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RESEARCH ARTICLE

CONSTRAINTS OF SMES IN WEST AFRICA: THE CASE OF CÔTE D'IVOIRE AFTER THE CRISIS

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Abstract

Small and Medium Enterprises are the key factors of the economic development in developing countries. It is therefore paramount to identify the major constraints they are confronted with. This paper highlights the constraints experienced by small and medium enterprises in Côte d'Ivoire from a collection of original data. An ordered probit analysis coupled with a Directed Acyclic Graph (DAG) show that the constraints on sales growth, as perceived by managers, differ according to the characteristics of the company. Also, the improved water supply and a straightforward building permit policy would allow companies to increase their profitability. Furthermore, a deterioration of access to funding has also lead to a massive decline in business sales. Our analysis confirmed the interrelationship between various constraints. Thus, a business climate marked by political instability and insecurity inevitably affects corruption. Then, political stability, reform in tax policy and a corruption-free environment are likely to improve the financial conditions of companies and promote the growth of business sales. Thus, all the reforms undertaken by the government of Côte d'Ivoire to improve the business climate must take into consideration the characteristics of companies as well as the interrelationship between the various obstacles they encounter.

Introduction:-

More than a decade ago, Côte d'Ivoire has reaffirmed its leadership position within the West African Economic Monetary Union (WAEMU) with a predominance of almost 33% of WAEMU GDP. To boost its private sector, the country opted for economic liberalization to attract foreign investment in the country.

At the heart of this political choice, there is a major importance given to the development of the private sector. For Côte d'Ivoire, the private sector is regarded as a driver of economic growth, an economic integration tool, and a poverty reduction strategy through jobs creation and revenue generation.

According to the 2012 Poverty Reduction Strategy Document (DSRP, 2012), Ivorian authorities have put an emphasis on the promotion of the private sector as the engine of growth to allow Côte d'Ivoire to be partof the emerging countries in 2020.

To achieve this goal, it is important that the private sector operates in an optimal environment. This implies an environment where investment operations and resulting activities are protected and governed by credible laws and regulations. An optimal environment is also governed by reliable structures and funded by dynamic institutions as

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well as an efficient financial market. It is known that in the system of economic liberalism, all stakeholders make most of their decisions based on the signals they receive from government and the market.

Unfortunately, the Ivorian private sector remains tainted by multiple crises which leftit in an alarming predicament. Indeed, the Ivorian economy has been affected by the 1999 and 2011 socio-political crises. These crises started with a military coup, then ended with the 2011 post-election crisis and overall have affected the provision and quality of basic services. The effects of these crises had serious consequences on the economy and the SMEs. According to the World Bank 2015 Doing Business report, Côte d'Ivoire ranks 147th out of 189 world economies studied on ten indicators of business regulation framework, namely: company creation, building permits licensing, workers hiring, property registering, credit granting, investors protection, taxes payment, borders trading, contractsenforcing and business closing.

Also, according to the Ministry of Industry and Private Sector Promotion, the 1999 and 2011 socio-political crises had four major consequences. The first one was the disappearance of half of SMEs/SMCs and the destruction of 78 large companies. Secondly, there was the partial or total closure of industrial units in areas affected by the crisis particularly in the Centre, Northern and Western regions. Thirdly, there has been the relocation of several companies to other countries in the sub region, a total of 226 companies from 1999 to 2007. The fourth and last consequence was the loss of many jobs in the formal private sector (over 500 000 jobs by CCI-CI) and market share at the regional and international level. In a nutshell, these crises have seriously affected the growth and balance of the national economy by putting the private sector in a very risky and unfavourable business environment (World Bank, 2015).

The political support to the private sector implemented by governments, international and private stakeholders is mainly focused on improving the regulatory framework, funding, training support and various tax incentives for the maintenance and development of business activities. Thus, in recent years, Côte d'Ivoire had a considerable number of incentives and ad hoc discretionary tax exemptions aimed at supporting the private sector and post conflict recovery (GCCI, 2016; CEPICI 2015, MEF 2010). However, the results of these policies happen to be mixed (ONUDI 2012). Ivorian companies are inefficient and today, the country manufacturing value added (MVA) per capita is well below the level it was twenty years ago. Following the various reforms proposed by the Ivorian government, it seems more than necessary to consider data from recent and on a microeconomic context, to understand the constraints that companies operating in Côte d'Ivoire are facing. These major impediments to sales growth are identified by applyingthe method of direct acyclic graphs (DAGs) to the Ivorian economy.

The purpose of this paper is to address the following research question. Does the present state of the business environment in Cote d'Ivoire promote optimal recovery for the national economy in the post-crisis period? What are the main constraints that affect private companies in Cote d'Ivoire? Do these constraints vary according to the characteristics of the company? What priority reforms should be put in place to remove the major constraints to reach healthy and smooth business practices in Côte d'Ivoire? What can we do to spur growth in the private sector in Cote d'Ivoire?

Up to now, studies on SMEs in Côte d'Ivoire are not common practice. Previous studies (Kouadio, 2011, Sleuwaegen and Goedhuys, 2002) have put the emphasis on one specific constraint. This paper extends its analysis to various types of constraints reported by SMEs. However, we find out that SMEs in Côte d'Ivoire faced three major constraints, namely, access to funding, water supply and building permit. The interest of this study is to provide an answer that can leverage the interest of those involved in the reforms of the business environment in response to the requirements of the post-crisis economic recovery policies in Côte d'Ivoire. Moreover, the major contribution of this study lies primarily in the use of a raw database from companies in the entire country. Also, the methodological approach used has provided a much higher profile on the direct constraints as well as the channel through which obstacles interact to affect business growth.

The preliminary statistical results highlighted three major constraints, namely, access to funding, political instability, and availability of electrical power as major barriers for entrepreneurs.

Furthermore, the analysis of the perception of constraints according to the characteristics of the company showed that the perception of a constraint depends on the characteristics of the business. Therefore any political reform should be based on these business characteristics.

One important result of this study following the Beck, T. et al. (2005) approach shows that access to funding is regarded as the most important constraint that adversely affect a company sales growth. There is a deterioration of 1 percentage point in terms of access to funding, followed by a massive decline of 148 percentage points of the business growth. We also noticed that improved water supply conditions and building permits issuancemake it possible to improve business growth.

The remaining content of the paper is divided as follows: Section 2 presents a literature review on corporate constraints; Section 3 outlines the methodology; Section 4 refers to the results and Section 5 concludes.

Literature Review:-

Several authors have studied constraints faced by SMEs (Beck, T. et al. 2005, Dollar, et al. 2005, 2006, ILO, 2015). While the previous studies focused on financial indicators, the recent works focused on a wide variety of constraints provided by business surveys.

According to the survey on business climate (WBES, 2010, see also ILO, 2015) the constraints businesses and companies are confronted with can be divided into several categories namely: -

1. financial : credit cost, access to credit;
2. effectiveness of the judicial system: safety, protection of property rights, effective administration of justice;
3. taxes and regulation: taxes, regulation, unfair competition;
4. infrastructure problems: quality and practicability of roads, electricity, water, telephone, postal service;
5. corruption: quality of the relationship with public services,
6. broader macroeconomic environment: crime, political instability, fluctuating exchange rates, inflation.

Many empirical studies identified limited access to funding and ineffectiveness of the judiciary system as major constraints to business growth. Several authors like La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) argue that the difference between the legal systems and the financial ones across countries may explain variations in the performance of businesses in the world.

Several studies (Fjose, S., et al. 2010, ILO 2015) described how an unfavourable business climate negatively affected the functioning and growth of a company. However, many of them are limited to the data from one country and focus generally on a single constraint. For example, some studies only focus on the constraints related to infrastructure, and regulation (Beck, T. et al., 2005). Klapper, Laeven and Rajan (2005) using data on businesses in Eastern Europe and the West argue that unfair competition is considered as a barrier to business entry as well as one to business growth.

Dollar, Hallward-Driemeier, and Mengistae (2006), using data from the survey of companies showed that the costs of various bottlenecks such as excessive time to clear goods and to get phone lines, lost sales due to power outages, have affected the performance of companies in Bangladesh, China, India and Pakistan. Using similar data on companies in countries of Africa, Eifert, Gelb and Ramachandran (2005) show that the business climate variables affect business productivity. Sleuwaegen and Goedhuys (2002) from data on businesses in Côte d'Ivoire also indicate that inadequate financial infrastructure negatively affects the development of small businesses. Levine (2005) emphasizes the importance of financial development on economic growth through better availability of credit. Other researchers have also placed a particular emphasis on corruption compared to taxes payment. One of the first papers in this area was proposed by Shleifer and Vishny (1993). They argue that corruption can be more damaging than taxes payment due to the uncertainty and the confidential nature of the payment of gratuities. Using data on Uganda companies, Fisman and Svensson (2004), explain that corruption, especially the payment of gratuities negatively affect the development of companies more than the payment of taxes does. Gaviria (2002) also found that corruption and crimes substantially reduce the competitiveness of businesses in Latin America. Although these studies contributedto improve the understanding of the effects of the business environment on companies' development between countries, they tackle a particular aspect of the constraints from there, but still have limited recommendations.

Other authors analyse the constraints in a much more complex environment. Kouadio (2011) revealed that the difficulties hindering the development of the Ivorian companies are threefold: (i) financing constraints, (ii) low rate of social performance factors of production (unfavourable geographical factors or insufficient investment in complementary factors such as human capital and infrastructure) (iii) and the weakness of the private appropriation

capacity (high macro and micro risks, inefficient taxation on property rights and contract enforcement, very little or no product innovations or lack of self-discovery, significant externalities). Moreover, other studies other than those carried out in Côte d'Ivoire, identified as major constraints of business, the lack of funding and corporate network (Marshall and Oliver, 2005). Herrington et al. (2009) found meanwhile that the lack of education (one in human capital) and training was the most important cause of failure for new SMEs in South Africa.

In addition, data on the business climate (WBES, 2010) also provide information on the quality of macroeconomic governance through variables such as political instability, fluctuations in exchange rates, inflation. While the effects of the inflation on growth and business investment have been widely studied in the finance literature and controlled in the most business growth regressions, there is little microeconomic data on the impact of political instability and the exchange rate on corporate growth (Beck, T. at al. 2005). It is understandable that the political instability and fluctuations in exchange rates have an indirect effect on a company sales growth by affecting the type of funding available to businesses. For example, Desai, Foley and Forbes (2004) prove evidence that the depreciation of the exchange rate increases the level of corporate indebtedness that restricts the companies' ability to obtain new funds to adjust their capital structure.

Data and Methodology:-

Data:

Our data come from the survey of the business climate in Côte d'Ivoire conducted in 2012 (Kouadio, H. et al. 2013). This survey identifies all obstacles to the performance and growth of companies in 6 regions of the country. This survey contains a number of important questions about the nature of the severity of different obstacles. Specifically, business leaders are invited to give their views on the obstacles related to finance, corruption, tax and regulation, infrastructure, justice, crime, political instability, and the macroeconomic environment.

The purpose of this survey was to (i) provide statistical indicators on the business environment (ii) to understand the constraints to private sector growth and (iii) to stimulate policy reforms to improve the business climate. The survey covered 727 companies located throughout the selected cities including 414 formal and 313 informal enterprises (cf. Table 5). The survey sample was stratified according to the following layers: industry, size, and region. Including government departments, military bases, police headquarters, schools, universities, public health centres or other characters to public structures were excluded from the sample.

The questionnaire contains several thematic structure, the characteristics of the company (company age, size, legal status etc.), access to infrastructure (electricity, transport, water), relationship with the government (regulatory, administrative duties, corruption, building permits or construction licenses), employees (number of permanent and temporary employees) company performance (capacity utilization, sales, exports), access to funding (account banking, funding source, etc.) and the main barriers (near 15barriers identified).

Statistical Methods:

Our method consisted of three successive approaches. The first step is to analyse the determinants of obstacles; the second one is aboutanalysing the most binding constraints for the company particularly on the sales growth, and the last one consists in examining, using the methodology of Directed Acyclic Graph, all interrelations between the constraints of the company.

To find out factors that may be associated with the constraints faced by SMEs, we used an ordered probit regression as described in the following equation:

$$Y_i = a + F(X'\beta) + \varepsilon \qquad (1)$$

Where$Y_i$is the constraints reported by entrepreneur for company i.F is link function, Xis the vector of independent variables reflecting the characteristics of companyi; βis the coefficient vector that characterizes the business; and ε is the error term that is assumed to be normal. Variables that characterize business are those proposed by Batra, G. et al (2003).

Business leaders have given their opinions on a set of 14 identified constraints. These constraints were ranked according to their degree of severity (1-No, 2-Moderate, 3-High, 4-Severe). Ordered probit models focus

particularly on the analysis of the dependent variables that are ordered. In the event of scheduling, the dependent variable estimated by OLS can lead to biased results. To remove this limit we consider the following model:

$$Y_i^* = x_i'\beta + \varepsilon_i \qquad (2)$$

$$Y_i^* = 1 \text{ if} Y_i^* \leq a_1; Y_i^* = 2 \text{ if } a_1 < Y_i^* \leq a_2; Y_i^* = 3 \text{ if } a_2 < Y_i^* \leq a_3; Y_i^* = 4 \text{ if } a_3 < Y_i^*$$

Where $Y_i^*$is an unobservable variable and x_i^*represents the characteristics of company i,βis the coefficient vector that characterizes the company.
After analysing the perception of constraints, the second step is to identify which are considered as the most important for the company.

We face several difficulties to conduct such an analysis. First, the potential problem with the use of data on the business climate is the fact business leaders can identify several obstacles as binding when actually they are not. Therefore, Beck, T. al. (2005) examine the extent to which barriers reported by entrepreneurs can be binding on them. According to these authors, a barrier is only considered a "constraint" or a "constraint restrictive" only if it significantly affects the growth of the company. The significant impact implies that the coefficient of the obstacle in the growth regression is statistically different from zero and the value of the coefficient of the obstacle is greater than 1, indicating that entrepreneurs consider the constraint as an obstacle. The regression equation to estimate is:

$$Z_i = \delta + \theta_i B_i + \sigma_i H(X'\gamma) + \mu \qquad (3)$$

WhereZ_i is the sales growth rate of company i between 2009 and 2011; this denotes the obstacle$B_i$identified by the company,$H(X'\gamma)$is the vector of characteristic variables to the company as in Batra G. et al (2003). They also refer to all control variables to take into account in the heterogeneous econometric model between companies. μ is the distribution of assumed normal errors.δ, θ_i, andσ_i are the model parameters. Following Beck, Demirguc-Kunt and Maksimovic (2005) approach, we perform a set of statistical test onθ_i parameter. Formally, it will proceed to the next test:

$$\forall\, i = 1, \ldots, N; \quad H_0: \theta_i = 0 \text{ vs } H_1: \theta_i \neq 0$$

Each test will be associated with a P-value, thus we say that the obstacleiis binding on the company if $\theta_i \neq 0$and $sign(\theta_i) < 0$.

One of the limitations identified in the approach suggested by Beck, T. et al. (2005) shows that in the presence of a strong correlation between the error terms of the constraints, the estimated parameters may be biased or give inconsistent results. To remove this limitation, Beck, T. et al. (2005) proposes to analyse the constraints using the Directed Acyclic Graph (DAG) methodology.

This method assumes that all variables are potentially linked. Using an algorithm, it uses the conditional correlation between variables, seeking to highlight the relationships of cause and effect existing between the different variables (Kalisch, and Buhlmann, 2007; Wheeler, and Scheines, 2010). The final output of the algorithm is a list of possible causal relationships between variables that are highlighted, and shows (i) the variables having a direct effect on the dependent variable, (ii) the variables having only an indirect effect, (iii) the variables having no statistical association with other variables (Shrier, and Platt, 2008).

The DAG method imposes stricter criteria than the linear regression in identifying variables that have a direct effect on the dependent variable (Beck, T. et al. 2005). In OLS regression, variables that are identified as statistically significant and therefore correlated to the dependent variable Y are those having a conditionally significant partial correlation to all of the matrix. In contrast, with the DAG algorithm, a variable is identified as having a direct effect on the dependent variable Y only if it has a significant partial correlation conditionally to the whole matrix and conditionally to any subset of the matrix. Thus, if the DAG identifies a particular obstacle having a direct effect on the growth of the company, this variable is expected to have a significant effect in the OLS regression (Wheeler, and Scheines, 2010, Scheines, et al. 1994).

More formally, the DAG methodology provides a compact representation of probability distributions with nodes attached graphs showing the random variables and the edges represent the assertions of conditional independence.

Briefly a directed graph is a graph reflecting the conditional causal relationship between the variables. The tip of the arrow in the graph reflecting this causal relationship. For example, consider four vertices $\{A_1, A_2, A_3A_4\}$ and a set of two edges among these vertices$\{A_1 \rightarrow A_2,\ A_2 \rightarrow A_3,\ A_3 \rightarrow A_4\}$. DAG corresponding$\{A_1 \rightarrow A_2 \rightarrow A_3 \rightarrow A_4\}$. The directed graph provides a visual representation of causality, independent variables, and conditional independence.

The causation standard in the methodology of the DAG is derived from the application of Bayes' rule and assumptions on the probability distributions of variables, even more, the causal Markov condition. Markov's condition of causality asserts that every variable is independent of other variables that are not the direct causes. In graph theory the Markov's causal condition refers to the d-separation.

Empirical Results:

Preliminary Results:

Table 1 summarizes the level of barriers as perceived by business leaders. This table also shows how the constraints varied according to company size. It is clear from this analysis that three obstacles are considered as severe for the functioning of the company. These include access to electricity, access to funding and political instability problem. Indeed, nearly 59% of business leaders reported that electricity constraints affected their businesses while 60% think that the financial constraints have an adverse effect on their businesses. They are about nearly 80% who said that political instability does not foster the growth of their business.

The results in Table 1 also show that neither the constraints of land, or transportation, or administrative fees nor the drinking water supply are seen as major constraints for the development of the company.

In addition, although not having occupied the first rank among the constraints ranking, they are more than 40% who said that the constraints of telecommunications (45%), unfair competition (47.87%), crimes (45%), tax rate (48%), and corruption (42%) happen to be major obstacles to the growth of their businesses.

Table 1 shows, however, differences in perception according to company size. It can be noted from Table 1 that micro enterprises mainly (64%) consider the problem of access to funding as a severe obstacle to the growth of their businesses. They are followed by small (57%), medium (49%) and large companies (35%).

Regarding constraints on electricity, perceptions vary according to the company size. Small and Medium enterprises are the most numerous who consider these barriers as constraints for their businesses. This sample represent about 65% of all small and medium enterprises.

Table 2 summarizes the correlation matrix between constraints. The obstacles reported by companies are important but correlations remain quite low below 0.5. The correlation between political instability and crime and corruption remains relatively high. This result indicates that an economic environment marked by political instability necessarily affect corruption. It is important to also note that the correlation between access to funding and other barriers are relatively high, thus highlighting that any reform policy must take into account possible interrelationships between this constraints.

We also find out that only the funding obstacle is negatively correlated with a company sales growth. We will discuss this result in the following sections.

Results of the econometric estimation:

The information provided by the business climate data in Côte d'Ivoire allows to analyse, depending on the characteristics of the companies, their perceptions of the obstacles they are facing.

Results (see Table 3 and 4) suggests that, it is the old companies that are owned by Ivorians, who are generally small in size and are not export-oriented and located in Korhogo,Daloa and Bouaké, which tend to face the most acute business constraints; while large enterprises, export-oriented and located in areas other than Korhogo, Daloa and Bouaké are less confronted by obstacles. There are some notable exceptions to certain constraints of enterprises. For example, large companies report that they are more constrained by transport barriers than smaller ones.

Results also suggest a complex interaction between the characteristics of the companies with the conditions of the business environment. For example, corruption is perceived as more binding not only by companies located in the

north of the country but also by exporting companies. The problems related to administrative fees affect more domestic companies than foreign ones. Also, inadequate water supply affects more both small and medium companies than the others.

In terms of geographical location of the company, those located in the main economic area like San Pedro and Abidjan face fewer constraints than those located in Korhogo, Bouaké, Daloa and Abengourou. This could be explained by the fact that companies located in Abidjan or San-Pedro are more resilient to constraints than other companies.

One key result is that national companies face more binding constraints than foreign ones. An implication of these results is that political reform must take into account the characteristics of enterprises. Special emphasis should be given to domestic companies.

Following the approach suggested by Beck, T et al. (2005), we examine whether constraints as perceived by business leaders actually affect the growth of the company. To do so, we analysed each constraint and test the significance of the coefficient to determine if the relevant constraint actually affects the growth of the company.

The results summarized in Table 4 show that, when taken individually, no constraints except the supply of water and building permit are significantly related to the sales growth of the company. The results show that a 1% improvement in constraints to water supply and building permits increased the sales of the company respectively with 152 and 233 percentage points.

In the last column of Table 4 (column 14), we have included all the obstacles in the equation of the regression of the company growth. In this specification, only the access to funding, barriers to water supply and building permits have proven significant. However, accesses to funding constraints are negatively and significantly correlated with sales growth at 10% level while the other two variables are positively correlated to the growth of the company. A deterioration of conditions for access to funding reduce the sales growth of nearly 148 percentage points. Neither corruption nor political instability or tax rates or administrative charges or transport infrastructure etc. (cf. column 14 of Table 4) seem to directly affect the company sales growth. The only constraint that affects negatively companies' sales growth in Côte d'Ivoire is the constraint of access to funding.

These results shows that the policies reforms should put a special emphasis on improving access to funding conditions for businesses but also, reforms should be undertaken to improve the supply of drinking water, and facilitate the acquisition of building permit. These results are consistent with those found by Kouadio (2011), Fjose et al. (2010), and ILO (2015) which shows that access to funding is one of the most binding constraints that hinder the development of companies. Moreover, it is possible that other variables can affect business growth through their impact on other variables but do not have direct effect on companies' sales growth.

To analyse the constraints that indirectly affect a company sales growth, we used the DAG methodology as performed in Beck, T et al. (2005).

DAG methodology was implemented using software programmed in TETRAD V (Wheeler, G., and Scheines, R. 2010, Scheines, R et al., 1994). This methodology was adopted to check the robustness of our results (Shrier, and Platt, 2008) and especially to analyse existing causality between thebarriers of companies. The blue-coloured arrows show the direction of causality while the red-coloured arrows illustrate the bidirectional causality between obstacles.

Figure 1 illustrates the results of the algorithm used in TETRAD V. It reflects the correlation between sales growth and companies constraints. Figure 1 shows that obstacles that have a direct impact on companies' sales growth are building permits, and water supply. Results show that problems of electricity cause problems of insecurity, theft or disorder which in turn lead to corruption issues. Trade barriers and customs regulation have a causal effect on corruption issues and transport constraints. Telecommunication problems also cause corruption. The other obstacles are mutually causing, although the sense of causality is not determined.

In addition, Figure 1 shows that the relationships between the obstacles are quite complex and that there are multiple causal directions between these obstacles. However, this analysis will restrict itself to identify the variables that directly affect the companies and also to know the mechanism through which the obstacles indirectly influence the

company. An important result suggested by the DAG methodology implies that water supply and building permits issuance are the barriers directly affecting sales growth as suggested by the results in Table 2. Access to funding indirectly affects the sales growth from the interrelationship between the constraints of access to funding and the constraints related to the building permit. Companies that face significant funding constraints also face constraints in obtaining building permits, which in return affects the company sales growth.

The DAG analysis also suggests that the reforms should be conducted concomitantly. Thus, any reform aimed at improving access to business funding should be supported by tax reforms. It will also be necessary to reduce or eliminate political tensions, to improve the electricity supply and to alleviate corruption-related problems. Once we consider all these factors at the same time, the proposed reforms can now have the desired effect.

Conclusion:-

On the basis of primary data on the business climate in Côte d'Ivoire collected throughout the country in 2012, this paper offered to make a diagnosis of the constraints of companies in Côte d'Ivoire and to understand the factors that explain them.

To achieve this purpose, the methodological approach consisted of a descriptive analysis of the obstacles encountered by companies supplemented with an ordered probit model to explain the perception of constraints according to the characteristics of the companies.

Then, the individual effects of constraints on the sales growth were analysed according to the approach proposed by Beck, T. (2005). The last step in our methodology was to use the acyclic graph method to analyse the barriers that directly affect the company and especially to understand the mechanism through which the other variables act indirectly on the company growth.

The preliminary results made it clear that constraints on access to funding, political instability and electricity constraints are the most worrying obstacles for entrepreneurs.

Moreover, the analysis of the perception of constraints according to the characteristics of the company has shown that the perception of a level of constraint depends on the characteristics of thecompany. Thus, any reform policy should take into account the characteristics of companies, especially the heterogeneous nature of the SMEs.

An important result following the approach of Beck, T. et al. (2005), states that access to funding is considered as the most important constraint that significantly and negatively affect the rate of the companies' sales growth. We find that a 1 percentage point decline in access to finance is followed by a massive decline of 148 percentage points in the rate of a company sales growth. We therefore find out that improved water supply conditions and building permits result in improved business growth.

Based on the DAG methodology, we find out that water supply and building permit constraints are the variables that directly affect the sales growth of the company. We also find out that constraints on access to funding affect companies'sales growth through those in connection with building permits issuance. Indeed, financially-constrained companies are always struggling to get building permits; this affect the company's sales growth. The DAG analysis also suggests that maintaining political stability, tax policy reforms and a corruption-free environment is likely to improve the financial conditions of companies and thus promote sales growth.

Our analyses suggest that more complex challenges remain for the government to address these constraints. It is clear that a range of important economic and social policies, such as those centred on macroeconomics, infrastructure or social protection, have a substantial impact on SMEs. However, the two main economic grounds for SME policies are defined as follows: (1) to address market failures specific to the relevant segment size; and (2) to promote the special economic contributions of SMEs. Considering access to funding, rather than concentrating on assisting SMEs directly through financial contributions, the government should focus on investing in skills upgrading and human capital development. Actions on the value chain development are becoming increasingly popular because of their strong emphasis on scale and financial sustainability. A way forward for future research on SMEs constraints is to undertakeactions on value chains.

Annex:

Table 1:- Descriptive statistics of constraints according to company.

Obstacles		micro	small	medium	large	Total
Electricity	No	32,41	24,45	20,41	11,76	28,61
	Moderate	11,81	10,92	14,29	29,41	12,1
	Major	19,68	29,69	32,65	11,76	23,52
	Severe	36,11	34,93	32,65	47,06	35,76
Water	No	74,54	54,59	46,94	47,06	65,75
	Moderate	7,64	11,79	26,53	17,65	10,45
	Major	9,26	15,72	14,29	11,76	11,69
	Severe	8,56	17,9	12,24	23,53	12,1
telecommunication	No	33,56	34,93	34,69	23,53	33,84
	Moderate	24,07	17,47	10,2	11,76	20,77
	Major	24,07	34,06	36,73	47,06	28,61
	Severe	18,29	13,54	18,37	17,65	16,78
Competition	No	35,19	34,06	38,78	52,94	35,49
	Moderate	18,06	17,03	8,16	0	16,64
	Major	22,69	26,64	26,53	23,53	24,21
	Severe	24,07	22,27	26,53	23,53	23,66
Crime, robbery	No	41,2	41,48	44,9	47,06	41,68
	Moderate	12,27	13,54	12,24	11,76	12,65
	Major	22,69	21,83	18,37	23,53	22,15
	Severe	23,84	23,14	24,49	17,65	23,52
Accessto finance	No	22,22	27,51	36,73	35,29	25,17
	Moderate	13,66	14,85	14,29	29,41	14,44
	Major	27,31	29,26	14,29	23,53	26,96
	Severe	36,81	28,38	34,69	11,76	33,43
tax rate	No	29,86	29,26	30,61	29,41	29,71
	Moderate	21,99	19,21	24,49	35,29	21,6
	Major	27,08	30,13	28,57	23,53	28,06
	Severe	21,06	21,4	16,33	11,76	20,63

Source: Survey of the business climate in Ivory Coast, 2012 / author

Table 1:- Descriptive statistics constraints according to company size (continued).

Obstacles		micro	small	medium	large	Total
administrative tax	No	39,35	37,99	34,69	47,06	38,79
	Moderate	23,84	22,71	22,45	23,53	23,38
	Major	23,15	27,07	28,57	23,53	24,76
	Severe	13,66	12,23	14,29	5,88	13,07
Political instability	No	6,02	7,42	2,04	5,88	6,19
	Moderate	5,32	3,06	4,08	5,88	4,54
	Major	20,14	22,71	32,65	11,76	21,6
	Severe	68,52	66,81	61,22	76,47	67,68
corruption	No	45,37	48,03	36,73	47,06	45,67
	Moderate	13,66	9,17	12,24	5,88	11,97
	Major	20,14	22,27	20,41	5,88	20,5
	Severe	20,83	20,52	30,61	41,18	21,87
land	No	70,37	67,25	81,63	76,47	70,29
	Moderate	7,64	11,79	2,04	5,88	8,53
	Major	12,27	14,85	10,2	17,65	13,07
	Severe	9,72	6,11	6,12	0	8,12
transport	No	53,24	54,15	51,02	23,53	52,68
	Moderate	16,9	14,41	18,37	35,29	16,64
	Major	15,51	22,27	18,37	17,65	17,88

	Severe	14,35	9,17	12,24	23,53	12,79

Source: Survey of the business climate in Ivory Coast, 2012 / author

Table 2:- Correlation matrix between obstacles and sales growth.

	sales_growth	**électricity**	**telecom**	**competition**	**crime, robbery**	**Tax_rate**	**finance**	**instability**	**corruption**	**transport**	**Taxe adm**
sales_growth	1										
electricity	0,0033	1									
télécom	-0,0502	0,3016*	1								
competition	0,0233	0,0847*	0,1131*	1							
crime, robbery	0,0516	0,2228*	0,2466*	0,0613*	1						
Taxe rate	-0,0463	0,1200*	0,1379*	0,1267*	0,1163*	1					
finance	-0,0628*	0,1848*	0,2326*	0,0807*	0,1664*	0,1813*	1				
instability	0,0148	0,1722*	0,1943*	0,0247	0,1682*	0,1063*	0,2543*	1			
corruption	0,0567	0,1738*	0,3428*	0,0541	0,2571*	0,2026*	0,2290*	0,2533*	1		
transport	-0,0019	0,1542*	0,3189*	0,1243*	0,2606*	0,1945*	0,1561*	0,1245*	0,2465*	1	
Taxeadm	-0,0081	-0,0081	0,1157*	0,1390*	0,1031*	0,0711*	0,6374*	0,1529*	0,2242*	0,1945*	1

Source: Survey of the business climate in Ivory Coast, 2012 / author

Table 3:- Explanatory factors of companies perception constraints in the Ivory Coast by ordinary least square.

	c30a	**c30a**	**c30b**	**c30b**	**c30x**	**c30x**	**i30**	**i30**	**j30a**	**j30a**	**j30b**	**j30b**
age	0,008	0,008	-0,002	-0,002	0,026	0,025	0,01	0,01	0,012	0,011	0,014	0,012
	(-0,65)	-0,59	-0,19	-0,21	(2,46)*	(2,31)*	-0,85	-0,89	-1,18	-1,14	-1,38	-1,27
age2	0	0	0	0	0	0	0	0	0	0	0	0
	-0,46	-0,38	-0,19	-0,15	(2,34)*	-1,94	-0,93	-1,04	(2,13)*	(2,11)*	(2,01)*	-1,82
f1	-0,005	-0,006	-0,004	-0,005	0	-0,002	-0,005	-0,005	0	0	0,004	0,004
	-1,45	-1,69	-1,37	-1,69	-0,07	-0,26	-1,4	-1,48	0	-0,03	-1,39	-1,35
2bn.a6	0,068		-0,032		0,373		-0,178		-0,042		-0,032	
	-0,63		-0,34		(3,68)**		-1,63		-0,43		-0,34	
3.a6	-0,004		0,114		0,365		-0,132		0,013		0,208	
	-0,02		-0,58		(1,99)*		-0,64		-0,08		-1,24	
4.a6	0,128		0,328		1,141		-0,098		-0,169		-0,014	

	-0,41		-1,32		(2,49)*		-0,38		-0,58		-0,06	
for eign	-0,384	-0,377	-0,352	-0,357	-0,106	-0,085	-0,47	-0,48	0,259	0,255	0,353	0,345
	(2,31)*	(2,28)*	(2,42)*	(2,47)*	-0,7	-0,55	(3,33)**	(3,40)**	-1,79	-1,78	(2,54)*	(2,49)*
2bn ,ville	0,415	0,445	-0,057	-0,049	-0,036	0,021	-0,432	-0,472	-0,189	-0,166	-0,161	-0,091
	-1,77	-1,92	-0,25	-0,22	-0,19	-0,11	(2,29)*	(2,52)*	-0,99	-0,87	-0,88	-0,5
3.vi lle	-0,14	-0,157	-0,016	-0,034	0,195	0,166	-0,506	-0,503	0,73	0,72	0,54	0,504
	-0,78	-0,87	-0,1	-0,21	-1,26	-1,06	(3,06)**	(3,06)**	(4,49)**	(4,42)**	(3,37)**	(3,12)**
4.vi lle	0,232	0,228	0,514	0,501	0,464	0,48	0,546	0,532	0,584	0,574	0,372	0,348
	-1,38	-1,37	(3,51)**	(3,47)**	(3,13)**	(3,22)**	(3,49)**	(3,43)**	(4,16)**	(4,13)**	(2,75)**	(2,58)*
5.vi lle	-0,349	-0,35	-0,096	-0,108	0,226	0,199	0,616	0,616	0,4	0,403	-0,006	-0,011
	-1,92	-1,94	-0,61	-0,69	-1,47	-1,32	(3,50)**	(3,50)**	(2,35)*	(2,36)*	-0,04	-0,08
6.vi lle	0,497	0,502	0,808	0,79	0,236	0,264	0,654	0,625	0,358	0,354	-0,028	-0,037
	(3,16)**	(3,25)**	(5,33)**	(5,23)**	-1,62	-1,83	(4,03)**	(3,88)**	(2,49)*	(2,48)*	-0,21	-0,28
d3a bis1	-0,353	-0,296	0,103	0,153	-0,194	0	-0,431	-0,492	0,245	0,262	-0,003	0,099
	-1,73	-1,43	-0,42	-0,63	-0,95	0	-1,81	(2,06)*	-1,16	-1,26	-0,01	-0,47
sale s		-0,017		0,003		0,023		0,002		-0,018		-0,031
		-0,8		-0,16		-0,94		-0,09		-0,89		-1,55
_co ns	3,185	3,498	2,564	2,578	1,252	1,119	2,771	2,704	1,764	2,037	1,364	1,896
	(10,56)**	(7,40)**	(10,79)**	(6,51)**	(4,55)**	(2,46)*	(10,51)**	(6,16)**	(6,51)**	(4,60)**	(5,69)**	(4,51)**
R^2	0,07	0,07	0,11	0,1	0,06	0,03	0,14	0,13	0,05	0,05	0,06	0,06
N	692	692	692	692	692	692	692	692	692	692	692	692

Source: Survey of the business climate in Ivory Coast, 2012 / author, 2012 * p<0.05; ** p<0.01

Table 4:- Explanatory factors of perception constraints companies in Ivory Coast by ordinary least square.

	j30f	**j30f**	**d30a**	**d30a**	**g30a**	**g30a**	**k30**	**k30**	**d30b**	**d30b**	**h30**	**h30**
age	0,003	0,002	0,011	0,013	0,007	0,007	0,026	0,023	-0,008	-0,007	0,011	0,011
	-0,21	-0,17	-1,07	-1,24	-0,79	-0,81	(2,22)*	(2,04)*	-0,92	-0,84	-1,27	-1,33
age 2	0	0	0	0	0	0	0	0	0	0	0	0
	-0,37	-0,28	-1,62	-1,88	-1,82	-1,94	-1,65	-1,59	-0,83	-0,65	-1,47	-1,48
f1	0,0	0,0	-	-	-	-	-	-	-	-	0	0,0

	01	01	0,007	0,009	0,006	0,006	0,001	0,001	0,001	0,001		01
	-0,14	-0,25	-1,9	-1,81	-1,57	-1,53	-0,42	-0,29	-0,33	-0,28	-0,01	-0,22
2bn.a6	-0,111		-0,126		-0,073		-0,252		-0,139		0,031	
	-1,01		-1,31		-0,87		(2,41)*		-1,91		-0,39	
3.a6	0,275		0,046		-0,144		-0,29		-0,159		0,263	
	-1,35		-0,25		-0,91		-1,4		-1,08		-1,68	
4.a6	-0,29		0,889		0,072		-1,074		-0,088		-0,093	
	-0,74		(2,34)*		-0,24		(3,39)**		-0,29		-0,4	
foreign	-0,052	-0,071	-0,266	-0,278	0,218	0,218	-0,001	-0,009	0,143	0,136	-0,01	-0,019
	-0,34	-0,47	-1,75	-1,85	(2,09)*	(2,09)*	-0,01	-0,06	-1,42	-1,37	-0,1	-0,19
2bn,ville	-0,302	-0,247	0,035	-0,068	0,128	0,098	-0,42	-0,303	-0,137	-0,188	-0,064	-0,047
	-1,51	-1,28	-0,2	-0,4	-0,9	-0,69	-1,86	-1,34	-1,04	-1,42	-0,44	-0,33
3.ville	0,275	0,255	0,263	0,272	0,394	0,395	-0,004	-0,064	0,058	0,07	0,136	0,145
	-1,63	-1,52	-1,9	-1,93	(2,99)**	(3,00)**	-0,03	-0,38	-0,55	-0,66	-1,17	-1,26
4.ville	0,245	0,225	0,317	0,312	0,321	0,315	0,07	0,01	0,25	0,245	0,238	0,247
	-1,57	-1,46	(2,52)*	(2,45)*	(2,75)**	(2,73)**	-0,44	-0,06	(2,38)*	(2,32)*	(2,00)*	(2,12)*
5.ville	0,178	0,176	0,723	0,696	0,106	0,105	-0,173	-0,149	0,293	0,295	-0,003	-0,005
	-1,03	-1,03	(4,66)**	(4,45)**	-0,93	-0,93	-1	-0,87	(2,15)*	(2,14)*	-0,03	-0,04
6.ville	0,657	0,646	0,764	0,715	0,675	0,659	0,324	0,302	0,05	0,029	0,052	0,064
	(3,86)**	(3,85)**	(5,54)**	(5,27)**	(5,08)**	(5,04)**	(2,16)*	(1,98)*	-0,44	-0,25	-0,47	-0,59
d3abis1	0,769	0,82	0,093	0,047	0,028	-0,002	0,16	0,227	0,63	0,551	0,5	0,51
	(2,40)*	(2,68)**	-0,42	-0,22	-0,14	-0,01	-0,7	-0,97	(2,55)*	(2,31)*	(2,11)*	(2,12)*
sales		-0,02		0,066		0,001		-0,128		0,01		0,016
		-0,91		(3,29)**		-0,07		(6,46)**		-0,65		-0,99
_cons	1,92	2,207	2,097	1,135	1,478	1,46	2,709	4,661	1,287	1,077	1,274	0,998
	(6,58)**	(4,94)**	(8,00)**	(2,83)**	(5,87)**	(3,78)**	(9,91)**	(11,29)**	(6,64)**	(3,44)**	(6,27)**	(3,25)**
R^2	0,05	0,04	0,09	0,09	0,07	0,07	0,06	0,1	0,04	0,04	0,03	0,03
N	692	692	692	692	692	692	692	692	692	692	692	692

Source: Survey of the business climate in Ivory Coast, 2012 / author * p<0.05; ** p<0.01.

Table 5:- Barriers to business growth in Côte d'Ivoire.

	(1)	(2)	(3)	(4)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
age2	-11.599	-11.516	-11.560	-12.161	-9.546	-10.508	-11.335	-12.122	-11.629	-11.338	-18.333	-16.712	-18.897
	(1.03)	(1.04)	(1.04)	(1.05)	(1.02)	(1.04)	(1.03)	(1.02)	(1.04)	(1.04)	(0.94)	(0.86)	(0.97)
age3	0.141	0.134	0.144	0.156	0.107	0.107	0.136	0.151	0.146	0.136	0.250	0.251	0.282
	(0.97)	(0.98)	(0.99)	(1.00)	(0.93)	(0.95)	(0.96)	(0.96)	(0.98)	(0.97)	(0.58)	(0.58)	(0.65)
f1	-0.866	-1.226	-0.846	-0.651	-1.107	-1.001	-0.982	-0.838	-1.053	-1.034	-1.843	-0.388	-0.947
	(0.78)	(0.84)	(0.73)	(0.62)	(0.78)	(0.77)	(0.77)	(0.77)	(0.78)	(0.81)	(0.26)	(0.06)	(0.13)
2bn.a6	265.137	264.970	263.604	280.463	248.636	263.646	266.654	267.642	277.342	266.175	220.991	297.898	205.192
	(1.07)	(1.07)	(1.06)	(1.07)	(1.06)	(1.07)	(1.06)	(1.06)	(1.07)	(1.06)	(1.20)	(1.65)	(1.11)
3.a6	39.845	46.341	38.535	49.910	18.810	40.710	40.613	39.956	13.717	39.971	-24.586	84.779	-38.508
	(0.58)	(0.63)	(0.57)	(0.64)	(0.34)	(0.58)	(0.60)	(0.58)	(0.27)	(0.59)	(0.07)	(0.25)	(0.11)
4.a6	12.622	34.692	5.784	23.272	-61.654	3.185	15.696	14.450	43.262	20.079	-85.578	98.070	-51.270
	(0.22)	(0.54)	(0.10)	(0.40)	(0.88)	(0.05)	(0.28)	(0.27)	(0.57)	(0.35)	(0.14)	(0.16)	(0.08)
foreign	132.838	103.158	140.218	159.599	123.359	142.664	124.916	130.780	128.379	122.147	182.928	120.911	213.963
	(1.02)	(1.03)	(1.06)	(1.06)	(1.05)	(1.05)	(1.07)	(1.03)	(1.05)	(1.05)	(0.77)	(0.51)	(0.87)
2bn.ville	181.738	188.630	185.124	225.182	161.640	177.859	191.221	190.642	220.509	192.060	206.114	170.669	132.040
	(1.14)	(1.24)	(1.22)	(1.46)	(1.05)	(1.12)	(1.25)	(1.24)	(1.46)	(1.26)	(0.50)	(0.42)	(0.32)
3.ville	96.889	92.550	80.489	132.417	93.145	147.677	95.705	111.455	67.411	94.736	96.786	38.771	100.802
	(1.22)	(1.25)	(1.26)	(1.20)	(1.25)	(1.16)	(1.30)	(1.14)	(1.24)	(1.27)	(0.30)	(0.12)	(0.30)
4.ville	-6.030	29.302	-16.227	-42.367	4.667	43.016	1.205	11.885	-23.579	1.194	-49.336	-79.479	-44.027
	(0.27)	(0.90)	(0.61)	(0.90)	(0.21)	(0.90)	(0.06)	(0.46)	(0.69)	(0.06)	(0.17)	(0.27)	(0.14)
5.ville	294.863	280.817	275.246	238.929	273.827	316.052	286.311	296.776	269.501	289.851	378.231	387.248	336.367
	(0.99)	(1.00)	(1.00)	(0.99)	(1.00)	(1.00)	(1.00)	(0.99)	(1.00)	(1.01)	(1.28)	(1.31)	(1.10)
6.ville	-18.390	40.369	-1.715	-56.540	17.147	20.341	-6.353	1.240	-68.474	-2.522	-25.683	-153.888	-96.603

	(0.59)	(0.96)	(0.08)	(0.96)	(0.63)	(0.66)	(0.30)	(0.06)	(0.98)	(0.12)	(0.09)	(0.51)	(0.30)
d3abis1	-89.075	-91.759	-97.721	-64.546	-86.205	-79.540	-97.718	-89.300	-170.559	-97.254	-94.290	-148.589	-126.287
	(1.33)	(1.30)	(1.34)	(1.11)	(1.26)	(1.30)	(1.35)	(1.32)	(1.28)	(1.35)	(0.21)	(0.34)	(0.28)
c30a	24.459												11.992
	(0.66)												(0.16)
c30b		-57.652											-119.940
		(1.14)											(1.40)
e30			29.884										69.292
			(1.09)										(0.96)
i30				76.978									69.043
				(1.06)									(0.91)
k30					-72.091								-147.540
					(1.17)								(1.93)*
j30a						-74.302							-138.915
						(0.98)							(1.44)
j30b							-4.170						10.406
							(0.50)						(0.10)
j30e								40.067					63.978
								(0.71)					(0.61)
j30f									94.719				133.427
									(1.05)				(1.77)
d30a										-4.861			-25.400
										(0.58)			(0.31)
c30x											152.100		145.760
											(1.		(1.

											98)*		82)
g30a												233.255	258.462
												(2.77)**	(2.93)**
_cons	-124.054	101.680	-130.823	-259.461	149.149	84.915	-40.459	-207.671	-227.966	-35.954	-216.758	-372.726	-503.376
	(0.79)	(0.97)	(1.08)	(1.07)	(1.06)	(0.77)	(0.70)	(0.79)	(1.07)	(0.65)	(0.41)	(0.70)	(0.72)
R^2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.05
N	692	692	692	692	692	692	692	692	692	692	692	692	692

Source: Survey of the business climate in Ivory Coast, 2012 / author

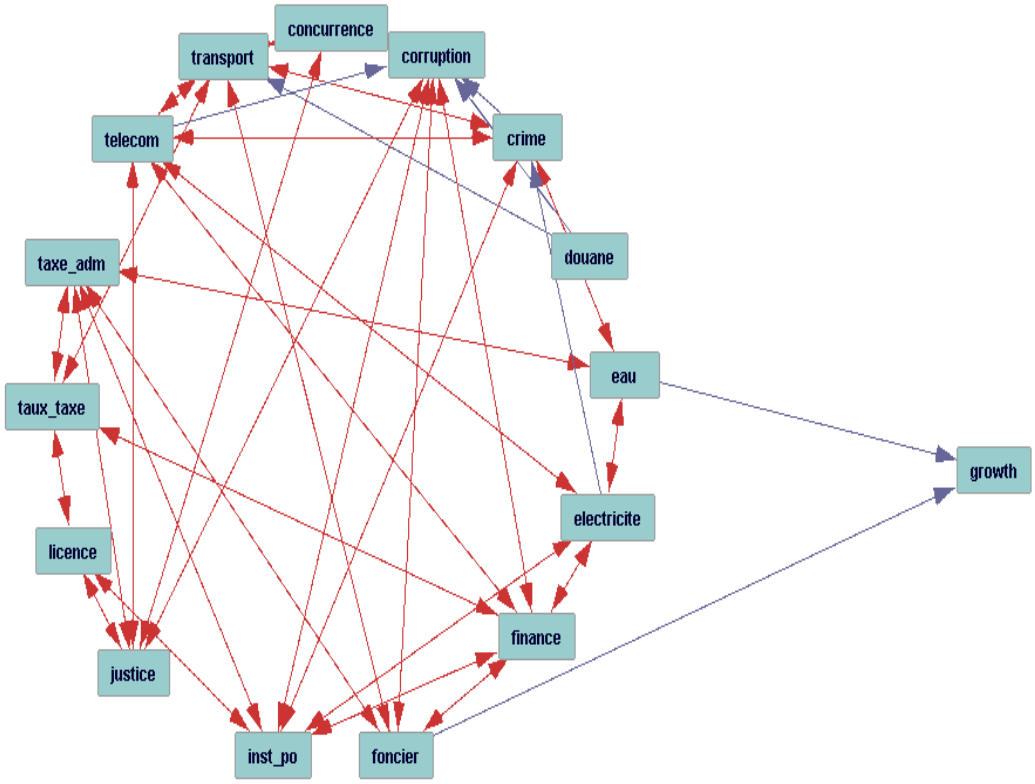

Figure 1:- Result of estimates by methodology directed acyclic graphs.
Source: Survey of the business climate in Côte, 2012 / author.

References:-

1. Alesina, A., &Perotti, R., (1996). Income Distribution, Political Instability, and Investment. EuropeanEconomic Review 40 (6), 1203-1228
2. Alesina, A., Ozler, S., Roubini, N., &Swagel, P., (1996). Political instability and economic growth, Journal of Economic Growth 1 (2), 188–211.
3. Ayyagari, M., Demirgüç-Kunt, A., &Maksimovic, V., (2008). How well do Institutional theories Explain Firms' Perceptions of Property Rights?,The Review of Financial Studies 21, 1833-1871
4. Ayyagari, M., Demirgüç-Kunt, A., &Maksimovic, V., (2013). What determines protection of property rights? An Analysis of Direct and Indirect Effects, Journal of Financial Econometrics 11(4), 610-649

5. Banque Mondiale, (2015). La Force de l'Elephant: pour que sacroissancegénère plus d'emploi dequalité, série Situation économiqueen Côte d'Ivoire
6. Batra, G., Kaufmann, D., & Stone, A., (2003). The Firms Speak: What the World Business Environment Survey Tells Us about Constraints on Private Sector Development. World Bank mimeo.
7. Beck, T., Demirgüç-Kunt, A., &Maksimovic, V., (2005). Financial and Legal Constraints to Firm Growth: Does Firm Size Matter. Journal of Finance 60(1), 137-177.
8. Beck, T., Demirgüç-Kunt, A., Laeven, L. & Levine, R., (2008). Finance, Firm Size, and Growth, Journalof Money, Credit, and Bnking40 (7), 1379-1405
9. CEPICI (2015). Retrospective doing business 2015, newsletter novembre 2015
10. Cull, R., & Xu, C. L., (2005). Institutions, ownership and finance: The determinants of profit reinvestment and Chinese firms. Journal of Financial Economics 77 (1), 117-146
11. Desai, M., Dyck, A., &Zingales, L., (2007). Theft and Taxes, Journal of Financial Economics, 84, 591-623
12. Desai, M., Foley, C.F., & Forbes, K. J., (2004). Financial Constraints and Growth: Multinational and Local Firm Responses to Currency Depreciations, SSRN Working Paper Series
13. Dollar, D., Hallward-Driemeier, M., &Mengistae, T., (2005). Investment Climate and Firm Performance in Developing Economies, Economic Development and Cultural Change 54 (1), 1- 21.
14. Dollar, D., Hallward-Driemeier, M., &Mengistae, T., (2006). Investment climate and internationalintegration, World Development, 34(9), 1498-1516, September.
15. DSRP (2012), Stratégie de Relance du Développement et de Réduction de la Pauvreté, République de Côte d'Ivoire
16. Eifert, B., Gelb, A., Ramachandran, V., (2005). Business Environment and Comparative Advantage in Africa: Evidence from the Investment Climate Data, World Bank mimeo.
17. Fisman, R., Svensson, J., (2004). Are Corruption and Taxation Really Harmful to Growth? Firm-Level Evidence. World Bank Policy Research Working Paper # 2485
18. Fjose, S., Grünfeld, L. A. & Green, C. (2010). SMEs and growth in Sub-Saharan Africa : Identifying SME roles and obstacles to SME growth, MENON-publication no. 14/2010
19. Friedman, E. S. Johnson, D. Kaufmann and P. Zoido-Lobaton (2000). Dodging the Grabbing Hand: The
20. Determinants of Unofficial Activity in 69 Countries, Journal of Public Economics, Vol. 76: 459-493.
21. Friedman, E., Johnson, S., Kaufmann, D., Zoido-Lobatón, P., (2000). Dodging the grabbing hand: The determinants of unofficial activity in 69 countries. Journal of Public Economics 76,459-93.
22. Gaviria, A., (2002). Assessing the Effects of Corruption and Crime on Firm Performance: Evidence from Latin America. Emerging Markets Review 3(3).
23. GCCI (2016). Note sur l'environnement des affaires encôted'ivoire, secrétariat technique du Groupe Consultatif Plan National de Développement 2016-2020, Côte d'Ivoire
24. Herrington M, Kew J, Kew P (2009). Global Entrepreneurship Monitor, South African Report. [Online]. Available: http://www.gbs.nct.ac.za/gbswebb/userfiles/gemsouthafrica2000pdf
25. ILO (2015). Small and medium-sized enterprises and decent and productive employment creation, Report IV, International Labour Conference, 104th Session, Geneva, 2015
26. Johnson, S., McMillan, J., Woodruff, C., (2000). Entrepreneurs and the Ordering of Institutional Reform," Economics of Transition, Vol. 8(1), 1–36.
27. Johnson, S., Mitton, T., (2003). Cronyism and capital controls: evidence from Malaysia, Journal ofFinancial Economics 67, 351-382.
28. Kalisch, M. &Buhlmann, P. (2007). Estimating High-Dimensional Directed Acyclic Graphs with the PC-Algorithm, Journal of Machine Learning Research 8, 613-636
29. Kaufmann, D., A. Kraay and M. Mastruzzi. (2003). "Governance Matters III: Governance Indicators for 1996-2002." World Bank Policy Research Working Paper 3106. Washington DC: World Bank.
30. Klapper, L., Laeven, L, Rajan, R., (2005). Barriers to Entrepreneurship. World Bank Mimeo.
31. Kouadio, K., H., Soro, N., Gbenro, N., & Kanga, D. (2013). Climat des affaires Côte d'Ivoire 2012:Méthodologie et Outils de Collecte, Rapport d'étude, ENSEA
32. Kouadio, Y.M. (2011) :Environnement des affaires et reliance économique post-criseen Côte d'Ivoire, Universitéd'Auvergne - CEFEB –MatserEconomie et Développement International
33. La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., (1997). Legal determinants of external finance. Journal of Finance 52, 1131-1150.
34. La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R.W., (1998). Law and finance. Journal ofPolitical Economy 106, 1113-1155

35. Levine, R., (2005). Finance and Growth: Theory and Evidence forthcoming in Philippe Aghion and Steven Durlauf, eds. Handbook of Economic Growth. The Netherlands: Elsevier Science.
36. Marshal ML & Oliver WN (2005). The Effect of Human Financial and Social on Entrepreneurial Process for Entrepreneurs in India. Masters Thesis, Unpublished. Purdue: Purdue University.
37. Mauro, P.,(1995). Corruption and growth, Quarterly Journal of Economics 110, 681-712. Ministère de l'Economie et des Finances (2010). Annexe fiscal 2010, Abidjan Côte d'Ivoire
38. ONUDI (2012). Nouvelle politique Industrielle de la Côte d'Ivoire, Vienne (Autriche)
39. Pissarides, F., Singer, M., Svejnar, J., (2003). Objectives and Constraints of Entrepreneurs: Evidence from Small and Medium-Sized Enterprises in Russia and Bulgaria. Journal of Comparative Economics, Vol. 31(3), 503–531.
40. Saleem, Q. (n.d.). Overcoming Constraints to SME Development in MENA Countries and EnhancingAccess to Finance. International Finance Corporation, IFC0513. Onlineavailable: http://www.ifc.org/wps/wcm/connect/1e6a19804fc58e529881fe0098cb14b9/IFC+Report_Final.pdf?MOD=AJPERES
41. Scheines, R.; Spirtes, P., Glymour, C., & Meek, C. (1994). TETRAD II: Tools for causal modeling. User's manual. Hillsdale, NJ: Erlbaum.
42. Shleifer and Vishny (1993). Corruption. The Quarterly Journal of Economics, Vol. 108, No. 3. (Aug., 1993), pp. 599-617.
43. Shrier, I & Platt, R. W. (2008). Reducing bias through directed acyclic graphs, BMC Medical ResearchMethodology, 8(70) doi:10.1186/1471-2288-8-70
44. Sleuwaegen, L., &Goedhuys, M., (2002), Growth of firms in developing countries, evidence from Cote d'Ivoire, Journal of Development Economics, 68 (1), 117-135
45. Sleuwaegen, Leo and Goedhuys, Micheline, (2002), Growth of firms in developing countries, evidence from Cote d'Ivoire, Journal of Development Economics, 68, issue 1, p. 117-135
46. WBES (2010). Enterprise Surveys: CÔTE D'IVOIRE Country Profile 2009, IFC, The World Bank Group
47. Wheeler, G., and Scheines, R. (2010). Causation, Association, and Confirmation in Explanation,Prediction, and Confirmation: New Trends and Old Ones Reconsidered, edited by Stephan Hartmann, Marcel Weber, Wenceslao, J. Gonzalez, Dennis Dieks, Thomas Uebe, Springer.