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The financing of the long and medium term needs of SMEs: A contextualization of the rule of minimum financial balance

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Abstract. The main aim of this study is to highlight the breaking of the minimum financial balance rule by companies and propose ways of financing the long and medium term needs of SMEs in a context of excessive rationing of bank credit in order to obtain a balanced financial structure. We data from two surveys, the first based on the observation of 70 Cameroonian SMEs in 2011 in which we focus on the frequencies of the alternative methods of financing the long and medium term needs of SMEs. On the data of the second survey performed between 2013 and 2016 on 452 SMEs in Cameroon, we apply a Logit regression to empirically explain the probability of the choice of the mode of financing made in the presence of credit rationing and use the techniques leading to a mode of financing to highlight the modes of financing chosen by SMEs. Our results show the following modes of financing: For the first survey; equity, savings and loan associations (tontines), assistance from friends and family members, microfinance institutions, intercompany credit, leasing institutions, and bank credit. For the second survey: savings and loan associations, microfinance institutions, intercompany credit, help from friends and family members, contributions of partners, leasing institutions, and the issue of new shares are found as the main modes of financing. These findings can be important in line with the Modigliani and Miller, Myers and Majluf, and Quintart models if the question of the financing of SMEs in the context of excessive credit rationing is to be addressed.
Keywords. Financing; Needs; Balance.
JEL. C52; L25; M14.

1. Introduction

The financing of the small and medium-size companies (SMEs) is an issue of concern in developing countries in Sub-Saharan Africa. These countries are characterized by an exaggerated rationing of bank credit (Ndjeck, 2016, 2017) and this makes SMEs to seek local alternative sources of finance which are mainly short term to meet their long, medium and short term needs. SMEs thus use short term sources of finance to meet their medium and long run financial needs. Consequently, the rule of minimum financial balance which requires the use of permanent resources to finance fixed assets is violated, giving rise to the need to contextualize this rule within the framework of the small and medium-size companies.

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In fact, small companies are companies with a turnover ranging between 15 and 250 million CFAF and employ between 6 and 20 workers. Medium sized businesses have a turnover higher than 250 million and lower than or equal to 3 billion CFAF and employ between 21 and 100 workers (INS, 2015).

Several reasons justify the need to ensure the growth and survival of SMEs (Ndjeck, 2017). In Cameroon, 22,7% of companies are SMEs (INS, 2015). The economic and social role of these SMEs is such that they constitute the main source of employment (55% of jobs at the national level and 68% of private sector jobs (Ndong-Ntah, 2002; Kasereka-Mbaweka, 2009), contributing to nearly 57% of the output of the private sector and 53% of tax revenue at the national level (Taka, 2010). Also, SMEs are considered by the Cameroonian public authorities as an instrument of the development of industrial sector and a foundation for growth and development (Um-Ngouem, 1996; Edding, 2002) and thus receive a special attention shown by the creation of control organizations and many activities in favour of SMEs (Yamb & Ndjeck, 2016; Ndjeck, 2017; Ndjeck, 2022, p.10).

The control organizations and activities in favour of SMEs have reduced because of the recent economic crisis. The rationing of bank credit to SMEs has increased and may be considered exaggerated (Bekolo-Ebe, 1996; Joseph, 2000; Tchouassi & Ndjanyou, 2002; Ndong-Ntah, 2002).

The use of alternative sources of financing which are mainly short term (Bekolo-Ebb, 1993; Edding, 2002; Assiga, 2002; Wamba, 2003) becomes impossible to circumvent. However, since SMEs particularly need long and medium run resources to finance their investment cycle, the classical financial rule regarding the financing of assets becomes crucial. In an environment characterised by the rationing of bank credit and the absence of a financial market or inaccessibility to the financial market, the structure of financing is even more alarming.

The objective of this study is to highlight the violation of the rule of minimum financial balance and propose means of financing of the long and medium term needs of SMEs in view of achieving a balanced financial structure. Using a first survey on 70 SMEs from various sectors of activity in Cameroon in 2011, we identify the main sources of financing the long and medium term needs of SMEs using frequency tables. We carry out a second survey between 2013 and 2016 on 452 Cameroonian SMEs. In this survey, we perform a Logit regression to explain the probability of choice of the sources of financing. Our results enable us to highlight the sources of financing the long and medium term needs of SMEs. This leads us to propose a suitable structure of financing. The rest of this study is organised in four parts. Part 2 presents a review of the literature on the financial structure of firms, part 3 presents the statistical properties of the data and the methodology of Logit estimation, part 4 presents the results and their discussion, while and part 5 concludes the study.

2. The financial structure of firms: a review of the literature

The balanced financial structure of firms is not a new issue in financial analysis. However, the respect of the rule of minimum financial balance within the context of SMEs characterized by the rationing of capital, particularly bank credit constitutes a new avenue for research. In fact, beside the Pecking Order theory analyzed by Myers & Majluf (1984) which describes the order of preference of means of financing: companies have a preference for internal financing relative to external financing and concerning external financing, companies privilege debts over the issue of new shares, with a financing by emission of hybrid securities which are bonds convertible into shares found between debt and the issue of new shares. Three cases appear in the analysis of the financial structure (Quintart, 1997). The first is based on the distribution between equity and debts. Modigliani & Miller (1958) find that the financial structure does not affect the value of the company. This can be understood insofar as an asset financed either only by equities, or only by debts, or by a combination of the two ways of financing does not change, the asset (Miller, 1958): the size of a Pizza does not depend on the way in which it is cut (Miller, 1958). However, this analysis is based on the principle of additivity of the assets and a perfect financial market. The authors used a partial equilibrium model based on the concept of classes of risk and on the absence of taxes. By integrating the taxation of profits in their original analysis, Modigliani & Miller (1963) find that the financial structure affects the value of the company. The positive effect of financial structure on the value of the company is the result of the debt which by the means of financial expenses generates a saving in tax paid which reduces the value of the non-indebted firm (Modigliani & Miller, 1963). Also, debt is less expensive than equity. Thus, by being indebted, the company reduces the cost of capital. However, a debt which is more than the financial capacity of the firm allows may lead to the risk of bankruptcy. A new approach to the effects of financial structure on the value of the company arises with the taking into account of the costs of bankruptcy and the taxation of investments leads to a revisiting of the model of Modiliani & Miller (1963) concerning the hypothesis of the taxation of profits. In fact, Miller (1997) again reaches the conclusions which he obtained with Modigliani in 1958 on the absence of an effect of financial structure on the value of the company. Miller (1997) holds that the effect of the income tax of the investors cancels that of the tax on profits. Thus, the value of the economic asset is same whatever the financial structure. There does not exist an optimal financial structure. The neutrality of financial structure on the value of the company can constitute a limit when the costs of bankruptcy are taken into account. The costs of bankruptcy and dysfunction affect the value of the company. Thus, the value of an indebted company is higher than that of a company that is not indebted. The company should therefore make a choice between the gains obtained by lower taxes on financial expenses and the losses from the costs of bankruptcy. It then becomes possible to determine an optimal financial structure (Ginglinger, 1997).

The second case is related to the structure of ownership of the company, i.e. the composition of the shareholding and consequently the structure of the authorized capital. The authorized capital supposes a certain structure of management and control of the company (Ginglinger, 1997). In Cameroon, the promoters of companies are allergic to the opening of the capital and the economy is dominated by family companies (INS, 2015).

The third case is related to the duration of the funds, i.e. their distribution between permanent resources and circulating resources. This third case takes into account the duration of the resources and the lifespan of the assets acquired thanks to these resources (Vernimimen, 2010, p.99; Charreaux, 1991, p.54. Barreaux & Delahaye, 2003, p.153). Cohen (1997) refers to this using the golden rule of financial balance. It expresses an idea of financial safety often summarized by the concept of working capital. If the company does not have a financial safety margin, it must take care to avoid two often complementary traps: firstly, the "headlong rush", resulting from the acceptance of all profitable projects of the company which is no longer able to self finance its growth and resorts to short-term debt instead of taking a new financing structure or issuing more shares and secondly, underinvestment coming from a voluntary rationing of capital (related for example to the refusal to open the capital to external sources or the desire to respecter a given level of debt), or of a rationing of capital imposed by the market following a "headlong rush" which reveals a perception of risks unacceptable for the suppliers of funds (Vernimmen, 2010, p.523). The fundamental financial adjustment that the company must ensure is related to a harmony between the duration or "maturity" or "term" of the resources and that of assets. It is therefore the job of the financial analyst to appreciate if the resources used are sufficiently stable taking into account the duration of the uses to which they are affected (Cohan, 1997).

This last case constitutes the core of this study and leads us to reflect on the harmony between the resources which are mainly short term available to SMEs (Ndjeck, 2017) and the long and medium term needs to be covered by these short term resources. The next part of this study justifies the methodology adopted on the basis of this literature as well as data collected on the field.

3. Statistical properties of the data and methodology of estimation and contextualisation of the rule of minimum financial balance

The methodology of estimation of the decisions on the ways of financing and their contextualisation are closely related to the theoretical models of financing and the statistical properties of the data of the survey which we first present.

2.1. Statistical properties of the data on the ways of financing the long and medium term needs of SMEs

In order to highlight the sources of financing the long and medium term needs of SMEs, we use a simple random sampling. Since it is impossible for use to determine an approximate value P through a survey, i.e., the proportion of SME questioned within the framework of a prior study, we set P at 0,5. This value represents the most unfavourable case, i.e. the value which gives the greatest possible standard deviation for the sampling distribution of P. In this case, the necessary sample size to ensure a margin of error E (in absolute value) not exceeding 4% at a 95% level of confidence will be approximately (Baillargeon , 1989):

$$n = \frac{Z^2_{\alpha/2}P(1-\ddot{P})}{E^2} = \frac{Z^2_{\alpha/2}\text{x}(0{,}5)(0{,}5)}{E^2} = \frac{(1{,}96)^2}{4(0{,}04)^2} \approx 600$$

In this formula, *E* indicates the error margin, *Z, the* standardized centred normal distribution, and $\bar{P}$ is the estimator of *P* in the prior study. 500 SMEs in the town of Douala from all branches of industry are questioned and 452 return a correctly filled out questionnaire giving a rate of return of approximately 90%.

The characteristics of the sample are related to the SME, its promoters or main associates, and their managers. The tables in the appendix summarize these various characteristics. In fact, it is deduced from these tables that limited liability companies (S.A.R.L) are the most numerous (56% of the population of SMEs questioned), followed by sole proprietor businesses (21,9%), public limited companies (19,9%), partnerships (1,8%) and other legal forms of business (0,4%). The dominant capital structure of the SMEs studied is the sole proprietorship (42,9%), followed by family (31%), friends (18,6%), other forms of ownership (4%), and colleagues or former colleagues (2, 7%). The dominant nationality of the owners is Cameroonian (90,5%), followed by Europeans (6,9%).

The SMEs are distributed in all branches of industry. However, service companies constitute the dominant sector (44,2%). This sector is followed by trade (28,8%), manufacture of plastic packaging, metallurgical industry and public works (8%), food industry (6,6%), wood industry (4,6%), microfinance establishments (4%), agriculture, fishes and breeding (1,8%), quarrying (0,90%), and the clothing industry (0,90%).

64,6% of the SMEs have a turnover after tax ranging between 15 and 100 million CFAF, and 33,4% a turnover ranging between 100 million and 1 billion CFAF. 69,3% of surveyed SMEs generally make profits. 11,6% have at least 19 years of experience, 25,6% at least 15 years, 51,20% at least 6 years, 81,40% at least 4 years of experience. 92,3% of SMEs carry out book keeping. However, we consider keeping a single book as having an accounting system.

The majority of promoters of SMEs have a tertiary level of education (77,9%). These promoters are very experienced (65,5% have more than 10 years of experience) and are mostly from the west region of Cameroon (63,5%). 58% of these promoters have between 30 and 50 years. They are followed those exceeding 50 years (39,8%). The managers are also mostly university graduates (77,9%) who are also experienced (50,9% have experience of more than l0 years). The majority of these managers are also from the West region (63,l%) and are members of savings (65,3%) (like the owners) and other associations (67, 5%).

Lastly, 55,1% of surveyed SMEs believe they are victims of qualitative rationing. 43 SMEs out of the 199 having benefitted from bank loans could not obtain the amount of credit requested, that is to say approximately 9,5% of SMEs having taken part in the study and 21,60% of SMEs having benefitted from bank loans are subjected to a quantitative rationing.

Also, prior to our investigation, we performed a survey on 70 SMEs relating to the financing of their long and medium term needs. The sampling procedure retained in this survey is the multi-level sampling combined at the last level to stratification to give more chances to all the branches of industry to be represented. The sample size here is obtained using the formula (Perrien *et al.*, 1983) $n = \frac{Z_{\alpha}^{2}P(1-P)}{E^{2}}$ where Z depends on the level of confidence which is of 95% in our case, and going from the standard normal variable, at the threshold of 5%, $Z\alpha$ = 1,96. E represent the error accepted which is 9,2% in our case, P is the proportion observed. After a prior survey on 10 Cameroonian SMEs, only two finance their long and medium term needs using only stable resources, $n = \frac{(1{,}96)^{2}\ x\ 0{,}0{,}8}{(0{,}092)^{2}}$= 73.

Of the 73 surveyed SMEs, 70 agreed to contribute to our study giving a rate of response of 95,89%. The characteristics of the sample relate to the SMEs, their promoters, or managers. The tables in the appendix summarize these characteristics (Tables 8 and 9 in the appendix). In fact, it is deduced from these tables that sole proprietorships (60%) are the most common, followed by limited liability companies (24,28%) and partnerships (15,72%). All the companies are of Cameroonian nationality and are distributed in all the branches of industry. However, service companies are the most common (47,14%), followed by trade (45,71%), industrial companies (5,71%) and extractive companies (1,42%). The capital held by these SMEs varies from 1 CFAF to more than 500 000 CFAF: 30% have a capital higher than 500 000 FCFA. Their turnover recorded over 5 years varies per annum between 4 800 000f and 94 000 000 CFAF. The sample is made up mainly of companies having a 9 years experience (68,6%). They are followed by SMEs with more than 10 years of survival (28,57%) and those of 5 years (2,85%).

3.2. Methodology of estimation of the choices of the ways of financing and their classification

The decision of choosing a given mode of financing over another is a qualitative variable determined by many factors. This explains why we use a Logit model to explain the probability of the decision of choosing a mode of financing or not. We focus on predicting the probability that a given SME resorts or not to a type of financing (short term (CT), long or medium term (LMT)), given the rationing of bank credit (Stiglitz & Weiss, 1981; Williamson, 1986; Bekolo-Ebe, 1993, 1996; Um-Ngouemi 1997; Sweep, 1998; Joseph, 2000; Mayoukou, 2008). The type of credit rationing and the alternative ways of financing used within the framework of this study result from the literature on the financing of companies. With this in mind, we use the following logistic model:

$$Types\ de\ financement = \begin{cases} 1\ si\ CT = \ \mu + \Sigma\beta kXi + \varepsilon i \\ 0\ sinon \end{cases}$$

Where: CT = Short term financing, Xi = a vector representing the types of rationing of bank credit and εi is a random variable which follows a white noise.

Concerning the survey on 70 SMEs, we use the frequencies of the modes of financing the long and medium term needs.

4. Presentation and discussion of results

4.1. Presentation of results

The surveys carried out enable us to highlight the resources which finance the long and medium term needs of SMEs.

Concerning the long and medium term needs, they come from the increase in fixed assets and the reduction in the capital invested. These needs measured within the framework of this study, by the survey on 70 SMEs. This survey which identifies the investment in fixed assets as a long and medium term reveals that (see Table 10 in appendix):

- 18,6% of SMEs acquire patents, licenses, concessions and similar rights;
- 22,9% acquire software;
- 5,7% buy goodwills;
- 21,4% acquire the right to lease;
- 17,1% buy the land;
- 31,4% buy or carry out constructions, technical installations and fittings;
- 82,9% buy materials;
- 80% buy furniture;
- 2,8% buy livestock: animals for reproduction or security;
- 27,1% make prepayments and deposits on orders of fixed assets;
- 57,1% make long-term deposits;
- 17,1% grant loans to the personnel;
- 38,6% consider notary fees as fixed costs;
- 81,4% consider taxes and levies as fixed;
- 27,1% spread out over several years the expenses of prospection, publicity and launching;
- 17,1% spread over several years the expenses of modification of the capital and reorganization;
- 1,42% show the expenses on research and development.

The most common need expressed by SMEs is the acquisition of the materials (82,9%). This is followed by the immobilization of taxes and levies (81,4%), the acquisition of furniture (80%), long-term deposits as caution (57,1%), the immobilization of notary fees (38,6%), and constructions, technical installations and fittings (31,4%). The high frequency of these needs is explained by the fact that on the one hand, the technical capital is essential in spite of its scarcity and difficulties of acquiring it because of the lack of adequate resources in developing countries south of the Sahara; also, SMEs do not have qualified personnel to ensure their accounting and tax management. These companies thus find themselves with a high volume of taxes and levies coming from fines and penalties because they do not know and honour their tax obligations. The importance of the long-term deposits as caution arises because SMEs being a category of riskier company, they require a greater safety during their contracts.

Research and development expenditure occupy the last row as regards the long and medium term needs as expressed by the increase in the number of assets (1,42%). This low level is justified by the scarcity long term resources in SMEs. Also, the personnel of SMEs do not generally have the necessary competence to perform research.

According to the survey on 70 SMEs relating to the reduction in stable resources like long and medium term needs of SMEs, we notice that (see Table 10 in appendix):

- 38,6% of SMEs refund their debts after more than one year;
- 5,7% refund or write-off their capital;
- 11,4% distribute the reserves to the associates;
- 10% convert reserves into capital;
- 11,4% convert profits into capital.

Besides the payment of debts after more than one year, the need for long and medium term finance generated by the reduction of stable resources is little expressed. That is explained by the fact that the financial capacity of SMEs is low. In fact, the authorized capital or personnel of SMEs is low. Their profitability is generally low and unstable. They are victims of the exaggerated rationing of capital. Consequently, the reduction of capital, the distribution of reserves to associates, the conversion of the profits and reserves into capital by it are affected.

After mentioning the long and medium term needs of SMEs, we now highlight the resources used for financing these needs. This is initially done within the framework of the survey into the financing of the long and medium term needs of 70 SMEs followed by a second survey into the financing of 452 SMEs faced with the rationing of bank credit.

The results of the survey on the financing of the long and medium term needs of 70 Cameroonian SMEs are shown in Tables 1 and 2 below.

Table 1. *Sources of financing of the long and medium term needs of SMEs at creation*

Resources / Frequencies	Equities	Bank credit		Savings and loan associations			Assistances of close relatives	Institutions of micro finance		Leasing
		+1 year	1 year	2 years and more (L)	1 year (L)	1 year (C)		2ans at the maximum	1 year	
Absolute frequencies	49	4	5	14	16	7	23	-	-	-
Relative frequencies	70%	5,71%	7,14%	20%	22,85%	10%	32,85%	-	-	-

Source: author using survey data; L = contributions from the savings and loan association; C = Loan from the savings and loan association.

We deduce from this table that at creation SMEs usually have recourse to equities (70%), bank credits with a more than one year (5,71%) term, bank credit with a less than one year (7,14%) term, the contributions from savings and loan associations with a less than two years (20%) term, contributions from savings and loan associations with a less than one year term (22,85%), contributions from savings and loan associations of less than one year (10%) and assistance from close relatives (32,85%) to finance their medium and long term needs. Equities are thus classified as the main source of financing, followed by assistance from close relatives, and the contributions of savings and loan associations with a less than one year duration.

SMEs financed by banks are SMEs whose owner either has a past history with the bank or a personal relationship with the bank. The table below shows the resources for financing of the long and medium term needs of SMEs after creation.

Table 2. *Sources of financing the long and medium term needs of SMEs after creation*

Resources / Frequencies	Equities	Bank credit		Savings and loans associations			Assistance from close relatives	micro finance institutions		Leasing
		+1 year	1 year	2 years and more (L)	1 year (L)	1 year (C)		2 years maxi mum	1 year	
Absolute frequencies	62	4	5	20	24	8	29	3	4	2
Relative frequencies	88,57%	5,71%	7,14%	28,57%	34,28%	11,42%	41,42%	4,28%	5,71 %	2,85%

Source: author using survey data; L = contributions from the savings and loan association; C = Loan from the savings and loan association

After their creation, to satisfy their long and medium term needs, SMEs are financed by equities (88,57), by bank credits with a more than one year term (5,71%), bank credits with a less than one year term (7,14%), by contributions from savings and loan associations with a more than two years term (28,57%), by the contributions from savings and loan associations with a less than one year term (34,28%), by loans from savings and loan associations with a less than one year term (11,42%), by assistance of close relatives (41,42%), by loans from microfinance institutions with a less than two years term (4,28%), by loans from microfinance institutions with a less than one year term (5,71%) and by leasing (2,85%).

Equities occupy the first place as at creation. They are followed by assistance from close relatives, resources from savings and loan associations with a less than one year term, resources from savings and loan associations with a less than two years term, while leasing comes in the last position.

SMEs financed by banks at creation are the same ones financed by these banks after creation. Thus, the SMEs of our sample benefit from bank financing only through personal relations.

A second survey on 452 SMEs focuses on the financing of these companies in the presence of the rationing of bank credit and leads to the results below (Table 3, 4, 5 and 6).

Table 3. *Determination of the most requested alternative means of financing*

Sources of financing	Number of SMEs having chosen the source of financing				TOTAL	RANK
	Operational rationing	Medium term rationing	Long run rationing	Quantitative rationing		
Intercompany credit*	65	28	2	10	105	5th
Savings and loan associations*	112	49	14	28	203	1st
Associations *	56	10	-	16	82	6th
Family help *	62	27	8	22	119	3rd
Help from friends *	60	28	4	21	113	4th
Microfinance institutions*	62	39	6	25	132	2nd
Current help from associates *	31	21	2	-	54	7th
Capital growth **	5	8	12	-	25	8th ex
Leasing institutions **	-	21	4	-	25	8th ex
Venture capital companies**	-	4	-	-	4	11th
Sale of fixed assets **	-	8	4	-	12	10th
Private individuals (usurers) *	-	1	-	-	1	12th

Source: The author, using survey data; *Short term modes of financing; ** Long and medium term modes of financing

Savings and loan associations and microfinance establishments do not only occupy the first positions in the rank but they are also requested. However, the results are not rigorously identical within each type of rationing of bank credit.

The rationing of the bank operating credit leads to informal financing, intercompany financing, and financing by microfinance establishments.

The rationing of bank medium term credit leads to more informal financing, intercompany financing, and financing by microfinance establishments.

The rationing of bank long run credit leads to informal financing, intercompany financing, and financing by microfinance establishments.

Informal financing, intercompany financing, and financing by microfinance establishments are requested in the case of a qualitative rationing of bank credit.

Informal financing, intercompany financing, and financing by microfinance establishments are requested in the presence of a quantitative credit rationing.

For the financing of long and medium term needs, we expect that long and medium term sources of funding (capital growth, leasing, venture capital) be used to enable a financial balance.

The above results above are confirmed by the chi-square test and the Logit model.

Table 4. *The relationship between the rationing of bank credit and alternative sources of financing*

Statistics for table of MODEFI by TYPERA			
Statistic	DF	Value	Prob
F			
Chi-square	33	182.0704	<. 0001
Likelihood Ratio Chi-Square	33	166.5362	<. 0001
Mantel-Haenzel Chi-Square	1	4.8711	0.0273
Phi Coefficient		0.4562	
Contingency Coefficient		0.4150	
Cramer's V		0.2634	

Source: The author from survey data

This test clearly shows the correlation between the rationing of bank credit and the alternative sources of financing. Thus the rationing of the bank credit mainly leads to the use of short term resources.

Table 5. *The relationship between the rationing of bank credit and short term alternative sources of financing*.

Statistics for Table of MODEFI by TYPERA

Statistic	DF	Value	Prob
Chi-Square	21	139.7413	<.0001
Likelihood Ratio Chi-Square	21	134.5665	<.0001
Mantel-Haenszel Chi-Square	1	4.2961	
Phi Coefficient	0.5424		
Contingency Coefficient	0.4768		
Cramer's V	0.3132		

Source: The author from survey data

This test shows a correlation between the rationing of bank credit and short term resources.

This correlation is made clearer by the Logit model.

Table 6. *The relationship between the types of rationing of bank credit and the modes of financing (Logit model).*

The GENMOD Procedure (logit)

Analysis of Parameter Estimates

Standard Wald 95% Confidence

Parameter	DF	Estimate	Error	Limits		Chi-Square	Pr>ChiSq	Odds Ratio
Intercept	1	5.4161	1.4173	2.6381	8.1940	14.60	0.0001***	
TR RL	1	-3.0802	1.4231	-5.8695	-0.2909	4.68	0.0304**	0,04595
TR RQ	0	0.0000	0.0000	0.0000	0.0000			
	0	1.0000	1.0000	1.0000	1.0000			

LR Statistics for Type 3 Analysis

Source	DF	Chi Square	Pr>ChiSq
TR	1	15.45	<.0001

Notes: The scale parameter was held fixed; ** Significatif à 5%; *** Significatif à 1%

Source: the author using the modes of financing obtained from the survey (table XI in the appendix)

These results can also be obtained by specifying a qualitative rationing (RL).

Table 7. *The relationship between the type of rationing of bank credit and mode of financing (logit model with calculation of Odds Ratio).*

Analysis of Parameter Estimates

Parameter	DF	Estimate	Error	Limits		Chi-Square	Pr>ChiSq	Odds Ratio
Intercept	1	5.4161	1.4173	2.6381	8.1940	14.60	0.0001	0,36243***
TR RE	1	-1.0149	1.4808	-3.9173	1.8875	0.47	0.4931	0,02179
TR RMT	1	-3.8261	1.4275	-6.6240	-1.0282	7.18	0.0074	7,31338
TR RLT	1	-4.8392	1.4440	-7.6693	-2.0091	11.23	0.0008	1
TR RQ	0	0.0000	0.0000	0.0000	0.0000			
Scale	0	1.0000	1.0000	1.0000	1.0000			

LR Statistics for Type 3 Analysis

Source	DF	Chi Square	Pr>ChiSq
TR	1	15.45	<.0001

Notes: The scale parameter was held fixed; *** Significatif à 1%

LR Statistics For Type 3 Analysis

Source	DF	Chi-Square	Pr >ChiSq
TR	3	113.77	<.0001

Source: *the author using the type of rationing and mode of financing (see table XI in the appendix)*

The logit model shows that the rationing of bank credit leads to more short term financing. Also, this effect is greater for quantitative rationing than for qualitative rationing (Odds Ratio of quantitative rationing = 1 and Odds Ratio of qualitative rationing = 0,0459).

Going from the results above, we can conclude that fixed assets (the long and medium term needs of SMEs) are financed by short term resources. this finding gives rise to the need to contextualise the rule of minimum financial balance.

5. Discussion of the results

The field study reveals that the structure of financing of SMEs violates the rule of minimum financial balance. We thus seek to propose ways of enabling SMEs to comply with this rule and ensure their financial safety.

The recommendations considered are addressed to SMEs, banks and the public authorities.

To SMEs

SMEs may find it beneficial to seek ways and means of obtaining sufficient capital from internal and external sources. In order to obtain share capital, they have to improve their profitability. The improvement of their profitability requires the use of qualified human resources and not only family members, performing feasibility studies before the creation of companies, and the use of alternative sources of financing. As for the external resources, SMEs can have recourse to leasing companies and venture capital companies. Also, they should reduce information asymmetry and risk, and increase the capital. Unfortunately, we consider it regrettable that leasing companies themselves analyse risk like banks (Dépallens & Jobard, 1990, p.737). In addition to the evaluation of risk to ensure the future solvency of the customer, the leasing company must determine the use which it will make of the asset in case it must be recovered. This encourages the leasing company to carry out operations only on standard equipments which can easily be transferred on the market in order to avoid storage (Depallens & Jobard, 1990, p.737). Leasing can be a costly form of financing investments if high rates are applied. It is thus obvious that a high rate can encourage companies to prefer traditional financial techniques over leasing (Barreau & Jibard, 1983, p.300; Mayer, 1985, p.272). However the alternative modes of financing are mainly short term towards which SMEs rush are even more expensive than financing by leasing because of usurious rates. Some of these modes of financing require the company to make a prepayment (caution) which is refunded only at the end of the lease and is generally 20% in the case of the leasing of buildings. The leasing fee is usually paid at the beginning of the period unlike in the case of traditional loans (Charreaux, 1991, p.541). Secondly, although venture capital companies intervene at the same time in the authorized capital, financial loans, and the management of the business (Bessis, 1997; Lachman, 1997), they are not suitable in the Cameroonian environment owing to the fact that Cameroonian companies are mainly family and individual companies which do not agree to open their capital (INS, 2015). In addition, this intervention in share capital and management is temporary and varies from 5 to 7 years (Etoundi, 2003). Thirdly, increasing the capital brings the SME a new breath in term of equity and reinforces its financial safety and its credit-worthiness. However, the allergy of Cameroonian companies to the opening of their capital constitutes an obstacle with this mode of financing. Sometimes, the low profitability of certain SMEs does not favour this mode of financing. The daily help from closed associates is creditable if the associates have the means of financing and agree to it. The reduction of asymmetry of information and risk which characterize SMEs can lead to bank financing. In fact, SMEs may find it beneficial to honestly supply timely accounting and financial information on their activities. Company should abstain from account manipulation (Wamba & Tchamanbe-Djine, 2002; Wamba, 2003). The information they provide should be relevant, exhaustive, and lead to a faithful image. However, the Cameroonian business world seems characterized by dishonesty and it takes time to make the businessmen more conscious. This is a major challenge to public authorities.

The quality of management and group loans also play a part in the reduction of risk.

To banks

Banks can also contribute in the reduction of asymmetry of information and risk.

The customer relationship management, cooperation agreements, and the participation of banks in the capital of SMEs positively lead to a reduction in information asymmetry. The participation in the management of SMEs, the selection, monitoring or control, and the restrictive clauses make it possible to reduce risk. The bank can take part in the management of SMEs through the management of its book keeping and intervention in certain decisions. It can also have a right of information on the wealth of SMEs. The bank and SME must agree on the management of the granted funds. SMEs should integrate and take advice from banks. SME should cultivate a transparent and confident financial relationship with the bank while avoiding deforming the information necessary for the analysis of risk. The banker should work towards an improvement of the behaviour of the SME in order to make it respect the clauses of the contract. An efficient selection is an essential requirement in the management of credit risk (Ndjanyou, 2001). In order to carry out an efficient selection, lenders must collect reliable information on the potential borrowers. The monitoring by the creditor reinforces the importance of the customer relationship. The multiplication of controls reduces information asymmetry and the risk of credit rationing (Cieply *et al,* 2000). Controls must be reinforced and more frequent when the line of business declines or when its financial position is degraded. However, it should be noted that SMEs are allergic to the transparency of their accounting information in the Cameroonian environment. Also, it is not easy for companies to accept co-operation and monitoring. Co-operation and monitoring constitute the main means of lifting of veil of SMEs and reduce banking credit rationing which negatively affect companies. Banks privilege on the one hand, loans that are attached to collaterals, and on the other hand, activities with a low risk and high profit expectations; i.e. commercial transactions to the detriment of investment (Assiga-Ateba, 2002). The collaterals required by banks are generally excessive compared to the requested bank credit. This situation comes sometimes from a bad evaluation of the risk of the SME. Banks thus have the duty to carry out a relevant financial analysis of SMEs. They must, besides using modern tools for financial analysis borrowed from the west, use tools adapted to the context of SMEs who find it difficult to provide the required accounting and financial information. They can resort to proximity for example like savings and loan associations and microfinance establishments. Banks should use all their relational abilities to educate and win the heart of the customer SME. We can also reproach banks for crying out all the time that SMEs constitute a set of high-risk customers since they have a data bank on these customers. Also, for the loans granted, they collect a special contribution to the guarantee fund. What is the use of the guarantee fund deducted from the amount of the loan granted by the bank?

The public authorities also have a share of responsibility in the rationing of bank credit. We also make recommendations to them.

To public authorities

The intervention of public authorities is centred on the following points: the creation of organizations of support to SMEs, the cleansing of the macroeconomic environment, and collaboration with the central bank.

The creation of a bank of SMEs is not enough. This bank should be restructured in order to meet the expectations of economic agents.

The creation of a bank for SMEs is not a panacea for the financing of this category of companies insofar as certain companies still have difficulties to have an accounting system and provide reliable financial information. A close relationship between the SME and a specific financial analysis may help address this issue. In order to facilitate the task for the new organizations, SMEs will have to employ qualified managerial, accounting, and financial staff. For the good of all, the loans should not be used to finance luxury goods instead of investments as is sometimes the case in some developing countries. The bank monitoring of companies and bank supervisory authorities can make sure the loan is used for the purpose for which it was granted.

Beyond a bank for SMEs, we suggest that an organization of assistance and guarantee to SMEs as was the case of former FOGAPE be created. This organization would directly grant assistance to SMEs, guarantee the loans granted by banks to SMEs, and would possibly take part in the management of these SMEs. The funds of this organization can come from the tax on distribution of credit and the state budget. The rate of this tax can lie between 0,5% and 1%. The institution of a tax on the distribution of loans will not be accompanied by an increase in the debtor rates of banks since the interest rate margin can simply reduce, this reduction being able to be compensated by the volume of credit granted (through economies of scale). By reducing this margin, we think that it will not be ridiculous given the current difference between the debtor rate and the credit rate of banks. Also, an increase in the debtor rate of banks would not be perceived as bad for the economy given that the microfinance resources to which SME have access are more expensive.

The public authorities can also consider the creation of organizations which have as goal to reduce information asymmetry and risk. The creation of guarantee funds and risk centrals are avenues.

The guarantee fund could directly address the failures of SMEs. The organism in charge of guaranteeing loans, help and take part in the management of SMEs would intervene as a last resort: i.e. when the guarantee funds deducted by the bank and the collateral given by SMEs are not enough.

It is however regrettable that without the existence of an organization for this purpose, banks deduct money for guarantee funds from their customers during the granting of loans without an appreciable decline in bank credit rationing. The risk central should be used as a database for banks to measure the risk of SMEs, in addition to information detained by these banks. It is however regrettable that banks have information on their customers, that the BEAC has a compartment playing the part of risk central (Taka, 2010) without the problem of information asymmetry and risk of SMEs being solved. We hope that the new dawn will be salutary.

Public authorities, with the help of neighbouring countries, can also create the observatory of SMEs at the regional level, precisely at the level of CEMAC.

The macroeconomic environment undeniably affects the management of businesses. It is important for this environment to be healthy. Cameroon has a large potential in political stability. Political stability implies economic stability. However, the public authorities must still make extra efforts to fight against corruption and organized crime. The standard of living of the Cameroonian in general, and that of government officials in particular are still low. There exist large social inequalities in Cameroon (Tchekoumi, 2006). The bottle-necks and slowness in the judicial system often does not allow the timely resolution of litigations. The execution of guarantees in the event of default by SMEs is thus slow and makes banks reticent to grant SME loans. Emergency procedures for companies in difficulty and the application of the reform of collective procedures should quickly be accelerated. The dishonesty of certain customers makes banks to have collaterals which are not reliable and do not cover the granted loan. In summary, the difference between the granted loan and the collateral given is often very large. The legal apparatus should be more demanding on this point.

In its policy of granting of credit, the BEAC with the help of public authorities should stop the quotas of loans to be granted to SMEs and make sure that these loans arrive at the desired destination. The BEAC has the habit of setting these quotas but we believe that the monitoring of the destination of these loans is not very rigorous. The rediscount of loans in favour of SMEs and the refinancing of medium-term loans should be one of the priorities of the BAAC, if it wants to support this category of companies.

Public authorities and the Central bank should work together for a credit policy that is favourable to SMEs, without deteriorating the business climate and general stability. The public authorities can for example guarantee the central bank of the rediscount of loans granted to SMEs and the refinancing of medium-term loans to SMEs.

6. Conclusion

The financial structure of companies in general and those of SMEs in Sub-Saharan Africa remains an issue of concern. The financial structure of SMEs in this part of the world does not obey financial orthodox rules; precisely rule of minimum financial balance. In fact, two surveys, one carried out on 70 Cameroonian SMEs, and the other on 452 SMEs show that SMEs have recourse to short term resources to finance their long and medium term needs. The first study reveals that SMEs finance their long and medium term needs using savings and loan associations, assistance from close relatives, microfinance institutions and bank credits with a less than one year term. The second study shows that when SMEs face bank credit rationing, they rush in the case of qualitative rationing, towards savings and loan associations, intercompany loans, assistance from close relatives, microfinance institutions, the current support of associates, and associations. In the case of quantitative rationing, they request loans from savings and loan associations, microfinance institutions, assistance from close relatives, associations and intercompany loans. The results obtained constitute a contribution to financial theory which contextualises the rule of minimum financial balance. At the empirical level, other companies can benefit from the experience of SMEs in order to address the problem of financing fixed assets. However, these short term resources must constantly be renewed to meet the expressed long run needs. In the same manner, the new modes of financing offered can benefit SMEs and other categories of companies. This work is far from being a major study because it could be adjusted at the level of the methodology to include a survey on the financing mechanism of SMEs characterized by credit rationing. However, this study addresses the objective which was set. In future studies, we intend to apply the interview technique on SMEs to acquire more information on them and be more useful to this set of companies.

Appendices

Table 8. *Distribution of the companies surveyed and having answered the questionnaire by nature of activity.*

		Frequency	Percent	Valid percentage	Cumulated percentage
Valid	Service companies	9	12,9	12,9	12,9
	General trade	11	15,7	15,7	28,6
	Pharmacies	4	5,7	5,7	34,3
	Cyber cafes	2	2,9	2,9	37,1
	Industrial maintenance	2	2,9	2,9	40,0
	Restaurants and foodstores	2	2,9	2,9	42,9
	Coldstores, butchers and sales of shellfish	11	15,7	15,7	58,6
	Sale of petroleum products	2	2,9	2,9	61,4
	Beauty saloons	2	2,9	2,9	64,3
	Tailoring workshops	2	2,9	2,9	67,1
	Ready made dresses	2	2,9	2,9	70,0
	Telephones	2	2,9	2,9	72,9
	Photography	1	1,4	1,4	74,3
	Extractive companies	1	1,4	1,4	75,7
	Accounting and law firms	4	5,7	5,7	81,4
	Transportation	6	8,6	8,6	90,0
	Bookshops	2	2,9	2,9	92,9
	Machine rental	1	1,4	1,4	94,3
	Industrial companies	4	5,7	5,7	100,0
	Total	70	100,0	100,0	

Source: Author using survey data.

Table 9. *Nature of activity, legal structure and modes of financing*

Activities	Legal structure	Bank credits		Savings and loan associations			Family help, help of friends and gifts	Institutions of microfinance		Leasing
		+1an	1 year	+ 1 year (L)	1an (L)	(C)		+ 1year	1 year	
Valide industrial companies, industrial maintenance and rental of machines										
Service companies	SARL	3	1	2	2	0	3	0	0	0
General trade	SARL	0	2	3	4	1	10	0	1	0
Transport	SNC	0	0	2	1	1	1	0	0	0
Pharmacies	Individual	0	0	1	2	1	0	0	0	2
Coldstores, butchers and fresh food	-/	0	0	1	3	0	3	1	1	0
Supermarkets										
Others										
	-/	0	0	3	5	2	4	1	1	0
	-/	1	1	0	1	0	0	0	0	0
	-/	0	1	8	6	3	8	1	1	0
Total		4	5	20	24	8	29	3	4	2

Source: Author using survey data; L = Contributions from savings and loan associations; C = Loans from savings and loan associations

Table 10. *Long and medium term needs of SMEs (long and medium term needs)*

Long and medium term needs	Frequencies Absolute	Relative (in %)
Acquisitions, patents, licenses, concessions and similar rights	13	18,6
Acquisition software	16	22,9
Acquisitions goodwills	15	21,4
Acquisition of leasing rights	15	21,4
Acquisition of land	12	17,1
Acquisition of buildings	22	31,4
Acquisition of materials	58	82,9
Acquisition of furniture	56	80
Acquisitions of livestock: draft animals, reproductive animals, safety animals	2	2,8
Advances and prepayments on orders of fixed assets	19	27,1
Long-term deposits in companies of electricity, water and telecommunications	40	57,1
Long-term loans	12	17,1
Fixed assets in the form of notary fees	27	38,6
Fixed assets in the form of taxes and levies	57	81,4
Immobilization of expenses of prospection, publicity and launching	19	27,1
Immobilization of expenses of modification of the capital and reorganization	12	17,1
Immobilization of the expenses of research and development	1	14
Refunding or reduction of capital	4	5,7
Distribution of reserves	8	11,4
Refunding of debts at more than one year	27	38,6
Conversion of reserves into capital 0	7	10
Conversion of profits into capital	8	11,4

Source: Author using survey data

Table 11. *Types of rationing and modes of financing*

Types of rationing (TR)	Mode of financing (TF) CT (1)	LMT (2)
Rationing of operational credit (RE)	448	5
medium term rationing (RMT)	203	41
long run rationing (RLT)	36	20
Quantitative rationing	112	-

Source: Author, using data from table III

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