

The Relationship between Financial Performance and Firm Sustainable Growth: Evidence from Algerian Companies

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Abstract:

The present study focuses on the relationship between financial performance and sustainable growth of large-sized firms in Algeria. These companies are currently facing more challenging environments compared to the past, as their survival rates are declining and suffering from a low level of profitability. The data used in the current study was from (40) companies between (2017-2020). Further, the multiple regression approach was used to analyse the survey data. This study has concluded that the net profit margin, assets turnover, and financial leverage are related to a firm's sustainable growth. On the other hand, the result reveals that dividend policy has a positive and insignificant effect on sustainable growth.

Keywords: *Growth; Financial Performance; Sustainable Growth Rate; regression model.*

1. INTRODUCTION

For years, Researchers have considered profits as the key tool to measure business performance. However, the growth rate is now becoming well known as a measuring device for firms' financial strength. In addition to that, the Sustainable Growth Rate (SGR), is used in mainstream finance to analyse the maximum growth rate in sales that a firm can achieve while maintaining a relatively stable set of financial policies.

Important to realize, Sustainability has become the major concern of every firm including all dimensions i.e. Economic, Social, and Financial. Equally important, in the highest global competitive environment, companies are currently striving hard to increase their shareholders' wealth, which depends to a great extent on target profit that must be achieved within a reasonable time. Markedly, there is a dependency relation between the two factors.

Internal growth is defined as the typical mode of small and medium-sized enterprises (SMEs); it only relies on the company's efforts (Meier, Schier 2009, p.11). It is also seen as the result of the turnover's increase due to the production capacity expansion and is based on the specific companies' resources such as equity, cash flow, and debt capacity. This allows the

retaining of the business development control and the maintaining of independency.

Therefore, companies' internal growth may be relatively slow and depends on the company's financial resources, in particular, equity, cash flow, and/or debt capacity. Every growing business requires the completion of the largest new investment; the only way to generate a cash flow is probably by achieving a competitive position or even a dominant one.

The growth results in a significant size increase of a business are generally comprehended by the development of quantitative factors such as effective workforce, turnover, and value-added, among other factors (Meier, 2009, p2).

This growth requires different factors, in which their availability depends on the considered growth type. The company has its particular ways to grow and expand its production capacity, its finances, and its new investments through its cash flow.

Other companies that have the needed resources are looking to expand by taking over the competition to grab control and dominate the additional market share as quickly as possible. Different forms of acquisition are possible such as mergers, takeovers, equity participation, and alliances.

These are examples of external growth that enable companies to quickly reach critical mass, reduce costs, diversify their economic activities, enter new markets, and reduce risks.

The current study examines the impact of financial performance on the sustainable growth of companies. It also focuses on a particular type of firm, which is Algerian large size private companies, working in the industrial sector. In fact, this idea has not been the subject of any particular study before. Accordingly, the following question was addressed in this research:

Is there any relationship between financial performance and sustainable growth firms in Algeria?

• **Study Hypotheses**

In this study, it was assumed that financial performance, in all its aspects (components) plays an important role in the company's sustainable growth.

Taking into consideration the research goals, and the issue to be tested in this study the following hypotheses are formed:

- **Hypothesis(1):** The ease with which sales generate profit is a factor that has an impact on sustainable business growth, and is known as the net profit margin ratio (NPM).

- **Hypothesis (2):** considering the previous fact as a major constraint for Algerian companies, assets turnover (AT) must also be taken into consideration. Therefore, economic efficiency affects their sustainable growth.
- **Hypothesis (3):** The Algerian company invests only in equity; whenever they are regarded as important, the assets of the company are seen the same way, which results in carrying a significant level of sustainable growth that depends on the financial leverage (FL).
- **Hypothesis (4):** The Algerian companies are concerned about their ability to cover shareholders' equity through their net income. This dividend affects the sustainable growth of these companies; however, it should not affect their income, and this is known as the earning retention (ER) ratio.
- **Study Objectives**
 - To study the company's financial performance;
 - To identify the components of sustainable growth;
 - To identify the components of SGR and their usage efficiency;
 - To analyse financial performance impact on the sustainable growth of the selected companies.

2. Literature review:

Growth has been studied in different models by several authors. The well-known growth model of Churchill & Lewis argues that a young company is usually in the survival phase (Churchill, & Lewis,1983, p.35). Even though there will not be growth immediately, the investing factor will show its impact shortly. Hence, the investing factor is necessary for small companies to survive. According to the model, small companies are less experienced and organizationally inefficient. Larger companies on the other hand have sufficient experience and are more efficient. Growth enables the company to add value, and it strengthens the organization.

Furthermore, on a macro level, growing firms boost the world economy by stabilizing or increasing the workforce. However, Ahlstrom's model of growth emphasizes the major roles of growth competence and resources, growth potential, and growth ambitions (Ahlström,1998, p.32). According to Andersson, Gran & Mossberg, companies that make an effort to build or develop their competencies are more likely to grow (Andersson,2007).

In contradiction to Ahlstrom's model, Gibrat's law states that the growth of a company is a random process. According to the author, the size of a company is independent of firm growth (Gibrat,1931, p.45). However,

Evans's research is based on a sample of 100 firms in the manufacturing industry, which concludes the opposite finding. The author found that firm growth, the variability of firm growth, and the likelihood that a firm will fail, decrease with its age. The author also found that firm growth decreases at a diminishing rate with its size even after regulating the exit of slow-growing firms from the sample (Evans, 1987, p.570). Based on his findings, Evans criticized Gibrat's Law by arguing that Gibrat's Law is not a reasonable assumption for smaller companies.

Heshmati obtained data from the Market Manager's database in Sweden. Both public and private firms from (1993 -1998) were selected to examine the relationship between size, age, and growth rate of firms. The author found that the degree of indebtedness positively affects sales growth (Heshmati, 2001).

Becchetti and Trovato conducted an empirical analysis of the determinants of growth for a sample of Italian small and medium-sized companies. Their results suggest that the hypothesis of independence of firm growth from the initial size and other factors is accepted for large firms, but rejected for small and medium-sized firms under financial constraints in a bank-oriented financial system in which access to external finance is difficult (Becchetti & Trovato, 2002).

Research by Oliveira & Fortunato found evidence for the dependency of age. Firm size and firm age as growth determinants are a prerequisite for distinguishing strong growing companies from weaker ones (Mateev & Anastasov, 2010, p.280).

Hermelo and Vassolo collected data from Argentina. Through correlation, they found that the growth of the firm was not significantly related to its size, which is consistent with Gibrat's law (Hermelo & Vassolo, 2007).

More recently, Vos et al suggest that, in general, companies do not seek growth beyond their ability to control and sustain the business (Vos et al, 2002). Ou and Haynes found that most medium-sized enterprises rely on internal sources of funds as opposed to external capital in financing their business operations (Ou & Haynes, 2003). However, one of the most important concepts spread through the corporate finance and strategic planning communities is the self-sustainable rate of growth.

Mateev and Anastasov used a panel dataset of 560 fast-growing small and medium companies from six transition economies and found that firm size when measured by firm total assets can explain to a large extent the

growth in SMEs in these countries. They also found that firm-specific characteristics such as leverage, current liquidity, future growth opportunities, internally generated funds, and factor productivity are found to be important factors in determining a firm's growth. In addition, their results suggest that age and ownership do not affect firm growth (Mateev & Anastasov,2010).

To achieve growth, The McKinsey Global Institute attributes much of the drive to adopt new technologies and organizational practices in retail trade to the influence of one company; Walmart. McKinsey finds that the competitive pressure of Wal-Mart encouraged other retailers to adopt its technological and organizational best practices (McKinsey,2001, p.30). This growth performance is related to the combination of profitability, retention rate, asset turnover, and financial leverage. Thus, to achieve sustainable growth in a business, generally, there were many ideologies and strategies adopted by the companies.

A successful company considers strategy as systematic social innovation, where the goal is to create an ever-improving fit between customers and company competencies by reconfiguring roles and relationships between actors to find new ways to co-produce value.

Sustainable growth attaches great importance due to increasing the value of a company into one comprehensive measure by combining operating and financial (Jagadish,2011, p.2240).

In the long term, the company used to be financed by a mix of debt and equity known as capital structure. Therefore, the company's capital structure will remain the same by determining sustainable growth. Furthermore, the company's capital structure will be consistent by maintaining the earnings and increasing its owners' equity, even though there will be slight year-to-year deviations in the actual capital structure. Then, sustainable growth will be affected when the company's capital structure changes such as if financial leverage increases, sustainable growth will increase. Also, if the financial leverage decreases, it will decrease sustainable growth (Jagadish, 2011, p.2247).

Indeed, the level of growth achieved by companies affects the level of demand in other sectors as well as the employment level and, therefore, the economic development of the region.

The life cycle of a company goes through several stages and each stage reflects the size of the company and how it grows and adapts to its environment. (Insah et al, 2013).

Some studies are devoted to the relationship between profitability and business growth. Despite the importance of profitability, this theoretical relationship did not get all the appropriate interest in certain practical studies (Coad & Holzl, 2010), especially as the views about it were distinguished.

Indeed, in the context of financial constraints (Nelson & Winter, 1982) have shown that companies that make some profitability have a better capacity to provide financial resources to grow and develop their business (expansion) than other companies.

A study conducted by (Jang & Park, 2011), concerning the relationship between profitability and growth shows that the profitability increase affects positively the growth increased level, to the extent that profitability is considered the best indicator of financial resources, since achieving a higher rate of profitability allows the company to invest more because of the importance of the retention of earnings (cash flow), allowing the company easy access to external funding resources.

As a result, profitability and retention results are a source of finance in countries that do not yet have efficient financial markets (Rajan & Zingales, 1998).

The study carried out by (hermelo & Vassolo, 2007) led to the existence of a positive impact on profitability growth. It is justified by the fact that the company that produces high revenues acquires financial resources from the increase in retained earnings and/or debt capacity, allowing it to fund new projects, enter new markets, invest in new technologies, and therefore achieve a relatively high growth rate.

In case these results are not reinvested, they reduce or fail to cover the financing needs of growth, in which the concerned companies will not be able to achieve growth, or they will grow at a slow pace, as indicated by (Geroski & Mazzucato, 2002) match between profitability and business growth.

Other studies like the one (Cowling, 2004; Serrasqueiro, 2009) recognizes that profitability has a positive impact on firms' growth, which is consistent with the law. (Kaldor-Verdoom, 1966) believes that growth is the engine of productivity which is, in its turn the engine of profitability. In other words, productivity increases due to improved growth; increasing the rate of productivity can increase sales and therefore increase the profit of the company.

The study conducted by (Gill, Marthur, 2011), focused on: the factors influencing the measured profitability, an indicator of commercial

profitability, which led to the existence of a positive relationship between growth and profitability.

(Bottazzi et al., 2001) study reverses the existence of any relationship between profitability measured by the productivity of the company and its growth.

It is believed that Profitability negatively affects the growth of the company (Reid,1995), which is consistent with the explanations provided by the theory; Indeed, (Penrose, 1959) showed that the rate of Profitability decreases when the rate of growth increases. While for (Greiner, 1972), the relationship between profitability and firms' growth can be either negative or positive; which is related to the growth transition from one stage to another, which exposes the company to more or less serious problems, and even causes crises.

This transition takes place as a response not only to environmental opportunities but also to internal company changes.

For (Lieberman & Montgomery, 1998) companies first provide the direction of market position and gain competitive advantage allowing them to grow and make a profit. This relatively complies with (Mueller, 1977) thesis on profitability continuity where the author puts forward a theory that the market competitive force pushes the company's profits to targeted levels in the absence of barriers to both entry and exit; therefore, the income of the business reaches the target rate in a more or less long term.

The choice of financial structure is one of the most strategic decisions for any company, to the extent that it is subject to two opposing factors risk and return. For (VanHorne & Wachowicz, 1995) financial structure is a mix of permanent capital. Growth is understood in terms of value added (Titman &Wessels, 1988) and it cannot be generated by the profits made by the company.

A company that achieves a higher growth rate has more funding opportunities for future investments (Wald, 1999). However, the agency problem cannot be hidden, both for shareholders and for the bond: lower debt level and therefore the possibility of waiving most profitable projects (Myers, 1977; Ozkan, 2001).

Thus, the relationship between growth and debt is negative as it was concluded by (Myers, 1977, Bradley & al., 1984). Further, according to (Michaelas & al., 1999) the growth of the company requires the use of debt in cases where the flow is insufficient; the company must build relationships with funders to gain access to the external financing resources it needs.

Correspondingly, many studies focused on the phenomenon of growth which highlighted the existence of a variety of reasons and resources that would be the source of growth considered as a success indicator in any company, to the extent that it contributes to the progress at a national level (Asimakopoulos et al, 2009).

Indeed, the level of growth achieved by companies affects the level of demand in other sectors as well as the employment level and, therefore, the economic development of the region.

Growth is defined in terms of increased income (earnings), added value, workforce, size, or position of the company in the market, type of products, and the size of its customers. Notably, (Vijayakumar & Devi, 2011), believed that growth is carried out by an ongoing, orderly and organized process when profitability has a certain impact.

Profitability is considered as the income generated by the economic activity of the company, it depends on the size, price policy, debt, and the level of growth of the company.

The study carried out by (Jang & Park, 2011) examines the relationship between profitability and growth and shows that the increase in profitability positively affects the increased level of growth, to the extent that profitability is considered the best indicator of financial resources, since achieving a higher rate of profitability allows the company to invest more because of the importance of the retention of earnings (cash flow) allowing the company easy access to external funding resources.

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3. Sustainable Growth Models:

The sustainable growth rate model is used in mainstream finance to analyze the maximum growth rate in sales that a firm can achieve while maintaining a relatively stable set of financial policies. Literature in past research proved that sustainable growth is the rate of growth that is the most

realistic estimate of the growth in a company's earnings, assuming that the company does not alter its capital structure.

Over the past several years, various growth models have been defined, and three of these models have been described in the following section:

3.1 Van Horne's Model:

Van Horne (1998) has defined a Sustainable Growth Rate as the maximum annual percentage increase in sales that can be achieved based on the target operating, debt, and dividend-payout ratios. Given this definition, a company can determine if its projected sales are a realistic goal. Van Horne's sustainable growth rate model is the quantitative description of the sustainable growth rate which is the variance of the sale income, i.e.

$$SRG = \frac{\Delta S}{S} = \frac{B \left(\frac{NP}{S}\right) \left(1 + \frac{D}{Eq}\right)}{\frac{A}{c} - B \left(\frac{NP}{S}\right) \left(1 + \frac{D}{Eq}\right)}$$

Where:

A/S: the rate of the total assets and the sale,

NP/S :the net profit rate,

B : the retained profits (1-b is the ratio of the dividend),

D/Eq : the ratio of the debt and the equity,

S : the sales in the recent year,

ΔS : the sales absolute variance in the recent year (Van Horn & James, 1998, p21).

3.2 Higgins's Model (1977)

The model for computing SGR is presented as follow:

$$SRG = \frac{P(1 - R)(1 + L)}{A - P(1 - R)(1 + L)}$$

Where:

P: Profit Margin on Sales After Taxes

R: the Percent of Profit Returned to Owners

L: represents Debt to Equity Ratio

A: represents Asset to Sales Ratio the SGR is a measure that firms for different purposes, such as evaluating the creditworthiness of companies (Higgins,1977, p.25).

3.3 Zakon's model

It is a well-known model of the Boston Consulting Group's Model (BCG)

$$SRG = \frac{D}{E} \cdot (R - I)P + R \cdot P$$

D/E: represents debt / equity ratio

R: represents ROA

I: represents interest rate (1- taxation rate)

P: represents the retention ratio

When analyzing the components of the formula, it becomes clear that the SGR is determined in terms of a company's profitability, as well as financial policies regarding financial gearing and dividends. The formula was derived as illustrated simply above, and then expanded (Zakon,1977p39)

4. Research Methodology:

4.1 Sample Study:

The statistical research sample was collected by applying the following conditions:

- Loss firms are excluded from our sample.
- Information such as financial statements, notes to financial statements, and a summary of decisions are required.

In the light of the previous conditions, data of only (40) companies out of total population are obtained, and the annual reports of thirty selected companies for four years- the period between (2017-2020) are used in the current research, resulting in up to 160 company-year observations.

4.2 Research method:

The correlation analysis approach was used in this study, which was generally applied in previous research to determine the relationship between different variables using the correlation coefficient. Notably, the appointment coefficient is a criterion, which describes the relationship between independent and dependent variables. The coefficient amount indicates the percentage variation of the dependent variable described by the independent variable. Equally important, the descriptive statistics method was also used in the study.

4.3 Variables Definition:

The following variables were used in present study:

- **NPM:** Net profit margin is the annual net income divided by sales.
- **AT:** Assets turnover ratio is sales divided by total assets.
- **FL:** Financial Leverage is Assets divided by equity.
- **ER:** Earning retention ratio (reinvested net income/ net income).
- **SGR:** Sustainable growth rate (**Higgins's Model**).

The linear regression equation can be represented as follows:

$$SGR = \alpha + \beta_1(NPM) + \beta_2(AT) + \beta_3(FL) + \beta_4(ER) + e$$

α : the intercept of the equation

$\beta_1, \beta_2, \beta_3$ and β_4 : coefficients of variables

e : Error term.

5. Study results:

5.1 Descriptive Analysis:

The descriptive statistics of the collected sample is illustrated in the current section. Some values are missing for some of the variables, especially for the net profit margin. From Table (01), it can be realized that the average net profit margin (NPM) of the study sample is approximately 0.92. In addition, the analysis indicates that the minimum percent of net profit margin is 0.0008, whereas the maximum value reach is 0.41.

The firm activity represented by assets turnover ratio (AT) is an average of 4.19 coupled with the results indicate that firm performance is declining compared to the maximum value i.e. equal to 66.41, certainly, this value is very high, while the standard deviation proves that there is high variation in firm activity About financial leverage (FL), that reached the average of 1.54. This indicates a wide variation in the use of financial leverage.

Table N⁰(01) :Descriptive statistic

	Minimum	Maximum	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
NPM	0,0008	0,4116	0,091603	1,320	0,221	1,726	0,438
AT	0,2374	66,4109	4,1966	4,645	0,221	21,474	0,438
FL	0,1264	14,4462	1,5459	6,380	0,221	46,489	0,438
ER	0,5821	1,0000	0,8835	-0,938	0,221	0,162	0,438
SGR	0,0018	0,8451	0,1761	1,648	0,221	3,267	0,438

Source: Outputs SPSS

Table (01) also demonstrates the average earning retention ratio (ER) is 0.88, which means that a company had reinvested an average of 8.8% of the total net income. Furthermore, the companies had an average sustainable growth (SGR) approximately of 0.177 and this value is very low compared to the high sustainable growth rate which is 0.8451. Consequently, some firms achieve low profits which indicates a weakness in performance.

5.2 The correlation matrix:

Pearson correlation coefficient is calculated in Table (02).

Table N⁰(02): Correlation matrix

		NPM	AT	FL	ER	SRG
NPM	Pearson Correlation	1	-,269**	-0,019	,338**	,742**
	Sig. (2-tailed)		0,003	0,839	0,000	0,000
	N	160	160	160	160	160
AT	Pearson Correlation	-0,269**	1	-0,133	-0,228*	-0,051
	Sig. (2-tailed)	0,003		,146	,012	,578

	N	160	160	160	160	160
FL	Pearson Correlation	-0,019	-0,133	1	0,111	0,087
	Sig. (2-tailed)	0,839	0,146		0,229	0,346
	N	160	160	160	160	160
ER	Pearson Correlation	0,338**	-0,228*	0,111	1	0,258**
	Sig. (2-tailed)	,000	,012	0,229		0,005
	N	160	160	160	160	160
SRG	Pearson Correlation	0,742**	-0,051	0,087	0,258**	1
	Sig. (2-tailed)	0,000	0,578	0,346	0,005	
	N	160	160	160	160	160

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: Outputs SPSS

The results reveal that net profit margin (NPM) and earning retention (ER) have a significant impact on sustainable growth rate (SGR) as indicated by the coefficient values $r=0.742$ and $r=0.258$. Assets turnover ratio (AT) shows a negative but insignificant impact on sustainable growth rate (SGR), as the correlation coefficient value is too weak i.e., $r= -0.051$. Also, financial leverage (FL) has a positive relationship with sustainable growth rate (SGR), confirming that size and growth have an insignificant impact in measuring the growth of the firm.

5.3 Regression model:

Table (03) below represents a summary of the regression model used in the present study. It reveals R Square value of 0.589 meaning that 58.9% of the variation in the dependent variable is explained by the independent variables of the model. The 41.1% variation in the dependent variable remains unexplained by the independent variables of the study.

Table N⁰(03): Model Summary ^b

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	Durbin-Watson
1	,768 ^a	,589	,575	,0999271	1,267

a. Predictors: (Constant), ER, FL, AT, NPM.

b. Dependent Variable: SGR

Source: Outputs SPSS

The following Table (03) below points out the coefficients of the models used in the study. The value for F-statistic is 41,278 and significant endorsing the validity and stability of the model relevant for the study. In table 05, the coefficient for net profit margin (NPM) is 1.486 and shows a positive relationship between net profit margin and sustainable growth. The

coefficient for assets turnover ratio (AT) is 0.003 which shows that there is a positive relationship between assets turnover ratio and sustainable growth.

The coefficient for financial leverage (FL) is 0.012 and shows a positive relationship with a sustainable growth of companies. While earning retention ratio (ER) has a positive but insignificant effect on the sustainable growth rate.

Correspondingly, it is noted that the correlations between the different variables are low; regardless these are not seen as substantial problems. Since the variance inflation factor (VIF) of the different variables are well below 10, there are no multi-collinearity problems.

Table N⁰(04): ANOVA ^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1,649	4	,412	41,278	,000 ^b
1 Residual	1,148	115	,010		
Total	2,797	119			

a. Dependent Variable: SGR

b. Predictors: (Constant), ER, FL, AT, NPV.

Source: Out puts SPSS

Table N⁰(05): Coefficients ^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-,017	0,087		-,190	0,849		
NPV	1,486	0,123	0,786	12,063	0,000	0,841	1,189
AT	0,003	0,001	0,181	2,858	0,005	0,892	1,121
FL	0,012	0,006	0,123	2,031	0,045	0,968	1,033
ER	0,031	0,101	0,020	0,307	0,759	0,856	1,168

a. Dependent Variable: SGR

Source: Outputs SPSS

Under those circumstances, the variable that expresses the ease with which the private companies' sales in Algeria give a positive impact on the sustainable growth level of these companies, is included in the multiple regression model with a positive and highly significant coefficient of ($p < 0.000$). **The first hypothesis is accepted.**

The second hypothesis states that concerning the relative lack of equity, the Algerian private companies have a special interest in their assets turnover (AT). Assets turnover is regarded as a factor in explaining sustainable growth; it is one of the variables of the multiple regression models. Consequently, **the hypothesis is confirmed.**

Profitability positively influences the growth of private companies in Algeria, its impact is highly significant ($p < 0.005$).

The third hypothesis suggests that the Algerian big private company in the industrial sector will proceed with the investment relative to its equity size, to clarify; the growth of these companies depends on the relative importance of equity.

The multiple regression model that we have achieved contains variable financial leverage, with a positive coefficient using the appropriate statistical test ($p < 0.045$).

For this reason, Hypothesis three is confirmed. These companies are characterized by a relatively low level of equity, they, invest less and therefore the achieved growth level is low.

The fourth hypothesis suggests that large Algerian private companies are concerned about their ability to meet their shareholders' equity using their net income. It is expressed by the earning retention (ER) ratio in the report of the multiple regression model with a positive coefficient and a highly insignificant level of significance of ($p < 0.759$). As a result, **Hypothesis four is rejected.**

6. Conclusion:

The results of our research indicate that the variables that explain the sustainable growth of large private companies in the industry sector in Algeria relate more particularly to certain adequacy between profit margin, assets turnover and financial leverage.

Factors positively affecting the growth of these companies and others have a rather negative impact on the growth process.

All these variables have significant explanatory power. However, their relative contribution is quite variable.

Indeed, the study shows that the balance between the total assets and equity contributes most to the explanation of the sustainable growth of the Algerian deprived industry.

Finally, the companies' solvency accounts for a relatively small proportion compared to the contribution of other variables to the explanatory power of the multiple regression model.

More consistent with the hypothesis that we have issued and are all confirmed, surveyed companies realize different levels of sustainable growth, where the causes vary from one company to another.

Correspondingly, Companies change their strategies according to their rate of sustainable growth. It affects the choice of the factors differently and

varies between companies that are lagging relatively high level of growth and do not use the same parameters as those that achieve a lower level of growth.

Even in the latter category, each company is a special case, depending on the "mix" of factors (parameters) they rely on.

Profitability contributes most to the explanation of the business growth. Economic efficiency (assets turnover) contributes to the explanation of sustainable growth after the activity. Financial leverage has a weak effect on it. This occurs only in explaining the growth of Algerian private companies. Certainly, it is a sign of the difficulties faced by companies to benefit from external funding (bank), or they refuse to use the main order to keep their financial autonomy and independence from the banking sector.

6. References:

- Heshmati (2001). On the growth of micro and small firms: evidence from Sweden, *Small Business Economics*, **17**(3), 213-228.
- Ahlström S.R. (1998). Factors limiting growth in different phases of firm development, paper presented at the 10th Nordic Conference on Small Business Research, Växjö.
- Ahmed, M. (2002), “Key to Achieving Sustainability” ASA’s Publication Dhaka, Bangladesh.
- Andersson &., Andersson I., Gran G. & Mossberg A. (2007). Competence development for growth, IKED.www.iked.org/.../Competence%20Development%20f
- Asimakopoulous, I., Samitas, A. & Papadogonas, T. (2009), Firm-Specific and Economy Wide Determinants of Firm Profitability Greek Evidence Using Panel Data. *Managerial finance*;35,930-939
- Bottazzi, G., Dosi, G., Lippi, M., Pammolli, F. & Riccaboni, M. (2001), Innovation and corporate growth in the evolution of the drug industry. *International Journal of Industrial Organization*, **19**, 1161–1187
- Churchill, C., & Lewis, V. (1983), The five stages of small business growth. *Harvard Business Review*, **61** (3), pp 30–50
- Coad, A., & Holz, W. (2010), Firm growth: Empirical analysis. WIFO working papers, 332, 361
- Cowling, M. (2004), The growth-profit nexus. *Small Business Economics*, **22**, 1–9.
- Evans, D. (1987), The relationship between firm growth, size, and age: estimates for 100 manufacturing industries. *Journal of Industrial Economics*, **35**(04) pp 567-581.
- Fonseka, M. M., Ramos, C. & G., Tian, G. (2012). The Most Appropriate Sustainable Growth Rate Model for Managers and Researchers the *Journal of Applied Business Research*, **28**(3).
- Geroski, P.A. & Mazzucato, M. (2002), Learning and the sources of corporate Growth; *Industrial and Corporate Change*, **11**(4), 623–644
- Gibrat, R. (1931), *Les inégalités économiques*, Paris: Sirey.

- Gill, A., Mathur,N.(2011), The impact of board size, CEO duality, and corporate liquidity on the profitability of Canadian Service Firms. *Journal of Applied Finance & Banking*, vol.1, no.3, pp 83-95.
- Greiner,L.(1972) , Evolutions and revolutions as organizations grow. *Havard Business Review*. pp37-46.
- Hermelo & R. Vassolo, The determinants of firm growth: An empirical examination, *Revista Abante*, **10**(1), (2007), 3-20.
- Hermelo,F. & Vassolo,D,(2007), The Determinants Of Firm's Growth: An Empirical Examination; *Revista Abante*, Vol. 10, N° 1, Pp. 3-20,[Www.Researchgate.Net/](http://www.researchgate.net/)
- Heshmati (2001), On the growth of micro and small firms: evidence from Sweden, *Small Business Economics*, **17**(3), 213-228.
- Higgins, Robert .c (1977), How much growth can a firm afford? Pp 1-11, <https://studies2.hec.fr/jahia/webdav/.../Hggins.pdf>
- Insah, Aliata I. Mumuni, & Bangniyel, (2013), An Analysis of The Determinants of Business Growth In Ghana: A Study Of Wa Municipal In The Upper West Region, *European Journal Of Business And Management* Vol.5, N° .31, 2013
- Jagadish, R. R. (2011). Performance Analysis with Sustainable Growth Rate: A Case Study *International Journal of Research in Commerce, Economics and Management* Volume, 1(1), 2231-4245.
- Jang, S. & Park, K. (2011): Inter-relationship between firm growth and profitability. *International Journal of Hospitality Management*, 30, 1027- 1035.
- Kaldor, N. (1966), *Causes of the Slow Rate of Economic Growth of the United Kingdom: An Inaugural Lecture*. Cambridge University Press, Cambridge, UK. www.questia.com/free-trial/
- L. Becchetti & G. Trovato (2002), The determinants of growth for small and medium-sized firms: the role of the availability of external finance, *Small Business Economics*, **19**(4), 291-306
- Lieberman, M.B. & Montgomery, D.B. (1998), First-mover advantages. *Strategic management Journal*, 9, 41-58.
- Mateev, M. & Anastasov, Y. (2010), Determinants of Small and Medium Sized Fast-Growing Enterprises in Central and Eastern Europe: A Panel Data Analysis. *Financial Theory and Practice*, 34(3), 269–295.
- Mateev, M & Anastasov, Y. (2010), Determinants of small and medium-sized fast-growing enterprises in central and eastern Europe: A Panel Data Analysis.*Financial Theory and Practice*, 34 (3), pp 269-295
- McKinsey Global Institute. October (2001)., *U.S. Productivity Growth 1995-2000*. Washington, D.C. : McKinsey Global Institute,
- Meier, O & Schier, G (2009), *Fusions-Acquisitions*, 3^e édition Dunod, Paris.
- Meschi ,P (1998) ,Les Logiques financières de la croissance dans les firmes d'Europe centrale, *revue française de gestion*, Janvier-Février, pp 91-99.
- Montebello,M. (1981) , *Logiques financières de la croissance dans les firmes asiatiques*», *revue française de gestion*, Mars – Avril, pp 90-96.
- Mueller, D. (1977), The persistence of profits above the norm. *Economica*, 44, 369–380.

- Myers, S. (1977), `Determinants of Corporate Borrowing, *Journal of Financial Economics*, Vol.5, No.2, pp. 147-175
- Nelson ,R.R. & Winter, S. (1982), *An evolutionary theory of economic change*. Harvard University Press, Cambridge.
- Ou, C. & Haynes, G.W. (2003). *Uses of Equity Capital by Small Firms – Findings from the Surveys of Small Business Finances (for 1993 and 1998)*. Paper presented at the Academy of Entrepreneurial Finance 14th International Conference, Chicago, Illinois
- Ozkan, A. (2001). *Determinants of Capital Structure and Adjustment to Long Run Target: Evidence from UK Company Panel Data´*, *Journal of Business Finance & Accounting*, Vol.28, Nos.1&2, pp. 175-198
- Penrose,E T,(1959), *The theory of the growth of the firm*, Oxford university press, Oxford. In: www.questia.com/free-trial/
- Phillips, M., Volker, J. & Anderson, S.J. (2010). *Understanding Small Private Retail Firm Growth using the Sustainable Growth Model*. *The Journal of Finance and Accountancy*.
- Rajan, R. & L. Zingales (1998), *Financial Dependence and Growth*, *American Economic Review* 88: 559-586.
- Reid, G.C. (1995), *Early life-cycle behaviour of micro-firms in Scotland*, *Small Business Economics*, (7), pp. 89-95.
- Serrasqueiro, Z. (2009), *Growth and profitability in Portuguese companies: a dynamic panel data approach*. *Economic Interferences*, (9), 565-573.
- Titman, S. & R. Wessels (1988), *The Determinants of Capital Structure Choice*, *The Journal of Finance*, 43(1), pp. 1-19.
- Van Horn & C. James. (1998). *Sustainable Growth Modeling*. *Journal of Corporate Finance*. (winter), pp 19-25.
- Van Horne, J., & Wachowicz, J. (1995), *Fundamentals of financial management* (9th ed.). New Jersey: Prentice-Hall
- Vijayakumar, A. And Devi, S.S. (2011), *Growth and Profitability in Indian Automobile Firms – An analysis*. *Journal for Bloomers of Research*, 3(2), 168-177.
- Vos, A.S., Strydom, H., Fouché, C.B.& Delport, C.S.L. (2002), *Research at grass roots: for the social sciences and human service professions*. 2nd edition. Pretoria: Van Schaik Publishers
- Wald, J. (1999). *How Firm Characteristics Affect Capital Structure: An International Comparison*, *The Journal of Financial Research*, 22(2), pp. 161-187.
- Zakon, A. (1986). *Growth and financial strategies. A special commentary*. Boston Consulting Group, Boston, Massachusetts.