Article **ECORFAN Journal-Republic of Cameroon**
December 2018 Vol.4 No.7 13-21

# Determining factors of business growth: a new scale based on the context of micro and small businesses

# Factores determinantes del crecimiento empresarial: una nueva escala basada en el contexto de las micro y pequeñas empresas

BERNAL-DOMINGUEZ, Deyanira*† & LANDAZURI-AGUILERA, Yara

*Universidad Autónoma de Sinaloa*
*Instituto Tecnológico de Sonora*

ID 1st Author: *Deyanira, Bernal-Dominguez* / **ORC ID:** 0000-0001-8990-1988, **CVU CONACYT ID**: 168056

ID 1st Coauthor: *Yara, Landazuri-Aguilera* / **ORC ID:** 0000-0002-7784-2762, **Researcher ID Thomson**: S-6759-2018, **CVU CONACYT ID**: 625073

Received July 27, 2018; Accepted December 20, 2018

**Abstract**

The main objective of This work is to design an instrument to statistically measure the internal and external factors intervene in the business That growth of micro and small businesses. The variables of the questionnaire are theoretically based on the literature of Blazquez, Dorta and Verona (2006), and Amat and Lloret (2014) That there are state WHO internal and external factors determine growth strategies That in companies. The variables Considered For This publication are the financial dimension; Measured through income, costs, profitability and investment, the technological dimension; Measured by technology adoption and updating systems, the competitive environment dimension; With the relationship environment, growth planning and competition in the market, finally the human resource dimension will be Measured by the specialization of human resources, employee training and growth of key employees. The questionnaire will be Measured through a Likert-type scale with 5 response options. As part of the results of esta research, a structured questionnaire is presented in three sections, Which is Considered an input for future research in the field of business growth.

**Business Growth, Competitive Environment, Strategy, Scale**

**Resumen**

Este trabajo tiene como principal objetivo diseñar un instrumento que permita medir estadísticamente los factores internos y externos que intervienen en el crecimiento empresarial de las micro y pequeñas empresas. Las variables del cuestionario se encuentran fundamentadas teóricamente en la literatura de Blazquez, Dorta y Verona (2006), y Amat y Lloret, (2014), quienes afirman que existen factores internos y externos que determinan las estrategias de crecimiento en las empresas. Las variables consideradas para esta publicación son la dimensión financiera; medida a través ingresos, costos, rentabilidad e inversión, la dimensión tecnológica; medida por adopción de tecnología y actualización de sistemas, la dimensión entorno competitivo; relación con el entorno, planeación de crecimiento y competencia en el mercado, por último la dimensión recurso humano será medida por la especialización del recurso humano, capacitación de los empleados y crecimiento de empleados clave. La medición del cuestionario será a través de una escala de tipo Likert con 5 opciones de respuesta. Como parte de los resultados de esta investigación se presenta un cuestionario estructurado en tres secciones, el cual se considera un insumo para futuras investigaciones en el ámbito del crecimiento empresarial.

**Crecimiento Empresarial, Entorno Competitivo, Estrategia, Escala**

**Citation:** BERNAL-DOMINGUEZ, Deyanira & LANDAZURI-AGUILERA, Yara. Determining factors of business growth: a new scale based on the context of micro and small businesses. ECORFAN Journal-Republic of Cameroon. 2018, 4-7: 13-21.

* Correspondence to Author (email: deyanirabernaldominguez@gmail.com)
† Researcher contributing first Author.

## Introduction

Business growth is a matter of public agenda since, in Mexico 97.6% of companies are micro size and occupy 75.4% of employed personnel; 2% are small size and medium sized 0.4%. The latter employ 13.5% and 11.1% respectively of total employed persons. According to the National Survey on Productivity and Competitiveness of Small and Medium Enterprises (ENAPROCE, 2015).

According to the above, it is seen as the problem studied in local companies is important to identify proven strategies that enable entrepreneurs to make decisions focused growth and consolidation of their business. Churchill and Lewis (1983), proposed a model of 5 stages of growth of small businesses. They are studying the transition from one stage to another which require regular changes and are accompanied by a crisis. Changes problems can be solved when administered are proactive.

The model of the five stages proposed by Churchill and Lewis (1983), applies today to plan for future growth of small businesses, based on the diagnosis of the current situation and planning what will be needed to the extent advance in each stage. It is noteworthy that the 5 stages of growth of small proposals firms are: 1) existence, 2) survival, 3) successful, 4) take-off, ie, begins to succeed, or stays at that stage or exit the market at this stage as key problems grow rapidly, and financing of that growth are resolved, and 5) is the stage of maturity of resources.

Blazquez, Dorta and Verona (2006a) in their research results confirm that the variables that measure business growth are total assets, number of employees, sales volume, net investment difference between the book value and market value, added value and equity. Business growth is influenced by factors both internal and external. Among the internal factors refers to the age and size, motivation, ownership structure, knowledge management, and within external factors subdivide their classification in external factors relating to the industry environment and external factors higher level or macro environment; the first includes competitors, customers and suppliers, and the second demand, technological improvements,

Moreover, Amat and Lloret (2014) argue that business growth is explained by factors such as leadership, company culture, strategy, business model such as income, expenses, investments and financing. Accordingly, Rupasingha and Wang (2017), studying access to capital in the growth of small businesses in the United States on a panel of 3,050 counties during the period 1996-2010, and find that the loans granted by Reinvestment Act Community have a statistically significant positive effect on the growth of small businesses in the study. Daza (2016) states that the presence of the founder in group decision-making increases the intentions of growth of the firm.

## Overall objective

The overall objective of this research is to design an instrument to statistically measure the internal and external factors affecting business growth of micro and small enterprises.

## Specific objectives

- Analyze literature preliminarily business growth.
- Develop a list of items to statistically measure the internal and external factors determining growth strategies in companies.

## Literature review

Business growth is the way a company evolving from a local competitor to one worldwide. According to Fernandez Garcia and Ventura (1988), business growth allows a company to compare its level of competitiveness in the market to determine a reference point around which the policies that make up the competitive strategies will be established. To move forward, companies have to go making decisions that enable them to find, maintain and expand their market space.

The importance of business growth comes from generating and maintaining jobs, coupled thereby creating an economic climate that fosters competitiveness and reduce the mortality rate of SMEs, (Gonzalez and Correa, 1998). Another important aspect and that companies, mostly considered to define their strategies, is profitability.

As noted, the market is not stable in all sectors, there are some measuring growth through their utilities, however not all sectors can be considered viable to be stable. Among the most widely used measurement of growth, according to Garcia and Romero (2010), indicators highlight the market value, number of employees, sales, production value or added value. For his part, Hernandez (2001) links business growth with the modification of the company at the structural level or increase its size. Aguilera (2010) attributes the growth of the company's strategic direction, considered as a guide to compliance with the necessary organizational goals that drive and guide this to evolve. On the other Lopez and Contreras side (2009) argue that growth is due to an entrepreneurial orientation because, through proactive environmental analysis, the company may have an advantage for opportunities that competition has not perceived, and this so consistently generate innovations.

According Vallés (2005) and in accordance with the above authors, SMEs are the most vulnerable in the pursuit of growth, since they are more restricted when seeking financing for their operations, staying in your comfort zone. The not risk investing for fear of losing their capital avoids the use of growth opportunities and market expansion. In the words of the author "economic growth is meaningless without business growth," he cites that refers to the reality of growing businesses afraid to capitalize on opportunities. Mostly different authors use to measure business growth variables; however, they agree that are both economic factors and financial determinants of business growth.

One of the economic variables are sales revenues, as the most suitable to measure the growth of a business indicator, because in the annual reports this indicator is the most commonly used by managers as they serve as a basis for explaining other. As is true of benefits, the number of employees or market share, (Garcia and Romero, 2010). Also, knowledge of economic resources available to the company for investment operations to short or long term, or coverage obligations. And the time required for such operations.

Costs is the second economic variable determining; play an important role in the growth of the company over these role as a profit margin determined, clear after taxes and financing. On the other Horngren, Datar, and Foster (2007.: P 386) hand, they argue that as a company depends on a vendor complies with the prices imposed this affecting their performance and decreasing quality.

Moreover, a financial variable is profitability is one of the most important factors in determining whether a company is growing or if you have low in any branch or subsidiary, information which investment decisions are made on new projects or upgrade removal of production facilities in the market. Ferrer and Medina (2014) located income and net sales as a substantial variable in order to succeed, because it derived from an internal analyst can determine whether a company is profitable, solid and stable.

Another variable is the financial investment whenever investing in a project, the company expects a profit in the future and is not limited to that, rather it will ensure that your investment is profitable. Therefore, the decision to choose a suitable project is crucial for achieving financial goals, (Neighbor, Rojas and Munoz, 2014).

Garcia and Romero (2010) argue that there is a direct relationship between growth and investment for implementing new technologies, research, upgrading plants in manufacturing companies, notably benefiting production and increased sales, resulting in profitable growth for the company. Undoubtedly the success of any business depends on its investment to expand its marketing territory.

Funding is another variable that determines the growth of enterprises; Aragon and Rubio (2005) proper and thorough financial planning short term considered necessary to avoid illiquidity. Since bargaining power with banks is inversely proportional to the size, SMEs are the least benefited since a smaller less access to external sources of funding. It is therefore necessary to establish reserves or funds to a decrease in financial costs, to increase the chances of making the necessary investments for the development of the organization and create a stronger financial base, with the company to grow substantially.

Moreover, qualitative variables are, for example, quality products to maintain growth through sales. To implement this inventory control systems depending on the sector. In this globalized market competitiveness, continuous improvement, total quality control and oriented to the needs of production customers were the pattern that marked the managerial styles of the company, (Cuevas, 2001).

Leadership is the ability to convince others to look forward to the achievement of defined objectives according to Gomez (2009). The administrative process such as planning, organization and decision making are not effective until the leader stimulates motivation in people and directs them towards the objectives set by the company. As for growth, leadership is reflected in the increased competitiveness in the market resulting from customer identification branded products or services that are offered. This growth, even when directly linked with this factor, not only depends on position as market leader rather encompasses strategies that lead the company to take that position and hold it over the years.

Ynzunza and Izar, (2013) assert that in a dynamic and changing environment, where globalization creates opportunities for both SMEs and large enterprises, increased competition, new technologies and consumer demands for new products are a constant. Organizations must be aware of the opportunities and external threats to the industry and devise strategies to cope with each problem and give them competitive advantages when implementing them. These macro variables are added according Escobar Arias et al. (2013), the exchange rate, supply and cost of raw materials and in addition to the lack of demand from customers and consumers.

Finally, the variables that affect the sales growth are among others: macroeconomic analysis based on the neoclassical model, size, firm age, industry, nature of the property, capacities and resources, the sex of their owners or managers, market financing equity and private debt of small businesses as well as optimal capital structure in different parts of the cycle, external business advice, high-tech, innovation, skill level of the workforce, export (King, RG, CI Plosser, et al 1988;. Cliff, 1998; Berger and Udell, 1998; Robson and Bennett, 2000).

Other investigations are related to the construction of an integrated model for small business growth (Wiklund, Patzelt, et al., 2009). The causes that give rise to the development of this research, in order to determine the factors that affect business growth and in accordance with the debate between Gibrat (1931), which ensures that business growth is a stochastic process caused by the action countless random and insignificant factors that act in proportion to the size of companies.

For its part Albach (1967, p. 127) concludes that "the growth of the company is the result not of random factors, but an intention and determination on the part of entrepreneurs and managers who determine their behavior" cited by Blazquez, dorta and Verona (2006b). These arguments allow us to propose the following research hypothesis:

Hi: The financial, technological dimensions, competitive environment, human resources have a direct and positive impact on business growth.

## Methodology

This research is exploratory type, among its purposes of such research is to cite the possibility of formulating the problem, to extract data and terms that will generate the questions necessary for the overall objective of this research is to design an instrument to measure statistically internal and external factors affecting business growth of micro and small enterprises. In addition, such research through the exhausted exploration of the literature provides sufficient elements to formulate hypotheses on the subject to explore, serving to support descriptive research and using the Smart-PLS statistical tool for testing hypotheses.

Generating a list of items that will be used to determine the correlation between variables, it is specified in the research design for the construction of the instrument, so it is important to consider the suggestions of the experts, who say it is essential to generate number of sufficiently large which items which permanently conform Vila, Kuster, and Aldás (2000) scale arising because the list will be subject to removal processes based items, either by expert judgment or using quantitative techniques.

The list of items was classified according to the order assigned to each variable in the model proposed. The first section contains general information 5 questions to characterize companies. The second section comprises internal and external factors affecting business growth by items related to independent variables: the financial dimension, the technology, the competitive environment and human resource. The third section corresponds to the dependent variable, business growth, which is measured by growth indicators such as number of employees, total assets and sales.

The definition of the dimensions is as follows:

*Financial dimension:*in this dimension evidence on the ability of the company to increase sales and market share by increasing assets to create value and profitability it will be sought. Also decreasing unit costs to increase profit margins per unit.

*Technological Dimension:* To measure this dimension is necessary to verify that the company adopt technology to facilitate operational work, meet the needs of customers and / or suppliers, as well as leveraging opportunities to generate economic growth of the company.

*Dimensioncompetitive environment*: This dimension is made up of a set of economic relations and trade between, customers, competitors, suppliers, technological improvements, industry strengths, accessibility to bank loans and government support.

*Human resource dimension*: This dimension shall seek the values that make up the company, knowledge management, relationship with workers, as well as training of employees to improve performance and key employees.

Meanwhile the variable business growth. This variable has been identified as the dependent variable proposed as part of the results of this research model.

There are different theories or approaches that try to explain the reasons why firms increase in size:

The first is the theory of the firm, it said that the increase in size and therefore the growth of the company, explained based on obtaining economies of scale and optimal minimum size.

From a sociological point of view, the growth is to increase the value or prestige of the directors of the company, job creation and improving organizational status.

From an economic perspective, growth is an increase in sales and thus in performance; decreased risk and increased market power.

Therefore, growth is an index of the dynamic economic activity of the company which can be measured by determining indicators such as sales, employment generation, increased assets and growth compared with competitors.

For purposes of this investigation it has been determined that this will be measured by the increase in sales, total assets and number of new employees.

**Population and sample size**

The study population will be the subject of micro and small enterprises classified according to the sector they belong. To perform the validation of a pilot test instrument is made by applying the questionnaire to the companies located in Culiacan, Sinaloa, Mexico. The sample size to apply micro-sized enterprises are 90 and 87 in small to generalize the results with a probability of occurrence of 0.90 and standard error of 0.10. It presented below calculations:

Stratified probability sample for micro enterprises.

N = The size of the population of micro-enterprises is 33.949.
Y = average value of the variable = 1.0000
= Standard error is proposed = 0.10
$se^2$ = population variance = 0.01
$s^2$ = Likelihood = 0.9
n 'unadjusted = Sample size unadjusted = $s^2$ / $se^2$ = 90
n = sample size = 90 / (1+ (90 / 33.949)) = 89.7620372

Stratified probability sample for small businesses.

ISSN-On line: 2414-4959

N = The population size is 2,917 small businesses
Y = average value of the variable = 1.0000
= Standard error is proposed = 0.10
se² = population variance = 0.01
s² = Likelihood = 0.9
n 'unadjusted = Sample size unadjusted = s² / se² = 90
n = sample size = 90 / (1+ (90 / 2.917)) = 87.3062851

**Results**

As part of the results of this research proposal is the following:

1. Items that make up the dimensions for the measurement of independent variables subject to study was designed.
2. The design of the graphical model.

3. The determination of the operational model assumptions. Which will be checked via the PLS Smart- statistical tool.

4. The design of the mathematical model to test the general hypothesis and specific model assumptions.

Items that will measure each independent variable are classified according to the dimension assessed in each of these. For each dimension 7 items which are identified with the letter of the dimension which are part designed. The response options are Likert scale: 1. Never 2. Rarely 3. None 4. and 5. Always Almost always.

*Financial dimension:*

F1. The company develops and evaluates expansion plans (investment) for funding by business bank loans.
F2. The company leverages credit from suppliers.
F3. The company has procedures to control inventory.
F4. Unit costs tend to decrease to increase profit margins.
F5. The company has received government support to increase their competitiveness.
F6. They increase total assets to increase their market share.
F7. The company reinvests a portion of its profits in the business.

*Technological Dimension:*

T8. The company has specialized software for sales, management, or inventory costs.
T9. The company has bank terminal cash sales.
T10. The company has a website to promote their products / services.
T11. The company invests in technology to increase sales and competitiveness through social networks like facebook, instagram, twitter, telemarketing.
T12. The company requires more than one computer equipment for their operations.
T13. The company issues its tax receipts to customers immediately.
T14. The company contacts and / or responds to your customers or suppliers through official email of the company.

*Dimension competitive environment:*

C15. The company offers differentiated competitive products.
C16. The company values its customers' needs for timely and personalized attention.
C17. The company maintains a significant advantage with its competitors.
C18. The company considers the opinion of its customers to provide a service or product with competitive differentiation and branding.
C19. The company has evaluated more than once expansion possibilities.
C20. The company identifies a positive impact on sales if the economy is stable, ie, controlled inflation, the price of stable dollar, low interest rates.
C21. The company has strategies to retain customers, ie they do not change their competition.

*Human resource dimension:*

RH22. It dominates staff and recognizes the position held, that is considered to have specialized staff in the post.
RH23. The company invests in training its staff at least once a year.
RH24. It considers that the company has key employees.
RH25. The company recognizes employees who have work identity.
RH26. The staff is motivated and positive environments conducive organizational climate.
RH27. The company staff is involved to meet sales goals.
RH28. The company staff proposes ideas to improve their work.

*Business Growth*

CE1. How many employees were in the company to start operations?
CE2. How many employees have in the company today?
CE3. Has the company invested in new equipment from 2016 to date?
EC4. Did the company recognize an increase in sales compared to the competition?
CE5. Does the company get higher sales revenue steadily year after year?

The graphic design model proposed for this research was composed as follows (see Figure 1):

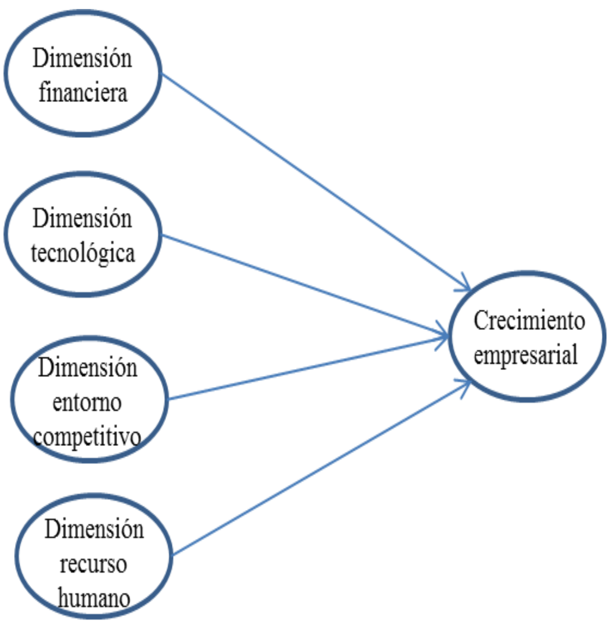


**Figure 1** Model of dimensions that affect business growth
*Source: Self Made*

The third part of the results in this document is determined operational model assumptions. a hypothesis was designed for each ratio of variables being as follows:

H1: The financial dimension has a positive and significant impact on business growth.

H2: The technological dimension has a positive and significant impact on business growth.

H3: The size of competitive environment has a positive and significant impact on business growth.

H4: The human resources dimension has a positive and significant impact on business growth.

To check each of the operating assumptions the mathematical formula, which is checked as follows determined:

$$Y = \beta o + \beta 2X2\ \beta 1X1 + + + \beta 4X4\mu\ \beta 3X3$$

There is the possibility of improving the methodological process during the implementation of this research. So far, the results are a breakthrough for measuring business growth and as a contribution to the literature of this country in micro and small businesses where the empirical results are still insufficient and poorly measured through reliable statistical data.

## Conclusions

As part of the conclusions it can be established that it met the stated objective which was to design an instrument to statistically measure the internal and external factors affecting business growth of micro and small enterprises.

The four dimensions that explain the variability of business growth through the items prepared based on the literature and will be a contribution to the empirical study of micro and small businesses in this country were determined.

This study's main contribution to design a methodology for the development of an empirical study that will serve as input for data collection and can be replicated in different settings and sectors to take a picture as accurate as possible about growth they are having the micro and small enterprises as well as the dimensions of greatest impact on business growth.

## References

Amat Salas, O. y Lloret Millan, P. (2014). Avanzando: claves para sobrevivir y crecer. España. Profit Editorial, segunda edición.

Berger, A. N., & Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. [Article; Proceedings Paper]. Journal of Banking & Finance, 22(6-8), 613-673. doi: 10.1016/s0378-4266(98)00038-7

Blázquez, F., Dorta, J.A y Verona, M.C. (2006a). Concepto, perspectivas y medida del crecimiento empresarial. Cuadernos de administración, Bogotá, Colombia, 19(31), pp 165-195.

Blázquez, F., Dorta, J.A. y Verona, M.C. (2006b). Factores del crecimiento empresarial. Especial referencia a las pequeñas y medianas empresas. Innovar, 16(28), 43-56.

Churchill, N. C., & Lewis, V. L. (1983). The 5 stages of small business growth. Harvard Business Review, pp 61(3).

Cliff, J. E. (1998). Does one size fit all? exploring the relationship between attitudes towards growth, gender, and business size. Journal of Business Venturing 13(6), pp. 523-542.

Cuevas Villegas, C.F. (2001). Contabilidad de costos: Un enfoque gerencial y de gestión. Bogotá, D.C., Colombia. Pearson educación de Colombia Ltda., 2ª edición.

Daza Izquierdo, J. (2016). Crecimiento y rentabilidad empresarial en el sector industrial brasileño. [research-article]. Contaduría y administración, 61(2), 266-282. doi: 10.1016/j.cya.2015.12.001.

ENAPROCE(2015), recuperado en Agosto de 2017. http://www.inegi.org.mx/est/contenidos/proyectos/accesomicrodatos/encuestas/establecimientos/otras/enaproce/default.aspx

Escobar Arias, G.E., Arias Vargas, F.J., Molina Osorio, A. y Arango Álvarez, R.D. (2013). Relaciones entre los flujos de efectivo de las empresas de Caldas y el crecimiento económico regional para el sector industrial durante el período de 2002 a 2010. Revista lasallista de investigación. 10(1), pp. 75-90.

Fernández G., A.I., García R., R. y Ventura V., .J. (1988). Análisis del crecimiento sostenible por los distintos sectores empresariales. Documento de trabajo de la Universidad de Oviedo, 003/88, pp. 3.

Ferrer Lorenzo, I. y Medina Aguerrebere, P. (2014). Gestión empresarial de la agencia de publicidad. Díaz de Santos.

García-Manjón, J.V. y Romero-Merino, M.E. (2010). Efectos de la inversión en I+D sobre el crecimiento empresarial. GCG GEORGETOWN UNIVERSITY – UNIVERSIA, 4(2), 16-27. Doi: 10.3232/ GCG.2010. V4.N2.01.

Gibrat, R. (1931). Les Inégalités Économiques. París, Francia: Editorial Dunod.

Gómez –Rada, C.A. (2009). Liderazgo: conceptos, teorías y hallazgos relevantes. Cuadernos hispanoamericanos de psicología, 2(2), pp. 61-77.

González Pérez, A.L. y Correa Rodríguez, A. (1998). Crecimiento y tamaño: un estudio empírico. Revista española de financiación y contabilidad, abril-junio, pp. 541-573.

Hernández Perlines, F. (2001). La economía cooperativa como alternativa empresarial. España. Editorial de la universidad de castilla-la mancha.

Horngren Charles, T., Datar Srikant, M. y Foster, G. (2007). Contabilidad de costos: Un enfoque gerencial ONU. México. Prentice Hall. XII edición.

King, R. G., C. I. Plosser, et al. (1988). "Production, growth and business cycles. I. The basic neoclassical model." Journal of Monetary Economics 21(2-3): 195-232.

López Salazar, A. y Contreras Soto, R. (2009). Desarrollo de la pequeña y mediana empresa: implicaciones de la orientación emprendedora. Revista internacional administración& finanzas. 2(1), pp. 1-19.

Robson, P. J. A. y R. J. Bennett (2000). SME Growth: The Relationship with Business Advice and External Collaboration. Small Business Economics 15(3), pp.193-208.

Rupasingha, A., & Wang, K. (2017). Access to capital and small business growth: evidence from CRA loans data. Annals of Regional Science, 59(1), 15-41. doi: 10.1007/s00168-017-0814-9

Vallés, C.G. (2005). No temas. Colombia. Editorial San Pablo, quinta reimpresión.

Vecino, C. E., Rojas, S. C. y Munoz, Y. (2014). Prácticas de evaluación financiera de inversiones en Colombia. Elsevier España, S.L.U., 31, pp. 41-49.

Vila, L. N., Küster, B. I. y Aldás, J. (2000). Desarrollo y validación de escalas de medida en marketing. En ALDÁS, J. (Ed.) Análisis de datos multivariable, pp. 1-22. Valencia: Universidad de Valencia.

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

Ynzunza, C., Izar, J. (2013). Efecto de las estrategias competitivas y los recursos y capacidades orientados al mercado sobre el crecimiento de las organizaciones. Contaduría y Administración, 58 (1), pp. 169-197. Management, 58 (1), pp. 169-197.