

ANTECEDENTS OF GROWTH MODES: THE ROLE OF FIRM RESOURCES AND INSTITUTIONAL FACTORS

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Abstract

Although there are a large number of studies on growth, very few of them have analyzed it from the second perspective identified by Penrose (1959), which defines growth as the *process* by which this change comes into being, responding to the call made by some scholars on this matter (Davidsson et al., 2006; McKelvie and Wiklund 2010), we investigate the antecedents of growth modes, analyzing the process from both the resource-based view and institutional theory, to better understand the possible relationship between antecedents and the growth form of the Small and Medium Enterprise (SME) in the Technological Information and Electronic Sector (TIES) in México; we identified the existing relations between some resources and capabilities of the firms (technological, networking and financial), as well as the most relevant institutional factors (environmental trust, access to credit and perception of corruption) associated to the different growth modes; theoretical and managerial implications are also discussed in the paper, as well as future lines of research.

Key words: Growth strategy, modes of growth; high growth; Institutional Theory; SME; Resource Based View.



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1. Introduction

Given the importance of the subject and the number of studies conducted, it would be expected that the research on the growth of SMEs firms was exhaustive; however, many of the reviewers complain that it has been difficult to generate conclusive findings with all the existing material. One critique is that it has been difficult to achieve a cumulative body of knowledge given that researchers use different measures of firm growth (Delmar, 1997; Wiklund et al., 2003; Gilbert et al., 2006; Davidsson et al., 2006). Most of the growth literature has concentrated on understanding why some firms grow more than others, and it disregards the manner by which growth occurs. As a result, some scholars formed a growth analysis research stream whose study of the way in which growth is attained, identifying respective resources and capabilities associated with different growth strategies by using the RBV as theoretical framework (Gilbert et al., 2006; McKelvie and Wiklund, 2010). A few empirical works in this stream are those developed by Chen et al., (2009) and Zou et al., (2010) at Eastern economies.

However the literature review reveals that besides the resources and capabilities of the firm, there are external factors, from the formal and informal institutional environment that affect “the profitability and feasibility of engaging in economic activity” (North, 1991:97). Previous studies have analyzed the effect of environmental factors on entrepreneurial activity (North, 1991; De Clercq et al., 2010), as well as firm performance (Aidis, 2005; Rus and Igljic 2005); however, studies analyzing the relation between growth modes and environmental factors, from the institutional theory perspective were not identified.

The present study addresses this gap by providing empirical evidence about different growth patterns (Davidsson and Delmar, 1997; Delmar et al., 2003; Davidsson et al., 2006; McKelvie and Wiklund, 2010), and the possible effect of environmental factors on these growth modes, utilizing the Resource Based View approach (RBV) and Institutional Theory (IT), as an analytical framework. It is expected that this study will help to better understand how internal factors of the firms together with institutional factors influence growth forms of SMEs in Latin-American countries.

2. Theoretical framework

2.1. The growth phenomenon

For the past fifty years, and since its original definition set forth by Edith Penrose in 1959, the concept of growth has been conceptualized and measured in different ways: “The term ‘growth’ is used in ordinary discourse with two different connotations. It sometimes denotes merely an increase in amount; for example, when one speaks of ‘growth’ in output, export, and sales. At other times, however, it is used in its primary meaning implying an increase in size or improvement in quality as a result of a *process* of development, akin to natural biological processes in which an interacting series of internal changes leads to increases in size accompanied by changes in the characteristics of the growing object” (Penrose, 1959: 1).

Given the attributed of the growth process, and the dynamism and diversity of existing economic



sectors, dozens of studies have been written about the growth phenomenon, defining several ways to study it.

Upon an initial review, it was possible to identify that most of the literature related to issues about the life cycle of firms or mechanisms which measure growth as an amount (O’Gorman, 2001; Becchetti and Trovato, 2002; Anderson, 2003; Achtenhagen et al., 2010). There was a considerable amount of literature reviews carried out in recent years related to the growth phenomenon, more so than empirical studies, and most of them using RBV theory as a theoretical framework (Delmar, 1997; Weinzimmer, 1998; Achtenhagen et al., 2010) and focused on identifying from a large number of dependent variables, the way to measure growth *as a quantitative increase* (in the amount of sales, in a number of employees, etc.), most of the studies attempt to seek explanations as to *why* firms grow (Achtenhagen et al., 2010).

There has recently arisen a research stream, which analyzes the growth phenomenon studies based on the role played by growth (Achtenhagen et al., 2010; Davidsson et al., 2006, 2010; McKelvie and Wiklund, 2010). In essence the focus of this research stream is on trying to understand *How* growth happens instead of analyzing *How much*.

This study is aligned with this new focus on the how, we study the growth phenomenon, considering three modes of growth: The first which is internal or organic, the second of which is external and takes place via acquisitions (acquisitive) and the third form of growth called hybrid, which occurs through associations and alliances.

2.2 Growth phenomenon from the Resource Based View (RBV) approach

The firm resources are all assets controlled by the firm itself (Wernerfelt, 1984) and the firm’s capabilities are defined as the way the resources are used by the firm to improve its performance (Grant, 1991). More specifically, the Resource Based View (RBV) presented by Barney (1991), focused on the firm’s internal strengths in order to create sustainable competitive advantage. It uses strategies to improve its efficiency and effectiveness (Barney 1991). Considering the above, from the RBV approach the firm growth strategy can be considered as an intermediate step to the generation of competitive advantage, through the use of resources, capabilities and dynamic capabilities (Davidsson et al., 2006; Chen et al., 2009; Zou et al., 2010).

There are a considerable number of studies that analyze the relation between resources and capabilities of the firm and its growth (Gibb and Davies, 1990; Smallbone et al., 1995; Keogh and Evans, 1998; O’Gorman, 2001; Churchill and Mullins, 2001; Correa et al., 2003; Davidsson et al., 2006), but the results does not converge on a single measurement construct (Delmar, 1997; Weinzimmer, 1998; Achtenhagen et al., 2010). The papers analyzing the relation between internal assignation of resources and capabilities of the firm and the growth strategy acquired by the firm, are very few.

The present study discusses three types of growth strategies:

- I. Organic Growth: Also called internal growth, refers to the strategic focus on internal research and development, applied to product development, enhancements and extensions (McCann, 1991).
- II. Acquisitive Growth: refers to forward or backward integration; therefore it seems normal that high-growth firms, in mature industries grow through acquisitions (Henrekson and Johansson, 2010).



- III. Hybrid Growth: Combines both organic growth and acquisitive growth elements (Williamson, 1991). The hybrid mode of growth falls somewhere between organic and acquisitive growth, and it is presented in various forms such as: franchising, licensing, and joint ventures/strategic alliances (McKelvie and Wiklund, 2010).

The endowment and resource allocation of the firm should be analyzed to determine if a predominant relationship exists between certain kind of resources and capabilities and the forms of growth the firm pursues. We selected three resources and capabilities, discussed previously in empirical studies.

Technological resources and capabilities, as well as financial resources are considered factors needed for existing firms growth, since they generate competitive advantage: The first (technological resources and capabilities) contribute to the cost advantage and differentiation advantage (Barney, 1991); while the second (financial resources) enable the firm to acquire assets or develop vertical integration (Grant, 1991) and thereby, to generate higher profits.

In a knowledge based economy, establishing partnerships and other forms of association allows the SMEs to participate in markets that otherwise might be inaccessible, so it is considered essential for the firms to develop on the social relationships to grow (Kogut and Zander, 1992). The capability to build alliances cannot be easy, and it is undeniable that alliances have become an important growth strategy (Kale and Sigh, 2009).

These three resources and capabilities (technological, financial and social relationships) have been analyzed in recent years under the light of RBV in some empirical papers that refer to their relation with growth modes of Chinese firms (Chen et al., 2009; Zou et al., 2010). Nevertheless, no study with a similar focus was identified among Latin American economies.

2.3 Growth phenomenon from the Institutional approach.

North's (1990) institutional economic theory states that institutions are rules defined by society to structure and encourage human interchange, either political, social or economic. Evolution of institutions reflects the way societies evolve. According to North (1991, p. 97): "Institutions are the humanly devised constraints that structure political, economic and social interaction".

Economic activities are influenced by a formal and informal institutional environment in which they occur (Williamson, 1975; Baumol, 1990; North, 1990). Formal: Based on government policies, laws and general regulations as constitutions, regulations, contracts, economic rules, property rights and laws. Informal: Based on sociocultural factors, traditions and mores, and are related with both individual characteristics and the society attitudes as values, in other words, the culture of a specific society.

The growth phenomenon is related to the effect whereby political and economic institutions (both formal and informal) promote regional development of the economic environment that then stimulates or inhibits the growth and productivity of firms (North, 1991; Gnyawali and Fogel, 1994; Scott, 2007; Bruton et al., 2010).

Some of the studies did analyze firm growth, and its relation with environmental factors like government support programs (Keogh and Evans, 1998; Becchetti and Trovato, 2002; Davidsson et al., 2002; Fuller, 2006), national cultural factors (Anderson 2003) and access to credit (Carpenter and Petersen, 2002); however there are relatively few studies explicitly addressing the concrete effect that



institutions (formal and informal) exert over existing SMEs, although most of the authors studying this issue did agree that the institutional environment affected business operations (Aidis, 2005; Rus and Iglic, 2005; Dickson et al., 2006; Gilman and Edwards, 2008; Hessels and Terjesen 2008; Franco and Haase 2010).

We have identified the following institutional factors, considering their relation to the growth modes of established SMEs:

Concerning informal factors: Trust in the business environment is related to the transaction costs faced by the firms when they try to reduce risk by contracts that represent high costs in uncertain environments (Teece, 1987). Control of corruption, has been particularly studied focusing on perception of government corruption and special payments or “bribes”, that are made in exchange for government support.

Concerning formal factors: credit access is commonly referred as a high impact factor in existing firms growth.

2.4 Hypothesis definition and model

According to Barney (1991) the competitive advantage of a firm is determined by the use of its resources, understanding by resources all those assets owned by the firm (Grant, 1991). Growth (analyzed from the point of view of how it happens) is an intermediate step between the resources of the firm and its performance.

On the other side, from the perspective of North, finding a theoretical frame to study the environmental factors that affect the creation of new firms (Urbano and Díaz, 2009); this theoretical frame can be translated to existing firms, and use it to analyze the relations between the environmental factors with the firm’s performance, in which growth modes are found again as an intermediate step. In this research, we argue that the resource endowment of firms and some environmental factors, are related to strategic decisions that determine the firm’s growth modes.

Organic growth is based on the knowledge absorbed by the firm, through technological resources such as knowledge and patents, and capabilities such as the ability to integrate and built competitive advantage with these technological resources (Bell and Pavitt, 1995). Due to the above, the firms that assign resources to their processes and their technological products, and have the capability of making them productive will tend to grow in an organic mode (Lockett et al., 2011). Therefore, we hypothesize:

H1a: There is a positive relation between SMEs with strong technological capabilities and organic growth.

Penrose (1959) identified two growth modes, organic and acquisitive. The latter is an external growth strategy undertaken by acquiring firms competing in the same or a complementary market. Financial resources have been considered essential for the growth of firms (Barney, 1991; Grant, 1991); they are the basic resource required to obtain vertical bargaining power (Grant, 1991), which coupled with favorable conditions in the industry allow the firms to grow by acquisition or vertical integration. Financial resources have also been studied by scholars, due to their ease of being transformed into other kinds of resources, which allow the SME to grow. A strong finance position allows the firms to



acquire different assets (Chen et al., 2009).

Typically, firms growing by acquisitive growth are larger and older than the others, (Wiklund et al., 2003; Delmar et al., 2003), with consolidated processes and access to their financial resources that allow them to develop forward or backward integration. The strong financial resources help firm growth by allowing them to purchase an existing business (Gilbert et al., 2006). Therefore

H2a: There is a positive relation between SMEs with strong financial resources and acquisitive growth.

Hybrid growth modes include partnership relations with external actors to the firm so they work together, share assets and profits to accomplish mutual growth. To facilitate this relations, the firm must have strong social relationship capabilities (Kogut and Zander, 1992). Performing some form of association allows the firm to be able to participate in markets in which it could not enter by using only its own resources (Kale and Sigh, 2009). Moreover, the firms share not only profits but risks as well. Potentially, associations forms, may ease the flow of resources between organizations (Dickson et al., 2006), the relationship between social relationship capabilities and success has been intensively studied in small business literature; higher levels of networking activities or social capital are associated with greater firm performance (Aldrich et al., 1987; Dowling, 2003).

Due to the above, firms that develop social relationship capabilities grow more easily through hybrid growth.

H3a: There is a positive relation between SMEs with strong social relationship capabilities and hybrid growth.

Besides the resources and capabilities of the firms, the institutions have an influence over the economic behaviour and economic performance (Gnyawali and Fogel, 1994; Veciana and Urbano, 2008; Bruton et al., 2010). The evolution of institutions in Latin America has been different than in Europe and United States. (North, 1991) Among other variables, institutional conditions partially explain the variations of business performance in emerging economies (De Clercq et al., 2010).

Particularly in business, entrepreneurs face a dilemma when they perceive giving bribes as a favorable condition that may expedite the attainment of government support. For instance, Aidis (2005) found that in transition economies the perceived formal barriers are associated with perceived informal barriers such as corruption and Franco and Haase (2010) and Tonoyan et al., (2010) examined the relationship between the entrepreneur's decision to corrupt and the economic and legal institutional restrictions of his or her environment, focusing their analysis from the perspective of entrepreneurs as bribe payers.

In the particular Mexican case, regional bureaucracy and lack of transparency in the processes to apply for financial and non financial assistance from local (state and municipal) government organizations, forces managers to choose either going through a long process, which increases the cost of their operation, or avoiding applying for assistance. The TIES sector, is one of those with more support received from government, both federal and state, thus government supports typically have as objective to strengthen internal growth of the firms: training, consulting, and methodologies to improve marketing processes; in other words, support is provided in products or services (not cash). The most feasible way to get such support is by paying extraordinary fees. Therefore, we hypothesize:



H1b: There is a positive relation between SMEs with high perception of corruption and organic growth.

Acquisitive growth consists on acquiring firms or business units to obtain integration. The acquisition can be made with their own financial resources or by debt; however, one of the most important problems of an SME is related to quality and opportuneness of the financial resources (Aidis 2005; Franco and Haase, 2010; De Clerq et al., 2011). Access to credit is particularly restricted, due to the lack of guarantees to obtain financial resources (Aidis 2005; Rus and Iglíc, 2005).

The perception of the manager about the ease of obtaining good quality financial resources will depend on the existence of *external* financial capital, including informal investors and business angels, venture capital, besides bank loans. Manager's perception of availability of external financial support with quality and opportuneness will allow him to perform acquisitions.

In the particular case of México, there are very few alternative sources of financing, such as angel investors or venture capital. Moreover, high commissions and interest rates characterize Mexican banks and commercial loans, making this financing source unattractive for SMEs. Since the real estate crisis of 1996, the credit designated for SMEs has been significantly reduced, impacting the business environment in such a way that. Therefore, we hypothesize:

H2b: There is a positive relation between SMEs with high perception of access to credit and acquisitive growth.

To get associated, firms need to be surrounded by an adequate environment where every party can trust. One of the main external barriers is skepticism of the owners and managers towards outside help (Ghobadian and Galler, 1996). In an exploratory study conducted by Franco and Haase (2010), the authors found that one of the main barriers to improve performance of the existing firms is lack of trust in the system (Franco and Haase, 2010).

According to Rus and Iglíc (2005), perceptions of trust in business are evident different levels:

- **Interpersonal Trust:** Related to personal experience of an actor with particular others.
- **Institutional Trust:** Institutional trust generalizes beyond a given transaction and beyond specific sets of exchange partners.

The society where the level of trust is higher enables actors to base their business relationships on trust rather than contract. In addition, when actors rely on trust it is usually institutional trust rather than interpersonal trust (Rus and Iglíc, 2005).

In relation to the various forms of partnership alliances, when these are presented in order to access the resources, the SME must often open the firm up to the potential for opportunistic behavior (Dickson et al., 2006), so that the perceptions of trust influence strategy choice. In societies where the perceptions of trust in business climate is bad, the cost of writing and executing the kinds of complex contracts that are necessary for controlling the potential for opportunism is very high, and this in turn affects the firm's performance (Teece, 1987). On the other hand, in societies where trust promotes long-term coexistence, competitors from one sector can share machinery and specific assets that exceed their individual capacities (Dickson et al., 2006).

Trust in a business environment, particularly between firms that can form alliances, helps them strengthen their competitive position. To have an environment with lower costs of transaction of the alliances substituting them by trust levels, will be motivating for the firms to choose the hybrid growth strategy (Kale and Singh, 2009). There even has to have trust toward the "honest bribe" that is, to deliver services as agreed after having taken the bribe to provide the business environment with

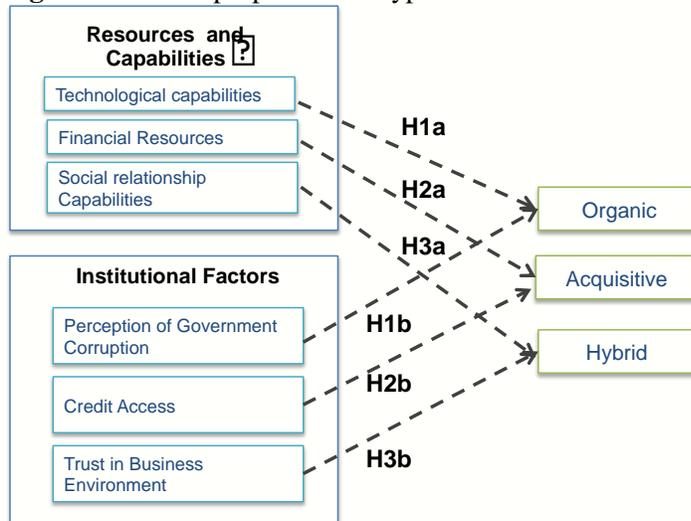


trust. Because of that, the trust perception in business will influence in the formation of alliances. Therefore, we hypothesize:

H3b: There is a positive relation between SMEs with high perception of trust in business environment and hybrid growth.

The analysis model proposed for this research is shown in figure 1.

Figure 1. Model proposed and hypothesis



Source: Self devised.

3. Methodology

3.1 Data sources / information to be gathered

Following recommendations made by Davidsson et al., (2006:387) "...the use of homogeneous samples allows one to use operationalization that is maximally relevant for the particular type of firm or industry". The study sample consists of SMEs operating in the TIES industrial sector in Mexico. The TIES industry has been one of the fastest growing sectors in Mexico in recent years. The National Chamber of TIES and Telecommunications Technologies (CANIETI) currently counts 910 members around the country; the state of Jalisco and particularly the city of Guadalajara City is the place where most of the Mexican TIES firms are located. In this region there is an established cluster consisting of 310 high-tech firms employing 92,000 people. Including 14 manufacturing specialized centers (CEM/EMS) (one of the most important concentrations of SMEs in the world), 80 specialist suppliers, 36 design centers, 20 firms in the aerospace industry and 170 software firms. During the last 14 years it has received 4.560 billion USD of direct investment. It has generated 47.590 billion USD in exports and has created about 50,000 jobs; currently, the exports from this sector represent over 60% of Jalisco's exports from Jalisco.

The analysis focused on SME using the classification of the Secretary of Economy that considers as

SME those firms that have 250 employees and annual sales of up to 250 millions of pesos.

An online questionnaire was created to be administered to the CEOs from the firms in the sample. The questionnaire was designed in Spanish and includes 50 items (Appendix I). Multiple item constructs were used. In addition, experts from the sector were consulted to validate the instrument, so as to avoid misunderstandings in the questionnaire's wording. Most of the answers were expressed on a Likert scale, where 1=strongly disagree; 5=strongly agree. The rest are ordinal or quantitative variables.

A pilot test was conducted to validate the questionnaire, and identified errors were corrected. The president of the state of Jalisco's branch of CANIETI sent 310 invitations to the firms' CEOs' email addresses, explaining the objectives of the study and inviting them to participate and to respond promptly.

In total, there were 104 valid responses, which corresponds to 33.87% of the invited firms. It is a representative sample that will allow results with a 90% confidence level and a maximum error of +/- 6.5%, using the formula that considers a finite population.

From the gathered responses, characteristics of the CEOs were identified. Most of the CEOs (99%) are Mexican, 85.6% are men, 98% have a Bachelor degree and 57.7% have a Masters or Doctorate degree. Additionally, 36.5% of the CEOs have attended postgraduate business courses in addition to their professional studies. 54.8% are between 30 and 45 years old.

In relation to firms, 29.8% have fewer than five years in existence, 35.6% have between 51 and 150 employees and, according to the CEOs 48.1% are in the consolidation stage.

3.2 Variables

The selection of variables for inclusion in the study was made taking into account previous studies. The variables measured are:

Technological capabilities

Include all the assets related to knowledge and intellectual property; the measurement of these variables is complex due to the intangible nature of some assets. The measurement of these capabilities was made according to the importance of each variable for the firm, depending on the patents, copyrights and innovation, each possesses (McCann, 1991).

Financial resources

Most of the scholars agree on the availability of financial resources as a main factor for firm growth (Wiklund et al., 2003; Delmar et al., 2003; Davidsson et al., 2006); nevertheless, financial resources can be related to various aspects of the firm's activity. To measure this asset the Gilbert et al. (2006) approach was used, in which this factor relates with how financial capital influences strategic decisions in the firm. The survey addresses 2 issues: a) Internally generated funds and bank loans and b) Resources obtained from public equity offerings and financial intermediaries.

Social relationship capabilities

This includes all the partnership relations of the firm: internal and external links including personal networks. The survey asks about interpersonal (friends, family members, colleagues) and intra-firm (government agencies, professional associations, relation with investors) relationships based on strong ties (Fu et al., 2006). There are studies that have shown that in South American economies that strong networking capabilities are positively related to the speed of venture creation (Capelleras et al., 2010). It is possible to transfer this characteristic to established firms.

Perception of Government Corruption



It includes the perception of the bribe payments and the generalization of this practice, specifically when firms seek out governmental support (Uhlenbruck et al., 2006; Tonoyan et al., 2010). It is also refers to the firm's awareness of the payment amount required to cover these bribes (Uhlenbruck et al., 2006).

Credit Access

It includes general questions about the adequacy of the financial system, as well as specific questions about credit access and the ease in which requisite paperwork required to apply for credit can be completed (Rus and Iglic, 2005).

Trust in the Business Environment

Questions about trust in partners and clients are included (Rus and Iglic, 2005); furthermore, the questionnaire inquires about the possible impact of trust and willingness to pay bribes (Tonoyan et al., 2010).

Growth strategies

The growth forms proposed by McKelvie and Wiklund (2010), were employed in the survey. Organic growth was represented by internal technological development; acquisitive growth was measured by firms acquisition in related or unrelated business, and hybrid growth included all partnership contracts such as franchising, licensing and joint ventures.

Control variables

Prior studies suggest that firm stage and firm age can influence strategic growth (McCann, 1991; Delmar, 1997; Wiklund and Shepherd, 2003) Thus, we will use both as control variables, along with CEO's age and firm size measured by the number of employees. Particularly, for the case of firm stage, the following classification was utilized (McCann, 1991), Early (infancy), Growth (rapid growth rate), Maturity and Decline (Decreasing the growth rate).

As previously mentioned, 104 valid responses were compiled. Three exploratory factor analyses (EFA) were developed, for which the multiple-item constructs using SPSS were used. The first, corresponding to the items related to resources and capabilities of the firms; the second one related to all the questions about environmental factors and the last one related to growth modes.

The result of EFA over all the multiple-item constructs related to resources and capabilities identified nine relevant factors. Both the Kaiser-Meyer-Olkin statistic, as well as Bartlett's Test of Sphericity yielded satisfactory results. All communalities were above 0.5. The cumulative variance represented by all the sets factors was 75%. (Appendix II)

4. Results and discussion

4.1 Results

The results of the first EFA showed the existence of three resources and capabilities factors: technological, networking and financial; similarly, the results obtained on the second EFA which included the institutional multi-item construct, showed the existence of three factors, one corresponding to the perception of corruption in government support programs, one of trust in the business environment and the last one related to the access of credit, which is consistent with the expected model solutions. Likewise, the results of the third EFA of all growth items, showed the existence of three conceptual growth modes: organic, acquisitive and hybrid.



In relation to the data analysis techniques required to test the hypothesis, we identified that the ordinary least squares regressions (OLS), is a commonly used technique for cause-effect models. The empirical studies analyzed related to growth reaffirmed this assertion (Rus and Igllic, 2005; Aidis, 2005; Chen et al., 2009; Zou et al., 2010; Achtenhagen et al., 2010). Six Ordinary Least Square (OLS) regression analysis were developed; 2 for each growth mode (dependent variable), the first analysis considering only control variables and the second one considering all the variables. Table 1 only shows the results of the three models that include both independent and control variables for each growth mode. All the variables related to resources and institutions were included, in order to contrast the corresponding hypothesis of each growth mode.

Table 1. Antecedents of growth strategy, OLS results (standard parameter estimates).

Variables	Organic Growth	Acquisitive growth	Hybrid growth
Firm's age	-.095	0.004	-.139
CEOs age	-.102	-.040	-.018
Firm size (number of employees)	0.241*	0.287**	0.142
Technological factor capabilities	0.707***	-.114	-.250*
Financial resources factor	-.236*	0.179*	0.002
Networking capabilities factor	-.108	0.061	0.173
Perception of corruption factor	-.062	-.070	-.084
Credit Acces factor	0.098	0.277**	-.053
Trust in the business environment factor	0.122	-.345	0.419**
R square	0.496	0.553	0.334
F	12.245***	15.145***	6.733***

* $p < 0.10$; ** $p < 0.01$; *** $p < 0.001$.

Table 1 reveals that technological capability has a positive effect on organic growth ($\beta=0.707$, $\rho < 0.001$). Therefore Hypothesis 1a is supported; statistically, the perception of corruption does not have a significant effect on organic growth, so Hypothesis 1b, is not supported.

We found that strong financial resources, have a positive effect on the acquisitive growth strategy ($\beta=0.179$, $\rho < 0.10$), therefore Hypothesis 2a is supported. In regards to the effects of credit access, it also has a positive effect on acquisitive growth strategy ($\beta=0.277$, $\rho < 0.01$), thus Hypothesis 2b is supported.

Hypothesis 3a is not supported because strong networking capabilities do not have a statistically significant effect on hybrid growth strategy. With regards to the effects of trust in the business environment, trust has a positive effect on hybrid growth ($\beta=0.419$, $\rho < 0.01$), thus Hypothesis 3b is supported.

With respect to the effects of control variables, firm size has a positive effect on both organic and acquisitive growth strategy. The remaining variables did not show a statistically significant effect, in relation to growth modes.

4.2 Discussion



The present study contributes to the literature on firm growth by analyzing the phenomenon from its less studied dimension, as a process instead of as an increase of amounts. The results presented here are noteworthy in providing the first evidence that demonstrated the effect of environmental factors from the institutional theory approach on firm growth mode.

The results presented show evidence between the firms' growth strategy and some specific factors, both internal and external to the firm. We recognize the differential impact of resources on growth strategies, which has been a topic proposed by researchers in the past (Gilbert et al., 2006; McKelvie and Wiklund, 2010), and the existence of environmental factors that also affect growth modes. These results are relevant for they allow us to better understand the implications of different modes of growth.

The technological capability (TC) is the capability to make effective use of a technical resources (Von Zedwitz and Jin, 2008). TC is embedded in the whole organization (Barney, 1991); assigning resources and investments in R&D will increase the organic growth of the firm (McCann, 1991) In this sense, we provide evidence which implies that strong TC investment by Mexican firms is positively related to organic growth, in a similar way as seen in firms studied previously from other countries (Zahra et al., 2006; Chen et al., 2009).

The hypothesis that set forth the perception of corruption in government programs as an environmental factor with a positive relation to organic growth, was not statistically significant, so it was rejected. Previous studies have been particularly focused on the perception of government corruption and special payments (Tonayan et al., 2010), referring to this effect as an important barrier to firm growth; against this approach, because of the particular conditions in which resources from support programs in the TIES sector are distributed, the perception of corruption was considered in the formulation of Hypothesis 2b, as a factor that influences positively over organic growth. As mentioned, the results were not statistically significant and in the correlation matrix show a negative sign for all growth modes. This can partially be explained by understanding that culturally, Mexican entrepreneurs associate corruption with inefficiency and a decreased competitiveness.

Financial resources have been considered essential for the growth of a firm (Barney, 1991; Grant, 1991). The literature analysis performed indicated that firms with solid financial resources showed interest in growth by acquisition of other firms, from the same sector and from other non-related sectors as well (Robinson, 1999). We confirmed that this relationship actually exists in Mexican firms. There has been demonstrated that firms growing by acquisitive growth are larger than others (Wiklund et al., 2003; Delmar et al., 2003), and the obtained results as consistent to these studies.

Moreover, access to credit is one of the most important problems of an SME, due to its relation to quality and opportuneness to acquire more assets (Dollinger, 1999; Aidis, 2005; Rus and Iglíc, 2005). We argue that the perception of the manager about the ease of obtaining good quality financial sources (external to the firm) will allow the firm to perform an acquisition (Franco and Haase, 2010). We also found a positive relation between acquisitive growth and the perception of the easy access to credit in the environment, which is consistent with the results of previous works.

Hybrid growth was not differentiated in Penrose's (1959) seminal article as hybrid; this mode of growth is neither organic nor acquisitive but falls somewhere in between. The hybrid growth modes are consensual professional relationships that are operationalized by contracts, and have taken varied business forms, such as franchising, licensing, and alliances (McKelvie and Winklund, 2010). Previous works have related the social relationship capabilities to the different modes of hybrid growth (Chen et al., 2009; Zou et al., 2010); we did not find statistically significant



representativeness that relates the effect of social relationship capabilities with the modes of hybrid growth.

The different hybrid growth modes are operated by agreements. The society where the level of trust is higher enables actors to base their business relationships on trust rather than contract (Rus and Igllic, 2005), the cost of write and execute complex contracts affects the desire of the firm to form alliances (Teece, 1987). We found out that there is a positive and statistically significant relation of trust in the business environment with hybrid growth.

4.3 Conclusions

Theoretical contributions.

The present study was developed as a response to the call made by scholars like Davidsson et al., (2006) and McKelvie and Wiklund (2010), that underscored the need for additional studies analyzing firm growth as a process. This research adds to the empirical works previously developed on this stream, by incorporating into the analysis institutional theory as the theoretical frame by which some environmental factors were identified to be related to the growth modes.

The study shows that there are three different growth modes for firms in the sector, and that these modes are related to internal factors of the firm, as well as external environmental factors. In other words, the required competences for each growth mode will be different.

In relation to governmental public policies, contrary to what is proposed by most of the governmental support programs, two of the three growth modes do not necessarily result in increased levels of hiring or employment. Thus, adjustments to current policies are suggested so that these programs better meets their stated objectives of job creation.

Managerial implications.

One of the main challenges that the managers and CEOs of the SMEs face, is undoubtedly the assignation of resources within the firms; At the same time the role of the external environment also affects the growth strategies pursued by the firm. We found out that the endowment of resources and capabilities within a firm determines the firms' growth mode. Thus, different growth modes will give rise to different firm performances. Because of this, managers will have to be consistent in the allocation of resources, to achieve their performance goals.

Firms unaware of their resources and capabilities that are related to their selected growth strategy or else those unaware of the effect that environmental factors have on the firm, will have a disadvantage with respect to those who are conscious of it, in order to achieve their growth goals. For example, firms that want to expand their business via organic growth need to have strong technological capabilities.

As a socioeconomic entity, firms are constantly evolving through time. Managers must adapt the assignment of resources and capabilities of the firm. Also they have to identify the relevant environmental factors associated with the strategic growth mode of the company.

4.4 Limitations

One of the main limitations to the study was the use of online surveys as a data compilation method. Although care was taken in selecting the method to deliver the questionnaire to the CEOs, it proved difficult to guarantee that all the surveys were answered by them. Moreover, differences in the CEOs interpretation of the survey questions could have produced an inaccurate response; this would be mitigated by using interviews instead of online surveys. Another limitation was that we used a single informant approach in our data collection therefore a bias problem can occur.



The study was designed to be developed in a relatively homogeneous sector of the economy, making the results valid for this sector exclusively.

The results expressed here were obtained from a unique observation in time, the lack of longitudinal data is a limitation to this study.

4.5 Future research directions

By exploring the correlation table, we can observe there is a relationship between resources and capabilities of the firm and the environment in which they operate. This could produce interaction effects between them and the growth modes. This could be an interesting area and valuable extension of this current study for future research.

Growth modes can be considered as an intermediate step between antecedents and firm permanence (Davidsson et al., 2006), Penrose (1959) has long suggested that growth resulting from internal or external mechanisms should affect various performance outcomes differently; this could be extrapolated for the case of hybrid growth modes. Therefore a second line of research could discuss how organic, partnership and acquisitive growth strategies impact firm performance outcomes, with growth modes as an independent variable and their effects on the firm performance as the dependent outcome. Further, to analyze the existing relation between the antecedents (internal and external factors of the firm) and firm performance, including the existing interaction between antecedents as shown in figure 5. An additional line of future study would be to replicate this current research in other sectors of the economy and compare the results across different sectors.

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Appendix I. Survey

	Pregunta	Tipo de respuesta	Referencia	Variable que operacionaliza	Uso
1	¿En qué año fue fundada la empresa que Usted dirige?	Binaria (Si (año)/No)	Wiklund, 1998	Edad de la empresa	Control
2	¿Cuántos fueron los fundadores activos (no personas empleadas al momento de la fundación)?	Binaria (Si (personas)/No)	Wiklund, 1998	Fundadores	Control
3	Poner número aproximado de empleados que ha tenido su empresa en los últimos tres años, incluyendo al dueño si se dá el caso que trabaje en la compañía	Abierta (2010,2011,2012)	Wiklund, 1998; Zou et al., 2010	Tamaño de la empresa/ crecimiento en empleados	Control
4	¿Desde qué año es Usted director general de la empresa?	Abierta	Wiklund, 1998	Antigüedad del director	Perfil del encuestado
5	¿En qué año nació Usted?	Abierta	Wiklund, 1998	Edad del director	Perfil del encuestado
6	¿Nació Usted en México?	Binaria (Si/No (Lugar de nacimiento))	Wiklund, 1998	Lugar de nacimiento	Perfil del encuestado
7	Sexo	Binaria (F/M)	Wiklund, 1998	Género	Perfil del encuestado
8	¿Cuál es su grado máximo de estudios?	Optativa (4 opciones)	Adaptada Wiklund, (1998), reduciendo el número de opciones por naturaleza de la educación del país	Capacitación general	Perfil del encuestado
9	Adicionalmente a su educación formal: Ha tomado cursos en administración o negocios?	Optativa (4 opciones)	Wiklund, 1998	Experiencia específica en administración	Perfil del encuestado
10	¿En qué etapa del ciclo de vida se encuentra su empresa?	Optativa (4 opciones: Infancia, Crecimiento inicial, Crecimiento sostenido, madurez)	Zou et al., 2010	Etapas de la empresa	Control
11	¿Cuál es el mercado al que se enfocan de las ventas de su empresa?	Abierta (2010,2011,2012)	Wiklund, 1998	Tamaño de la empresa/ crecimiento en ventas	Control
12	¿Del total de sus ventas aproximadamente que porcentaje representan los siguientes mercados? (por ejemplo: 60)	Optativa /3 opciones: Local/regional, Nacional, Internacional	Zou et al., 2010	Área de negocio	Control
13	¿Aproximadamente y de acuerdo con sus estados financieros cuáles han sido las ventas de su empresa en los últimos tres años? (ejemplo: 1350000)	Abierta	Zou et al., 2010	Área de negocio	Control

	Pregunta	Tipo de respuesta	Referencia	Variable que operacionaliza	Uso
14	Nuestra empresa destina un alto porcentaje de recursos a inversiones en investigación y desarrollo de nuevos productos.	Likert 5 opciones	Zou et al., 2010	Capacidades tecnológicas	investigación y desarrollo
15	En nuestra empresa tenemos patentes propias, derechos de propiedad intelectual y tenemos productos y procesos propios.	Likert 5 opciones	Zou et al., 2010	Capacidades tecnológicas	investigación y desarrollo
16	Nuestra empresa ofrece servicios y productos diferenciados y "realizados a la medida"	Likert 5 opciones	Zou et al., 2010	Capacidades de mercadotecnia	investigación y desarrollo
17	Brindamos extenso apoyo/soporte al cliente	Likert 5 opciones	Zou et al., 2010	Capacidades de mercadotecnia	Soporte al cliente
18	Brindamos una amplia gama de productos a un amplio número de clientes	Likert 5 opciones	Zou et al., 2010	Capacidades de mercadotecnia	Soporte al cliente
19	Contamos con una amplia gama de experiencia en marketing dentro de la empresa	Likert 5 opciones	Zou et al., 2010	Capacidades de mercadotecnia	Recursos de mercadotecnia
20	Nuestra estrategia financiera para el crecimiento de la empresa se basa en el uso de las utilidades retenidas.	Likert 5 opciones	Zou et al., 2010	Recursos financieros	Recursos Financieros
21	Nuestra estrategia financiera para el crecimiento de la empresa se basa en créditos bancarios.	Likert 5 opciones	Zou et al., 2010	Recursos financieros	Recursos Financieros
22	Hemos realizado colocaciones de acciones públicas	Likert 5 opciones	Zou et al., 2010	Recursos financieros	Recursos Financieros
23	En nuestra empresa establecemos nuestras relaciones de negocio basadas en relaciones previas con amigos, familiares y excompañeros de escuela.	Likert 5 opciones	Zou et al., 2010	Capacidades de networking	Relación con amigos, familiares y ex compañeros de escuela
24	En nuestra empresa establecemos nuestras relaciones con el gobierno basadas en relaciones previas con amigos, familiares y excompañeros de escuela.	Likert 5 opciones	Zou et al., 2010	Capacidades de networking	Relación con amigos, familiares y ex compañeros de escuela

	Pregunta	Tipo de respuesta	Referencia	Variable que operacionaliza	Uso
25	En nuestra empresa conocemos a nuestros socios de negocios mediante asociaciones y eventos profesionales (Càmaras, Colegios)	Likert 5 opciones	Zou et al., 2010	Capacidades de networking	Relación con socios de negocios
26	En nuestra empresa conocemos a nuestros socios de gobierno mediante asociaciones y eventos profesionales (Càmaras, Colegios)	Likert 5 opciones	Zou et al., 2010	Capacidades de networking	Relación con socios de negocios
27	Es común que las empresas en el sector tengan que pagar "dádivas" o "diezmos" , para recibir o agilizar apoyos o trámites, de organizaciones gubernamentales.	Likert 5 opciones	Tonoyan et al., 2010	Percepción de la corrupción	Corrupción
28	Es común que las empresas del sector sepan cuanto es lo que tendrán que pagar "extraoficialmente" para recibir o agilizar apoyos o trámites de organizaciones gubernamentales	Likert 5 opciones	Uhlenbruck et al., 2006	Percepción de la corrupción	Corrupción
29	Si una empresa paga extraoficialmente a un empleado del gobierno; otro empleado pediría la misma cantidad por realizar (Agilizar) el mismo trámite	Likert 5 opciones	Uhlenbruck et al., 2006	Percepción de la corrupción	Corrupción
30	Si una empresa pagó la "dádiva" o el "diezmo" regularmente se "destraban" los trámites gubernamentales.	Likert 5 opciones	Tonoyan et al., 2010	Confianza en el entorno de negocios	Confianza en el entorno
31	En nuestra empresa confiamos en nuestros socios de negocios	Likert 5 opciones	Rus and Iglic, 2005	Confianza en el entorno de negocios	Confianza en el entorno
32	En nuestra empresa confiamos en nuestros clientes	Likert 5 opciones	Rus and Iglic, 2005	Confianza en el entorno de negocios	Confianza en el entorno
33	En nuestra empresa consideramos que el sistema financiero le brinda un ADECUADO apoyo a las PYMES.	Likert 5 opciones	Rus and Iglic, 2005	Acceso al crédito	Confianza en el sistema financiero

	Pregunta	Tipo de respuesta	Referencia	Variable que operacionaliza	Uso
34	En el entorno en donde se encuentra mi empresa, EXISTEN SUFICIENTES MEDIOS de financiamiento procedentes de entidades financieras privadas para las empresas en crecimiento.	Likert 5 opciones	Rus and Iglic, 2005	Acceso al crédito	Confianza en el sistema financiero
35	Los TRÁMITES bancarios son muy ágiles	Likert 5 opciones	Rus and Iglic, 2005	Acceso al crédito	Confianza en el sistema financiero
36	Los bancos FACILITAN el OTORGAR crédito a empresas como la mía	Likert 5 opciones	Rus and Iglic, 2005	Acceso al crédito	Confianza en el sistema financiero
37	Los logros alcanzados por nuestra empresa se han enfocado en garantizar su supervivencia en el mercado en el largo plazo	Likert 5 opciones	Zou et al., 2010	Desempeño	Desempeño
38	Los logros de nuestra empresa se han enfocado en generar ventaja competitiva gracias el mejor desempeño de nuestra empresa frente a la competencia.	Likert 5 opciones	Zou et al., 2010	Desempeño	Desempeño
39	Los logros de nuestra empresa se han enfocado en generar ventaja competitiva gracias a la creación de know-how propio.	Likert 5 opciones	Zou et al., 2010	Desempeño	Desempeño
40	Los logros de nuestra empresa se han enfocado en generar ventaja competitiva gracias a la diferenciación en productos y servicios	Likert 5 opciones	Zou et al., 2010	Desempeño	Desempeño
41	Los logros alcanzados por nuestra empresa se han enfocado en incrementar el nivel de rentabilidad de la empresa	Likert 5 opciones	Zou et al., 2010	Desempeño	Desempeño
42	La estrategia de crecimiento de nuestra empresa ha sido mediante el desarrollo interno de la empresa	Likert 5 opciones	Zou et al., 2010	Estrategia de crecimiento	Estrategia de crecimiento

	Pregunta	Tipo de respuesta	Referencia	Variable que operacionaliza	Uso
43	El crecimiento de nuestra empresa se fundamenta en el desarrollo de innovación y de investigación y desarrollo en productos y procesos internamente	Likert 5 opciones	Zou et al., 2010	Estrategia de crecimiento	Estrategia de crecimiento
44	Nuestra empresa ha crecido gracias a licenciar tecnología para/de otras empresas (hemos compartido tecnología en cualquier sentido).	Likert 5 opciones	Zou et al., 2010	Estrategia de crecimiento	Estrategia de crecimiento
45	Nuestra empresa ha crecido gracias a haberse asociado mediante alianzas estratégicas o alguna otra forma de asociación.	Likert 5 opciones	Zou et al., 2010	Estrategia de crecimiento	Estrategia de crecimiento
46	Nuestra empresa ha crecido gracias a la adquisición de otras empresas o unidades de negocio, de negocios relacionados con nuestro negocio	Likert 5 opciones	Zou et al., 2010	Estrategia de crecimiento	Estrategia de crecimiento
47	Nuestra empresa ha crecido gracias a la adquisición de otras empresas o unidades de negocio, de negocios NO relacionados con nuestro negocio.	Likert 5 opciones	Zou et al., 2010	Estrategia de crecimiento	Estrategia de crecimiento
48	¿Considera satisfactoria la rentabilidad de la empresa en los últimos tres años?	Likert 5 opciones	Wiklund, 1998	Rentabilidad	
49	¿Aproximadamente cuánto es el margen de rentabilidad de su empresa?	Abierta (2012)		Margen de rentabilidad	
50	En qué estado se encuentra su empresa				

Appendix II. EFA Results

Table 5a EFA of Resources and Capabilities

	F1	F2	F3
Technology capability			
14. Allocates a high percentage of resources on new product development	0.858		
16. We are looking for new skilled employees, taking into account internal recommendations	0.849		
15. We own patents, intellectual property, products and processes themselves	0.815		
Networking capability			
26. Government through partnerships and professional events (Chambers, Associations)		0.904	
25. Business Partners through partnerships and professional events (Chambers, Associations)		0.901	
23. Business based on previous relationships with friends, family and school exmates		0.756	
24. Government based on previous relationships with friends, family and school ex-mates		0.686	
Financial resource			
20. It is based on the use of retained earnings.			0.818
22. It use public equity offerings			0.73
21. It is based on bank credits			0.712
KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.702		
Bartlett's Test of Sphericity - Approx. Chi-Square	555.479***		
% of Variance Cumulative	75.15%		

p < 0.10; * p < 0.05; **p<0.01; ***p<0.001

Table 5b EFA of environmental factors

	F1	F2	F3
Credit acces			
34. There are enough means of financing from private financial entities for growing firms	0.882		
36. We think that the banks facilitate granting credit to firms like ours	0.877		
33. We think that the financial system provides adequate support to SME	0.857		
35. The bank paperwork is easy	0.847		
Trust in the business environment			
32. We trust in our customers		0.915	
31. We trust in our business partners		0.885	
30. If a company paid the "gift" or "tithe" regularly "flow" government procedures.		0.775	
Perception of Government Corruption			
27. It is common for firms to have to pay "gifts" or "tithes" to receive or support or expedite proceedings, government organizations.			0.845
29. If a company pays unofficially a government employee, another employee would ask the same amount per carry (Streamline) the same procedure			0.794
28. It is common for firms to know how much is what they will pay			0.76
KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.735		
Bartlett's Test of Sphericity - Approx. Chi-Square	490.684***		
% of Variance Cumulative	73.86%		

p < 0.10; * p < 0.05; **p<0.01; ***p<0.001



Table 5c EFA of growth modes.

	F1	F2	F3
Growth mode - acquisitive			
46. The acquisition of other firms or business units, business related to our business	0.937		
47. The acquisition of other firms or business units, business NOT related to our business	0.882		
Growth mode - Organic			
42. Internal development via innovation and R&D		0.94	
Growth mode - Hybrid			
44. License technology to / from other firms (we shared technology in any direction)			0.903
45. Strategic alliances or some other form of association			0.894
KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.618		
Bartlett's Test of Sphericity - Approx. Chi-Square	191.423***		
% of Variance Cumulative	88.51%		

p < 0.10; * p < 0.05; **p<0.01; ***p<0.001

