Innovative family SMEs and non-family SMEs in Algeria: a comparative analysis of their growth

المؤسسات الصغيرة والمتوسطة العائلية و غير العائلية المبتكرة في الجزائر:دراسة مقارنة لنموها

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Abstract:

On the basis of Schumpeter's theory, many studies have shown the ability to innovate in order to influence the growth of the company. In addition, other studies in Canada, the United States and Europe have shown that high-growth SMEs are more innovative. Nevertheless, studies of innovation activities in family businesses and their impact on their growth are relatively weak, especially in african countries such as Algeria. This research aims to perform a comparative analysis of the factors that determine the growth of innovative family and non-family SMEs in Algeria. For this, a field survey was carried out which concerned the three regions of the country (North, Highlands and South). The survey was conducted in 2012 and affected companies in the industrial sector. This study reports a better performance in terms of growth in employment of growing innovative family SMEs compared to innovative non-family SMEs growing in Algeria. And most growth-oriented family businesses are innovative and young. Non-family innovative SMEs are large and lack of targeted training for their employees.

Keywords: Family business ; SME's ; growth ; innovation.

JELClassificationCodes: **L25, L26.**

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ملخص:

تهدف هذه الدراسة إلى إجراء مقارنة تحليلية للعوامل التي تحدد نمو المؤسسات الصغيرة والمتوسطة العائلية وغير العائلية المبتكرة في الجزائر. لهذا الغرض، تم إجراء مسح ميداني يتعلق بالمناطق الثلاث في البلاد (شمال، هضبة أوتو الجنوب). تم إجراء المسح في عام 2012 ومست مؤسسات القطاع الصناعي. توصلت هذه الدراسة إلى أداء أفضل للمؤسسات الصغيرة والمتوسطة العائلية المبتكرة من حيث التوظيف بالمقارنة مع غير العائلية. ومعظم الشركات العائلية الموجهة نحو النمو مبتكرة وصغيرة. الشركات الصغيرة والمتوسطة المبتكرة غير العائلية كبيرة وتفتقر إلى التدريب الموجه لموظفيها.

كلمات مفتاحية: المؤسسات الصغيرة والمتوسطة العائلية، النمو، الابتكار

تصنيفاتJEL : **L25, L26**

1. INTRODUCTION

Drawing on Schumpeter's theory, several studies have shown that the ability to innovate influences firm growth and increases its competitive advantage (Nelson and Winter, 1978, 1982; Larson, 1987; Bird, 1989; Storey, 1994; Thwaites and Wynarczyk, 1996; Luk, 1996; Papadaki and Chami, 2002; Raymond and St-Pierre, 2005; Zapalska and Brozik, 2006; Sauvé et al. 2007; Postariu, 2010). Other studies have even argued that innovation may be essential for the survival of the firm (Schumpeter, 1934; Sirmon and Hitt, 2003; Craig and Moores, 2006; Brines et al. 2013). In addition, studies in Canada, the United States and Europe have shown that high-growth SMEs are more innovative (Baldwin, 1994; Baldwin and; Rafiquzzaman, 1995; Smallbone et al. 1995; OECD, 2000, 2010; Filion et al. 2014).

Nevertheless, there are relatively few studies of innovation activities in family businesses and their impact on growth (Litz and Kleysen, 2001; Craig and Moores, 2006; Cassia et a.l 2011; Classen et al., 2014; Padilla-Meléndezet al., 2015). In fact, although family businesses are considered a significant part of economies around the world (Astrakan and Shanker,

1996, 2003; Klein, 2000; Morck and Yeung, 2003, Morck and Steier, 2005; Le Breton Miller and Miller, 2009), the literature on innovation in family businesses is still in a nascent stage of development (Cassia et al., 2012; De Massis et al., 2015).

The literature on innovation in family businesses is largely characterized by the development of frameworks and case studies (Wright, 2017). Most of the data from these studies were collected from family-owned businesses in developed countries (Hadjimanolis, 2000; Robson et al., 2009; Padilla-Meléndez et al., 2015), and few studies focus on those in developing countries (Chudnovsky et al., 2006), especially the Maghreb countries such as Algeria.

To remedy this gap in the literature, this study deals with the subject of innovation in Algerian family and non-family SMEs. We must ask ourselves if the current growth theory can be generalized to the Algerian context. In particular, it attempts to investigate the relationship between the presence of the family variable within a firm and the factors that can influence the growth of innovative family and non-family SMEs.

This research aims to answer the following questions.

• Are the growth drivers of innovative family and non-family SMEs the same?

• If there is a difference? What are the factors that determine the growth of innovative family SMEs?

• What is the percentage explaining the growth of innovative family businesses by these factors?

Our work will is divided into three sections. The first section is devoted to a review of the literature on the concepts of family business, growth, innovation and articulation between them. The second section presents the research model. The last section presents and analysis of the results from the model.

2. REVIEW OF LITERATURE

2.1 Family Business

The literature on the family business is distinguished by its pluridisciplinary nature: economists, managers, lawyers, sociologists, historians, psychologists and ethnologists are all interested. There is no

generally accepted categorization of topics related to family business research. Indeed, until the mid-1980s, the field of family-owned enterprises focused on succession issues (Zahra and Sharma, 2004; Sharma et al., 2012). The late 1980s-mid 1990s saw a rapid increase in the number of researchers from different disciplines attracted by the field (Dyer and Sanchez, 1998). Based on their interests and training, a greater variety of themes were studied, but succession continued to dominate the field (Sharma, Chrisman and Shua, 1996). Dyer and Sanchez (1998), from the review of 186 articles published in the Family Business Review between 1988 and 1997, showed that besides succession, other subjects have emerged in the field: interpersonal relationships and dynamics business performance, family business gender and ethnicity in family businesses. Overall, the period from the 1980s to the mid-1990s was characterized by an increase in the number of subjects and researchers.

Based on previous contributions in the field, Benavides-Velasco et al. (2011) proposed a list of subjects studied covering all subjects (Bird et al, 2002 ; Chrisman et al., 2003 ; Dyer and Sanchez, 1998 ; Zahra and Sharma, 2004) in the period 1961-2008. These categories are not mutually exclusive because the articles often deal with more than one topic. To remedy this problem, the authors, classified the articles according to the subject of the main objective. The succession (17.4%) is the most common field of research in family business literature, followed by management and organizational theory (11.5%), governance (9.9%), interpersonal relationships, family dynamics (7.8%), strategic management and organizational change (7.8%), financial management (7.2%), performance and growth (4%) and entrepreneurship and innovation (4.7%).

2.2Family Business, Innovation and Growth

With the advent of the knowledge-based economy, the key drivers of development are inevitably linked to access to knowledge, innovation and creativity. From now on, it turns out that competition between companies is first and foremost by their ability to constantly renew their portfolios of activities and know-how. Economic news has a strong impact on the problem: innovation _ SMEs _ growth. Indeed, these topics are topics of

great interest for both researchers and policy makers, particularly by the place they occupy in public policies.

The notion of innovation has long been apprehended in economic theories in a restrictive and even imprecise way, focusing mainly on technical progress (Marx, 1965, Smith, 2000). In the 1940s, Schumpeter (1942) gave a new dimension to the notion of innovation. Innovation is considered a qualitative change that produces changes in the economy; it generates a movement of creative destruction that permanently revolutionizes the economic structure, continually destroying its aged elements and continually creating new elements. The true initiator of the movement is in fact only the entrepreneur. Thus, the innovative entrepreneur is at the center of the economic dynamic.

In another perspective that deals with the innovation-growth couple, Solow (1956) focuses on the determinants of long-term growth. It proposes a growth model in which innovation occupies a primordial place. In the Oslo Manual (OECD, 2005, p.46), innovation is defined as « _the implementation of a new or substantially improved product (good or service), process or process, a new method of marketing in workplace organization practices or external relations _». Thus, innovation can be defined as the realization of novelty, it goes from the idea to its concrete realization and to the satisfaction of the need.

Based on Schumpeter's theory, numerous studies have shown that the ability to innovate positively influences firm growth (Nelson and Winter, 1978, 1982 ; Larson, 1987 ; Bird, 1989 ; Storey, 1994; Thwaites and Wynarczyk, 1996 ; Luk, 1996 ; Papadaki and Chami, 2002, Raymond and St-Pierre, 2005, Zapalska and Brozik, 2006, Sauvé et al., 2007, Postariu, 2010). In addition, other studies in Canada, the United States and Europe have shown that high-growth SMEs are more innovative (Baldwin, 1994 ; Baldwin and Rafiquzzaman, 1995 ; Smallbone et al., 1995 ; OECD, 2000, 2010 ; Filion et al., 2014). Nevertheless, studies of innovation activities in family businesses and their impact on growth are rare (Litz and Kleysen, 2001 ; Zahra, 2005 ; Craig and Moores, 2006 ; Naldi et al., 2007 ; Cassia et al., 2011 ; Kellermann et al., 2012 ; De Massis et al., 2013 ; Classen et al., 2014 ; Padilla-Meléndez et al., 2015 ; Ahluwalia et al., 2017). In addition,

these studies focus on innovation in large family businesses and little has been said about family-owned businesses. The significant differences in the behaviours of small family firms and large family firms creates a significant void in our understanding of factors influencing innovation in small family firms. This fact combined with our limited understanding of factors influencing innovation in small firms, magnifies the urgency to undertake more studies on innovation in this context, as these are the dominant entities in major economies across the globe and Algeria is no exception. In this study, we attempt to address this important and critical void in the field.

2.3 Hypotheses

The assumptions of the model refer to both the business owner, the business strategy and its characteristics as well as its environment. With the owner, the most important characteristic that an innovative entrepreneur must have is : risk taking. With the company by: its size, its age, its family character or not. With the strategy, through the use of new technologies, a budget dedicated to R & D, an R & D team, relations with a university and training of employees. With the external environment by the region of implantation and the pressure of competition in the sector of activity.

Hypothesis 1: Owner's risk taking has a positive impact on the growth of innovative family SMEs.

Hypothesis 2: The size of the innovative family SME has a significant impact on its growth.

Hypothesis 3: The growth of innovative family SMEs decreases with age.

Hypothesis 4: The exercise of the function of the manager by the family owner of the innovative SME contributes positively to its growth.

Hypothesis 5: The use of new technologies by the innovative family SME increases its growth.

Hypothesis 6: Ownership of an R & D budget has a positive impact on the growth of the innovative family SME.

Hypothesis 7: The existence of an R & D team within the company contributes positively to the growth of the innovative family SME.

Hypothesis 8: The maintenance of the innovative family SME of relations with a university contributes positively to its growth.

Hypothesis 9: The innovative family SME that sends its employees for further training increases its growth.

Hypothesis 10: The belonging of the innovative family SME to the North region has a positive impact on its growth.

Hypothesis 11: Competition in the business sector has a positive impact on the growth of the innovative family SME.

3. DATA AND METHODOLOGY

Based on the existing literature on growth factors and innovation factors of the firm and on the basis of agency theory, we selected eleven factors common to both groups. From these factors we have established a model that will determine the factors that explain the growth of innovative SMEs.

3.1 The variables of the model

The model used in the previous sections identified the following variables

the **variables are presented in Table (1).**

Table 1: Variables definitions

Variables		Descriptions
The dependent variables		
The Employment Growth		Net-Net-1/Net-1
Innovation		1 if the firm innovates, otherwise 0
The independent variables		
1	Risk taking	1 if the person takes risks, otherwise 0
2	The size of the business	Number of employees at year t
3	The age of the business	The number of years the business since its establishment
4	The family management of the business	1 if the business is managed by a leading owner, 0 otherwise
5	The use of new technologies	1 if the firm using new technologies, otherwise 0
6	R & D Budget	1 if the firm has a R & D budget, 0 otherwise
7	A research team	1 if the company has a team of R & D, 0 otherwise
8	Relations with the university	1 if the company has relations with the university, 0 otherwise
9	Employee training	1 if the business provides training for its employees, otherwise 0
10	The attractiveness of region	1 if the company belongs to the Nord region, 0 otherwise
11	Competition in sector	1 if the company feels the pressure of competition in its sector, 0 otherwise

Source: Established by the author.

3.2 The equation of the model

The model is designed as follows:

Growth rate of innovative family SMEs = f (risk-taking, network membership, company size, age of business, family management of the business, use of news technologies, possession of an R & D budget, sending staff on training courses, competitive pressure in the sector, location in the North region). CROSS = business growth = (represented by (number of employees in time t- number of employees at t-1) / number of employees at t-1 (t: year 2012, t-1: year 2009).

3.3 Research Methodology

This section presents the methodological set-up related to the choice of variables, survey design, data collection and sampling as well as the pre-processing of data and the cleaning of the database.

3.3.1 Data collection and sampling

The dataset was developed in close collaboration with members of the research team "entrepreneurship and governance of SMEs" of CREAD (Research Center for Applied Economics and Development.) The sample of companies surveyed was selected from the ONS (National Statistics Office) database (The first economic census 2011) A minimum of 500 private enterprises are set for the department to be selected, so 26 departments have been selected for participation in the survey in the three regions of the country (North, Highlands and South) .The survey must involve companies in the industrial sector activating in the industrial zones or the zones of activity selected during the year 2012. Altogether 2000 companies were stratified and randomly selected to form the final sample.The study was carried out by hand-delivery questionnaires to the owners of the 2000 companies. The questionnaire was completed and returned by 414 companies. Thus, the survey had a response rate of 20.7%. This low response rate is due to the reluctance of SME owners to disclose information for fear of tax services.

3.3.2 Pre-processing of data and cleaning of the database

Four criteria are used to select the sample used in this study.

- First, the company must operate in the industrial sector. In Algeria, although only about 18% of companies are industrial, this does not prevent it from being a considerable asset to diversify the Algerian economy and to drain sources of wealth and employment;
- Secondly, the company must be a small and medium private enterprise. This choice is due to the fact that the business park in Algeria is made up of more than 98% of private SMEs;
- Thirdly, the company must respond to the family nature. For the purposes of this study, a business is classified as a family business if it meets two criteria. The first criterion relates to a method used to distinguish family businesses from other enterprises, ie if the family in question owns more than 50% of the company's capital. This criterion is considered satisfied if a company responds that the family owners own more than 50% of the company's capital. The second is the management of the business by family owners. This criterion is

considered to be satisfied if a company declares that its management is ensured by at least one family owner;

- Finally, the company must be innovative and achieve a positive growth rate (greater than zero). This criterion responds directly to the objective of our study, which is to explore the factors that explain the growth of innovative family SMEs in Algeria.

After this clean-up of the database, our sample is made up of 118 private SMEs operating in the industrial sector and achieving a positive employment growth rate, a rate of 28.50% of all companies that have answered the questionnaire.

4. RESULTS AND DISCUSSION

4.1 Descriptive results of the study

The number of companies for which we have been able to calculate a positive growth rate and which meet the selection criteria (industrial sector, SME) is 117. We found that 59.5% (50) of all positive growth innovators in the four-year period covered by the study are family SMEs. Altogether 40.5% (34) of the total number of innovative growth companies are non-family SMEs. Innovative family SMEs that have achieved positive growth are broken down as follows: 19 medium-sized enterprises, 24 small enterprises and 7 very small enterprises. There is a higher number of innovative non-family growing SMEs in the medium-sized enterprise category (18). (Table 2).

Table 2 : Breakdown of innovative family and non-family family businesses growing by size of business

Size	Innovative family SMEs growing		Innovative non-family SMEs growing		Total	
	N	(%)	N	(%)	N	(%)
Very small business	7	58,3 %	5	41,7 %	12	100
Small business	24	68,6 %	11	31,4 %	35	100
Medium-sized business	19	51,1 %	18	48,6 %	37	100
Total	50	59,5 %	34	40,5 %	84	100

Source: Established by the author from the results of the survey.

Among the regions, the North region accounts for a significant percentage of innovative SMEs growth (60.7%). It should be noted that 69.58% of the country's SMEs are concentrated in this region (MPME,

2017). Nearly 60% of innovative growth companies explain their choice of the North region as their location by the availability of land and the availability of infrastructure and the fact that the area is considered very dynamic in terms of business. The highest rates of growing innovative family SMEs are in the Chemicals-Plastics and Agri-Food sectors. Non-family SMEs are more common in the : Chemistry-plastic and ISMME (Iron and steel industry) sectors.

4.2 Presentation of the results

This section is reserved for the econometric translation of the growth factors of innovative SMEs into variables to be tested. A linear model is estimated to detect the factors that explain the growth of innovative firms. This approach answers the main research questions asked in the introduction. We used SPSS software version 20.0 for the different transformations and recoding of the data. After grouping the categorical variables in the model, we performed a top-down regression analysis to see the effect of the chosen independent variables on the growth of innovative SMEs. The meaning is defined at a threshold of 1, 5 and 10%. The assumption of a normal distribution seems to be valid based on the fact that the number of observations (50) exceeds the number of variables (11). All the statistical tests concerning heteroscedasticity and multiple collinearity checks have been performed.

The 11 factors obtained from the survey were tested for their influence on the growth of growing innovative family SMEs over the 2009-2012 period. Two models were tested. Model (1) analyzes growth factors in the context of innovative family SMEs. Model (2) focuses on the analysis of growth factors in innovative non-family SMEs. The SPSS software carried out 11 regressions in order to arrive at the final model (1) where only one variable is used which explains the growth of innovative family SMEs (the age of the company). The SPSS software carried out 10 regressions in order to arrive at the final model (2) where 2 variables are used that explain the growth of innovative SMEs (company size and employee training).

Table (3) shows the normalized regression coefficients (+ or -). Each of these coefficients represents the effect of each independent variable

retained on the dependent variable in the two models selected. The higher the normalized coefficient, the greater the relative effect on the dependent variable.

Table 3: Coefficients of the models

Variables		Modèle (1) Innovative family SMEs growing				Modèle (2) Innovative non-family SMEs growing			
		Betâ	B	T	Sig	Betâ	B	T	Sig
(constant)			,964	5,643	,000		1,149	1,037	,308
2	The size of the business					,389	,068	2,199	,035**
3	The age of the business	-,356	-,021	-2,640	,011*				
9	Employee training					-,305	-2,742	-1,729	,094***
R		,356				,398			
R2		,127				,159			
R2 adjusted		,109				,104			

Source: Established by the author from the results of the regression.

* Significant at the 1% level; ** Significant at the 5% level; *** Significant at 10% level

4.3 Discussion

This section is reserved for discussion and interpretation of the results presented in the previous section.

The results of the model (2) strongly support the role of firm size (Hypothesis 2) in the growth of innovative non-family SMEs. In fact, the recorded regression coefficient is 0.389; the student t is 2.199 and the P is less than 0.05.

These results support the claims of some authors that enterprise size goes hand in hand with business innovation and growth. A positive relationship between firm size and growth suggests that owners of large firms are more optimistic than owners of smaller firms (Gartner and Bhat, 2000). Large firms can grow to size provided they are managed by owner-managers with higher levels of business acumen and managerial capacity (Glancey, 1998). Phillips and Kirchhoff (1989), based on empirical research, have shown that a start-up that starts with five or more employees has a much higher survival rate than a small business that started with less

than five employees. Wagner (1992) even confirmed this result, as a large start-up was positively correlated with growth among new manufacturing firms. Dunne et al. (1989), in a study of the manufacturing sector in the United States, also found a positive correlation with the size, and the study of Swiss Media (2008) found the same result for Canadian companies.

Similarly, several authors have pointed out that innovation is a very expensive activity, so only large firms have the resources to cover the need for the financing and costly investments required to implement innovations (Tsai, 2001 ; Huet, 2006; De Jong and Vermeulen, 2006). On the other hand, the model (1) concerning the growth of innovative family SMEs did not use the variable size of the company as an explanation.

Hypothesis 3 relating to the age of the enterprise was retained by the model (1) relating to the growth of innovative family SMEs. In fact, the general pattern is that a young enterprise grows faster than an older firm, hence a negative link between age and the growth of the firm (Dunkelberg and Cooper, 1982 ; Evans, 1987a, 1987b; Dunne et al., 1989 ; Storey, 1994 ; Westhead, 1995 ; Wagner, 1995 ; Glancey, 1998 ; Harhoff et al., 1998 ; Wiklund, 1999 ; Wijewardena and Tibbits, 1999 ; Almus and Nerlinger, 1999 ; Julien, 2000 ; Heshmati, 2001 ; Papadaki and Chami, 2002 ; Harabi, 2003 ; St-Pierre et al., 2010).

Firms that send their staff on training courses have experienced lower growth rates than firms that do not do so, which leads to a reversal of assumption (9) (Model 2). At first glance it seems impressive, because employee training can be a barrier to business growth. Indeed, the literature on this question has shown a positive relationship between the two variables (Luk, 1996 ; Basu and Goswami, 1999 ; Van Der Heijden, 2001 ; OECD, 2002). We can cautiously advance two explanations that seem plausible: the owners of SMEs face considerable expense by investing in employee training and profitability can only be felt in the long term. In addition, these companies may not have targeted training appropriate to the needs of their employees.

As for the other factors, they did not correlate with the growth of innovative SMEs. The explanatory percentage of the variables retained by

the model is low (12%). This result may be due to certain limitations of this study that we will see in the last section.

5. CONCLUSION

The innovative character of the company induces its success and its contribution to the creation of employment and the development of territories. From the research point of view, the notion of growth of innovative family SMEs in Algeria is still in its infancy. Our study is a first step in understanding this type of business and the process of clarifying the factors that determine their growth. It allowed us to clearly distinguish the innovative family business from other companies. It also seems to reflect a better performance in terms of growth in employment of growing innovative family SMEs compared to growing innovative non-family SMEs in Algeria.

The main contribution of this article is that it is one of the first documents examining the determinants of the growth of innovative family SMEs in Algeria while making a comparison with non-family SMEs. We also make the following empirical contributions in this study. This study is undertaken in the context of a developing economy. Most of the literature in this area is limited to companies in the developed economy in North America and Western Europe (De Massis et al., 2012 ; Classen et al., 2014 ; Padilla-Meléndez et al., 2015 ; Ahluwalia et al., 2017). The Algerian industrial sector offers a unique context for studying the growth_family influence_innovation relationship. Due to the effects of liberalization and other regulatory changes in the Algerian economy, Algerian industrial firms face an environment characterized by strong competition. At the same time, because of their small size and lack of resources, these companies have failed to develop innovative capabilities to compete in the global marketplace. Innovation plays an important role in transforming these technically lagging companies to become internationally competitive.

REFERENCES

1. Achtenhagen L, Naldi L, Melin L (2010), *« Business growth': Do practitioners and scholars really talk about the same thing? » Entrepreneurship Theory and Practice 34(2): pp, 289–316 ;*
2. Ahluwalia S, Mahto R.V, Walsh. ST (2017), Innovation in small firms: Does family vs. non-family matter? , Journal of Small Business Strategy, Vol. 27 No 03, pp, 39-49 ;
3. Almus, M., and Nerlinger, E. A (1999), Growth of new technology-based firms: which factors matter? , *Small Business Economics*, 13, pp, 141–154;
4. Astrachan, J.H. & Shanker, M.V (1996), Myths and Realities: Family Businesses' Contribution to the U.S, Economy. *Family Business Review*, vol. 9, n° 2, Summer, pp, 107-123;
5. Astrachan, J.H (2003), Commentary on the Special Issue: The Emergence of a Field, *Journal of Business Venturing* 18 (5), pp, 567-572 ;
6. Balduin, R. E (1994),*Towards an Integrated Europe,* London : Center for Economic Policy Research ;
7. Baldwin, J.R. and Rafiquzzaman, M (1995), Selection versus evolutionary adaptation learning and post-entry performance, *International Journal of Industrial Organization*, 13, pp, 501-522;
8. Basu, A. & Goswami, A (1999), South Asian Entrepreneurship in Great Britain: Factors in Influencing Growth, *International Journal of Entrepreneurial Behaviour & Research*, Bradford, 5(5), pp.251-68 ;
9. Benavides-Velasco, Quintana-Garci &Guzman-Parra (2011), A Trends in family business research, *Springer Science Business Media*, August;
10. Bird B.J (1989),*Entrepreneurial Behavior*, Chcago, III. Foresman ;
11. Bird, Welsch, Astrachan & Pistrui (2002); Family business research: the evolution of academic field, *Family Business Review*. 15 (4), pp, 337-350;
12. Brines S, Shepherd D, and Woods C (2013) ; SME family business innovation: exploring new combinations, *Journal of Family Business Management*, Vol. 3 No. 2, pp, 117-135 ;
13. Casillas, J. C., Moreno, A. M., & Barbero, J. L (2011), Entrepreneurial orientation of family firms: Family and environmental dimensions, *Journal of Family Business Strategy*, 2(2), pp, 90-100 ;
14. Cassia, L., De Massis, A. and Pizzurno, E (2012), Strategic innovation and new product development in family firms: an empirically grounded theoretical framework, *International Journal of Entrepreneurial Behaviour & Research*, Vol. 18 No. 2, pp, 198-232 ;
15. Chrisman, J.J., Chua, J.H., & Zahra, S.A (2003),Creating Wealth in Family Firms through Managing Resources: Comments and Extensions. *Entrepreneurship Theory and Practice*, Summer, pp, 359-365;

16. Chudnovsky, D., Lopez, A., & Pupato, G(2006), Innovation and productivity in developing countries: A study of Argentine manufacturing firms' behavior (1992–2001), *Research Policy*, 35, pp, 266-288 ;
17. Classen, N., Carree, M., Van Gils, A., & Peters, B (2014), Innovation in family and non-family SMEs: An exploratory analysis. *Small Business Economics*, *42*(3), pp, 595-609 ;
18. Craig, J. B., & Moores, K (2006), A 10-year longitudinal investigation of strategy, systems, and environment on innovation in family firms. Family Business Review, 19(1), pp, 1-10 ;
19. De Jong J.P.J & Vermeulen P.A.M (2006), Determinants of Product Innovation in Small Firms : Acomparison across industries*, International Small BusinessJournal,* 24, 6 pp, 587-609 ;
20. De Massis, A., Frattini, F., and Lichtenthaler, U (2012), Research on Technological Innovation in Family Firms: Present Debates and Future Directions, Family Business Review, XX(X), pp, 1-22 ;
21. De Massis, A., Frattini, F., & Lichtenthaler, U (2013), Research on technological innovation in family firms: Present debates and future directions. *Family Business Review*, *26*(1), pp, 10-31 ;
22. De Massis, A., Kotlar, J., Campopiano, G., & Cassia, L (2015), The impact of family involvement on SMEs' performance: Theory and evidence. Journal of Small Business Management, 53(4), 924–948 ;
23. Dunkelberg, W.C & Cooper, A.C(1982), Entrepreneurship and Paths to Business Ownership, *Strategic Management Journal*, 7, pp, 53-68 ;
24. Dunne, T., M. J. Roberts and L. Samuelson (1989), The growth and failure of US manufacturing plants, *Quarterly Journal of Economics*, 104, pp, 671-698;
25. Dyer. W G & Sanchez (1998), Current State of family business theory and practice as reflected in Family Business Review 1988-1997, *Family Business Review*, 11 (4), pp, 287-296;
26. Evans, D. S (1987a),"The relationship between firm growth, size, and age: estimates for 100 manufacturing industries", *Journal of Industrial Economics*, 35, pp, 567–581;
27. Evans, D.S (1987b), Tests of Alternative Theories of Firm Growth, *Journal of Political Economics*, 95(4), pp, 657-674 ;
28. Filion, L.J., Ibanescu, M., Joyal, K., Julien, P.A., Kay, O.,& Mélançon, S (2014),*Business Growth Support: Business Growth File*, Collective File, Rogers-J.-A.-Bombardier Chair in Entrepreneurship, HEC Montréal, May ;
29. Gartner, W.B. & Bhat, S (2000), "Environmental and Ownership Characteristics of Small Businesses and their Impact on Development", *Journal of Small Business Management*, 7, pp, 14-26 ;

30. Glancey, K (1998), Determinants of Growth and Profitability in Small Entrepreneurial Firms, *International Journal of Entrepreneurial Behaviour & Research*, 4(1), pp, 18-27 ;
31. Harabi, N (2003), « Determinants of Firm Growth: An empirical analysis from Morocco », Solothurn University of Applied Sciences, Northwestern Switzerland, Mimeo ;
32. Harhoff, D., Stahl, K. et Woywode, M (1998), « Legal Form, Growth and Exit of West German Firms Empirical Results for Manufacturing, Construction, Trade and Service Industries », *Journal of Industrial Economics*, XLVI (4), pp, 453-488 ;
33. Harris, D., Martinez, J.I., & Ward, J. L (1994), Is strategy different for the family-owned business?, *Family Business Review, 7*(2), pp, 159-174;
34. Heshmati A (2001), On the growth of micro and small firms: evidence from Sweden, *Small Business Economics*, 17, pp, 213–228;
35. Huet F (2006), Self-reinforcing effects of cooperation and innovation capacities: a study of French SMEs, *International Review SME*,V 19, 1, pp, 95-117 ;
36. Julien P-A (2000),*High growth SMEs: explanatory factors, Congress of the International Association of Strategic Management,* Montpellier, May 24-26 ;
37. Kellermanns, F.W., Eddleston, K., Sarathy, R. and Murphy, F (2012), Innovativeness in family firms: a family influence perspective, *Small Business Economics*, Vol. 38 No. 1, pp, 85-101 ;
38. Klein, S.B (2000), Family businesses in Germany: Significance and structure,*Family Business Review,13*(3), pp, 157-181 ;
39. Litz, R.A. and Kleysen, R.F(2001), Your old men shall dream dreams, your young men shall see visions: toward a theory of family firm innovation with help from the Brubeck family, *Family Business Review*, Vol. 14 No. 4, pp, 335-352 ;
40. Luk, T.K (1996), Success in Hong Kong: Factors self-reported by successful small business owners, *Journal of Small Busines Management,* 6, pp, 68-74;
41. Marx, K (1965),*Capital.* Paris: Popular Edition by Julian Borchard, University Press of France ;
42. Morck, R., & Yeung, B (2003), Agency Problems in Large Family Business Groups, *Entrepreneurship Theory and Practice*, 27 (4), pp, 367-382;
43. Morck, R., and Steier, L.P (2005), The Global History of Corporate Governance: An Introduction, In Ed. R. Morck, *The History of Corporate Governancearound the World: Family Business Groups to Professional Managers*, Chicago, IL: University of Chicago Press, pp, 1-64 ;
44. Naldi, L., Nordqvist, M., Sjöberg, K. and Wiklund, J (2007), Entrepreneurial orientation, risk taking and performance in family firms, *Family Business Review*, Vol. 20 No. 1, pp, 33-47 ;
45. Nelson, R., & Winter, S (1978), Forces Generating and Limiting Concentration under Schumpeterian Competition, *Bell Journal of Economics*, Berlin, 9, pp, 524-544 ;

46. Nelson, R.R., and Winter, S.G (1982),*An Evolutionary Theory of Economic Change*, Belknap Press of Harvard University Press: Cambridge, MA;
47. OECD (2000),*OECD Outlook on SMEs,* Paris ;
48. OECD (2002),*Small business and entrepreneurship*, OECD Economic Surveys, February;
49. OECD (2005), Manual's Oslo ;
50. OECD (2010), Innovative SMEs and entrepreneurship at the service of job creation and growth, *Thematic Review Paper*, No. 1, Paris, 17-18 November ;
51. Papadaki, E., and Chami, B (2002), The Determinants of Micro-enterprise Growth in Canada, *Discussion Paper*, Small Business Policy Branch - Industry Canada, July 17
52. Padilla-Meléndez A, Dieguez-Soto J and Aurora Garrido-Moreno A (2015), Empirical research on Innovation in Family Business: literature review and proposal of an integrative framework, *Review of Business Management,* Vol. 17, No. 56, Apr. /Jun, pp, 1064-1089 ;
53. Phillips B.D & Kirchhoff B.A (1989),*Innovation and Growth among New Firms in the US Economy. Competitive Strategy*, New York : Free Press ;
54. Postariu, A.E.P (2010), SME growth through resources and skills: which pathways? , *Research paper,* n 2010-10 E4, https://halshs.open archive.fr/halshs-00534826 ;
55. Raymond, L., and St-Pierre, J (2005), The Strategic Development of Manufacturings SMEs : Patterns, Antecedents and Performance Outcomes, *International Journal of Entrepreneurship and Small Business*, Vol 2, n° 4, pp, 377-391 ;
56. Robson P.J.A, Haugh H.M, & Obeng B.A (2009), Entrepreneurship and innovation in Ghana: enterprising Africa, *Small Bus Econ*, 32, pp, 331-350 ;
57. Sauvé, P., Mahjoub, A., & Pelletier L (2007),*Growth of SMEs: Exploration of Growth Factors with Abitibi-Témiscamingue Enterprises,* 5th International Congress of the Académie de l'Entrepreneuriat, Sherbrooke, Canada ;
58. Schumpeter J. A (1942), « Capitalism, socialism and democracy », Harper, New York ;
59. Sharma, P., Chrisman, J.J. & Chua, J.H (1996), An evaluation of family firm research from a strategic management perspective, *Working paper*, University of Calgary;
60. Sirmon, D., & Hitt, M (2003), Managing Resources: Linking Unique Resources, Management and Wealth Creation in Family Firms, *Entrepreneurship Theory and Practice*, summer;
61. Smallbone, D., Leigh, R., & North, D (1995), The Characteristics and Strategies of High Growth SMEs, *Intenational Journal of Entrepreneurial Behaviour & Research*, 1(3), pp, 44-62 ;

62. Smith, K (2000), Innovation as a Systemic Phenomenon: Rethinking the Role of Policy. *Enterprise & Innovation Management Studies, 1*(1), pp, 73-102 ;
63. Solow, R (1956), A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics, 70*, pp, 65-94 ;
64. Storey, D. J (1994),*Understanding the Small Business Sector*, Routledge, London;
65. St-Pierre, J., Julien, P. A., & Morin, M (2010),The effect of age and size on the financial and economic performance of SMEs, *Journal of Small Business and Entrepreneurship* 23, no, 2: pp, 287-306 ;
66. Swiss Media Association (2008),*Determinants of growth of micro-enterprises,* Dossier of the month November ;
67. Thwaites, A., and Wynarczyk, P (1996), The economic performance of innovative small firms in the South East region and elsewhere in the UK, *Reg. Studies,* 30, pp, 135-149 ;
68. Tsai, W (2001), Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance, *Academy of Management Journal*, N°44 ;
69. Van Der Heijden, B (2001), Encouraging Professional Development in Small and Medium-sized Firms: The Influence of Career History and Job Content, *Career Development International*, 6(3), pp.156-168 ;
70. Wagner, J (1992), Firm Size, Firm Growth, and Persistence of Change: Testing Gibrat's Law with Establishment Data Firm Lower Saxony, 1978-1989, *Small Business Economics* 4(2): 125-131;
71. Wagner, J (1995), Export, Firm Size and Firm Dynamics, *Small Business Economics*, 7 (1), pp, 29-39 ;
72. Westhead, P (1995), Survival and employment growth contrasts between types of owner-managed high-technology firms, *Entrepreneurship Theory and Practice*, Fall, pp, 5-27 ;
73. Wijewardena H & Tibbits G.E (1999), Factors Contributing to the Growth of Small Manufacturing Firms : Data from Australia, *Journal of Small Business Management*. April, 37(2), pp, pp, 88-95 ;
74. Wiklund, J (1999) ; The sustainability of the entrepreneurial orientation-performance relationship, *Entrepreneurship Theory and Practice,* 24, pp, 37–48 ;
75. Wright M (2017) ; Innovation and ownership variety, *Innovation: Organization & Management*, VOL. 19, No. 1, pp, 74-79 ;
76. Wright, M., & Kellermanns, F. W(2011), Family firms: A research agenda and publication guide, *Journal of Family Business Strategy*, pp 1-12;
77. Zahra, S.A., Hayton, J.C., & Salvato, C (2004); Entrepreneurship in Family vs. Non-Family Firms: A resource-based analysis of the effect of organizational culture, *Entrepreneurship Theory and Practice*, 28:4, pp, 363-381;
78. Zahra, S.A., Sharma, P (2004), Family business Research: A strategic reflection, *Family Business Review*, 17 (4), pp, 331-346;

79. Zapalska, A., & Brozik, D (2006), Learning styles and online education, *Compus-Wide Information Systems ;*