*Gest. Prod.*, São Carlos, v. 23, n. 2, p. 419-432, 2016
http://dx.doi.org/10.1590/0104-530X1759-14

# Growth of small businesses: a literature review and perspectives of studies

## *Crescimento de pequenas empresas: revisão de literatura e perspectivas de estudos*

**Hilka Pelizza Vier Machado**[1]

**Abstract:** Theories developed to explain the growth of large companies are not adapted to explain the phenomenon in small companies (Davidsson et al., 2010), but growth is important for the survival of small businesses (Coad et al., 2013). This theoretical article aimed to identify the understandings of the phenomenon of the growth of small companies presented in the literature and the perspectives of future studies. A literature review was conducted in 16 Journals of Entrepreneurship and Small Business Management, as well as in the national search portal *Spell*. The material was initially classified into three categories, which correspond to the definitions of growth, antecedents, and consequences. After this classification, an approach on the complexity of the phenomenon and on the perspectives of studies was presented.

**Keywords:** Growth of small businesses; Research on small business growth; Entrepreneurship and growth of small businesses.

**Resumo:** *Teorias desenvolvidas para explicar o crescimento de grandes empresas não são adaptadas para explicar o fenômeno em pequenas empresas (Davidsson et al., 2010), mas o crescimento é importante para a sobrevivência dos pequenos negócios (Coad et al., 2013). Este ensaio teórico teve como objetivo identificar as compreensões do fenômeno do crescimento de pequenas empresas apresentadas na literatura e as perspectivas de estudos futuros. Foi realizada uma revisão da literatura em 16 dos Journals de Empreendedorismo e Gestão de Pequenas Empresas, bem como no portal de busca nacional Spell. O material foi inicialmente classificado em três categorias, as quais correspondem a definições de crescimento, antecedentes e consequências. Depois dessa classificação, apresentou-se uma abordagem sobre a complexidade do fenômeno e sobre perspectivas de estudos.*

**Palavras-chave:** *Crescimento de pequenas empresas; Pesquisa sobre crescimento de empresas; Empreendedorismo e crescimento de pequenas empresas.*

## 1 Introduction

Growth is an important phenomenon in small enterprises. In fact, their survival essentially depends on their power to participate in the market with other big companies. Growth decreases the possibility of closing small businesses (Rauch & Rijskik, 2013). Strengthening is important not merely for the enterprises and their owners but for all stakeholders since these companies thrust forward the economy by underscoring diversity of products and services.

The growth phenomenon of small enterprises had been widely analyzed within entrepreneurship. One motive is that most fail to expand during their life span (Davidsson et al., 2010; McKelvie & Wiklund, 2010) and small businesses refrain from growing (Doern, 2009). According to Brush, Ceru & Blackburn (2009), some enterprises do not desire growth and others desire slow growth even though they are successful as much as those that grow fast. In fact, most new enterprises do not go beyond the stage when they initiated their activities (Headd & Kirchhoff, 2009), with the exception of the so-called "gazelles" (Julien, 2002), or young enterprises with very fast growth (Sims & Regan, 2006).

The complex phenomenon of growth of small enterprises requires further research since several studies have been developed to measure the companies´ growth. Achtenhagen et al. (2010) reviewed studies on growth published between 1997 and 2008 and identified 56 articles, most of which endeavored to explain why enterprises grow (growth as a dependent

[1] Programa de Pós-graduação em Gestão do Conhecimento, Centro Universitário Cesumar – UniCesumar, Avenida Guedner, 1610, Jardim Aclimação, CEP 87050-900, Maringá, PR, Brazil, e-mail: hilkavier@yahoo.com

Received Sept. 30, 2014 - Accepted Mar. 23, 2016

Financial support: CNPq – Brazil National Council for Scientific and Technological Development

variable); however, other articles dealt with growth strategies or on growth intentions and desires. Few, however, studied the growth process. Explications on growth or no growth decisions, contextual dimensions, the role of entrepreneurship agency are still lacking (Wright & Stigliani, 2012).

The need for further studies may be justified due to the fact that theories developed to explain the growth of big enterprises are not adapted to foreground the same phenomenon in small ones (Davidsson et al., 2010). Since Penrose´s investigations in 1959 (Penrose, 2006), debate on the theme is still on and reaches several directions encroaching on growth indexes, growth determinants and impairments, and explication models. However, researchers must still develop explanations on the manner entrepreneurs take decisions to further or not their companies´ growth (Wright & Stigliani, 2012).

Current theoretical essay identifies the growth range of small enterprises published in the literature and point out the perspectives for future analyses. A review of the literature was undertaken in the main journals of Entrepreneurship and Small Enterprises since 2000 (*Entrepreneurship Theory and Practice, Journal of Small Business Management, Small Business Economics, Business Horizons, Journal of Business Venturing, Foundations and Trends in Entrepreneurship, International Small Business Journal, Journal of Small Business and Entrepreneurship, Journal of Entrepreneurship, Technovation, International Entrepreneurship Management, Journal of World Business, Industrial Management & Data Systems, International Journal of Entrepreneurial; Journal of Business Management and Economic Research, International Behaviour & Research)*. Research was undertaken on the portal *Spell* of the Brazilian Association of Post-graduate Programs in Administration for database of Brazilian Journals. Publications were identified in the following Journals *Brazilian Academic Review*, *Organização & Sociedade*; *Revista de Administração ReAD*, *FACES Review* and *Revista de Administração Contemporânea.*

Current analysis comprises discussions on growth, followed by an approach on the antecedents of growth, comprising determinants associated with individuals, firms and environment. Consequent factors come next, with special focus on measuring forms and growth visualization. Several research perspectives will be provided after the final analysis.

## 2 Definitions of growth

According to Penrose (2006), growth is the product of an internal process in the development of an enterprise and an increase in quality and/or expansion. "Growth is defined as a change in size during a determined time span" (Dobbs & Hamilton, 2007, p. 313).

According to Janssen (2009a), a company´s growth is essentially the result of expansion of demands for products or services. "It first results in a growth in sales and consequently in investments in additional production factors to adapt itself to new demands" (Janssen, 2009c, p. 23). However, Achtenhagen et al. (2010) researched entrepreneurs´ ideas on growth and listed the following: increase in sales, increase in the number of employees, increase in profit, increase in assets, increase in the firm´s value and internal development. Internal development comprises development of competences, organizational practices in efficiency and the establishment of professional sales process. This was the most important index for entrepreneurs that participated in the research. However, increase in the number of employees was not necessarily considered a sign of growth.

Davidsson et al. (2010) reported that growth may be related to new markets, especially in the case of technology firms, with reference to diversification. They are also of the opinion that growth may occur alternatively as an integration of part of the value chain, a sort of vertical growth, or when a firm introduces itself within a market not related to the technology in which it works, which would be a non-related diversification. Another type of growth may be related to the combination of market-product by entrance into the market.

Brush et al. (2009, p. 482) define growth as "geographical expansion, increase in the number of branches, inclusion of new markets and clients, increase in the number of products and services, fusions and acquisitions". According to these authors, growth is above all a consequence of certain dynamics built by the entrepreneurs to construct and reconstruct constantly, based on the assessment made on their firms and on the market. Entrepreneurs are not the sole vectors since there are many other agents involved, such as clients, kin, suppliers and others. In fact, growth is a "socially constructed factor" (Leitch et al., 2010, p. 250). According to Penrose (2006), frontier progress in the milieu or expansion is the product of a constant dynamism since growth intentions change as a result of constant evaluations and re-evaluations that entrepreneurs make as agents. It may result in the displacement of the firm to another place and in fixing itself in the same place. It is the "growth dilemma" (Davidsson et al., 2010, p. 128), full of risks.

However, the difficulty in analyzing the firm´s growth at the precise moment should be underscored (Mckelvie & Wiklund, 2010). It is easier to investigate the antecedent factors that affect growth and the consequences of growth (Leitch et al., 2010) and more difficult to investigate growth dynamics or the manner firms grow (Mckelvie & Wiklund, 2010).

## 3 Growth determinants

Growth is the result of a good administration of resources and capacities which the companies use to promote growth. They comprise capacities, acquired information, financial counseling and resources (Coad et al., 2013). The establishment of growth depends on the identification of the origin of resources, capacities and learning on accumulation methods and the generation of sustainable profits, coupled to the examination of how and when the resources of industry and financing are accessed and how the external investors may be informed on the subject. Wright & Stigliani (2012) enhance that, from the strategic perspective, it is important to trust people with cognitive capacities for growth since the holders are not the sole protagonists of growth. Further, the entrepreneurs´ competence to get involved in networks is highly important (Davidsson et al., 2010).

Growth is affected at several levels. For example, Wiklund et al. (2009) employed an integrative model and explained growth by associating the variables of the agent (human capital and attitudes), firm (resources, enterprising features and growth) and setting (industry). Other studies revealed the influence of variables associated to agents, firm and milieu, as follows.

### 3.1 The influence of variables associated with agents, vis-à-vis the firm´s growth

The entrepreneurs´ schooling level and experience may influence the firms´ growth (Barringer et al., 2005; Dobbs & Hamilton, 2007; Rauch & Rijskik, 2013). Experience in the sector is highly important (Davidsson et al., 2010), coupled to previous experiences in other enterprises (Barringer et al., 2005; Davidsson et al., 2010).

Another aspect listed in the literature is the entrepreneurs´ rank within their personal carrier. According to Wright & Stigliani (2012), position in personal carrier may affect growth. In fact, highest growth expectations are linked to the start of carrier which may coincide with age as young people have great expectations in growth (Davis & Shaver, 2012; Navaretti, 2014). Further, relational competence and insertion in networks are actually growth determinants (Davidsson et al., 2010).

However, growth expectations include not only previous experience in success but also the fear of failure (Hermans et al., 2012; Wright & Stigliani, 2012). Fear of failure limits the capacity of the individual to take risks and seize opportunities which may produce growth. On the other hand, motivation, internal control locus and personal aims of entrepreneurs may have a positive effect on growth (Davidsson et al., 2010; Wakkee et al., 2015).

The motivation for growth may be understood as the "aspiration to expand business" (Delmar & Wiklund, 2008, p. 438) and comprises cognitive, affective and behavioral factors, (Hermans et al., 2012). Previous growth aspirations affect future motivations for growth and suggest a mutual relationship between growth motivations and growth. However, motivations must be stable to determine behavior. This boils down to the fact that managers of small firms are motivated to expand business. If success occurs, their commitment to expansion will be strengthened. Similarly, previous negative results reduce growth motivation. Delmar & Wiklund (2008) highlight that motivation is not the sole determinant and should be further accompanied by resources and strategies. Further, growth motivation may vary between fledging and experienced entrepreneurs. Wright & Stigliani (2012) identified that experienced entrepreneurs have excess of trust and optimism, although further studies are needed to explain how entrepreneurs give density to information obtained on the spot and how they decide whether to promote the firms´ growth.

Intentions are actually associated to the growth phenomenon and are made up by the difference between "actual and intended size" (Hermans et al., 2012, p. 12). They constitute the "entrepreneurs´ aims for a pathway of growth so that business would be successful" (Dutta & Thornhill, 2008, p. 308). Growth intentions are "the subjects´ intentions to start a new business that will be substantially greater throughout several time periods" (Douglas, 2013, p. 636). Intentions vary according to individuals: some aim at growth and others at autonomy, since the cognitive style affects growth intentions. For instance, Dutta & Thornhill (2008) investigated the relationship between growth intentions, cognitive style and perception of competition conditions, and reported that the cognitive style attenuates the relationship between growth intentions and the perception of competitive conditions over time. The perception of competitive conditions affects the manner entrepreneurs establish and articulate their growth intentions. Results reveal that entrepreneurs are heterogeneous in growth intentions; growth intention is associated to the cognitive style and to the perception of competitive intentions.

Growth expectations "weave growth intentions with opportunity perceptions and difficulties" (Hermans et al., 2012, p. 12). Intentions and expectations represent respectively what is desired and what is expected. Although associated, one must understand not only why entrepreneurs have their growth expectations but also what makes them fail in transforming intentions into expectations.

In the case of the entrepreneur, growth may mean the decrease of equilibrium between work and family

(Leitch et al., 2010) since it may require a greater devotion and time on his part. Perhaps that is the reason many entrepreneurs with high growth previously defined a growth limit (Achtenhagen et al., 2010). Chart 1 gives a summary of variables associated to the individual and which may affect growth.

## 3.2 The influence of the firm´s variables on growth

Besides the individual level, the intermediary level may affect growth through the firm. One of the most discussed aspects in the literature is the effect exerted by firm size, evidenced by the 1931 Gibrat´s Law, or "the law of proportionate effect", dealing with the autonomy of size on growth rate within the same industrial sector (Davidsson et al., 2010).

However, later studies have shown that size affects growth although no agreement has been reached on whether small enterprises tend to grow more than big ones (Bentzen et al., 2012; Brito et al., 2007; Daunfeldt & Elert, 2013; Teruel-Carrizosa, 2010). For instance, Bentzen et al. (2012) analyzed a group of Danish industries during 15 years and concluded that big enterprises had a relatively bigger growth than smaller ones. Similarly, Brito et al. (2007) investigated a database with 13,221 firms from 46 countries, based on 9-year data, and identified a positive relationship between size and growth rate. However, the relationship between size and growth is a rather complex affair: in industries with a great number of new firms, the small firms are at a disadvantage and small firms are obliged to grow fast or quit. On the other hand, small firms in mature industries have a great probability in obtaining lower growth rates due to reduced levels of opportunities.

Innovation and market structure determine growth. There is a great probability that small innovating firms grow faster than big firms that shun innovations (Daunfeldt & Elert, 2013). Market structure has an influence on the firm´s growth capacity, especially service ones which are more heterogeneous and tend to grow less than industrial firms. Although industries require heavy investments, service firms quit the market quickly (Teruel-Carrizosa, 2010).

If, on the one hand, small enterprises require specialists and counseling firms less, with increasing chances of growth (Davidsson et al., 2010), the use of their abilities to enhance growth derives from the learning process acquired by experience and over time. The firm´s growth will depend on the use of their learning capacity to develop efficiency

**Chart 1.** Determinant factors of growth associated with the individual entrepreneur.

| Growth determinants | Authors |
|---|---|
| Educational level and experience | Barringer et al. (2005)<br>Dobbs & Hamilton (2007)<br>Rauch & Rijskik (2013) |
| Experience in the sector | Davidsson et al. (2010) |
| Experience with other enterprises | Barringer et al. (2005)<br>Davidsson et al. (2010) |
| Previous successful experiences | Hermans et al. (2012) |
| Rank in personal carrier | Wright & Stigliani (2012) |
| Insertion in social networks | Davidsson et al. (2010) |
| Age | Davis & Shaver (2012)<br>Navaretti (2014) |
| Fear of being a failure | Douglas (2013)<br>Dutta & Thornhill (2008)<br>Hermans et al. (2012) |
| Personal aims and internal locus of control | Davidsson et al. (2010) |
| Growth aspiration and previous growth aspirations | Delmar & Wiklund (2008)<br>Hermans et al. (2012) |
| Motivation to grow in normal enterprises | Wright & Stigliani (2012) |
| Growth intentions | Douglas (2013)<br>Dutta & Thornhill (2008)<br>Hermans et al. (2012)<br>Wakkee et al. (2015) |
| Growth expectations | Hermans et al. (2012) |
| Equilibrium between labor and family | Leitch et al. (2010) |

in the segment (Reid & Xu, 2012; Teruel-Carrizosa, 2010). Jovanovic´s learning model was confirmed by Reid & Xu (2012) in their analysis on Chinese enterprises (growth in terms of the number of full-time employees). The authors insisted that the firm may improve its performance through market experience, by optimizing its efficiency materialized by learning over time. According to such an approach, efficient firms will survive and grow, whereas the less efficient will weaken and perhaps vanish. Such a presupposition is similar to the path traced by the stages within the enterprises´ life cycle (Wright & Stigliani, 2012).

According to Davidsson et al. (2010), fledging enterprises are weaker during their first years and size proved to be dependent on age. However, the initial team´s size is highly important. Teruel-Carrizosa (2010) underscored the effect of age on the growth of Spanish firms but the authors insisted that influence was the result of the learning process and accumulated experience. In other words, enterprises with great experience on the market may have higher growth rates. On the other hand, the author detected variations among the segments and associated variations in service firms to expenditure with research and development. He identified an inverted effect or a U-turn in growth and showed that firms grew less when they were older. Lotti et al. (2009, p. 38) also identified an inverted relationship between growth and age in Italian enterprises, even though "the most efficient in growth will probably continue to grow during subsequent periods". Federico & Capelleras (2015) reported that small and young enterprises which experienced growth had a positive impact on profit even though the effect of profit on growth was not significant. The literature does not agree on the influence of the firm´s age. Coad & Tamvada (2012) identified the negative effect between age and growth. They registered that young enterprises had higher growth expectations even though agricultural firms revealed slower growth: growth was inversely proportional to age only during the first years. Similarly, Hamilton (2010) investigated growing firms in New Zealand and reported a discontinuous growth where the firm´s age and size were not significant for growth.

Besides the influence of the enterprises´ size and age, choice of the firm´s site may affect growth (Hoogstra & Djik, 2004; Porto & Brito, 2010; Reid & Xu, 2012). In their study on Brazilian firms, Porto & Brito (2010) registered the positive effect of the industrial cluster, especially when the activity and site factors are assessed jointly. On the other hand, Hoogstra & Djik (2004, p. 189) analyzed the effect of firm´s localization on growth and deduced that within a 5-km distance the effect on growth was positive on the generation of employment for new firms. Contrastingly, it had a negative effect on the growth of already existing firms and suggested that "the policy of establishing and stimulating new enterprises for the growth of a specific region may be truly successful if the negative effects on already established firms are taken into consideration".

Since growth develops *pari passu* with management and organizational complexity (Davidsson et al., 2010), enterprises should develop managerial competences for growth (Penrose, 2006). Managerial competences are important because growth involves risk and depends on organizational environment with flexibility (Dobbs & Hamilton, 2007). Growth requires aims, commitment and perspectives (Barringer et al., 2005; Dobbs & Hamilton, 2007).

Enterprises must also develop strategies (Dobbs & Hamilton, 2007). The literature mainly insists on human resources and market strategies. Human capital should be rightly valued and strategies for human resources that would include financial incentives and training for the development of personnel should be defined (Barringer et al., 2005; Dobbs & Hamilton, 2007; Rauch & Rijskik, 2013), since the employees´ welfare has a positive effect on growth (Antoncic & Antoncic, 2011). Strategies with regard to the market, such as increase in marketing activities, improvement in distribution, positioning and segmentation of the market, benefitting from market niches and product correction were effective on growth (Brush et al., 2009; Davidsson et al., 2010). Further, clients´ knowledge was positively associated with growth (Barringer et al., 2005).

Production strategies, such as the development of new products and services, technological specialization and focus on innovation, also determined growth (Achtenhagen et al., 2010; Davidsson et al., 2010; Dobbs & Hamilton, 2007; Moreno & Casillas, 2008). Stam & Wennberg (2009) reported that innovation, measured by P & D expenditure, was relevant for the growth of high technology enterprises even though it did not affect the growth of firms with low technology. On the other hand, Moreno & Casillas (2008) evaluated the effect of enterprising orientation in Spanish firms during four years and reported its effects on growth. The innovation trend was the size of the enterprising orientation with the greatest influence and evidenced the innovation effect on growth. Similarly, Omri & Ayadi-Frikha (2014) identified the positive effect of innovation on growth in small Tunisian enterprises.

Other important strategies for growth include joint ventures with suppliers (Beekman & Robinson, 2004) and a relationship policy and orientation to clients (Brush et al., 2009; Julien, 2002; Reid & Xu, 2012). Evidences exist that exports by enterprises and their internationalization may enhance growth (Achtenhagen et al., 2010; Coad & Tamvada, 2012; Davidsson et al., 2010; Wakkee et al., 2015).

Brenner & Schimke (2015) analyzed the growth of small German industries and reported that exports did not affect significantly their growth. However, exporting firms revealed less falling-off and less oscillation in growth rates. Further, business format strategies, such as franchising, may trigger growth (Achtenhagen et al., 2010; Castrogiovanni & Justis, 2002; Leitch et al., 2010).

It is highly important to underscore that growth may not merely be organic but may be obtained by fusions, acquisitions, joint ventures and strategic alliances (Leitch et al., 2010; Penrose, 2006). Chart 2 gives a summary of growth determinants associated to enterprises.

### 3.3 Influence of setting variables on growth

Environment, settings or context involve the enterprise´s external variables with regard to its social, economic and political stance (Julien, 2010; Welter,

**Chart 2.** Growth determinants associated to enterprises.

| Growth determinants | Authors |
|---|---|
| Size of firm | Bentzen et al. (2012)<br>Brito et al. (2007)<br>Daunfeldt & Elert (2013)<br>Teruel-Carrizosa (2010) |
| Age of firm | Coad & Tamvada (2012) – efeito negativo<br>Lotti et al. (2009)<br>Teruel-Carrizosa (2010)<br>Federico & Capelleras (2015) |
| Choice of site | Hoogstra & Djik (2004)<br>Porto & Brito (2010)<br>Reid & Xu (2012) |
| Learning and experience | Reid & Xu (2012)<br>Teruel-Carrizosa (2010) |
| Mission and commitment of the firm with regard to growth | Barringer et al. (2005)<br>Dobbs & Hamilton (2007) |
| Innovation and development in products and services | Achtenhagen et al. (2010)<br>Davidsson et al. (2010)<br>Daunfeldt & Elert (2013)<br>Dobbs & Hamilton (2007)<br>Moreno & Casillas (2008)<br>Stam & Wennberg (2009)<br>Omri & Ayadi-Frikha (2014) |
| Hiring counselors and experts | Davidsson et al. (2010) |
| Development of management competences | Penrose (2006) |
| Strategies of human resources (financial incentives and development) | Antoncic & Antoncic (2011)<br>Barringer et al. (2005)<br>Dobbs & Hamilton (2007)<br>Rauch & Rijskik (2013) |
| Marketing strategies (increase in marketing activities; improvement of product distribution; position and segmentation of market; benefitting from market niches; information on clients; policy in client relationship and orientation) | Barringer et al. (2005)<br>Brush et al. (2009)<br>Davidsson et al. (2010)<br>Julien (2002)<br>Reid & Xu (2012) |
| Networks and joint ventures with suppliers | Beekman & Robinson (2004) |
| Exports and Internationalization | Achtenhagen et al. (2010)<br>Coad & Tamvada (2012)<br>Davidsson et al. (2010)<br>Brenner & Schimke (2015)<br>Wakkee et al. (2015) |
| Business format (franchising) | Achtenhagen et al. (2010)<br>Leitch et al. (2010) |
| Fusions, acquisitions, joint ventures and strategic alliances | Leitch et al. (2010)<br>Penrose (2006) |

2011). For instance, the setting comprises the market situation, supply-demand conditions, local and space conditions and the industry and sector surroundings (Dobbs & Hamilton, 2007; Wright & Stigliani, 2012) which may or may not enhance growth (Coad & Tamvada, 2012). Further, the dynamics of the sector and the industry are an important determining factor for growth. In fact, several enterprises grew because the sector has grown too (Brito & Vasconcelos, 2009; Davidsson et al., 2010). Daunfeldt & Elert (2013) state that the context of the sector influences size and growth relationships. On the other hand, entrance impairments may protect growth of enterprises or even cause market concentration (Janssen, 2009c).

Janssen (2009b) considers that the setting may be favorable or unfavorable. The competitive setting is characterized by great uncertainty. The complex setting requires a great amount of information retrieved from the enterprise, whilst simple setting may be characterized by the activities of subgroups that provide information. The analysis of Belgian firms revealed the influence of two factors associated to generosity: the localization of the firms in an industrial park and the manner the manager perceived the economic dynamism of the region (negative effect). However, dynamism and complexity failed to show any statistical significance with growth.

Several factors in the setting, such as investors and venture capital, is an important index to affect growth, similar to universities and the mechanisms of technology transference (Davidsson et al., 2010; Hermans et al., 2012). Further, the availability of resources, human capital, prime matter and facility to obtain it, may enhance enterprise growth (Coad & Tamvada, 2012; Cressy, 2009).

Moreover, Clarke et al. (2014) insisted on the importance of stakeholders on the firms´ growth. Networks and inter-organization relationships were determinant in their growth (Barringer et al., 2005; Estrella & Bataglia, 2013). Networks and alliances influence growth mainly in innovation sectors, as shown by Estrella & Bataglia (2013) in their analysis on Brazilian industries of health biotechnology, with alliances involving universities, national and international investment funds, laboratories and national biotechnical firms, international laboratories and biotechnological enterprises and incubators. Network participation and alliances contributed towards growth measured by the number of employees and patents.

Public policies and support programs for firms within the political and governmental sphere may contribute towards growth as identified by Schoonjans et al. (2013) when they assessed small firms which participated in a Belgian government program. The authors identified the positive effect of the program by assets and growth of firms´ added value, with a 2.5% growth than that experienced by the others.

In the case of the social stance, Arregle et al. (2013) identified the positive effect of family ties through family emotional support which proved to be favorable to growth. In fact, it varied according to the firm´s age, with higher rates during the first years of business. Chart 3 gives a summary of determining factors associated with setting variables.

Charts 1-3 show the determining factors of growth identified in previous studies and associated to the individual, firm and setting. According to Chandler et al. (2009), there is an association between the determinants at firm, individual and setting levels. The authors suggest the employment of multi-level models which comprise variables associated with the three dimensions, or rather, the individual, setting and enterprise dimensions (Wiklund et al., 2009; Wright & Stigliani, 2012).

## 4 Consequences of growth: types of measurement and growth

Although in the case of enterprises "growth enhances survival and the benefits of growth may last for many years" (Coad et al., 2013, p. 629), it should be underscored that growth implies in the increase of management and organizational complexity (Davidsson et al., 2010), besides forfeiting its familial characteristics (Leitch et al., 2010) through more impersonal relationships.

In fact, no consensus exists with regard to ways in measuring growth. The main indexes comprise variation in sales volumes, followed by indexes in the variation in the number of employees (Achtenhagen et al., 2010). According to the transaction costs theory, costs are the result of hierarchy. Managers frequently prefer to sub-hire (Chandler et al., 2009) and enterprises may expand sales without increasing the number of employees (Delmar & Wiklund, 2008; Rauch & Rijskik, 2013). On the other hand, employee rates may increase without simultaneously increasing sales. Chandler et al. (2009) studied the simultaneous increase of sales and employees in Swedish enterprises at three different periods and concluded that, in certain conditions, firms tend more towards other types of hiring employees to advertise the product or service when supervision costs are high. They reported that increase in sales may be associated with increase in technology or equipments more than to increase in the number of employees. On the other hand, several authors argue that sale variations include different growth aspects, such as improvement in the process´s efficiency (Davidsson et al., 2010). Consequently, the variation in the number of employees may not demand increase in sales (Delmar & Wiklund, 2008), although, according to Rauch & Rijskik (2013), employment rate is a more stable index of growth. On the other

**Chart 3.** Determining growth factors associated with setting variables.

| Determining growth factors | Authors |
|---|---|
| Market and supply-demand conditions | Coad & Tamvada (2012)<br>Dobbs & Hamilton (2007)<br>Wright & Stigliani (2012) |
| Dynamism of the sector and entrance impairments | Brito & Vasconcelos (2009)<br>Davidsson et al. (2010)<br>Daunfeldt & Elert (2013)<br>Janssen (2009b)<br>Wright & Stigliani (2012) |
| Investors and venture capital | Davidsson et al. (2010)<br>Hermans et al. (2012) |
| Universities and mechanisms of transference of technology | Davidsson et al. (2010)<br>Hermans et al. (2012) |
| Availability and access facility to resources | Cressy (2009) |
| Availability of human resources and prime matter | Coad & Tamvada (2012) |
| Importance of stakeholders | Clarke et al. (2014)<br>Leitch et al. (2010) |
| Importance of family ties | Arregle et al. (2013) |
| Networks, alliances and firms´ network | Barringer et al. (2005)<br>Estrella & Bataglia (2013) |
| Public policies and national or local support policies to enterprises | Schoonjans et al. (2013) |

hand, Davidsson et al. (2010) do not consider true the premise that growth increases employment since the greatest generation of employment rates occurs in fusions.

Besides variations in sales and in the number of employees, several other indexes were employed to assess growth, namely, absolute growth of employees, sales for new clients, sales for markets in new geographic areas, profit variation, profit on assets and growth in the firm´s price. Specific sectorial indexes were also employed: number of seats in the case of restaurants and theatres and the number of cars in the case of taxi firms (Achtenhagen et al., 2010; Davidsson et al., 2010).

Several researchers underscore the use of multiple indicators (Davidsson et al., 2010; Dobbs & Hamilton, 2007), although in the opinion of Janssen (2009a) variation in sales and employee increase are distinct types of growth and may not be used together. "Growth should not be measured by compound indexes and by mixing different variables, such as sales or employees, since they do not assess the same phenomenon" (Janssen, 2009c, p. 42).

Growth may affect the size of the enterprise if it is followed by good performance. Growth may be a measure of performance, albeit not inevitably of success, since growth does not necessarily result in profit (Mckelvie & Wiklund, 2010). Sales do not automatically imply profit increase due to possible variations in costs. Growth may be associated to profit if unit costs are reduced or a stronger position in the market is affirmed. In fact, the relationship between growth and profit is not conclusive (Davidsson et al., 2010; Davidsson et al., 2009).

## 4.1 Complexity of measurement

Frequently growth measurement may be inconsistent. Achtenhagen et al. (2010) report that the use of different growth measurements may provide different non-comparable results. One critical procedure employs variation between the first and last year since it does not take into consideration that growth does not have a linear standard. Consequently, longitudinal studies are more adequate (Achtenhagen et al., 2010). However, it is not possible to pinpoint which analysis period may actually represent the growth cross-section (two, three, four, five or more years) due to its discontinuity (McKelvie & Wiklund, 2010). According to Davidsson et al. (2010), the employment of a specific formula, such as the regression analysis of a time period, may better reveal growth. However, organic growth and growth by acquisition should be thoroughly distinguished.

Several measurement indications have been proposed in the literature to minimize risks, such as the inclusion of past growth as control variable (Delmar & Wiklund, 2008), the exclusion of new enterprises (up to one year) from assessments (Stam, 2010) and the employment of measurement intervals due to non-linear growth (Shepherd & Wiklund, 2009). The combined use of primary and secondary data is another suggestion (Achtenhagen et al., 2010).

Further, Davidsson et al. (2010) remark that several researches use growth intentions rather than true growth.

Growth intentions are not always necessarily stable over time. For instance, "entrepreneurs´ attitudes may change radically due to events in their private life" (Davidsson et al., 2010, p. 95), although Delmar & Wiklund (2008) have identified a relative temporal stability in motivations for the growth of Swedish entrepreneurs within a five-year period.

Finally, measurement complexity may be associated with the unity of analysis since enterprises change their juridical status, frequently establish new firms instead of growing and other change their activities (Davidsson et al., 2010; Mckelvie & Wiklund, 2010). It should be underscored that methods of growth measurements may provide different results due to the indexes employed.

### 4.2 Growth types

Growth may have differentiated types and levels since several enterprises grow more or less than others. The so called "gazelles" firms exhibit very fast growth (Parker et al., 2010), even though they fail to maintain constantly the same growth rhythm (Headd & Kirchhoff, 2009), since growth is irregular and discontinuous (Coad et al., 2013; Hamilton, 2010).

Delmar et al. (2003, p. 191) identified seven types of growth: a) super absolute growth, when enterprises have absolute growth in employment and sales; b) robust growth in sales, in absolute terms, but negative in employment; c) growth through acquisition, positive in sale and total employment but negative in organic employment, or rather, growth in employment mainly occurs through acquisition; d) super relative growth, with great development in super relative terms; e) irregular growth, or rather, negative in absolute sales but relatively positive in average; f) growth in employment, or rather, negative in absolute sales; g) high growth, or rather, firms demonstrate differences in growth standards.

St-Pierre (2004) forwards another classification, with five types: the first type consists of continuous growth; the second type is limited to certain years; the third type is totally discontinuous and disordered; the fourth type is robust at the start but decreases over time; the fifth comprises firms with intense growth at the start, followed by decrease and recovery.

Brush et al. (2009) presented a similar classification based on 4-type growth trajectories. a) Fast growth beyond the expectations of the entrepreneurs, or rather, the firms are able to put the product on the market at the precise time, at excellent prices. The firms have a strong team of salespersons; some have external counselors and high liquidity. On the other hand, they had difficulty in having qualified human resources. b) Firms with incremental growth, or rather, firms that attended clients well, with meticulous and controlled planning, with good relationships with clients. They controlled their own growth. c) Firms with episodic growth, or rather, firms that experienced growth, followed by stagnation associated with internal or external causes. d) Firms with plateau growth, or rather, a slow growth, followed by stabilization and posterior decline in profits. The authors state that the type is not irreversible.

The types represented in the above classifications reveal the discontinuity and singularity of growth. Different trajectories may represent different, intermittent, faster or slower, discontinuous or gradual paths. Firms may actually extend themselves, vanish or shrink within their settings.

## 5 Complexity of the phenomenon and study perspectives

Determinant factors and growth consequences mentioned in the previous topics show some of the complexities of the growth phenomenon of small enterprises (Leitch et al., 2010). In the case of live organisms and organizations, growth is not easily visible at the instant it occurs and growth dynamics over time have not been explained (Wright & Stigliani, 2012). To grow and not to grow is a condition proper to small enterprises within the market. The decision on, when, how much and where to grow belongs to the entrepreneur (Achtenhagen et al., 2010). Although growth is experienced by the entrepreneur administrating the small business, it is not the product of the entrepreneur´s efforts since it is socially built (Clarke et al., 2014; Leitch et al., 2010). Firms grow but the entrepreneurs take the decision to make them grow (Wright & Stigliani, 2012), supported by the efforts of other people (Clarke et al., 2014).

Growth is not merely the result but it is derived from a set of activities and factors. It should be seen as a process (Davidsson et al., 2010). Figure 1 represents the process with the main aspects identified in previous studies on growth.

Growth is not a natural process for enterprises but a process full of uncertainties. Wright & Stigliani (2012, p. 9) report that "by definition, growth is inherently an uncertain process characterized by a high level of ambiguity in the final results and in the setting". Growth may provide desirable or undesirable consequences (Davidsson et al., 2010), with "radical changes in the business´s features" (Wiklund et al., 2009, p. 357). Since it is a gradual and not an instantaneous process (Barringer et al., 2005), several researchers have suggested that the phenomenon should be analyzed longitudinally (Davidsson et al., 2010; Mckelvie & Wiklund, 2010).

Its complexity is also due to the fact that growth is not constant. On the contrary, within a temporal dimension, different configurations may be identified, with randomized paths rather than constant ones, besides situations in which a period of growth is followed by one of stagnation or decline (Stam, 2010). Even "gazelle firms" with

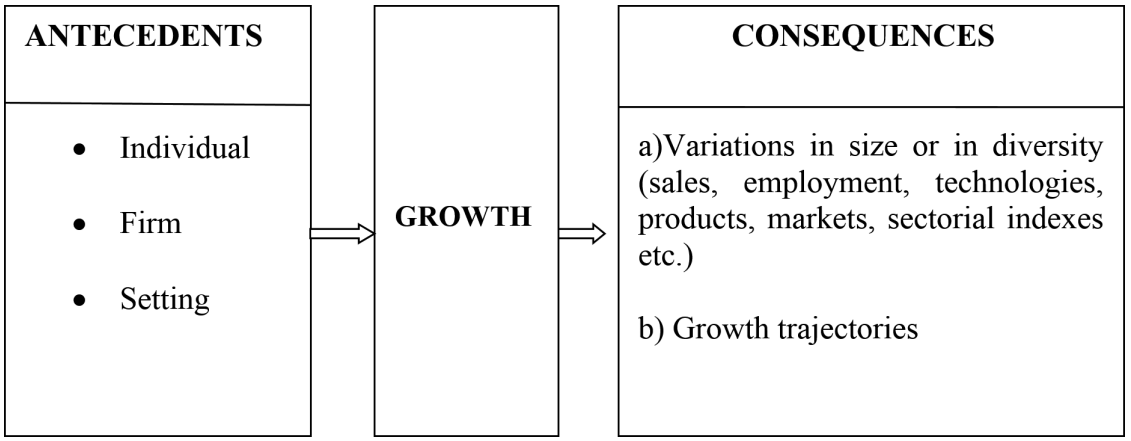


**Figure 1.** The growth process of small enterprises.

their fast growth are susceptible to oscillations in their growth process. Coad et al. (2013, p. 616) state that "a 'gazelle firm' may not always be a 'gazelle firm' and several live-dead enterprises may rise from the dead".

Since there is no growth pattern for small enterprises, the phenomenon proves to be heterogeneous among the firms (Wright & Stigliani, 2012), evidencing an idiosyncratic growth character of the small enterprise (Dobbs & Hamilton, 2007), which may be affected by different sources, such as setting, entrepreneur and firm administration (Wiklund et al., 2009; Wright & Stigliani, 2012).

However, growth is not unidirectional and may be the result of variation in sales volume, in the number of employees and in the use of technologies (Wright & Stigliani, 2012), with different manners of growth which may go beyond organic growth, including hybrid growth modes such as franchising, strategic alliances, joint ventures and acquisitions (Mckelvie & Wiklund, 2010; Penrose, 2006).

New growth approaches may be interesting. These include the approach forwarded by Clarke et al. (2014), who analyzed growth from a co-evolutionary aspect considered adequate to conciliate an economic aspect with sustainability. The latter is based on three aspects: a) relational epistemology with emphasis on the importance of activities, institutions, technologies and settings which interact with the entrepreneur and reinforce his power of agency; b) collectivity, since growth is the product of collective activities; c) multi-dimensionality since growth is not a purely economic aspect.

Leitch et al. (2010) analyze the phenomenon within different settings and mention the need to study the growth of the family enterprise, social enterprise and the enterprise of ethnic minorities. The research strategy may be relevant since the entrepreneurs´ cognitive processes affect decisions and the way they access resources (Wright & Stigliani, 2012). It is thus possible that entrepreneurs from different settings would provide several types of comprehension of the phenomenon which do not include merely the economic aspect. Further, entrepreneurs may consider growth as a synonym of the firm´s internal development and growth benefits may also comprehend employees, suppliers and clients (Achtenhagen et al., 2010).

Entrepreneurs do not have the same idea of growth (Mckelvie & Wiklund, 2010). For instance, St-Pierre (2004) revealed the preference of small Italian entrepreneurs in financing their firms´ growth with their own resources since their growth idea was different from that of the investors. Frequently the presence of external investors may be a source of conflict with the entrepreneurs´ growth expectations (Wright & Stigliani, 2012). Leitch et al. (2010) assess the possibility of different ideas of growth by stakeholders. It should be emphasized that further studies with different types of entrepreneurs may explain the meaning of growth for initiating and experienced entrepreneurs, for franchised and franchising entrepreneurs, for entrepreneurs desirous for growth and those who already experienced growth.

On the one hand, if several studies focused on determinants and on the consequences of growth of small enterprises, few studies deal with the growth episode that would elucidate the growth movement including entrepreneurs´ perceptions on the start, duration and dynamics of the growth process. Such approach will help understand the instance of growth, decreasing the gaps indicated in previous studies. Ethnographic and longitudinal studies may provide useful contributions.

## 6 Final considerations

Current theoretical essay is a brief survey on scientific production, mainly within the last fifteen years, on the growth of small enterprises with regard to Entrepreneurship. It is a rather comprehensive work to show that growth is a complex theme, requiring further studies.

The analysis of publications revealed how the growth phenomenon has been dealt with through its antecedents and consequences. The characteristics of the former may contribute towards growth and may comprise schooling level and experience (within the sector, with other enterprises, previous successful experiences); position in personal carrier; insertion within social and other networks; age; fear of failure; personal aims and internal locus of control; growth aspirations and previous growth aspirations; motivations, expectations and growth intentions; equilibrium between work and family. Further, the firm´s characteristics or activities may also induce growth, such as size and age of the enterprise; choice of site; learning and experience; mission and commitment with growth; innovation and development in products and services; hiring of consulters and experts; development of management competences; strategies in human resources and marketing strategies; networks and joint ventures with suppliers,; exports and internationalization; type of business (franchising); fusions, acquisitions, joint ventures and strategic alliances. Moreover, several setting characteristics also revealed a positive influence on the growth of small enterprises, such as supply and demand conditions; dynamics of the sector and entrance impairments; investors and venture capital; universities and mechanisms for the transference of technology; availability and facility of access to human resources and prime matter; importance of stakeholders and family ties; networks, alliances and enterprise networks, public policies and national and local programs subsidizing the firms.

The analysis of growth consequence factors underscore the fact that there is no agreement in measuring growth. The traditionally main measurements are sales variation and the number of employees. However, new models use other parameters, such as patents, absolute growth of the number of employees; sales to new clients; sales in new geographic markets; profit variation; profit on assets and increase in the firm´s worth. Several other sectorial indexes were identified such as the number of places in restaurants and theatres and the number of cars for taxi firms (Achtenhagen et al., 2010). Results show that growth is a gradual, non-instantaneous and inconstant process. Idiosyncrasies and heterogeneity were attributed to the phenomenon (Brenner & Schimke, 2015).

In spite of the number of research and publications on the theme, explicatory studies are lacking on the growth episode and on differentiated approaches that would take into account the different types of entrepreneurs or their different contexts. Further studies on the understanding of the growth episode or growth movement by different entrepreneurs and by different stakeholders and by other agents should be developed for a contextual, social and more comprehensive explanation, suggested by Clarke et al. (2014). Another aspect to be underscored is the need for different focuses that would not merely deal with growth from the point of view of economic rationality (Seifert & Vizeu, 2015). Lack of publications on the subject matter with regard to Brazilian firms was one of the main limitations in current investigation.

## References

Achtenhagen, L., Naldi, L., & Melin, L. (2010). "Business growth": do practitioners and scholar really talk about the same thing? *Entrepreneurship Theory and Practice*, 34(3), 289-316. http://dx.doi.org/10.1111/j.1540-6520.2010.00376.x.

Antoncic, J. A., & Antoncic, B. (2011). Employee satisfaction Intrapreneurship and firm growth: a model. *Industrial Management & Data Systems*, III(4), 589-607. http://dx.doi.org/10.1108/02635571111133560.

Arregle, J., Batjargal, B, Hitt, M., Webb, J., Miller, T. & Tsui, A. (2013). Family ties in entrepreneurs 'social networks' and new venture growth. *Entrepreneurship Theory and Practice, (3)* 1-32.

Barringer, B. R., Jones, F. F., & Neubaum, D. O. (2005). A quantitative content analysis of the characteristics of rapid growth firms and theirs founder. *Journal of Business Venturing*, 20(5), 663-687. http://dx.doi.org/10.1016/j.jbusvent.2004.03.004.

Beekman, A., & Robinson, R. B. (2004). Supplier partnerships and the small, high-growth firm: selecting for success. *Journal of Small Business Management*, 42(1), 59-77. http://dx.doi.org/10.1111/j.1540-627X.2004.00097.x.

Bentzen, J., Madsen, E. S., & Smith, V. (2012). Do firm's growth rates depend on firm size? *Small Business Economics*, 39(4), 937-947. http://dx.doi.org/10.1007/s11187-011-9341-8.

Brenner, T., & Schimke, A. (2015). Growth development paths of firms: a study of smaller businesses. *Journal of Small Management*, 53(2), 539-557. http://dx.doi.org/10.1111/jsbm.12081.

Brito, L. A. L., Brito, E. P. Z., & Vasconcelos, F. C. (2007). Ser uma empresa grande é vantagem para crescer? *Faces: Revista de Administração*, 6(2), 61-75.

Brito, L. A. L., & Vasconcelos, F. C. (2009). The variance composition of firm growth rates. *Brazilian Administration Review*, 6(2), 118-136. http://dx.doi.org/10.1590/S1807-76922009000200004.

Brush, C. G., Ceru, D. J., & Blackburn, R. (2009). Pathways to entrepreneurial growth: the influence of management, marketing, and money. *Business Horizons*, 52(5), 481-491. http://dx.doi.org/10.1016/j.bushor.2009.05.003.

Castrogiovanni, G. J., & Justis, R. T. (2002). Strategic and contextual influences on firm growth: an empirical study of franchisors. *Journal of Small Business Management*, 40(2), 98-108. http://dx.doi.org/10.1111/1540-627X.00043.

Chandler, G. N., Mckelvie, A., & Davidsson, P. (2009). Asset specificity and behavioral uncertainty as moderators of the sales growth: employment growth relationships in emerging ventures. *Journal of Business Venturing*, 24(4), 373-387. http://dx.doi.org/10.1016/j.jbusvent.2008.04.002.

Clarke, J., Holt, R., & Blundel, R. (2014). Re-imagining the growth process: (co)-evolving metaphorical representations of entrepreneurial growth. *Entrepreneurship & Regional Development: International Journal (Toronto, Ont.)*, 26(3-4), 234-256.

Cressy, R. (2009). Determinants of small firm survival and growth. In: M. Casson, B. Yeung, A. Basu & N. Wadeson. *The Oxford handbook of entrepreneurship* (pp. 161-193). Milton Keybnes: Oxford University Press.

Coad, A., & Tamvada, J. P. (2012). Firm growth and barriers to growth among small firms in India. *Small Business Economics*, 39(2), 383-400. http://dx.doi.org/10.1007/s11187-011-9318-7.

Coad, A., Frankish, J., Roberts, R. G., & Storey, D. J. (2013). Growth paths and survival chances: an application of Gambler's Ruin theory. *Journal of Business Venturing*, 28(5), 615-632. http://dx.doi.org/10.1016/j.jbusvent.2012.06.002.

Daunfeldt, S-O., & Elert, N. (2013). When is Gibrat's law a law? *Small Business Economics*, (41), 133-147.

Davidsson, P., Achtenhagen, L., & Naldi, L. (2010). Small firm growth. *Foundations and Trends in Entrepreneurship*, 6(2), 69-166. http://dx.doi.org/10.1561/0300000029.

Davidsson, P., Steffens, P., & Fitzsimmons, J. (2009). Growing profitable or growing form profits: putting the horse in front of the cart? *Journal of Business Venturing*, 24(4), 388-406. http://dx.doi.org/10.1016/j.jbusvent.2008.04.003.

Davis, A. E., & Shaver, K. G. (2012). Understanding Gendered variations in business growth intentions across the life course. *Entrepreneurship Theory and Practice*, 36(3), 495-512. http://dx.doi.org/10.1111/j.1540-6520.2012.00508.x.

Delmar, F., & Wiklund, J. (2008). The Effect of small business managers 'growth motivation on firm growth: a longitudinal study. *Entrepreneurship Theory and Practice*, 32(3), 437-457. http://dx.doi.org/10.1111/j.1540-6520.2008.00235.x.

Delmar, F., Davidsson, P., & Gartner, W. B. (2003). Arriving at the high growth firm. *Journal of Business Venturing*, 18(2), 189-216. http://dx.doi.org/10.1016/S0883-9026(02)00080-0.

Dobbs, M., & Hamilton, R. T. (2007). Small business growth: recent evidence and new directions. *International Journal of Entrepreneurship Behaviour and Research*, 13(5), 296-322. http://dx.doi.org/10.1108/13552550710780885.

Doern, R. (2009). Investigating barriers to SME growth and development in transition environment": a critique and suggestions for developing the methodology. *International Small Business Journal*, 27(3), 275-305. http://dx.doi.org/10.1177/0266242609102275.

Douglas, E. (2013). Reconstructing entrepreneurial intentions to identify predisposition for growth. *Journal of Business Venturing*, 28(5), 633-651. http://dx.doi.org/10.1016/j.jbusvent.2012.07.005.

Dutta, D. K., & Thornhill, S. (2008). The evolution of growth intentions: toward a cognition-based model. *Journal of Business Venturing*, 23(3), 307-332. http://dx.doi.org/10.1016/j.jbusvent.2007.02.003.

Estrella, A., & Bataglia, W. (2013). A influência da rede de alianças no crescimento das empresas de biotecnologia de saúde humana na indústria brasileira. *Organização & Sociedade, Salvador*, 20(65), 321-340. http://dx.doi.org/10.1590/S1984-92302013000200008.

Federico, J. S., & Capelleras, J.-L. (2015). The heterogeneous dynamics between growth and profits: the case of Young firms. *Small Business Economics*, 44(2), 231-253. http://dx.doi.org/10.1007/s11187-014-9598-9.

Hamilton, R. T. (2010). How firms grow and the influence of size and age. *International Small Business Journal*, 30(6), 611-621. http://dx.doi.org/10.1177/0266242610383446.

Headd, B., & Kirchhoff, B. (2009). The growth, decline and survival of small businesses: an exploratory study

of life cycles. *Journal of Small Business Management*, 47(4), 531-550. http://dx.doi.org/10.1111/j.1540-627X.2009.00282.x.

Hermans, J., Vanderstraeten, J., Dejardin, M., Ramdani, D., Stam, E., & Van Witteloostuijn, A. (2012). *Ambitious entrepreneurship: antecedents and consequences* (Research paper 2012-023). Antwerpen: University of Antwerp. 28 p.

Hoogstra, G. J., & Djik, J. V. (2004). Explaining firm employment growth: does location matter? *Small Business Economics*, 22(3/4), 179-192. http://dx.doi.org/10.1023/B:SBEJ.0000022218.66156.ac.

Janssen, F. (2009a). Do manager's characteristics influence the employment growth of SMEs? *Journal of Small Business and Entrepreneurship*, 19(3), 293-315. http://dx.doi.org/10.1080/08276331.2006.10593372.

Janssen, F. (2009b). Does the environment Influence the employment growth of SMEs? *Journal of Small Business and Entrepreneurship*, 22(3), 311-326. http://dx.doi.org/10.1080/08276331.2009.10593458.

Janssen, F. (2009c). The conceptualization of growth: are employment and turnover interchangeable criteria? *The Journal of Entrepreneurship*, 18(21), 21-45. http://dx.doi.org/10.1177/097135570801800102.

Julien, P.A. (2002). *Les PME à forte croissance. L'exemple de 17 gazelles dans 8 regions du Québec*. Sainte-Foye: Presses de l'Université du Québec.

Julien, P. A. (2010). *Empreendedorismo e economia do conhecimento*. São Paulo: Saraiva.

Leitch, C., Hill, F., & Neergaard, H. (2010). Entrepreneurial and business growth and the quest for a "comprehensive theory": tilting at Windmills? *Entrepreneurship Theory and Practice*, 34(1), 249-260. http://dx.doi.org/10.1111/j.1540-6520.2010.00374.x.

Lotti, F., Santarelli, E., & Vivarelli, M. (2009). Defending Gibrat's law as a long-run regularity. *Small Business Economics*, 32(1), 31-44. http://dx.doi.org/10.1007/s11187-007-9071-0.

McKelvie, A., & Wiklund, J. (2010). Advancing firm growth research: a focus on growth mode instead of growth rate. *Entrepreneurship Theory and Practice*, 34(1), 261-288. http://dx.doi.org/10.1111/j.1540-6520.2010.00375.x.

Moreno, A. M., & Casillas, J. C. (2008). Entrepreneurial orientation and growth of SMEs: a causal model. *Entrepreneurship Theory and Practice*, 32(2), 507-528. http://dx.doi.org/10.1111/j.1540-6520.2008.00238.x.

Navaretti, G. B. (2014). Age and firm growth: evidence from three European countries. *Small Business Economics*, 43(4), 823-837. http://dx.doi.org/10.1007/s11187-014-9564-6.

Omri, A, & Ayadi-Frikha, M. (2014). Constructing a meditational model of small business growth. *International Entrepreneurship Management*, (10), 319-342.

Parker, S., Storey, D., & Witteloostuijn, J. (2010). What happens to gazelles? The importance of dynamic management strategy. *Small Business Economics*, 35(2), 203-226. http://dx.doi.org/10.1007/s11187-009-9250-2.

Penrose, E. (2006). *A teoria do crescimento da firma*. Campinas: Editora da Unicamp.

Porto, E.C, & Brito, L.A.L. (2010). Aglomeração industrial e seu efeito na taxa de crescimento das empresas brasileiras. *Revista de Administração REAd*, 16(2), 447-480.

Rauch, A. & Rijskik, S.A. (2013). The effects of general and specific human capital on long-term growth and failure of newly founded businesses. *Entrepreneurship Theory and Practice* (3), 923-941.

Reid, G. C., & Xu, Z. (2012). Generalizing Gibrat: using Chinese evidence founded on fieldwork. *Small Business Economics*, 39(4), 1017-1028. http://dx.doi.org/10.1007/s11187-011-9338-3.

Seifert, R. E., & Vizeu, F. (2015). Crescimento organizacional: uma ideologia gerencial? Documentos e Debates. *Revista de Administração Contemporânea*, 19(1), 127-141. http://dx.doi.org/10.1590/1982-7849rac2015812.

Schoonjans, B., Cauwenberge, P. V., & Bauwhede, H. V. (2013). Formal business networking and SME growth. *Small Business Economics*, 41(1), 169-181. http://dx.doi.org/10.1007/s11187-011-9408-6.

Shepherd, D., & Wiklund, J. (2009). Are we comparing apples with apples or apples with oranges? Appropriateness of knowledge accumulation across growth studies. *Entrepreneurship Theory and Practice*, 33(1), 105-123. http://dx.doi.org/10.1111/j.1540-6520.2008.00282.x.

Sims, M., & Regan, N. (2006). In search of gazelles using a research DNA model. *Technovation*, 26(8), 943-954. http://dx.doi.org/10.1016/j.technovation.2005.07.001.

Stam, E., & Wennberg, K. (2009). The roles of R& D in new firm growth. *Small Business Economics*, 33(1), 77-89. http://dx.doi.org/10.1007/s11187-009-9183-9.

Stam, E. (2010). Growth beyond Gibrat: firm growth processes and strategies. *Small Business Economics*, 35(2), 129-135. http://dx.doi.org/10.1007/s11187-010-9294-3.

St-Pierre, J. (2004). *La gestion du Risque comment améliorer le financement des PME et faciliter leur développement*. Sainte-Foy: Presses de l'Universitú du Québec.

Teruel-Carrizosa, M. (2010). Gibrat's law and the learning process. *Small Business Economics*, 34(4), 355-373. http://dx.doi.org/10.1007/s11187-008-9127-9.

Wakkee, I., Van Der Veen, M., & Eurlings, W. (2015). Effective growth paths for SMEs. *The Journal of Entrepreneurship*, 24(2), 169-185. http://dx.doi.org/10.1177/0971355715586894.

Welter, F. (2011). Contextualizing entrepreneurship: conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, 35(1), 165-184. http://dx.doi.org/10.1111/j.1540-6520.2010.00427.x.

Wiklund, J., Patzelt, H., & Shepherd, D. A. (2009). Building an integrative model of small business growth. *Small Business Economics*, 32(4), 351-374. http://dx.doi.org/10.1007/s11187-007-9084-8.

Wright, M., & Stigliani, I. (2012). Entrepreneurship and growth. *International Small Business Journal*, 31(1), 3-22. http://dx.doi.org/10.1177/0266242612467359.