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THE FINANCIAL DECENTRALIZATION POLICY FOR LOCAL DEVELOPMENT IN CAMEROON: AN ECONOMETRIC ANALYSIS

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ABSTRACT

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JEL Classification C10; D61, H41, l15. The objective of this article is to show the effectiveness of financial decentralization policy in the process of local development. In order to do so, we analyze the financial decentralization as a determinant of the effectiveness of local development in Cameroon. To achieve the main objective, we have used the data grouped together after the exploitation of the communal development plans. Using the Data Environment Analysis (DEA) model, we have obtained interesting results: When the budget allocated to decentralized territorial collectivities (DTC) is increased by 1%, this makes possible an increase of 13 points of the achievement of non-revenue generating projects and by11 points, those of income-generating projects at the level of DTC. When the budget increases by 10 points, there is an increase of 130 points of the achievements of non-revenue generating projects and 110 points of those of income-generating projects. The increase of financial resources at the level of DTCs would create a reasonable increase of investments in socio collective projects and in basic infrastructures. This leads to a drastic reduction in the unemployment rate. We can recommend to the Government to implement strategies that can reinforce the practice of financial decentralization and ensure decentralized governance. The financial decentralization is an economic indicator that can bring growth and development.

Contribution/Originality: This study contributes to econometrically analyzing the effectiveness of financial decentralization policy in the process of local development.

1. INTRODUCTION

Financial decentralization consists in the devolution of the financial resources and decision-making powers to sub-national governments that will allow them to implement the functions and responsibilities that have been delegated to them. In principle, every new responsibility must be followed with the appropriate level of resources and a precise definition of the sources of revenue for the execution of that new responsibility. In other words, finance must follow function. The goal of the financial decentralization policy is not only to pursue efficiency in the provision of services at the local level and community, but also to achieve sustainable development, economic growth and poverty reduction. The concept of local development is defined as a particular form of regional development, one in which endogenous factors occupy a central position. A stages model of local development is proposed: 1) the emergence of local entrepreneurship; 2) the "take off" of local enterprises; 3) the expansion of these

enterprises beyond the local region; and 4) the achievement of a regional economic structure that is based upon local initiatives and locally created comparative advantages.

The public goods which are to be provided satisfy social wants and cannot be provided on a fee basis (Musgrave, 1959; Samuelson, 1954). Assume, in other words, the polar case of public goods. In some cases we use examples of public goods where fees might be charged. Indeed, most public goods are a blend of pure private and pure public goods; i.e., benefits show externalities between 0 and 100 per cent. Interest here is only in the externalities.

Since 2001, the practice of decentralization has not stopped evolving in Cameroon through the advent of the implementation of other councils. However, it is above all the law no 96/06 of 18 January 1996, revising the constitution of 02 June 1972, which gave a new impulse in increasing the decisive role to decentralization. This process improves and energizes political, social and economic development of Cameroon. Therefore, decentralization is presented in Cameroon as an effective determinant of local development. According to Litvack (1998) the term 'decentralization' encompasses a variety of concepts. «It is the transfer of authority and responsibility of public services, central administration to subordinate or quasi-autonomous governmental organizations and/or to private sector ». According to the author, there exist many types of decentralization: political, administrative, financial decentralization and market decentralization.

The central idea of this reflection is to assess the effectiveness of financial decentralization in local development (Tchouassi & Dzou, 2020). The aim is to show how this form of decentralization affects the execution of projects. For this reason, it is a question of assessing the discrepancies observed in the centralized management of public affairs. These discrepancies are responsible for the poverty of populations. The imposition of decentralization in all its orthodoxy as universal rule of governance seems to be the guiding motive for continued cooperation between most African countries and international institution.

The justification here is simple: bringing the government closer to the governed (local actors) by increasing their possibility of participation and the opportunity to influence political decisions in their own interest and thus of their well-being while increasing the effectiveness of each action undertaken. The reflection is therefore widening on the sectors that are real stimulants of development and therefore the sectors that will bring growth. It is a matter of implementing a system of local governance based on a platform of financial decentralization where the State invests on territorial collectivities in order to recover these receivables through returns on investments. These additional resources must exclusively be generated by local actors and not by civil servants of central administration.

The resources of territorial collectivities remain low in Cameroon. In fact, every year, the State grants only 2.6% of its budget to DTCs. Moreover, given that the majority of economic activities realized by the populations are carried out in the informal sector, tax revenues also remain low. This low rate of financial resources automatically leads to the downturn of communal investments (Touna, 2018). The effectiveness of decentralization is considered as the ability to mobilize resources, and to manufacture development from those resources in order to solve problems related to the needs and difficulties of the populations: namely governance, poverty, inequalities, external funding.

The concept of decentralization refers to participatory development. It shows to sufficiency the necessity of decentralization in the process of local development, a participatory development for an economy of proximity. For Bahl and Smoke (2003) many forms of decentralization have been identified, namely political decentralization, administrative decentralization and fiscal decentralization. According to Bako-Arifari. (2004) fiscal or financial decentralization involves a reallocation of resources to a local authority of an amount enabling him to fulfill his tasks correctly. It also includes the transfer of responsibility in the matter of provision of services for the funds allocated» (Bourguignon & Chiappori, 1998). The allocation of local taxes, the distribution of tax revenues, the setting of market and user taxes also fall under the policy in the field. Financial decentralization is related to many

macroeconomic factors that significantly affect the state of local development in Cameroon: corruption, the level of development, governance, poverty and external funding.

Tax fraud is the concealment of the real value of legal economic transactions, in order to avoid tax (Acconcia, 2003; Hindriks, Keen, & Muthoo, 1999; Virmani, 1989). This is materialized by the refusal of councils to pay the taxes due to the State. In fact, tax practices observed within our collectivities are not conducive to a good economic climate. In many council, all completed public contracts, social security contributions deducted from the salaries and payments of providers are sometimes not paid on time and sometimes hardly ever into the State coffers. This practice is observed in 8 councils out of ten in Cameroon. This bitter observation delays taxation and affects local development. However, these resources can contribute to increasing the tax burden insofar as taxpayers are going to react by modifying the revenue (Chu, 1990) or the transaction declared. « Fraud results in a transfer of public resources to private agents » (Azam & Djimtoingar, 2008; Tanzi & Davoodi, 2000). It affects the distribution of the tax burden insofar as the State, in order to reach a given level of tax revenues, increases tax pressure on the other categories of taxpayers or on other tax bases. « Taxation can thus become strongly regressive as soon as some taxes (property tax, income tax on non-wage income) » are poorly collected on the most advantaged taxpayers (Tanzi & Davoodi, 2000) and that poor people support most of the tax incidence of fraud (Hindriks et al., 1999).

In order to obtain external funding, it is possible to finance the local counterpart by reducing other expenditure rather than increasing fiscal revenues. In addition to its direct effects, which stem from the funding of additional public expenditure, aid is likely to have indirect effects on the mobilization of public income by affecting the institutions of the receiving country (Khan & Hoshino, 1992). In Cameroon, aid allocated to councils is channeled through public bodies instead of being transferred directly to territorial collectivities. These bodies define the development policies of the collectivities sometimes without taking into account the real and urgent needs of the populations. Much more, the distribution of this aid has a high economic cost for the collectivities. This economic cost leads to suffocating fiscal consequences for councils.

The following questions can be asked: How would financial decentralization be effective for local development in Cameroon? Does this form of decentralization bring a positive or negative change to local development? This article raises the problem of the effect of financial decentralization on local development. It is a question of testing whether the transfer of financial resources to DTCs can significantly solve local development problems in Cameroon.

The objective of this article is to assess the effectiveness of financial decentralization on local development. Specifically, we seek to: access and analyze the effects of financial decentralization on local development; assess and analyze the level of project implementation in territorial collectivities with the transfer of financial resources.

In coherence with the main question and the objectives, two hypotheses can be fixed: firstly, the level of financial decentralization of the power of influence significantly and negatively affects the effectiveness of local development. Secondly, the authoritarian centralism of the State on local business significantly and positively affects local development in Cameroon. This rest of the paper is organized around some key points: methodology, empirical results and conclusion.

2. METHODOLOGY

As announced in the introduction, a methodological approach which is at the same time descriptive and analytical has been adapted. We use secondary data of 2010 and 2015. In fact, the implementation of the local development process obeys to criteria that fall under growth and job creation strategies. Cameroon, as part of this movement, has committed itself with the help of the international community, to implement a development and growth strategy, based on the new deal of the laws of decentralization of 2004. Acting in concert with the State, the National Programme for Participatory Development (NPPD) is called upon in the accompaniment of Decentralized

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Local Collectivities, to the transfer of competence related to the objectives and laws of decentralization. Each municipal development plan states a set of principles which refers to processes to implement and results to be achieved. These principles emphasize on the transfer and appropriation of competences to local populations, as well as on their effective participation in the implementation of decentralization policies and strategies.

The aim of this section is to present the different methodological aspects for the identification of the determinants of financial decentralization. The achievement of this objective passes through two points namely, on the one hand, the presentation of the efficiency assessment framework, on the other hand, the presentation of empirical results.

It is a question for us to present the way the first empirical studies have assessed the efficiency of financial decentralization. In this article the measurement of productive efficiency published in1957, Farrell was the first to clearly define the concept of economic efficiency and to distinguish the concepts of technical efficiency and allocative efficiency. In fact, he defines efficiency by dissociating what is of technical origin: that is what is due to a bad choice in terms of combination of factors (technical), from what is allocative in origin: that is related to the bad choice of the price of inputs (allocative).

The DEA approach is a method which consists in comparing the performance of each producer only with the one of the best producers of the sample considered or the best virtual producers. This technique corresponds most to the theoretical concept of « frontier »as the highest (or the lowest) limit of outputs (or inputs).

For each collectivity, efficiency scores of decentralization are obtained by considering the quantities of the different inputs used. An efficiency score very far from 1 indicates that the transfer of competences in a local collectivity is not efficient; on the other hand a score equal to 1 indicates that the transfer is at the frontier. Given that the origin of the biggest share of the resources of councils is in tax revenues, three variables strongly contribute to the mobilization of the latter: the financing of the municipality, procurement procedures and human capital. Therefore, these three variables are considered as input variables.

Financing must be considered as the main source of creation and project development in councils. The table below describes the different variables used in the assessment of efficiency scores of transfers of competences.

Type of variable	Definition of the variable	Measurement of the variable	
Input	Financing	Variable captured by the estimate cost of the	
		communal development plan	
	Execution of contracts	Explanatory variable that reflects the level of	
		completion of the projects and the timeframes for	
		completion of these projects.	
	Human capital	Variable captured by the level of knowledge and	
		know-how	
	Projects	Variable captured by the percentage of activitie	
		related to agriculture, animal breeding, fishing	
		handicraft, and small trade in the council	
Output	Economic and social balance of	Variable that explains the level of development in the	
	the council	council and the level of satisfaction of the populations.	
	Informality level	Variable captured by the percentage of activities of	
		informal sector in the council	

Table-1. Description of variables explaining efficiency

As mentioned in the table above, the variable financing is measured with the estimate cost of the communal development plan. The estimate cost of the local development plan is the accumulation of estimated budgets of all the sectors. The budget is the act by which all the expenses and resources of the municipality for a financial year, which corresponds to a calendar year, are planned and authorized. The budget comprises two sections: operating and investment, each comprising expenditure and revenue. It usually begins on 1 January and ends on 31 December of the same year. However, in certain circumstances, it may run for several years. For example, this is the case for

us, because our budget runs for five years. Thus the lowest estimated budget is 110,000,000 CFA francs (F CFA). However, the highest estimated budget is 8,510,000,000 CFA francs. The average estimated budget is 2,480,000,000 CFA francs.

Concerning the variable level of informality, we have observed that informality dominates the majority of economic activities carried out in the councils of Cameroon. In fact, if the lowest level of informality is 0.62, this level of informality goes as far as 0.95 in some council in Cameroon. We note that the degree of dispersion is not high enough among the different levels of informality. Thus, we have an average level of informality of 0.75.

Also, within the framework of non-income generating projects, basic infrastructure (roads, health centers, schools, electricity, and water) is built in series but the level of needs remains high. In fact, these activities occupy on average 68% of individuals in the council. It is also worth mentioning that in the council where this sector occupies less space, it employs at least 52% of the population.

Continuous variables	Mean	Standard deviation	Minimum	Maximum
Financing	2.480.000,000	162,.000.000	110.000.000	8.510.000.000
Informality	0.80	0.11	0.62	0.95
Project completed	1.1	0.1	0.52	1.3

Table-2. Descriptive statistics of the Data envelopment analysis

In addition to the variables explaining the efficiency scores, we can present the variables used to explain the efficiency determinants of competences transfer. These are the population density, the availability of natural resources, the number of markets in the council, the urban environment, the main activity carried out by the large part of the population in the council and the level of informality of activities in the council.

The natural resource variable is also introduced in the model for several reasons as well. In rural areas, the ability to pay taxes and duties of the population, which derives most of its income from agriculture, animal breeding, fishing, etc., is based on natural resources.

In fact, based on the popular perception that urban areas have more profitable and productive activities than rural areas, we can understand that in urban areas, the tax base is somewhat higher than in rural areas. Thus, councils in urban areas have a greater force in mobilizing funds than councils in rural areas.

The table below describes the different variables used to explain the determinants of the local authority funding efficiency scores.

Type of variable	Definition of the variable	Measure of the variable			
Explanatory variable	Efficiency scores	Continuous variable on [0 1]			
	Population density	Continuous variable equals to the population/surface area ratio Variable symbolized by 1 if the council has natural resources and by 0 otherwise.			
	Natural resource				
Explanatory variables	Urban environment	This variable captures the area (in percentage) of			
		the council represented by the urban area.			
	Number of markets	Continuous variable			
	Main activity	Variable captured by the percentage of activities related to agriculture, animal breeding, fishing, handicraft or small trade in the council			
	Informality level	Variable captured by the percentage of activities of			
		the informal sector in the council			

Table-3. Description of the variables explaining the determinants of efficiency

Referring to our database, we can see that the population density varies according to the regions and councils of Cameroon. For example, while the East Region is considered the least dense region of the country (density equal to 7.1 inhabitants /square kilometer (km2)), the West and Littoral Regions are considered the densest in the country (densities equal to 123.8 inhabitants/km2 and 124 inhabitants/km2 respectively). At the level of the councils, however, the lowest density is 1.875 inhabitants/km2 and the highest density is 3.628 inhabitants/km2. The average density in Cameroon is 50.03 inhabitants/km2.

Concerning the natural resource variable, all the councils in Cameroon have at least one natural resource (oil, coal, natural gas, lithium, gallium, geranium, sand, rock, aggregate, phosphate, wood, uranium). But we have focused our work on natural resources such as oil, coal, wood and sand. The majority (80%) of the councils have these natural resources, against 20%.

Concerning the urban environment variable, we can see that even if some councils only exist in totally urban areas (this is the case, for example, for the council of Yaoundé six in the Centre region), others, on the other hand, only exist in totally rural areas (this is the case, for example, for the council of Esse in the Centre region). However, other councils occupy both rural and urban areas at the same time (for example, the council of Bafoussam first in the Western region).

Table-4. Descriptive statistics of the variables that determine efficiency					
Continuous variables	Mean	Standard deviation	Minimum	Maximum	
Density	50.03	45.10	1.875	3628	
Urban environment	0.30	0.20	0	1	
Number of markets	11.81	7.40	2	27	
Main activity	0.68	0.1	0.52	0.83	
Informality level	0.8	0.11	0.62	0.95	
Category variables	Description			Proportion	
Natural resources	The council does not have any natural resources			0,2	
	The council does not have any natural resource			0,8	

The table below summarizes the statistical analysis of these variables.

3. EMPIRICAL RESULTS

These empirical results are obtained from the statistical analysis of the different variables and finally the analysis and the comment of econometric results obtained after estimation of the DEA model. For this paragraph, we will first present the econometric results relating to the levels of efficiency of the financial decentralization of Cameroonian local collectivities, before presenting the econometric results relating to the determinants of financing efficiency.

3.1. Assessment of the Levels of Efficiency of the Financing of Local and Regional Collectivities in Cameroon

Operator efficiency levels are calculated using DEA 2.1 software by Coelli (1996). An advantage of DEA is that it allows the decomposition of total technical efficiency into pure technical efficiency and technical efficiency of scale.

3.2. Overall Technical Efficiency (OTE)

The levels of overall technical efficiency of financing are presented in the table below. Therefore, by consulting this table, we can see that, for the 360 councils in Cameroon and 14 urban communities, the average score for overall technical efficiency of financing is 0.5156. This means that an efficient use of the inputs will reduce them by 48.44% while maintaining the same level of financing. Among the 360 councils in Cameroon, 5 councils have an overall technical efficiency of financing of less than 20%, while 16 councils have an overall technical efficiency of financing of less than 20%, while 16 councils have an overall technical efficiency of financing of less than 20%.

We can therefore affirm that only 16 councils use their inputs in optimal proportions. The minimum level of total technical efficiency of financing for all councils is 11.02%. In other words, this would mean that the least efficient councils could reduce the use of inputs by up to 89.8% and keep the same levels of funding. We also note

that more than 50% of the councils in Cameroon have a higher than average level of overall technical efficiency of financing.

I able-5. Distribution of the indexes of overall technical efficiency						
Overall technical	Number of c	ouncils	Percentage (%)	Cumula	ited (%)	
efficiency (%)			0			
1-10	0		0	()	
11-20	5		1.39	1.39		
21-30	38		10.56	11.95		
31-40	26		7.22	19.17		
41-50	46		12.78	31.95		
51-60	58	58 16.11		48.11		
61-70	66		18.33	66.39		
71-80	43		11.94	78	.33	
81-90	24		6.67	8	5	
91-99	38		10.56	95	.56	
100	16		4.44	100		
Total	360		100			
Variables	Observation	Mean	Standard deviation	Minimum	Maximum	
Over all technical efficiency	360	0.5156	0.17827	0.1102	1	

3.3. Pure Technical Efficiency (PTE)

The levels of pure technical efficiency of financing are presented in the table below. The hypothesis of variable returns to scale makes it possible to calculate pure technical efficiency without taking into account the sub-optimal or optimal size of the council. The average score of pure technical efficiency of financing of councils is 0.6226. In other words, an efficient use of inputs for average councils will make it possible to reduce their use by 37.74%, with the level of financing remaining unchanged. The minimum level of pure technical efficiency financing reached in all the councils of Cameroon is 0.09; i.e. a 91% reduction in inputs in the best proportions and keeping the same level of financing. Despite the fact that 2 councils have an efficiency score below 10%, about 50% of councils have a pure technical efficiency financing score higher or equal to the average.

4. CONCLUSION

The issue of financial decentralization is an imperative for the revival of local development in particular and the emergence of Cameroon in general. The empirical analysis that has been made in this excerpt sufficiently demonstrates that financial decentralization positively influences local development. Rapid changes in spaces and institutions call for new models to explain territorial dynamics, even as socio-spatial disparities are growing.

Following this result, we can recommend to the State to implement strategies that can strengthen the capacity of local collectivities to mobilize resources. This could not only enable local development in terms of energy but also facilitate the maintenance of hospital, educational and road infrastructures, all necessary for local development.

It must be recognized that decentralization is part of the constitutional and democratic landscape of public policies focused on the emergence of Cameroon. In order to achieve this, it is necessary to:

- Revive the dynamics of financial decentralization by undertaking further work on the elaboration of new texts giving local actors access to work in harmony with the populations both at the level of project design and implementation.
- To set up a genuine territorial public service (local public service) administered by the staff of the decentralized local collectivities. The regional directors and delegates of decentralization must be the staff of the councils and not the staff of the central administration in order to better design development models to the taste of the populations and not to the vision of the public administration.

- Resolving the issue of local financing seems all the more imperative as decentralization is an opportunity for the state to reinvent itself by giving itself the means to provide real services to its citizens and thus strengthen its base and legitimacy. To this end, the state must make more financial resources available to DTCs from the state budget (15-25% of the budget) in order to reasonably increase communal investments.
- To retain FEICOM as an implementing agency for community sectoral funds in accordance with the principle of subsidiarity.
- To set up a sub-regional mechanism for monitoring and following up financial decentralization, which will be responsible in particular for reporting statistics on the issue.
- Make decentralized cooperation between local and regional collectivities a founding reality for the strengthening of integration.
- Encourage States to involve local populations in the drafting of the finance law.
- Set up a regional mechanism to facilitate access by local authorities to loans and investments and develop a culture of borrowing among local actors. To this end, the countries of the CEMAC zone must create a communal central bank in charge of local prospective.
- Promote local private initiative as a means of broadening the tax base and ensure full decentralized cooperation between local collectivities and the private sector.
- Simplify local taxation by determining the fiscal development index by nature of local collectivity in order to organize taxation around the three or four taxes that provide almost all the revenue. In this way, taxes whose yield does not justify management costs will be abolished, especially in a context of low capacity and low resources of local authorities and decentralized tax and treasury services in terms of broadening the tax base and efficiency of collection.

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