JOURNAL OF AL MAYADINE AL IKTISSADIA
VOL: 04, ISS: 01, 2021, Pages (339/356)
P-ISSN: 2716-7615 E-ISSN: 2716-8565
DOI: 10.47173/2134-004-001-019

Analyzing the dependence of Algerian SMEs on internal financing and its consequences: case study of the industrial sector

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Received: 01/06/2021 **Accepted: 14/08/2021** **Published: 31/12/2021**

Abstract:
This paper is an attempt to investigate the cash flow dependence of the Algerian small and medium enterprises (SME) from the industrial sector using a literature review and a multiple Linear Regression model with cross sectional data. The financing behavior of the Algerian SME became of great concern in the past years, it became urgent to set the frame of the financial interaction between the intrinsic characteristics of this type of companies and the financial system. The results confirm the fact the Algerian SMEs are indeed relying on their cash flow for their sustainability and growth while evolving in an unfavorable business environment, but still rely on external financing in some cases. The consequences of such dependence are higher assumed risks and lower investment opportunities, which lead eventually to lower economical growth.

Keywords: SME; financing; investment; growth; constraints.

JEL Classification Codes : D25; G30

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Introduction:

"An economy breaths with the pace of the investments of its medium and small corporations"; this sentence, brief and colorful, could well have been taken from the speech of a politician, which will in no way alter its validity, this as much true as to say that cash flows are the heartbeats of SME. These companies invest and contribute to the economy to the extent that value creation is synonymous with strength, efficiency and sustainability. Most recent discussions revolve around the "innate" predisposition of SMEs to bankruptcy; Several successful business leaders encourage the leaders of new SMEs to integrate failure as a step in their personal development, the most popular example is that of Henry Ford who attests of the creative power of entrepreneurship and asserts that "Failure is simply the opportunity to begin again, this time more intelligently".

If this vision is very inspiring for the development of mentalities, it does not tell us anything about the real constraints that these companies are subjected to, because if the intention can be there, the real background of the life of SMEs is not necessarily explicit. Most recent political reform in Algeria (institutional : the creation of National Consulting Council for SMEs (CNC), National Microcredit Management Agency, ANSEJ, ANJEM, ANDI ; laws : Law No. 17-02 of 2017 on the orientation law on the development of small and medium-sized enterprises (SMEs);.…) focuses on improving the conditions of existence of SMEs, the majority of reforms aims to improve their financial situation in order to remedy phenomenons such as the liability of newness (issues associated with the newly created status of SME that makes them particularly prone to failure and decay). The youngest SMEs are in a heavier uproar to bear, due to their size, their speed of growth, and the risk involved, compared to that of the oldest SMEs (Nunes & Serrasqueiro, 2012). The financial representation of SME indicators is a good proxy to understand their internal dynamic and the issues that have to confront during their evolution, and their downfall. If modern finance has damaged the real view of corporate finance practices, at least we can be thankful that it also can no longer be assumed that external capital is a costless substitute for internal capital as it was considered in the past. corporate finance finally understand that as the rate of interest rises, so does the riskiness of borrowers, leading suppliers of capital to rationally decide to limit the quantity of loans they make at any particular interest rate. As (Audretsch & Elston, 2000) point out, "The amount of information about an enterprise is generally not neutral with respect to size.

Algerian SMEs have become one of the principal preoccupations of researchers and scholars in the economical and financial field. The subject became almost unavoidable and takes a preeminent place by attracting all different contributions, but very few treats the specific problematic of financing and funding behavior of the Algerian SMES. The aim of our paper is to assess a particular side of their financial issue: dependence to cash flow. Dependence on cash flows hide a very essential necessity for SME, it defines the discretionary potential of SME and their ability to be flexible regarding investment and growth opportunities. The dependence emerges from the sphere of financial constraints

that circles the existence of SME on a large scale. This issue has intuitive implications that could define the financial performance and sustainability of such specific entities.

The problematic of our research could be summarized as:

1) Are the Algerian SMEs dependent on the net cash flows of their activity?

If the company is dependent, this could indicate on the one hand that A) Algeria's banking system (or the economy in general) does not allow them to contract debt properly, on the other hand B) that their management is passive, not based on the sound financial practice, with a deplorable financial condition that doesn't allow them to contract debt in a adequate manner.

1- Understanding the implication of financial constraint on SME

For SMEs, we can think that it is relatively easier to situate oneself in financial normatively compared to large corporations, which is characterized by a sustained financial dynamic and abundant bilateral relations (investors, analysts, managers, etc.), but large corporations are advantaged on their side by their size and their seniority which grants the researcher a better ground for the study. Let us try to enlarge the field of explanation: In corporate finance, the clearest and most striking image is the concept of "flow" of money. We therefore allow ourselves to introduce the concept of "cash flow control":

A large company generally has a better capacity to control their cash flow, thanks to their size, their competence and their experience; they can at the very least anticipate their fixed costs. With their ability to raise funds, it can become relatively more independent just by the contribution of the flow of money created from its own activity. This gives it a great advantage in an unstable environment, for example to cope with the shock of positive or negative demand, to seize investment opportunities or simply to create liquidity reserves while waiting for the best opportunity to use them.

An SME has none of this, its activity and expansion are subject to various constraints; it plays on a balance which requires having an advantageous, constant and sustainable financial situation, in order to be able to envisage concrete development, which will largely depend on its ability to raise funds. a plethora of articles actually shows that SMEs are under great financial constraint, the main reasons are also known: information asymmetry and the risk of moral hazard, poor credit histories, poor accounting and reporting, a weak relationship with the bank, lack of skills and experience, more limited resources, lack of collateral, higher agency problems, higher transaction and adjustment costs compared to their returns, and low attractiveness toward banks because they do not represent a big profit compared to the big business. Low chances of survival will have the consequence of exacerbating the mistrust of creditors since it cannot assess the managerial capabilities and investment opportunities of the SME, therefore the risk inherent to the debt. Let us also note that this same mistrust of banks for SMEs when it becomes excessive, may be the very cause of their bankruptcy, the SME are ultimately the main victim of the rationing of capital. In this situation, if the SME has a negative demand shock, financial costs can be considered as the final blow: if the SME has reached

a good EBITDA, the decisive moment is to know if that EBITDA will still survive when deducted by the financial cost. In general, especially in third world countries, SMEs don't apply deep financial notions or governance, which means that they could lack cash management efficacy.

2- Constrains and dependency

To be under financial constraint means that the SME is not able to undertake positive investments due to lack of funds, the inability to contract new debts or to pool funds in one way or another. It also comes down to defining it as a discretionary reduction of financial alternatives and strategic goals; or a stat of vulnerability toward environmental volatility and shocks; it becomes more endangered by excessive frictions and financial obstacles. Financial constraint has been referred to using different allegories: financial frictions, obstacles, pressure, and restrictions. But we must, as the literature have brought to light, differentiate between constrains resulting from the need of funds (in the sense of the activity needs) and the constraints born from capital rationing. Most articles point out that financial constraint is a result of market imperfection rather the corporate financial needs. This constraint reduces investment opportunities that could be taken right away, and cause SME to operate at an inferior pace of a wanted level, which, in turn, can affect firm cash holdings and hinders growth. This can give us two scenarios, the SME will reduce the cash holding at maximum so it can invest, or cash hold even more for precautionary motives, the first one could be motivated by the fact that SME want to invest into tangible asset right away, which helps reducing the impact of negative shocks. A counter argument is the fact that financial constraints could compromise the owner's general ability and competencies (by reducing alternatives) to undertake value enhancing projects, but in the same time, they could improve the quality of project selection by reducing bad/non optimal discretionary motives and creates an incentives to efficiently fund only the best and the more valuable investment opportunities.

If the SME cannot find a viable source of financing, it will be difficult for it to pursue viable strategies, and will be obliged to depend on the net flow of its activity, quite the opposite of the cash control of large corporations. If a company is dependent on its sole current cash flows, it will consider reducing its growth, its diversification and its capacity to hedge itself from negative demand shocks, in this context the option to wait become more valuable or more obligatory. One aspects of this is that unconstrained firms may accelerate investment to take advantage of attractive investments, whereas constrained firms may postpone investment to avoid investing. Even if Financial constraints are empirically not observable, creating a great struggle for researches, we can assume that SME are more likely to be financially constrained, especially in Algeria, the study will help us confirmed the facts, but we also need to precise that, constraints are time-varying, since a firm may move from constrained to unconstrained states and through different degrees. We believe that size as a categorization is actually more legitimate than other financial constraint classification criteria, Even if it seems far-

fetched, this classification almost certainly certificates financial constraint, especially in the Algerian context. A Plethora of recent articles always refer to the size as a determinant variable, with a positive relationship between the size and financial constraints, for example, credit rationing tends to systematically increase as firm size decreases. The article of (Gezici, Orhangazi, & Yalçın, 2017) on turkey proves that SMEs are financially constrained regardless of the statistical technique used. The article of (Asimakopoulos, Asimakopoulosy, & Fernandesz, 2019) also finds that in their sample of financial constraints firms, that the most constrained firms are the youngest and the smallest, who have the smallest cash flow but the highest cash holding, but they have also found that despite low earnings and high costs of external financing, these firms exhibit very high levels of capital investments. This implies that smaller firms may be more reliant on internal sources of funding than larger firms. (Darnall, Henriques, & Sadorsky, 2010) also notes that "smaller firms are more responsive to value-chain, internal, and regulatory stakeholder pressures"; Any disruption to cash flow will thus have a larger impact on investment.

A deeper vision allows us to rearrange things, SMEs are not systematically incompetent or under an overwhelming financial constraint, a regular environment, an adequate structure, an advantageous banking system can give a very big boost to the SME, the only fact of finding debts in SMEs means that banks see that they are able to receive funds at a certain point. The SME is very similar to an organism under the contingency of its environment; survival can be resumed on a matter of time and probabilities. Simply put, the longer a SME stays in the position of vulnerability, the higher is the chance of failure and bankruptcy, which means that they have and great incentive toward growth. Now what really restrains the SME-organism is its dependence to its environment, which means that any presumption of growth is connected to the feed of the environment. For the SME, dependence on cash flows means that it cannot seize opportunities of growth, it has to wait until enough funds are stored or that the environment become more auspicious, if it doesn't, the arbitrage between waiting and investing becomes problematic, especially if the SME needs to confront recurrent demand shocks, which means higher chance of bankruptcy and lower economical development. The characteristics of the country and the environment also play a big role against SMEs. An inefficient financial system will further disadvantage SMEs, on the contrary, in a country (such as the German Mittelstand) which has various mechanisms to support SMEs; it'll have greater chance of survival. If an SME therefore has little control over flows, it is also more dependent on the flow of its activity and surly be under financial constraint. Algeria has a specific environment and economy that needs to be investigated to really situate the cash flow dependence

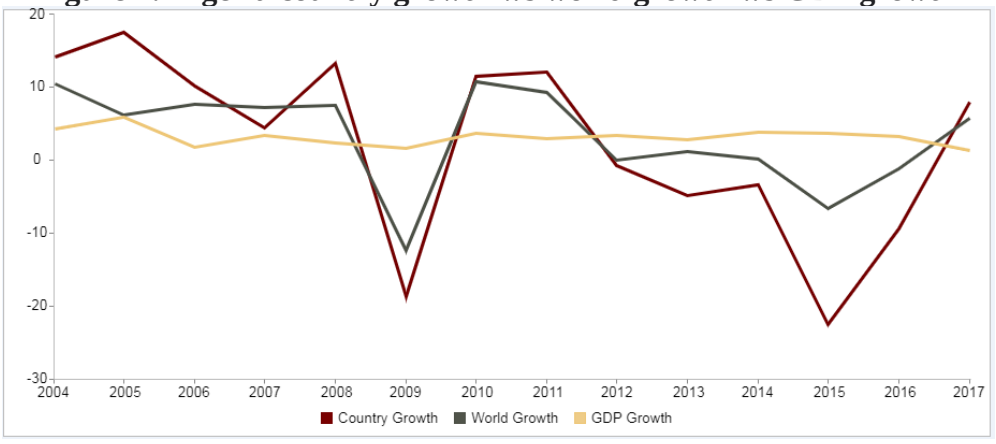
3- the Algerian SMEs and their environment.

The Algerian economy is typically the economy of an African country under development. The public banks are dominants and held by the government, which largely finance the Algerian economy, (Fella & Kamel, 2019) notes that the participation of

foreign banks in the financing of the Algerian economy remains modest compared to neighboring countries (Morocco, Tunisia). In 2018, the *World Bank* observe that non performing loans (NPL) in Algeria constitute 12,6 of the total granted loan. After a massive decrease of NPL to 2015, we observe a rise of NPL after this period; keeping in mind that the principle financing in Algeria is debt, and that NPLs are positively associated with banking crises and bank concentration (Ozili, 2019), a major part of SME could be in a negative financing dynamic. Algeria had also a very difficult situation in the same year with a massive GDP fall. According to General Directorate of Strategic Intelligence Studies and Information Systems of the ministry of mines and the industry:

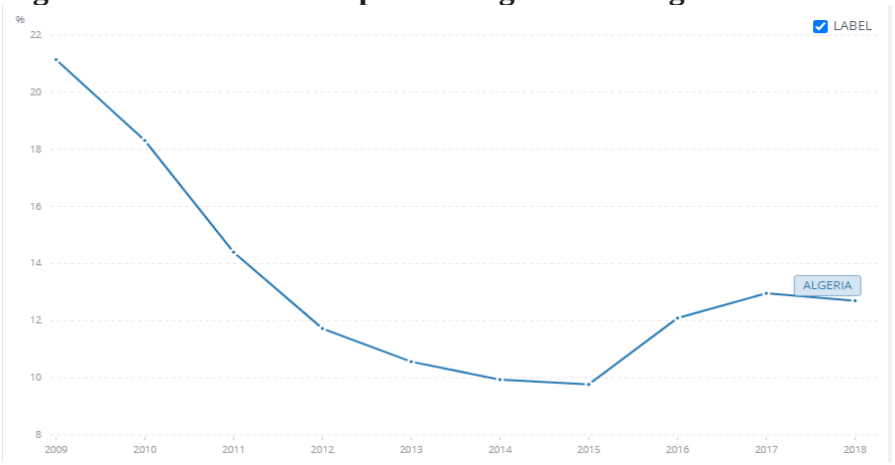
By the end 2017, the SME population has reached 1 060 289 firm, with 97,7% small firms (less than 10 employees), half of it are in services, 20% Building company, public and hydraulic works and 16% industry. 69% of them are situated in the north region near the capital or the coast spread wilyas. The number of investment projects in 2017 has reached 2916, a fall of 20% compared to 2016 (3653). In the second quarter of 2017, the overall added value of all the industry activities shows a 3.7% increase instead of 3.4% in the second quarter of 2016. (Direction Générale de la Veille Stratégique des Etudes et des Systèmes d'Information (Ministère de l'Industrie et des Mines), 2017). The fact the most Algerian companies are small family held companies, with no sophisticated governance structures, says a lot on the current and general organization of SME in the country and on the financing problematic. The Algerian economy is far from a sophisticated structure with advanced financial mechanisms that permits quick expansion or creates entrepreneurial effervescence. Small enterprises have very specific needs and are prone to be victims of the disturbance of the environment. They have a bigger difficulty to contract loan for expansion because of their lack of collateral, especially in a country where government banks have a very strict view toward loan and collaterals which reduces the financing options.

Figure 1: Algeria country growth v/s world growth v/s GDP growth



Source: from the official website of World integrated trade solution database (https://wits.worldbank.org/CountryProfile/en/DZA#)

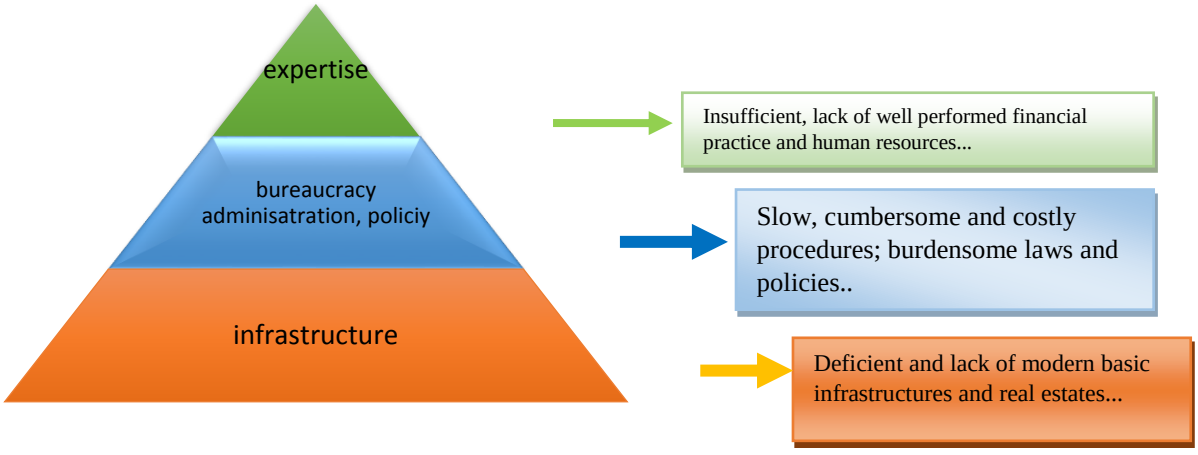
Figure 2: evolution of nonperforming loans in Algeria 2009-2018



Source: from the official website of the World Bank database (https://data.worldbank.org/indicator/FB.AST.NPER.ZS?locations=DZ)

Most papers treating of the soundness of the financial and banking system or the governance of SME revolve around redundant known issues. For the banking system, we display in the figure below the three major compounds of the banks and their characteristics (see (GHARBI, 2011), (Mehdi, 2018), (SILEKHAL, 2012) and (Bouazza, Ardjouman, & Abada, 2015) for more details)

Figure 3: the three major compounds of the financial system and their attributes



Source: made and processed by the authors, inspired by the paper above

As for the SMEs, Algeria is no exception from other developing countries with the fact that the majority of SME are in a surviving situation: accumulating financial difficulties, a fragile organizational structure and fragile market share. On the other hand, entrepreneurial characteristics with low managerial capacities, lack of marketing skills,

and low technological capacities are the main internal factors responsible for the unstable and limited growth of SMEs in Algeria.

One typical Algerian phenomenon regarding financing is the consequences of financial mastery: due to their weak financial mastery most SMEs have a mitigated accounting practice, which reduce the power of the bank to asses risk of their investment, monitoring and screening becomes problematic. As a premium, they would raise the demanded real collaterals as loan condition; the effect of such phenomenon is also exacerbated by the bank's own weak expertise that will tend to rely on sufficient guarantees rather than promoting entrepreneurship. (see (Rachid, 2020)). In the end, the SMEs still seem to be hampered by the funding constraints, either cause by the banking system or by its own governance, which fatally hampers Algerian SMEs growth. A bad financial system will not allow SME to raise sufficient fund for growth and better investments, and bad governance would not allow a better allocation of these resources. If the Algerian SME growth is hampered, it will directly or indirectly lead to low economical growth (see (Beck & Demirguc-Kunt, 2006)). This conditions directly impact how SME behave and invest, and this is very concerning since SMEs constitutes the majority of the Algerian corporations

Most of the literature that study Algerian SMEs don't actually set on a financial analysis, and could **be victim of the systematical myth of mediocre SME tissue, underestimating the power of such entities to ensure their survival.** Algerian SME are mainly financed by bank loans, but as (Melbouci, 2005) notes in the previous years; "the performance contract concluded with public banks, following their recapitalization aims to separate the management of the ownership of the public banks and pushes them to lend to large public companies and repel the SMEs. Nevertheless, this attitude has not blocked SME investments though bootstrapping." This bootstrapping became a very common practice among Algerian SMEs, it also a very cultural side of the Algerian society regarding doing very much with very few. In general, the SME don't evolve in a very innovative environment, especially toward technologies, they mostly provides means of consumptions. Our study then will also aim to confirm or infirm the myth of systematical mediocrity.

Now that we have set the facts on the Algerian financing/growth problem, we can hypothesize that that the Algerian SMEs are indeed dependent on their cash flows, thus victim of an unfavorable environment and their own capacity to control their cash with sound governance. To confirm the hypothesis we perform a model.

4- Modele and variables

As said before, we will use model to describe the financial constraint of the Algerian SME. Using eviews.12 we perform a multiple Linear Regression with cross sectional data. Our model uses ten different variables that encompass the relation between investments and cash flows.

- CAF : cash flows as in self-financing capacity

- CAPEX : capital expenditure calculated as PP&E of the current period – PP&E of the prior period + Depreciation of the current period
- LEVRAGEF : financial leverage which is financial debt to equity
- AUTOF: financial autonomy
- LIQUIDGEN: financial liquidity calculated as current asset to current liabilities
- RENTAECO: return on investment defined as EBITDA to invested assets
- CVENT: sales growth
- INTERET: financial cost pressure on results calculated by dividing EBITDA on financial costs
- MARG : added value margin
- CAPR : reimbursement capacity which is CAF to total long term financial debts

4-1 sample

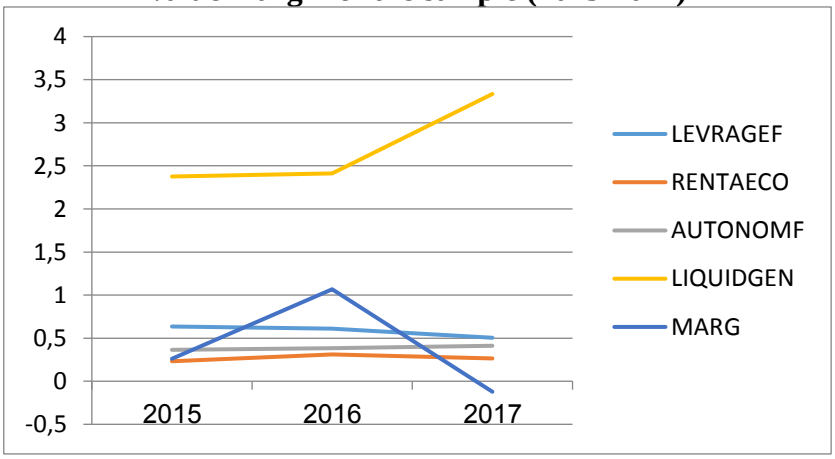
One perk of our study is the choice of unlisted companies only, which implies the absence of agency costs in relation to shareholders, because agency theory and shareholding have several implications (the size of the board, the diversity and concentration of the board, governance system, and overinvestment of managers, dividend policy...) that can interfere and complicate the study; even if the conceptualization seems "weak", studies show that unlisted companies are even more financially constrained, which improves the interpretation of the results. We also assume the existence of the pecking order which better suits small firms, rather than trade off theory, since asymmetric information is the explanation of the theory, trade off theory implies that the firm has a minima of financial competencies and cash flow control and mastery. But unfortunately, the fact that we are studying uncontrolled small firms implies a risk that the financial statements have been altered by fraudulous use of accountancy. What is also convenient in our study is the fact that financial constraints are like any other constraint: the higher it gets the less discretion room is available for the CEO/manager to act as he wish or use their skills and ability to render available option effective. The financial constraint relatively eases the necessity that we must take into account the characteristics of the decision maker.

We took 30 industrial SMEs from 2014 to 2017 because the majority of these types SME are capital-intensive firms, and that this type sector is more prone to financial constraint. Financial constraints are very important for capital intensive enterprises, probably due to their lower profitability, heavier fixed costs and higher property diversification, capital-intensive industries need a high volume of production to reach a reasonable return on investment. This also means that their high operating leverage makes capital-intensive industries much more vulnerable to environmental circumstances compared to other businesses because they still have to pay fixed costs. Essentially, this implies that if we find that this type of SME that are prone to cash dependence as not dependent, it would mean that the banking system is rather sound and that the SME has a minimum of adequate governance. Our choice is also motivated by finding of different

articles who find that internal cash flow is significant for the smaller firms. (Carpenter & Guariglia, 2008) found that cash flow affects investment of both types of firms, its effect is stronger for small firms. The findings will also confirm the effect of the recent reforms set for the financial system and its impact on SMEs. Understanding the situation of SME is important to us, since it is vulnerable to different obstacles, finding that they are not financially dependent could not only mean that reforms have made improvements for the financial system and its configuration, but also that whole economy is sound, since the regulation of PME is the hardest task of the government. We will first make a brief statistical description of the sample:

About 30% of the SMEs didn't contract debt at all or have a very low leverage ratio, which bring the average ratio evolution over the years to 0,58 after deleting disruptive numbers. This could mean that a fraction of the Algerian SME don't prefer debt or can't afford to contract it, when the rest where indebted. The present of debt doesn't exclude the existence of financial constraint but indicates that the SMEs are able to contract debt at some extent. Most of the SME made decent margin out of their activity, but the return on investment remains very low, which is normal considering the nature of the SMEs. Interestingly, their activity permits them to have sufficient financial liquidity and autonomy over the years, which proves that even if they may face constrain, Algerian SME still made decent sustainability.

Figure 4: evolution of leverage, return on investment, autonomy, liquidity, added value margin of the sample (2015-2017)



Source: made and conducted by the researcher using excel 2007

We also notice three normal financing behaviors, 9 SMEs attempt to reduce leverage, 12 had none/low leverage, and 9 got indebted over the three years. We also note that 6 of them are over-indebted with a leverage ratio over 1, which is very concerning for entities like SMEs.

4-2 Results

Through the matrix, it is clear that the CAF variable is significantly associated with a variable (CAPEX), when the rest of other variables have a very weak significance.

Table 1: correlation matrix of the chosen variables

Correlation Probability	CAPEX	CAF	LEV	ATF	LIQ	RENT	CVENT	INTR	MARG	CAPR
CAPEX	1.000000 -----									
CAF	0.916223 0.0000	1.000000 -----								
LEV	0.087554 0.6455	0.175279 0.3542	1.000000 -----							
ATF	-0.031109 0.8704	0.062776 0.7417	0.237832 0.2057	1.000000 -----						
LIQ	-0.126019 0.5070	-0.029975 0.8751	0.155548 0.4118	0.323661 0.0810	1.000000 -----					
RENT	-0.091976 0.6288	-0.032642 0.8640	0.074352 0.6962	-0.146466 0.4399	-0.068617 0.7186	1.000000 -----				
CVENT	0.115953 0.5417	0.191904 0.3097	0.796213 0.0000	-0.041848 0.8262	0.016908 0.9293	0.055605 0.7704	1.000000 -----			
INTR	0.177578 0.3478	0.404131 0.0268	0.059465 0.7549	0.030402 0.8733	-0.009005 0.9623	0.230668 0.2201	0.120253 0.5268	1.000000 -----		
MARG	0.100606 0.5968	0.208890 0.2679	0.981778 0.0000	0.266279 0.1549	0.077017 0.6858	0.115196 0.5444	0.833538 0.0000	0.103759 0.5853	1.000000 -----	
CAPR	0.016495 0.9311	0.102195 0.5910	0.137351 0.4692	-0.267704 0.1527	0.140318 0.4596	0.081527 0.6684	0.303643 0.1028	0.072596 0.7030	0.119932 0.5279	1.000000 -----

Source: made and conducted by the researcher using eviews12

Table 2: results and estimates

Dependent Variable: CAPEX
Method: Least Squares
Date: 04/04/21 Time: 21:00
Sample: 1 30
Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.49904	8.712714	2.123223	0.0430
CAF	1.244093	0.088388	14.07543	0.0000
INTR	-0.511124	0.159137	-3.211849	0.0034

R-squared	0.883845	Mean dependent var	49.22640
Adjusted R-squared	0.875241	S.D. dependent var	120.2050
S.E. of regression	42.45793	Akaike info criterion	10.42954
Sum squared resid	48672.24	Schwarz criterion	10.56966
Log likelihood	-153.4432	Hannan-Quinn criter.	10.47437
F-statistic	102.7239	Durbin-Watson stat	1.928111
Prob(F-statistic)	0.000000		

Source: made and conducted by the researcher using eviews12

(White) Heteroskedasticity test

The White test clearly indicates stability, where the hypothesis is rejected by non-stability of contrast errors, and this is reviewed that the value of the CAF probability of 0.0959 over 0.05 (5%).

Table 3

Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	2.173246	Prob. F(5,24)	0.0909
Obs*R-squared	9.349647	Prob. Chi-Square(5)	0.0959
Scaled explained SS	9.349473	Prob. Chi-Square(5)	0.0959

Source: made and conducted by the researcher using eviews12

Multicollinearity test

It is clear through the table above that the estimated model does not suffer from the problem of Multicollinearity, as we note that the inflation factor is less than 10 for independent variables

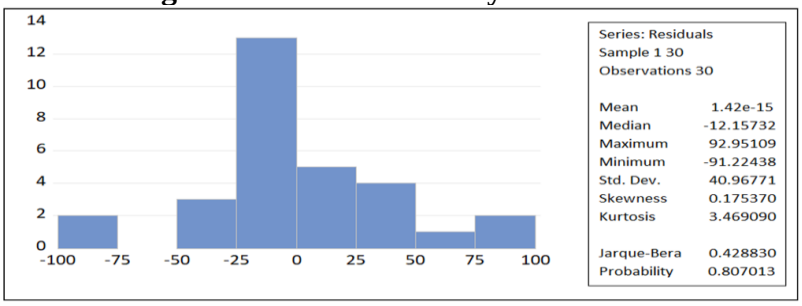
Table 4: Test of normality of residuals

Variance Inflation Factors
Date: 04/04/21 Time: 21:06
Sample: 1 30
Included observations: 30

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	75.91138	1.263312	NA
CAF	0.007812	1.355636	1.195202
INTR	0.025325	1.466799	1.195202

Source: made and conducted by the researcher using eviews12

Figure 5: Test of normality of residuals



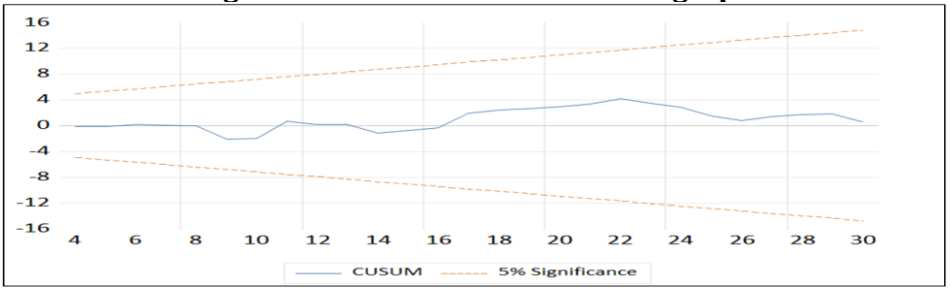
Source: made and conducted by the researcher using eviews12

The above figure is clear that the random errors of the estimated model follow the natural distribution, where the hypothesis was accepted that random errors track the natural distribution; the possibility of test the Jarque-Bera equal to 0,807 outstanding value 0.05.

The cumulative-sum test

It is also clear through the graph that the estimated model is stable, and notes that of the cumulative sum test (CUSUM) are located between the two lines therefore, estimated model is stable.

Figure 6: The cumulative-sum test graph



Source: made and conducted by the researcher using eviews12

4-3 Discussion

It is no secret: the SME needs cash, and a lot of it. As we have seen, there is strong positive relation between investment and the cash-flow generated from the activity of the industrial SME, which could justify dependence for at least the 20%-25% no debt SMEs. The Algerian SME seems to be dependent on its cash flow in its growth process with a timid pace of expansion, but still rely on debts to finance themselves, even if leverage relation to investment where insignificant. The result reduces the mediocrity myth of Algerian SMEs. But financial dependence characterizes an environment with low financial dynamics, which causes low investment opportunities and major risks for SMEs. To see what determines the cash flow used to sustain the activity and the investment, we made another model to describe the relation, and as we can see in the results below, when obviously cash flow are mainly determined by its investments that defines the internal financing, its seems also be the case for financial costs resulting from financing, which means that SMEs luckily could contract debt despite the circumstances, but reduces the effectivness of final results, which confirms the findings of (Mulier, Schoors, & Merlevede, 2016).

Table 5 : results and estimates of

Dependent Variable: CAF
Method: Least Squares
Date: 04/04/21 Time: 12:28
Sample: 1 30
Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-11.08829	6.768785	-1.638151	0.1130
CAPEX	0.707393	0.050257	14.07543	0.0000
INTR	0.448833	0.111535	4.024141	0.0004

R-squared	0.899651	Mean dependent var	35.12809
Adjusted R-squared	0.892218	S.D. dependent var	97.51908
S.E. of regression	32.01569	Akaike info criterion	9.864969
Sum squared resid	27675.13	Schwarz criterion	10.00509
Log likelihood	-144.9745	Hannan-Quinn criter.	9.909795
F-statistic	121.0307	Durbin-Watson stat	1.907034
Prob(F-statistic)	0.000000		

Source: made and conducted by the researcher using eviews12

5- Understanding what makes the cash flow

The solutions generally unfold onto two complementary layers:

1. Financial system
2. SME governance

By 2021, The literature on how the financial system should be organized soundly to permit a sound financing for SMEs, or on what type of governance the SME should build its behavior became widespread. Those principles usually cited have almost became redundant stereotypical citations among researches or the media, a ready-to-use finance bible that summons institutional reforms, new economic policies, or banking regulations. It is very rare to witness a real penetration on the field of SMEs through a real financial

lens in Algeria. The reforms have to adapt to the real needs of the SMEs, micro-loans for example could create a better financing IF the right controls, monitoring and competencies are taken into account.

As we see it, monitoring and control are the very essence of a good reform, but could not sustain without tools of communication. The different stakeholders and institution must bridge their business relationship in a way that the real needs are correctly acknowledge. The enormous contribution of the agency theory and the stakeholder theory literature has made a point on the power of the different parties to determine the financial results of all participants, and SMEs which evolve in a specific community within a very limited geographical zone of activity. The SME are not abstractive entities, they very much real, and could be actually more prone to efficient communication than big corporation. A bad accountancy isn't that much of problem when it comes to assess their profitability, the banks and institution need to go further beyond those formalities to analyze what really makes the financing and the investment behavior. The Algerian SME might not have the investment opportunities we could find in different developed countries, but they still the potential to sustain a decent activity. The financing must a partnership aspects rather than just a commercial contract; and Islamic financing could be a good tool for such change. A good communication shows the real needs of the SMEs that are generally depicted with a view of moral hazard and opportunism. If the banks are looking for financial revenue only, without understanding that SMEs are also potentially a working machine for progress, then we can't truly believe in the efficacy of policies and regulation. Nevertheless, a general upgrade must take place in large scale to provide the conditions for SME expansion. Algeria absolutely needs corporate champions to represent it on the front of globalization.

6- Conclusion

Our paper studies the cash flow dependence of Algerian SMEs through a literature review and a model. As the review describes the different obstacles encountered by Algerian SME, it had a relative echo in our findings, but still confirms its validity. The financing and investing behavior of Algerian SMEs are cadenced with a slow pace, considering the general frame, but still have a relative access to external financing. Cash flow dependence and a limited access to external financing reduces the development

Bibliography

1. Asimakopoulos, P., Asimakopoulosy, S., & Fernandesz, F. D. (2019). Cash holdings of listed and unlisted firms: New evidence from the euro area. *European Journal of Finance* , 1-40.

2. Audretsch, D. B., & Elston, J. A. (2000). Does firm size matter? Evidence on the impact of liquidity constraint on firm investment behavior in Germany. *HWWA Discussion Paper, No. 113* , 11.

3. Beck, T., & Demirguc-Kunt, A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance* , 1-13.

4. Bouazza, A., Ardjouman, D., & Abada, O. (2015). Establishing the Factors Affecting the Growth of Small and Medium-sized Enterprises in Algeria. *American International Journal of Social Science* , 9.

5. Carpenter, R., & Guariglia, A. (2008). Cash flow, investment, and investment opportunities: New tests using UK panel data. *Journal of banking finance* , 4.

6. Darnall, N., Henriques, I., & Sadorsky, P. (2010). Adopting Proactive Environmental Strategy: The Influence of Stakeholders and Firm Size. *Journal of Management Studies* , 1.

7. Direction Générale de la Veille Stratégique des Etudes et des Systèmes d'Information (Ministère de l'Industrie et des Mines). (2017). *Bulletin d'information Statistique de la PME*. bulletin.

8. Fella, B., & Kamel, B. (2019). L'évolution du système bancaire algérien durant la période 2009/2017. *Revue des Sciences administratives et financières* , 11.

9. Gezici, A., Orhangazi, Ö., & Yalçın, C. (2017). Determinants of Investment in Turkey: A Firm Level Investigation. *Emerging Markets Finance and Trade* , 1-17.

10. GHARBI, S. (2011). SME/SMI IN ALGERIA: INVENTORY OF FIXTURES. *CAHIERS DU LAB.RII – DOCUMENTS DE TRAVAIL –* , 10.

11. Mehdi, B. (2018). Financial stability and Solvency of Algerian banks, application of stress tests from 2012 to 2016 . *Financial Markets, Institutions and Risks* , 1-11.

12. Melbouci, L. (2005). LES PME ALGERIENNES : UN ESSAI D'ANALYSE PAR LES RESSOURCES. *Revue des Sciences Humaines* , 5.

13. Mulier, K., Schoors, K., & Merlevede, B. (2016). Investment-cash flow sensitivity and financial constraints: Evidence from unquoted European SMEs. *Journal of Banking and Finance* , 1-16.

14. Nunes, P. M., & Serrasqueiro, Z. (2012). Are young SMEs' survival determinants different? Empirical. *Applied Economics Letters* , 854.

15. Ozili, P. (2019). Non-Performing Loans and Financial Development: New Evidence. *The Journal of Risk Finance* , 1-35.

16. Rachid, L. (2020). Private sector financing in Algeria. Why are VSEs/SMEs severely rationed? Field Research Findings. *Journall off Economiics and Human Devellopment* , 1-14.

17. SILEKHAL, K. (2012). Le financement des PME en Algérie : difficultés et perspectives. *Recherches économiques et managériale* , 1-12.

Room for these fragile companies, by raising the risks and slowing growth.

Appendix:

Data table

		CAF/CAPEX	LEVRAGEF	AUTOF	LIQUIDGEN	RENTAECO	CVENT	INTERET	MARG	CAPR
1	2015	45	0,00	0,79	0,97	0,02	5,16	0,00	0,19	0,00
	2016	0,47	0,00	0,82	0,94	0,00	-0,62	0,00	0,40	0,00
	2017	0,00	0,00	0,80	0,96	0,00	-0,08	0,00	0,46	0,00
2	2015	0,98	0,48	0,10	0,05	-0,05	1,22	20,30	0,04	1,40
	2016	0,30	0,32	0,09	0,97	0,94	0,37	37,54	0,06	0,83
	2017	1,52	0,20	0,12	0,99	1,76	-0,07	124,15	0,08	0,41
3	2015	0,00	0,19	0,48	2,31	0,13	0,19	12,23	0,15	1,56
	2016	3,36	0,19	0,48	2,27	0,13	-0,02	9,72	0,16	1,66
	2017	-29,58	0,17	0,50	2,43	0,09	-0,28	9,60	0,16	2,21
4	2015	57,13	0,00	0,92	12,08	0,26	0,24	46,92	0,11	0,00
	2016	139,14	0,00	0,86	6,93	1,02	0,31	106,92	0,20	0,00
	2017	52,19	0,00	0,94	17,06	0,60	0,03	23,92	0,11	0,00
5	2015	17,51	0,01	0,13	1,10	0,61	0,63	2,69	0,11	0,03
	2016	1,44	0,00	0,26	1,19	0,72	0,32	5,71	0,09	0,01
	2017	0,10	0,48	0,18	0,63	0,28	-0,13	6,52	0,14	1,71
6	2015	0,30	0,70	0,36	0,12	0,97	13,21	14,80	0,28	1,59
	2016	1,10	0,55	0,20	0,65	0,69	0,66	0,00	0,25	1,23
	2017	3,67	0,00	0,26	0,67	2,04	-0,35	0,00	0,50	0,00
7	2015	-0,04	-0,02	-0,18	0,01	0,00	0,00	-0,18	0,00	-0,15
	2016	-0,04	-0,05	-0,35	0,00	0,00	0,00	-0,55	-0,01	-7,57
	2017	0,00	0,02	0,76	0,02	0,00	-1,00	0,00	0,00	-77,58
8	2015	2,25	0,93	0,20	1,47	0,36	-0,37	7,29	0,65	1,63
	2016	9,44	0,00	0,41	1,62	0,19	0,69	5,87	0,42	0,00
	2017	2,25	0,93	0,20	1,47	0,36	-0,37	7,29	0,65	1,63
9	2015	-0,28	0,56	0,55	1,52	-0,06	-0,17	-33,50	0,14	-5,97
	2016	-0,34	0,86	0,43	1,02	-0,05	0,00	-10,80	0,17	-9,43
	2017	-2,87	0,94	0,40	0,77	-0,03	-0,06	-16,62	0,17	-15,45
10	2015	0,33	0,00	0,88	5,13	0,00	0,81	1,02	0,88	0,00
	2016	0,00	0,00	0,90	5,52	-0,01	0,49	46,04	0,83	0,00
	2017	0,00	0,00	0,90	5,50	0,00	-0,92	0,00	-0,55	0,00
11	2015	0,21	2,16	0,24	0,57	0,04	0,00	3997,36	0,38	32,34
	2016	0,57	1,88	0,22	0,67	0,08	2,52	0,00	0,30	7,33
	2017	1,34	1,68	0,23	0,76	0,10	-0,02	0,00	0,38	5,95
12	2015	0,62	0,52	0,36	1,58	0,09	0,03	1,85	0,10	5,37
	2016	-12,05	0,44	0,31	1,42	0,12	-0,02	2,10	0,13	4,30
	2017	0,53	0,50	0,25	1,28	0,22	0,04	1,58	0,14	4,55
13	2015	0,59	0,00	0,10	0,97	0,02	-0,50	41,93	0,18	0,00
	2016	1,98	0,00	0,10	1,02	0,13	0,26	166,72	0,24	0,00
	2017	2,61	0,00	0,10	1,03	0,09	0,49	96,98	0,15	0,00
14	2015	-0,85	0,10	0,29	0,85	0,01	-0,14	0,70	0,11	-5,19
	2016	-0,16	0,40	0,23	0,85	-0,02	0,06	-949,71	0,08	-9,24
	2017	0,20	0,86	0,22	0,76	0,08	0,41	4,05	0,15	5,22
15	2015	0,53	2,25	0,25	4,87	0,08	0,00	3,59	0,15	13,95
	2016	0,00	2,30	0,21	3,15	0,11	1,57	6,70	0,12	10,02
	2017	15,83	1,75	0,19	2,04	0,09	-0,20	5,22	0,13	8,25
16	2015	4,71	0,00	0,47	1,58	1,41	0,29	13,27	0,33	0,00

	2016	5,18	0,00	0,55	1,86	2,51	0,16	28,51	0,34	0,00
	2017	11,19	0,00	0,65	2,47	0,61	0,18	31,61	0,44	0,00
17	2015	2,41	0,41	0,64	5,53	0,20	0,33	177,37	0,32	2,01
	2016	0,98	0,38	0,67	6,14	0,18	0,12	135,69	0,31	1,81
	2017	1,93	0,34	0,72	13,36	0,23	0,09	73,31	0,38	1,34
18	2015	0,00	0,00	0,13	0,96	0,18	0,43	0,00	0,34	0,00
	2016	0,79	0,00	0,69	2,75	0,06	-0,27	0,00	0,35	0,00
	2017	0,91	0,00	0,91	9,16	-0,16	-0,41	0,00	0,46	0,00
19	2015	2,42	0,03	0,29	1,18	-0,02	0,32	-0,16	0,01	0,13
	2016	1,29	0,03	0,28	1,18	0,05	-0,16	0,77	0,09	0,37
	2017	0,09	0,03	0,28	1,19	0,03	-0,07	0,53	0,07	8,54
20	2015	14,29	0,00	0,77	2,52	0,60	0,05	192,97	0,30	0,00
	2016	7,41	0,00	0,73	2,45	0,26	0,11	0,00	0,18	0,00
	2017	-0,04	0,00	0,57	1,77	-0,10	-0,33	0,00	0,07	0,00
21	2015	0,00	0,00	0,01	0,02	0,03	0,00	0,00	0,94	0,00
	2016	0	0,00	0,01	0,04	0,03	-0,03	0,00	0,93	0,00
	2017	0,00	0,00	-0,01	0,02	0,01	1,72	0,00	0,77	0,00
22	2015	-2,33	0,07	0,34	1,42	0,43	0,09	6,67	0,34	0,33
	2016	-19,10	0,04	0,38	1,54	0,46	-0,09	6,59	0,34	0,12
	2017	-16,08	0,02	0,38	1,53	0,21	-0,36	3,62	0,42	0,17
23	2015	7,18	0,64	0,47	1,29	0,25	0,38	8,27	0,26	2,43
	2016	1,23	0,44	0,53	1,53	0,38	0,50	8,74	0,24	1,42
	2017	0,43	1,12	0,38	1,98	0,26	-0,11	5,61	0,36	1,34
24	2015	0,00	0,04	0,48	1,46	0,10	0,26	14,58	0,10	0,67
	2016	-0,16	0,26	0,24	1,36	0,10	-0,14	2,44	0,18	4,45
	2017	0,06	1,93	0,24	1,38	0,07	0,12	2,47	0,19	18,45
25	2015	-0,01	5,12	0,11	0,75	0,00	1,03	0,62	0,08	-1333,04
	2016	-1,42	6,28	-0,02	0,44	0,01	-1,00	0,13	24,37	-0,08
	2017	4,93	-30,63	-0,02	0,50	0,01	-3,46	0,11	-10,77	-9,55
26	2015	6,60	0,34	0,40	1,16	0,47	0,40	8,50	0,29	0,48
	2016	1,42	0,17	0,46	1,48	0,28	0,14	9,77	0,23	0,35
	2017	0,67	0,08	0,36	1,13	0,15	0,06	5,04	0,18	0,19
27	2015	2,65	0,33	0,38	1,48	0,19	-0,06	11,06	0,23	0,85
	2016	2,02	0,23	0,56	2,27	0,32	0,17	11,54	0,21	2,62
	2017	1,96	0,11	0,56	1,98	0,33	-0,03	7,91	0,23	0,50
28	2015	1,39	0,01	0,45	2,09	0,06	0,03	22,34	0,37	0,29
	2016	-0,43	0,01	0,48	0,59	0,14	0,29	152,59	0,45	0,07
	2017	1,18	0,00	0,54	0,61	0,13	-0,14	244,21	0,54	0,00
29	2015	0,00	3,48	0,21	15,45	0,25	-0,01	0,00	0,22	6,03
	2016	10,94	3,13	0,21	19,26	0,02	0,14	14,94	0,11	5,04
	2017	88,09	3,59	0,21	24,91	0,02	-0,20	14,21	0,11	6,36
30	2015	0,30	0,69	0,32	0,78	0,32	0,25	2,35	0,28	2,13
	2016	0,62	0,41	0,53	1,22	0,48	0,44	4,70	0,26	3,89
	2017	13,15	0,17	0,53	1,68	0,49	-0,01	110,26	0,21	2,14