ENTREPRENEURSHIP STRATEGIES IN FAMILY AND NON-FAMILY BUSINESSES

Nelson Duarte - ESTGF/IPP/CETRAD/CIICESI  
nduarte@estgf.ipp.pt

Francisco Diniz - DESG/UTAD/CETRAD  
fdiniz@utad.pt

ABSTRACT

The goal of the present paper is to analyse the classic entrepreneurship strategies (Innovation, Risk and Proactivity) in small and medium-sized businesses. However as presented in the title, the study will go further by comparing the results of those strategies in familiar and non-familiar businesses. This study was carried on in construction and industry sectors, in the region of Vale do Sousa, in the north of Portugal. In order to classify businesses as familiar or non-familiar types two criterion were adopted: (1) Management Control, (2) Family Employability. On the opposite to some studies that present a larger percentage of familiar businesses in national and European entrepreneurial fabric, the criterion used leaded to a larger number of non-familiar businesses (53%). The results showed that in general SMEs in this region are not following entrepreneurship strategies. Analysing the entire sample without a separation of businesses by nature (familiar/non-familiar) only proactivity showed to be more present in the managerial decisions. There is a lack of innovation and risk culture. Comparing the groups only on proactivity tests was possible to verify some differences. It was concluded that non-familiar businesses are more proactive than familiar ones. Between those groups there are no statistical differences on the means of the variables innovation and risk. At the same time some tests were conducted to test the differences on the variable entrepreneurship. The results were similar to innovation and risk strategies: There are no significant differences on entrepreneurship between these groups of businesses.

Key-words: Family firms, SMEs, Entrepreneurship (Innovation, Risk, Proactivity)
1. Introduction

In the present paper we will analyse and compare strategies on innovation, risk, and proactivity (entrepreneurship) between family and non-family businesses. It is common to find in the literature some arguments in favour of a better performance for family businesses [(Martinez, Stöhr, & Quiroga, 2007); (Anderson & Reeb, 2005); (Miller, Breton-Miller, Lester, & Canella (Jr), 2007); Some others present family firms as more innovative (Simon H., 2009); or with a higher propensity to entrepreneurship (Zahra, Hayton, & Salvato, 2004), or even more resilient than their counterparts (Chrisman, Chua, & Steier, 2011). There are studies [(La Porta, Lopez-de Silanes, Shleifer, & Vishny, 1997); (Morris, 1998); (Mork, Shleifer, & Vishny, 1988); (Shleifer & Vishny, 1997)] that present family businesses as not so effective. However, more recently, due to the increasing arguments in favour of family businesses they present a research interest in the academic field. Our goal in this paper is to find differences on management strategies (entrepreneurship) between family and non-family businesses. For that, it is necessary, in first place, to define a family business.

According to Mandl (2008) in a study about family businesses in 33 countries, there is not a single definition of family businesses. What exists is exactly the opposite, a wide heterogeneity of definitions, even existing in many countries more than one research-based definition of family businesses. “A very important aspect differentiating family businesses from non-family businesses refers to the element of "familiness" or the family culture, i.e., the (social) interrelationship between family and enterprise in economic, management and sociological frameworks. However, this aspect is very intangible and "soft". Consequently, although this element is very important for defining family businesses and contrasting them to non-family businesses it is hardly ever found in the prevalent definitions of family businesses” (Mandl, 2008), pp. 13.

But the differences do not exist just at the definition level. Considering the models suggested about family businesses there are some similarities and differences. One of the most quoted models is the Three Circle Model of Family Businesses, presented by (Gersick, Davis, Hampton, & Lansberg, 1997).

According to the model presented in Figure 1 a person who presents only one connection to the firm will be in one of the outside sectors (1, 2, or 3). An individual that presents two connections will be in one of the overlapping sectors (4, 5, or 6). In sector 7 are located those individuals that gather the three characteristics: is owner, working in the firm and belongs to the family. According to this model,
each individual (figure) present different interests in the firm. That may lead to, or help to identify some conflicts, different objectives or roles.

Another model, presented by (Neubauer, 2003) adds the concept of management to Gersick (et al., 1997) model. However the author argues that the characteristics of businesses and families show the heterogeneity existent in this type of firms. For instance, history and culture are different from firm to firm.

![Figure 2. Family Businesses and their components](source: (Neubauer, 2003))

Klein (2010) suggests a model where are present four main components: Family, Ownership, Leadership and Business. With this model, the author presents two ways of reaching a business starting from family, and two other possibilities that show the opposite path: a business that can go to a family.

Taking into consideration the different definitions and models about family business it is possible to identify many concepts. However there are a few always present: Ownership, Management, and Employment (of family members). Those are also the main concepts that can be found in the Portuguese definition of family businesses:

- Ownership and Management Control (Mandl, 2008) – (referring to the Portuguese definition of family businesses);
- Management Control and Employment of Family Members (AEF, 2010);

Bearing in mind the characteristics that distinguishes a family from a non-family business, but at the same time that family businesses in and of themselves are not homogeneous (Kellermanns, Eddleston, Sarathy, & Murphy, 2012) we will compare the entrepreneurship strategies, next discussed, between those two types of businesses.

The concept of entrepreneurship is undoubtedly important not only on the academic field, but also for policy makers. However there still exist many questions and doubts about the best way to make it happens in practice. It is widely accepted that small businesses play a major role both on entrepreneurial actions and sustainability. However these businesses face some problems such as financial issues (Green, Kirkpatrick, & Murinde, 2006); Outsourcing analysis (Baxendale, 2004); or different and less professional management styles (Bruce, Vazquez, & Cooper, 1999).
Innovation can also be a problem for small firms. Nina, Brinckmann, & Bausch (2011) argue that small businesses, normally with some resource paucity do not take all the benefits from innovation. The relation between innovation and performance depends on factors such as firm age, type of innovation, or even the cultural context. That means that investing in innovation may not bring the expected results, wasting like that some scarce resources. Like innovation, risk propensity may also present some problems. According to Johnson (2011) firms that are risk averse, tend to build stronger relations in their markets. When, under pressure they are able to keep focused in their abilities and knowledge. On the other hand, a risk prone firm may lose market share (or a market) in turbulent times. However, as argued by Moshe & Sivakumar (2009) risk assumes an important role in any business and its management is essential for business management.

Normally in a small business the management is focused in one individual: the owner and/or manager. This manager is the one who decides about innovation and risk strategies in a firm. According to Man, Lau, & Chan (2001) entrepreneurs must present seven types of competences (entrepreneurial, opportunity, relationship, conceptual, organizational, strategic, and commitment). These competences together with firm competitive potential and its organisational capacities influence firm performance. Other authors [(Green et al., 2006); (Arend, 2006); (Perks, 2006); (Acquaah, 2007); (Kim, Knotts, & Jones, 2008); (Brien & Smallman, 2011)] present the manager and its role as a main factor in firms performance. Carland, Hoy, Boulton, & Carland (1984) presented two kinds of managers: (1) Entrepreneurs; (2) Small firms owners. The former has as concern new resources combinations – innovation towards profits and growth applying for that strategic management tools. On the other hand, the firm owner manages his business in a personal way aiming personal goals and a familiar income. These different types of managers are in accordance with the reasons that may lead to entrepreneurship [according to (GEM, 2011)]: Opportunity identification or necessity (familiar income).

In order to consider the manager as an entrepreneur he/she must adopt strategies to promote entrepreneurship. This concept might be analysed from both an external [(Knight, 1921); (Newman, 2007); (Stearns & Hills, 1996); (Scott, Fadahunsi, & Kodithuwakku, 1997); (Bruyat & Julien, 2000); (Thornberry, 2001); (Schumpeter, 1934) or internal perspective [(Hamel & Prahalad, 1997); (Kyro, 2000); (Alpkan, 2010)]. In this paper we intend to study the difference between family and non-family businesses in the internal perspective of entrepreneurship that many authors [for instance (Alpkan, 2010); (Balasundaram, 2009); (Bosma, Wennekers, & Stam, 2010)] after (Pinchot, 1985) defined as Intrapreneurship.

The degree of intrapreneurship may be measured using three factors (1) Innovation, (2) Risk, and (3) Proactivity (Miller, 1983). A firm cannot be innovative or take risks by law. Entrepreneurship depends on factors such as planning, strategy, organizational culture and group relations that may, or may not contribute for competitive advantages. These behaviours must be identified in the organizational culture and in the firm daily actions. When a firm presents a culture of innovation, risk and proactivity that might be due to a well-defined mission and strategy. But is a well-defined mission enough? What about the relations among the employees? How good is the communication from management to employees and vice versa? Is it possible to have different results if familiar relations are identified?

In order to be competitive a firm must develop its innovative capacities [(Dollinger, 2003); (Acquaah, 2007); (Kim et al., 2008); (Talke, 2010); (Pellicer, 2010); (Erbil, 2010)] since innovation is fundamental for value creation (Voudouris, Lioukas, Makridakis, & Spanos, 2000). Still on what concerns innovation (Isidoro & Roman, 2012) present a work where concluded that innovation key aspects in small
businesses occurs in education levels since it influences the management style. Also the past experience may influence positively the degree of innovation. Considering innovation as result of education and past experience, can we assume that family firms may have some more innovation propensity? In most cases the second generation improves its educational level and after that they are returning to the family business, are they more innovative? Besides education some of them grew with the business, so they have some experience on that.

Some studies present innovation as mandatory for family firms (Zahra S. A., 2005); (Naldi, Nordqvist, Sjoeberg, & Wiklund, 2007). But at the same time there are conflicting objectives: firms must be more efficient and present better performances, but they need to assure at least, family employment (Gómez-Mejia, Hynes, Nunez-Nickel, & Moyano-Fuentes, 2007).

On the other hand, some studies present reasons for a lack of innovation in family businesses: Capital constraints (Carney, 2005); Emotional attachments to their firm’s original strategies (Kellermanns et al., 2012); Management on the responsibility of just one family member (Eddleston & Kellermanns, 2007); Institutionalization of “best practices” over innovation (Mitchel, Hart, Valcea, & Townsend, 2009).

Through these examples is not difficult to realize how different results we can find in the literature about these businesses. But up now the differences are only related to innovation strategies. At the beginning of the 20th century two new concepts joined the concept of entrepreneurship: Risk and Uncertainty (Knight, 1921). Knight presents the risk calculation probability as the major difference to the uncertainty concept. He also argues that uncertainty deals with non-predictable factors. The risk concept is frequently associated to the concepts of entre and intrapreneurship [(Wennekers & Thurik, 1999); (Newman, 2007); (Dollinger, 2003); (Ahn, 2010)]. According to Nistor, Muntean, & Nistor (2010) any economic activity is based in a number of unknown factors or opportunities simply because the expected result will occur in the future. That means that risk is always present in strategic management.

On what concerns risk on family businesses, as it happens with innovation, there are no consensus about it. Some studies present family firms as reluctant to take risks [(Cabrera-Suarez, Saa-Perez, & Almeida, 2001); (La Porta et al., 1997); (Morris, 1998); (Allio, 2004); (Cooper, Upton, & Seaman, 2005); (Gómez-Mejia et al., 2007)] while some others did find different results [(Zahra S. A., 2005); (Naldi et al., 2007); (Memili, Eddleston, Kellermanns, Zellweger, & Barnet, 2010)].

But risk is essential to get or increase market share (Garrett, Covin, & P., 2009) and risk culture in strategic management is an open door to the concept of proactivity. Like innovation risk, is associated to higher levels of education, and occurs in younger firms (Simon & Praag, 2012). It is also important to notice, that the levels of risk and proactivity influence the number and the type of innovations in a firm (Luño, Wiklund, & Cabrera, 2011).

According to the GEM (2011) risk has a relation with opportunity. At the same time we can say, that opportunities search and exploration is an evidence of proactivity. “Being proactive is about making things happen, anticipating and preventing problems, and seizing opportunities. It involves self-initiated efforts to bring about change in the work environment and/or oneself to achieve a different future” (Parker, 2010). Alvaréz & Merino (2010) present proactivity as initiative measures, in order to better fit in a competitive environment targeting competitive advantages, surpassing like that the competition. According to Lumpkin & Dess (1996) proactivity is a “process aimed at anticipating and acting on future needs in order to capitalize on emerging opportunities and establish a first-mover
advantage in the marketplace ... Such processes may include monitoring trends, identifying the future needs of customers, anticipating changes in demand, recognizing emerging problems as well as acting upon anticipated changes before competitors”. Somehow we can say that proactivity is a concept closer to innovation, and the issues rose on innovation in family businesses still valid for proactivity.

The broader concept of entrepreneurship is also identified as a process that includes a sequence of opportunities, events and behaviours (Bratnicki, 2005). According to Lumpkin & Dess (2001) those events or behaviours must be proactive towards market changes. Those proactive behaviours are also important because they present a positive relation to firm performance.

“...An entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with ‘proactive’ innovations, beating competitors to the punch” (Miller, 1983).

In general there are a significant number of studies (some of them already mentioned) that argue in favour of familiar businesses while some others point in the opposite direction. It is possible to find disagreement in most of the referred concepts: Innovation, Risk, Performance, Sustainability, or Entrepreneurship. Whether some authors present familiar businesses as something worth to invest, some others argue in favour of the inexistence of family relations in a firm. In this paper we will try to find out whether familiar businesses are more innovative, risk taking, or proactive in the region of Vale do Sousa, in the specific sectors of manufacturing and construction businesses.

2. The Region

The region where this study was conducted is composed of 6 concelhos¹ (Castelo de Paiva, Felgueiras, Lousada, Paços de Ferreira, Paredes, Penafiel) which together form the Vale do Sousa Urban Community. This region is located in the North of Portugal, and for statistical purposes it is a region within NUT III – Tâmega.

According to the last census the population in this region in 2010 is 339,616 inhabitants. That means a population variation of 13% between 1991 and 2001, but only 3.6% between 2001 and 2010 (INE. I.P., 2011).

In the past the main economic activity of this region was in the primary sector, as indeed in most of the country. Other activities such as manufacturing or services have been assuming a more relevant role. Nowadays the main activities in this region are: shoe making, textiles, manufacture of furniture and construction. In four of these concelhos it is even possible to identify, some industrial districts [51], [52]: Felgueiras: Shoe production; Lousada: Textiles; Paços de Ferreira and Paredes: Manufacture of furniture. The existence of a specialization by concelho can be a threat to entrepreneurship. As referred in a OECD report (OECD, 2003) a strong concentration may be an inhibitor factor for entrepreneurship, and consequently to the strategies that lead to a better level of entrepreneurship. Even though being possible to find many activities in each concelho, in some of them there is a significant dependence of a major activity.

In order to describe the entrepreneurial fabric, it was necessary to collect information from different institutions, since the available information varies from source to source. According to data from the Statistics National Institute, this region had 34,049 firms registered in 2005. However, information from CofaceMOPE reveals the existence of 11,973 firms and, according to the Labor Ministry, the number of

¹ Concelho: Portuguese administrative unit divided into smaller units called freguesias.
firms is 10,231. After contacts with local entities, it became clear there is no accurate information about the exact number of firms, which led us to believe that the number of firms was probably close to 12,000.

According to the data provided by the above mentioned institutions, this distribution (in relative values) is similar, pointing to retailing, manufacturing and construction being the main activities, representing 75% of the firms in the region.

Nevertheless, it is not easy to analyse the firms’ management strategies and their entrepreneurial and innovative actions using a single approach to all of them, since they belong to different sectors. The degree and type of entrepreneurship differs from a clothing store to a technology software industry (Schwartz, Birch, & Teach, 2007) (even as regards the strategies adopted). In order to find more significant results, it was decided to limit this study to industrial (manufacturing and mining and quarrying firms) and construction businesses. This choice can be justified by the number of firms these activities engage, almost 50% of the total number of firms, and 75% of total employment. According to the data provided by the three institutions, the number of firms engaged in the industrial and construction sectors are around 5,000 (this figure will be used as the total population for the purposes of this study).

Still according to Coface/MOPE, firm size in this region does not follow the usual distribution pattern, with micro firms being by far the commonest type of firm. In this region, 62% of the firms are micro firms (in the whole of Portugal this figure is around 80 percent), whereas small firms represent 35%. Together they account for 97% of the firms, which is well within the class distribution found for Portugal. The remaining 3% are classified as medium-sized firms (large firms were not considered). However, in view of the data provided by the Labor Ministry, micro firms reach 79% and 85% of the total number of firms, depending on whether they have less than ten employees or a turnover up to 2 million Euros, respectively.

3. The Questionnaire

In order to get the necessary results to proceed with this study and considering the alternative options and some experience from past studies, the questionnaire seemed to be the best solution. Based on the literature review theories and a number of ideas and suggestions, a summary table was built to support the questions.

Since questioning the whole of the population (5,000 firms) was out of the question, the study was focused on a valid sample. In order to find the minimum sample size we adopted the methodology suggested by Saunders, Lewis, & Thornhill (2003) where we need to define:

- Confidence level;
- Error margin;
- Proportion of answers obtained in a particular section.

Following the authors’ suggestion was developed a pilot study with 30 observations in order to analyse the proportion of answers that occur relatively to the degree of entrepreneurship. From this initial sample it is possible to do some inferences to the final sample, using the following formula:

\[
(1) \quad n = p\% \times q\% \times \left[\frac{z}{e}\right]^2
\]
where: $n$: minimum sample size required;
$p\%$: proportion belonging to the specified category;
$q\%$: proportion not belonging to the specified category;
$z$: $z$ value corresponding to the level of confidence required;
$e$: margin of error required;

According to Saunders, since the population is less than 10,000 a smaller sample can be used without affecting the accuracy.

The adjusted formula is:

\[(2) \quad n' = \frac{n}{1 + \left(\frac{n}{N}\right)}\]

where: $n'$: adjusted minimum sample size;
$n$: the minimum sample size (as calculated above);
$N$: total population;

According to the pilot study composed by 33 observations, it was possible to find a proportion of 80% - 20% that leads to the following calculations;

\[
n = 20\% \times 80\% \times \left[\frac{1.96}{5\%}\right]^2 = 245.86
\]

\[
n' = \frac{246}{1 + \left(\frac{246}{5500}\right)} = 235.47
\]

It is possible to conclude that for a 95% confidence interval we will need 236 observations, in order to guarantee a valid sample. The questionnaire presented to firms included a large number of questions so as to allow the evaluation of different aspects of the firms’ management. For the purpose of this paper, the questions regarded only the effect of the above mentioned factors on the firms’ strategies. The type of questions asked followed a Likert-type scale (1 to 5), or a Yes or No pattern. The total sample cumprisse 251 firms.

4. Empirical survey and results’ discussion

In order to classify the firm into familiar or non-familiar we followed two main criterions:

- Management Control: those firms with a largest number of managers not belonging to the family were classified as non-familiar firms. The results leaded to 11% of non-familiar firms, which means that the management is largely in the hands of the family members.
- Family Employment: In order to classify a firm as familiar type, at least one of the employees must be a member of the family. The results showed that there are 43% of firms that do not employ any family member.

In a few cases the classification in familiar and non-familiar was different according to the 1st or 2nd criterion. In those cases, since one criterion was respected the firm was classified as familiar firm. The final results allowed to classify 46,6% as familiar firms, and 53,4% as non-familiar. These figures are not in accordance with some studies that present 60 – 80% (or even more) of family firms [(Mandl, 2008); (Kellermann et al., 2012); (FFI, 2012)]. This difference might be due to the nature of the businesses present in this paper: Construction, Manufacturing and Mining and Quarrying. It is acceptable, that those are not businesses where it is not easy to hire family members if they do not have qualifications or willingness to work in these specific businesses.
As it was already mentioned in the beginning of this paper, the degree of entrepreneurship (or intrapreneurship) takes into consideration three factors: innovation, risk and proactivity. The general results of each strategy are presented in the next sections. The results are presented considering both familiar and non-familiar businesses, so that we can get a global picture of the region. After those results we will compare them between the two groups.

4.1. Innovation Strategies

In order to measure innovation, the questionnaire included a table with 14 strategies that could score 20 points, since some strategies were classified with different levels of importance, using different levels of weighting for that purpose. Interviewees were asked to mark the strategies that the firm had been following in the latest years (with the possibility of marking one or more strategies).

The results were somehow expected, for a sample study had been taken and the results suggested that most of the firms would present a very low level of innovative strategies. In the same previous study, only 23% of the firms reached a global result equal to or higher than 10 points. Global results are presented in the next figure:

![Figure 3. Innovation strategies classification](image)

According to Figure 3, it is clear that only 13% of firms present an innovative strategy (innovative or innovative (+)). A similar result was obtained in the firms with a moderate approach (12%). However, it is important to mention that moderate approach to innovation is a negative result (under 10 points in a score of 20 possible).

Most firms (75%) can be said to be averse to innovation (averse to innovation and averse to innovation (-)). When one considers the 75% of innovation averse firms together with the 12% moderate (also a negative result) one realizes that 87% of the firms cannot be considered innovative and that this is an aspect which does not play an important role in these firms’ management.

It seems important to notice that firms elected investment in new equipment as their main strategy (19%), followed by reorganization of productive processes (14%) and selling outside firms’ usual markets (14%). The first two strategies are often related, since the acquisition of new equipment implies the reorganization of the productive process. Unfortunately in the course of this study it was not possible to verify the reasons underlying the purchase of new equipment. We can only assume that it has to do with innovative purposes or necessity. In what regards the strategy of selling on different markets, this may be viewed as a way of improving firm sales, thus avoiding a direct competition war.

It can therefore be concluded that firms do not present very important innovations. The most frequent strategies adopted are the ones necessary to ensure firm sustainability. Nowadays technology is
everywhere, and if a firm does not follow technological evolution, not only the machinery but the firm itself may become obsolete. It is possible, therefore, to conclude that firms only innovate when they are forced to.

This brief analysis about innovation procedures allows us to conclude that in this region, but for a few firms, which use a significant number of innovation strategies, the majority present a low level of innovative management. This result does not match the conclusions of an OECD report (OECD, 2002) which classified Portuguese small industrial firms as innovative.

4.2. Risk Strategies

In order to do the risk analysis, the same methodology as for innovation analysis was followed. This time risk strategies could score a maximum of 10 points. The risk categories are presented in Figure 4:

![Figure 4. Risk strategies classification](image)

The results of the risk analysis are similar to those obtained for innovation. Accordingly, 67% of the firms present a very high level of risk aversion, which means that in recent years they have adopted a maximum of 2 risk strategies. There are still 28% of firms that have adopted a maximum of 4 risk strategies and that can be classified as risk averse; consequently, 95% of firms in this region present a risk aversion management. As regards risk takers and moderates, the result obtained was 5%.

The most frequent risk strategies are investments in quality (31.%) and satisfaction of new customers’ needs (26.4%). It is important to emphasise that both strategies are almost risk free, given that in order to survive firms must invest in quality and keep their customers satisfied. At the same time, a financing strategy through means other than the firms’ own capital, bank credit, or subsidies was chosen by 13.8% of the respondents, which proves the existence of an informal financing practice. It may also be questioned whether support programs (namely European supports) have been designed to meet firm’s needs. These results do not differ from innovation analysis, because firms neither innovate nor risk takers.

4.3 Proactivity Strategies

After innovation and risk had been analysed, the next step was to look into proactivity behaviour in these firms. It was measured through a latent variable, using a group of proactivity related indicators. Those indicators were the following:
In order to evaluate the results, the Cronbach’s alpha was measured; the results, however, were not favourable, since the less than 0.6 obtained pointed to the probable inconsistency of the indicators. Nevertheless, in view of the fact that the indicators had resulted from the literature review and that they were all in some way or another related to proactivity, despite the Cronbach’s alpha results, they were used to analyse the degree of proactivity.

Departing from the five proactivity indicators, an average result of 3.49 was obtained (the indicators were analysed on a 1 to 5 Likert-type scale). This result seems to be much better than those obtained for innovation and risk analyses, but in order to get them all on the same scale, innovation and risk results were standardized with proactivity. Recoding the two first factors (innovation and risk) on a 1 to 5 scale, the results presented an average of 1.27 for innovation and 1.06 for risk, which validated the perception that proactivity had shown a better result.

### 4.4 Intrapreneurship

The results for the three main factors of entrepreneurship allow us to conclude that firms accept changes but only when these have to do with aspects that can bring about profit on the short term. They act proactively probably because they expect a quick positive reaction from the market, but they do not innovate or take risks in their management neither welcome changes in structural aspects likely to affect the firms’ future. This is concurrent with Avlonitis & Salavou (2007). These authors identified two groups of entrepreneurs: active and passive entrepreneurs. The former present a higher risk propensity but they are all proactive as regards new products or new market approaches.

Considering the results obtained for the three strategies presented and after a value homogenization had been done, the degree of entrepreneurship was calculated and an average result of 1.94 (on a 1 to 5 scale) was obtained. Using SPSS software, each case was then recoded so that entrepreneurship categories could be established. From this recoding it was possible to create 5 entrepreneurship categories which are presented in Figure 5:

![Figure 5. Intrapreneurship levels](image)
The figures presented in Figure 5 reveal that most firms in the Vale do Sousa region cannot be classified as entrepreneurial (innovative) firms. Most of them (59%) present a low level of entrepreneurship and the 0% of firms with a very good level corresponds to the real situation because there are no firms suited to be included in this category. Only 5% present a good level of entrepreneurship and one must not forget that these values are supported by the good results of proactivity, which was the strategy with the best results.

In short, as far as entre or intrapreneurship is concerned, it is possible to say that firms present a very low level of innovation and risk as regards management and strategic decisions, thus classifying as risk and innovation averse. In what concerns proactivity, results are more favourable. The combination of the three factors leads to a high percentage of firms classified with a low level of entrepreneurship (59%), while 34% present a moderate level.

The degree of entre/intrapreneurship presented in this study was measured with recourse to management actions/strategies, which lead us to the concept of strategic entrepreneurship. It differs from the commonly acknowledged notion of entrepreneurship which is only related to firm creation. The strategies up to now present will be explored in the next section.

4.5. Comparing Family and Non-family Businesses

After a brief literature review and the presentation of some general results on innovation, risk and proactivity, we move on in order to compare those strategies between family and non-family businesses. In order to remind the results presented above, Table 1 presents the main indicators at a global level for the strategies in study. The following Table presents the same indicators but by business type.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>251</td>
<td>0.00</td>
<td>4.00</td>
<td>1.2739</td>
<td>0.85113</td>
</tr>
<tr>
<td>Risks</td>
<td>251</td>
<td>0.00</td>
<td>4.00</td>
<td>1.0677</td>
<td>0.70526</td>
</tr>
<tr>
<td>Proactivity</td>
<td>250</td>
<td>1.80</td>
<td>5.00</td>
<td>3.4944</td>
<td>0.49419</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Strategies descriptive statistics

<table>
<thead>
<tr>
<th>Familiar or Non Familiar Firms</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Var. Coef.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familiar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>117</td>
<td>0.00</td>
<td>4.00</td>
<td>1.3248</td>
<td>0.98658</td>
<td>74.47%</td>
</tr>
<tr>
<td>Risks</td>
<td>117</td>
<td>0.00</td>
<td>4.00</td>
<td>1.1068</td>
<td>0.76516</td>
<td>69.13%</td>
</tr>
<tr>
<td>Proactivity</td>
<td>117</td>
<td>2.40</td>
<td>5.00</td>
<td>3.4154</td>
<td>0.43004</td>
<td>12.59%</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>117</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Familiar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>134</td>
<td>0.00</td>
<td>4.00</td>
<td>1.2295</td>
<td>0.71309</td>
<td>58.0%</td>
</tr>
<tr>
<td>Risks</td>
<td>134</td>
<td>0.00</td>
<td>3.50</td>
<td>1.0336</td>
<td>0.64946</td>
<td>62.83%</td>
</tr>
<tr>
<td>Proactivity</td>
<td>133</td>
<td>1.80</td>
<td>4.80</td>
<td>3.5639</td>
<td>0.53645</td>
<td>15.05%</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>133</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Strategies descriptive statistics by business type
Considering the results from Table 2, in particular the figures presented for the means they do not seem to vary significantly from one to another type of business. However the variation coefficients present very high values on innovation and risk variable in both groups. In order to compare the means we need to run some tests. Before we do that, we will follow to present the descriptive statistics on the variable that represents the three strategies (entre/intrapreneurship)

<table>
<thead>
<tr>
<th>Familiar or Non Familiar Firms</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Var. Coef.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familiar Intrapreneurship</td>
<td>117</td>
<td>.97</td>
<td>3.67</td>
<td>1.9490</td>
<td>.59925</td>
<td>30.75%</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>117</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Familiar Intrapreneurship</td>
<td>133</td>
<td>1.02</td>
<td>3.77</td>
<td>1.9461</td>
<td>.46000</td>
<td>23.74%</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>133</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Intrapreneurship descriptive statistics by business type

In this case, both the means and the standard deviation are similar between groups. Anyway, we can only confirm means (in)equalities after performing some statistic tests. To do so, the literature suggests, in first place to check the normality distributions. The normality hypotheses are as follows:

H$_0$: The variables follow a Normal distribution in familiar and non-familiar firms
H$_1$: The variables do not follow a Normal distribution in familiar and non-familiar firms

<table>
<thead>
<tr>
<th>Familiar or Non Familiar Firms</th>
<th>Kolmogorov-Smirnov$^a$</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Familiar Intrapreneurship</td>
<td>.115</td>
<td>117</td>
</tr>
<tr>
<td>Innovation</td>
<td>.146</td>
<td>117</td>
</tr>
<tr>
<td>Risks</td>
<td>.205</td>
<td>117</td>
</tr>
<tr>
<td>Proactivity</td>
<td>.162</td>
<td>117</td>
</tr>
<tr>
<td>Non-Familiar Intrapreneurship</td>
<td>.063</td>
<td>133</td>
</tr>
<tr>
<td>Innovation</td>
<td>.184</td>
<td>133</td>
</tr>
<tr>
<td>Risks</td>
<td>.207</td>
<td>133</td>
</tr>
<tr>
<td>Proactivity</td>
<td>.115</td>
<td>133</td>
</tr>
</tbody>
</table>

Table 4. Tests of Normality

$^a$. Lilliefors Significance Correction
$^{*}$. This is a lower bound of the true significance.

From the Normality tests it is possible to verify that all Sig, but **intrapreneurship** on Non-familiar firms are lower than 0.05 what leads to the rejection of the null hypothesis. In this case, in order to get some valid results the theory (Pestana & Gageiro, 2005) suggests for samples with less than 30 cases the adoption of the non-parametric tests. However both groups present a number of cases above 100. According to the same authors, it is possible to realize the $t$ test without the normality distribution and the results present statistical validity.

Assuming the normality due to the number of cases included, we will test the following hypotheses:

H$_0$: $\mu_{\text{group 1}} = \mu_{\text{group 2}}$ – The means on familiar and non-familiar firms do are not different
H$_1$: $\mu_{\text{group 1}} \neq \mu_{\text{group 2}}$ – The means on familiar and non-familiar firms do are different
Levene’s Test for Equality of Variances

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>14,983</td>
<td>.000</td>
<td>.885</td>
<td>249</td>
<td>.377</td>
<td>.09531</td>
<td>.10774</td>
<td>-.11689 -.30751</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
<td>.866</td>
<td>208.183</td>
<td>.388</td>
<td>.09531</td>
<td>.11006</td>
<td>-.12167 .31229</td>
</tr>
<tr>
<td>Risks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>2,777</td>
<td>.097</td>
<td>.820</td>
<td>249</td>
<td>.413</td>
<td>.07326</td>
<td>.08929</td>
<td>-.10261 .24912</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
<td>.811</td>
<td>228.856</td>
<td>.418</td>
<td>.07326</td>
<td>.09029</td>
<td>-.10464 .25116</td>
</tr>
<tr>
<td>Proactivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>6,754</td>
<td>.010</td>
<td>-2.394</td>
<td>248</td>
<td>.017</td>
<td>-.14853</td>
<td>.06205</td>
<td>-.27074 -.02631</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
<td>-2.427</td>
<td>245.945</td>
<td>.016</td>
<td>-.14853</td>
<td>.06119</td>
<td>-.26905 -.02800</td>
</tr>
</tbody>
</table>

Table 5. Independent sample test (strategies)

According to the results presented in Table 5 there are some evidences of differences on the variances of Innovation and Proactivity. In order to verify the (in)equality of variances we have to compare them by following the hypothesis:

\[ H_0: \sigma^2_{\text{group 1}} = \sigma^2_{\text{group 2}} \]
\[ H_1: \sigma^2_{\text{group 1}} \neq \sigma^2_{\text{group 2}} \]

Taking into consideration the results of the standard deviation presented in Table 5 the significance level of the variables Innovation and Proactivity that result from Levene’s test is lower than \( p = 0.05 \) which leads us to conclude that there is a larger dispersion on Innovation in Familiar businesses and in Proactivity in Non-familiar businesses. Considering the results of \( t \) test we can only reject the null hypothesis for the variable Proactivity, which means that Non-family firms are considered to be more proactive than familiar ones.

Levene’s Test for Equality of Variances

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrapreneurship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>6,667</td>
<td>.010</td>
<td>.043</td>
<td>248</td>
<td>.966</td>
<td>.00289</td>
<td>.06714</td>
<td>-.12935 .13513</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
<td>.042</td>
<td>216.344</td>
<td>.966</td>
<td>.00289</td>
<td>.06827</td>
<td>-.13166 .13744</td>
</tr>
</tbody>
</table>

Table 6. Independent sample tests (intrapreneurship)

By using the same methodology used to compare each strategy, it is possible to verify that there is a larger dispersion of entrepreneurship in familiar businesses. At the same time, it is not possible to reject the null hypothesis on the means difference, which allow us to assume that no group can be classified as more entrepreneurial. This result was somehow expected, since there are no differences in innovation and risk strategies.

According to the statistical results it was possible to verify that familiar and non-familiar firms are not so different in the entrepreneurial activities. They are not aiming innovation, and they do not present a
risk culture. The familiar ones might be less proactive, but what does it mean? Are familiar firms even more reluctant to change in aspects that can bring benefits in the short-run? Are they emotionally attached to the initial strategies as referred above?

5. Conclusion and Future Research

In this paper we proposed to compare some strategies in familiar and non-familiar businesses. According to the literature review, there is no consensus about the differences between these two groups of firms, on what regards performance, innovation or risk strategies. Even at the definition of a family business there are differences across countries, and institutions. Many authors argue for a large number of family businesses (in some countries they are around 90% of total firms) however in this region and activity sectors it was possible to identify a larger number of non-family firms.

The strategies here analysed were strategies on innovation, risk and proactivity, and the result of the combination of those strategies that we presented as intrapreneurship. In a global perspective the results were poor, because it was possible to conclude that there is a lack of innovation and risk culture in management, in the region of Vale do Sousa. Regarding the entire sample one can argue that firms in this region are able to change but only in short-term aspects. On what consider structural factors that imply innovation and risk strategies firms are not able to change.

On what concerns strategies, there are differences between groups only on proactivity strategies. If we consider proactivity as a close strategy to innovation can we say that there are some evidences (without statistical validity) that non-family business are more innovative than family ones? Anyway, in terms of innovation, risk and intrapreneurship level the results found seem to be at odds with a larger number of studies presented in the literature review. Most of them are arguing in favour of one or another group of firms, but are they really different? Is it worth to keep analysing familiar business on aspects such innovation and/or performance? It seems that there are no significant differences between both groups, so according to these results future research must focus on aspects such as organizational culture or survival rates but above all in a widely accepted definition of what is a familiar business. The contradictory results that are possible to find among many studies, may also result from different definitions used to classify familiar businesses.

It is also important to notice, as mentioned above familiar firms in and of themselves are not a homogeneous group. In order to have really comparative results it would be necessary to consider sectors characteristics, external environment factors, and even internal ones, such as generations of families in a firm and/or the degree of commitment of each employee to firms’ objectives.

As main conclusion with this paper, we can argue that unlike most studies refer there are no significant differences on innovation, risk and intrapreneurship levels and behaviours between family and non-family firms in the construction and industry sectors in the region of Vale do Sousa. That does not mean that there are no differences at all between family and non-family firms. We can only argue the inexistence of those differences in this particular case. If we consider a different activity sector or even a different classification of family businesses the results might be different.

This paper suggests the necessity of a widely definition for family businesses (maybe a definition according activity sectors) but as the European Commission did by defining the figures to classify a firm as micro, small, medium-sized or large it would be interesting to find a single definition of what is a
family business. After that it would be possible to compare some results across countries, and activities sectors. Also important for this comparison is the external environment where the studies are carried on.

References


