higher in companies belonging to high-tech sectors.

We have also taken into account whether companies are at different levels in pyramidal groups (i.e. when there are companies owned by other companies). This is done by a dummy variable that takes value 1 in case the company is directly controlled by portfolio entrepreneurs (or family) and 0 in case they are controlled by means of other companies.

We tested two models. The first is a logit model of the presence or not of external shareholders. The second is a tobit model that considers as an independent variable the share of external shareholders (ranging from 0 to 50%). Because these models are tested on cross-section data they are not intended for capturing casual relationships but correlations between variables. The results obtained by estimating the two models are very similar and are presented in Table 3.

The signs of the size coefficients (both of company and group) are as expected. Nevertheless the negative sign of the squared variables suggests that the relationship is not linear. In the case of the size of the groups this can be explained by the larger availability of internal funds. In the case of the size of the company the explanation is not straightforward; one of the reasons could be that the initial share of external entrepreneurs is progressively reduced with the growth of the company. The financial explanation is also supported by the fact that companies at lower levels of the groups (i.e. companies owned through other companies) have a lower presence of external shareholders. Company diversification has the expected sign but is not highly significant. Besides theoretical explanations this is probably due to the difficulty in capturing the degree of diversification by using classification codes. We discussed this issue in a previous paper (Iacobucci & Rosa, Forthcoming).

We have also tried to capture sectoral effects by using the Pavitt classification to identify scale-intensive and high-tech (science based) sectors. In none of the models tested did the

sectoral variables present significant coefficients. We omitted these variables in the models presented in Table 3 because the Pavitt classification refers only to manufacturing activities. Both models presented in Table 3 show very little explanation power. Although the aim of this analysis was to investigate the correlations between the variables considered, the low level of pseudo r-squared signals the omission of important explanatory variables.

Being a first analysis of the presence of external shareholders in companies controlled by portfolio entrepreneurs, the results are encouraging but also challenging, especially for the empirical test of theoretical propositions. There are two main limitations that need to be addressed. The first is the lack of information about the characteristics of companies in order to control for other variables influencing the share of external shareholders: the age of the company, whether it has been set up or acquired, etc. The second limitation is that the cross-section does not allow us to take into account dynamic processes. On a theoretical side we know that dynamic processes proved to be important for understanding entrepreneurial team development in business groups (Iacobucci & Rosa, 2004). On the empirical side, the availability of longitudinal data is necessary to assess casual relationships between variables. Qualitative case studies of entrepreneurial group founders are also being conducted. These will shed light on the dynamism and nature of team development once the fieldwork is completed.

6. Conclusions

Empirical investigations about habitual entrepreneurs have demonstrated that serial and portfolio entrepreneurs are more likely than novice entrepreneurs to involve other individuals in the start-up of new businesses. This result is not easily understood within the human capital approach that is usually adopted for explaining the phenomenon of habitual entrepreneurs. Indeed it is not clear, with this approach, why more “experienced” entrepreneurs should be more likely to involve other individuals when starting or acquiring new businesses.

We review other theoretical approaches to the phenomenon of habitual entrepreneurs that can help to explain this phenomenon: the individual specialization approach and the financial approach. The individual specialization approach underlines the importance of the “time allocation” problem between management and entrepreneurial activities. This is especially important for portfolio entrepreneurs who, by definition, retain the ownership of previously established companies while setting up or acquiring new ones. One of the ways to overcome this problem is to involve other people in the start-up of new ventures. This motive was emerged in previous qualitative studies of portfolio entrepreneurs. The financial approach is used by several economic models to justify the presence of business groups. Indeed, within these models the set-up of independent legal units by an entrepreneur (or a family) is justified by the possibility to raise external equity (and minimize entrepreneur’s investment) while retaining the control of the new activities. Moreover the financial approach justifies the presence of pyramidal groups with the possibility of the entrepreneur to use the cash flow generated by established businesses.

This paper also makes a first attempt to assess the empirical relevance of the different theoretical approaches by taking advantage of a large dataset covering the population of business groups in the Italian economy. From this data set we isolated the groups with less than 500 employees in order to study entrepreneurial groups. Excluding the companies that are at the vertex of the group, data on external shareholders are available for about 45923 companies belonging to 24,202 groups. We concentrated our attention on the following variables: the size of the group, the size of the company and its position within the group (owned directly by the entrepreneur or through another company), the degree of diversification from the core business of the group, the sector of activity. The first variable is intended to capture the “time allocation” effect; the second and the third variables should capture the financial explanation; the remaining variables are associated with the nature of the human capital accumulation by entrepreneurs.

We tested two models: one for the probability of external shareholders and one that takes into account their share in the company. The models gave the same results. The relationships between these variables and the independent variable show the expected sign in the case of the size of the group, the size of the company and its position within the group. The expected sign is present but with a lower statistical significance in the case of diversification. It is never statistically significant in the case of the sector of activities. Moreover the models tested leave almost all the variability of the independent variable unexplained.

Overall these empirical results are encouraging but not conclusive. Several developments are needed, especially on the empirical side. On the one hand a better specification of the estimation model is needed in order to capture other variables influencing the phenomenon (like the age of companies) and to take into account context variables. On the other hand some of the explanations (like those based on the "time allocation" problem) are better analysed in a dynamic context. This requires the availability of large datasets describing the evolution of business groups as a result of the setting up, acquisition, closing and merging of companies by entrepreneurs.

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Table 1 – Business groups by number of companies and class of employees

	1-9	10-19	20-49	50-99	100-249	250-499	Total	%
2	5494	3090	3533	1452	855	205	14629	60.4
3	1621	1128	1347	801	568	173	5638	23.3
4-5	304	373	688	566	549	215	2695	11.1
6-9	41	68	159	213	280	153	914	3.8
10-99		4	41	50	115	116	326	1.3
	7460	4663	5768	3082	2367	862	24202	100.0

Table 2 – Descriptive statistics about business groups

Statistics	Degree of Concentration (24202 groups)	Share of external Shareholders (45923 companies)
Average	71.86	19.04
Mode	50	0.00
Min	11	0.00
Max	100	50.00
Percentiles	25	57.00
(Median)	50	74.00
	75	88.00

Table 3 – Logit and tobit estimates for the presence of external shareholders (p values in brackets)

Dependent variable	ext	q_ext
Independent variable	Logit	Tobit
Empgro	.112 (.001)	1.702 (.000)
Empgro ²	-.034 (.000)	-.424 (.000)
Empcom	.236 (.000)	2.424 (.000)
Emcom ²	-.042 (.000)	-.424 (.000)
Diver	.033 (.140)	.418 (.064)
Liv	.340 (.000)	3.847 (.000)
Number of observations	45923	45923
Log-likelihood value	-30327.34	-174350.32
Pseudo R-squared	0.013	0.002
		8344 left censored observation (0) 37484 uncensored observation 95 right-censored observation