## Bank financing of Algerian SMEs: Approach by survey of banks in the wilaya of Bejaia

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#### **Abstract:**

This paper aims to assess the possible link between SMEs and banks in the wilaya of Bejaia, by highlighting the needs, conditions and methods of financing this category of businesses. For this, we used two approaches. First, a field survey of the sixteen banks in the wilaya of Bejaia. Then, an econometric modeling based on the LOGIT model. The data is processed by two software: Sphinx IQ and SPSS.

The results obtained confirm the fact that Algerian banking regulations, associated with the long and complex procedural scheme of credit institutions towards SMEs, lead these banks to be more wary of companies, by demanding more guarantees.

Keywords: Bank; credit; financing; guarantees; SMEs.

Jel Classification Codes: G310, G320, G330.

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#### 1. INTRODUCTION

The Small and Medium Enterprise (SME) holds a prominent place in the economic landscape, present in all sectors of activity, it takes place and operates in the various markets whether local, regional, national or international (SILEM, A, 2008). This category of company is nowadays more and more rethought, because the latter is considered to be the engine of economic growth, and has become a powerful lever on which the public authorities rely to achieve their objectives of economic revitalization.

In order to encourage this essential component of the economy, the Algerian government has put in place various levers and translated into support and support plans for SMEs, through numerous aid mechanisms for creation and development. of these companies long considered to be the engine of Algerian economic growth.

Algerian regulations, and according to article n ° 5 of law n ° 17-02 of January 10, 2017 on the orientation law on the development of Small and Medium Enterprises (SMEs), published in the official journal of the Algerian Republic of January 11, 2017, defines the SME, as being a company producing goods and / or services: employing one to two hundred and fifty people, and whose annual turnover does not exceed four billion Algerian dinars, or well, whose annual balance sheet total does not exceed one billion Algerian dinars, regardless of its legal status.

Very often, the development of a company can only be considered by a study of its needs and its financing (AHOUISSOU B A and ANDRIAMAHENINA M N, 2012, p12). The financing needs expressed by SMEs are most often linked to investments on the one hand (medium and long-term financing needs), on the other hand to operations (short-term financing needs), and finally those linked to innovation (MOURGUES N, 1994, P10).

Another source of financing that is essential is self-financing (equity financing). Self-financing is defined as the monetary surplus generated by the company on its own activity and kept to finance its future development (Cohen E, 1991, p194).

This confirms the fact that whatever its size, the company can initiate a series of actions giving rise to investments (GINGLINGER E, 1991, p.28), with a view to:

- Maintain existing production capacities: by making investments to replace old, depreciated, worn or obsolete equipment with new equipment (Fillion L.J, 2007, p.3). This form of investment is the most common.
- Rationalize production: investments in rationalization or productivity are aimed at reducing manufacturing costs (JULIEN, P.A, 1997, p.61).

Regarding the operating cycle, companies that seek to finance this cycle in any way, should know that it corresponds to all the successive operations that go from the acquisition of the starting elements ( raw materials, merchandise, etc.) until the sale price of the products or services sold has been collected (BARREAU J, DELAHAYE J, & DELAHAYE F, 2005, p.35).

Finally, in order to face fierce competition, many companies rely on creativity and innovation to align themselves with the ever-changing and fiercely competitive market

(BRESSY G et KONKAYT C, 2004, p.29). Everything is in a vision of improving their productivity, but also in order to push the aspect of modernization and innovation further, this then translates into what is commonly called expansion investments the need for financing dedicated to innovation is directly linked to fierce competition between companies, which pushes them to innovate in order to offer new products and services of high added value (BOLDRINI JC, 2008, p.12).

It is in this perspective that our contribution is made, in order to highlight the typology of financing for SMEs, in particular from banking sources. According to DUFOURCQ N, 2014, this financing must be provided in a fluid and comprehensive manner, and with diversified solutions at moderate costs).

So, the article we propose aims to answer the following main question:

What are the conditions and modalities of bank financing for SMEs at the level of banks in the wilaya of Bejaia?

In order to answer this main question, we chose to concentrate our efforts on a field study which lasted four months, this one spread from June to August 2020. The objective of our investigation was to study the needs, terms and conditions for granting bank loans to this essential component of the Algerian economy, which is none other than the SME, through a questionnaire survey of local banks, located at the level of the capital of the wilaya of Bejaia, which we subsequently confirmed the results by an econometric model.

The first hypothesis underlying this research is that this category of companies, supposed to be an engine of growth and economic dynamism, is constantly looking for external financing, and that on the Algerian market, banks are the main partners. encourage them to meet the needs of businesses, whether for investment, operating or even innovation purposes.

The second hypothesis relates to the long and complex nature of the granting of loans to SMEs by banks. This seems to follow a rigorous procedural scheme and a circuit considered rather long, because the latter must involve different strata, structures and levels of these financial institutions.

In order to respond to this problem, we have split our work into two distinct parts:

- The first part is devoted to the analysis and interpretation of the results obtained through the questionnaire sent to the banks, through the intermediary of the heads of establishments who kindly took the time to answer us. Then, we chose to submit these data to quantitative confirmation in order to derive an econometric model, so as to have more confirmation.
- The second part, we have mainly dedicated to the synthesis of the results obtained from the two combined qualitative and quantitative approaches, and to the recommendations addressed to these credit institutions. And this, with a view to a more efficient management of bank loans, and which will be dealt with in the conclusion.

#### 2. WORK METHODOLOGY AND DIFFICULTIES ENCOUNTERED

In what follows, we will present the working method adopted during this research as well as the difficulties encountered during our investigations.

### 2.1 Work methodology

The table below gives an inventory of the SME population in the wilaya of Bejaia. Unfortunately, given the lack and the lack of updating of the data, this information only retraces the development of this category of business between 2014 and 2017.

**Table 1.** Distribution of SMEs in the wilaya of Bejaia

Description	31/12/2014	31/12/2017
NBR of Public SMEs	41	41
NBR of Private SMEs	18 929	23 472
Total SMEs	18 970	23 513

Source: Department of the SME of the wilaya of Bejaia

From the table above, we can see that in the space of three years, the number of private SMEs has grown by 4,543 new businesses in the territory of the wilaya of Bejaia alone, which confirms the preponderant place occupied by this category of companies, in particular privately owned, in the economic landscape of this region.

The basis of our choice to opt for a field survey by questionnaire is motivated by the following reasons:

The first being the lack of data, particularly in figures (non-updating and difficulty in accessing information), allowing a better synthesis of the dynamics of bank financing for SMEs in Algeria, and in the wilaya of Bejaia in particular. The second reason, referring to the abstract nature of this study, which does not allow a separate schematic of the dynamics of bank financing for SMEs. Therefore, in order to answer our questions illustrated by questionnaire, we opted for direct questioning of the managers of all the financial institutions present in the city of Bejaia, which can only be done through a field approach.

On the other hand, given the mixed character of the Algerian financial sector, which is made up of both public and private banks, it was therefore essential for us to identify these two segments, with the aim of prospecting them through this field survey which takes up most of our questions and which is dedicated to these organizations.

In the end, we were told by the bankers surveyed that all their networks of agencies and business centers operate in a similar way. This obeys in particular the unification and standardization of their regulations, their procedural schemes and processing methods. On the other hand, it can also refer to the very orientation of each bank's policy towards its customers. This is how we focused on the sixteen banking brands present in the wilaya of Bejaia, and we did not need to get closer to the entire network of these establishments since their processing methods are the same, therefore their answers will also be similar, hence our deductive approach.

This is also what led us to choose the two software "Sphinx iQ2" and "SPSS" in order to carry out our data management and processing of survey results and statistical analysis. Likewise, the latter allowed us to design the questionnaire and to enter the responses collected manually and automatically (SALES-WUILLEMIN, E. 2006, p.46).

### 2.2 The difficulties encountered during the investigation

Through this study, we targeted all the banks of the wilaya of Bejaia, in this case the six public banks and the ten other private ones which are multinational in scope, and all are

present in the financial center of the wilaya from Bejaia. This corresponds to 58 branches and no less than 14 business centers in the Bejaia region alone.

In addition, in order to have a panoramic view on the banking function, and on the financing of SMEs in particular, we considered it preferable to directly question the heads of establishments, this choice is motivated by the desire to have a overview of these brands. It was only after numerous reminders and reminders that we were able to obtain these answers summarized in our study. Nevertheless, we would like to point out that all the banking brands surveyed responded present and took the time to answer our survey questionnaire, with the exception of a few questions for various reasons, among others, unknown answers, confidential information, etc.

#### 3. ANALYSIS AND INTERPRETATION OF THE RESULTS

In this second part, we will try to take the answers collected from the financial institutions surveyed, in this case all the banking brands present in the wilaya of Bejaia, which will allow us, in fine, to better understand and neutral stripe and impartial, on the one hand the recurring financing needs of SMEs in the wilaya of Bejaia, the operating mechanisms and provision of the panoply of loans made available to them by the banks, in particular the sixteen objects of our study. On the other hand, this will allow us to analyze in a broad and objective manner the different methods and formulas for granting loans by these same brands to their SME customers.

We conducted this survey with all the banking brands in the city of Bejaia, of which there are sixteen. This choice is motivated, on the one hand, by the fact that the most important business centers as well as the largest branches and banks are located in this municipality, the same for many regional offices of these same brands.

On the other hand, the financial center of Bejaia is located in its capital, hence the fact that among the sixteen banks surveyed, seven belonging to multinationals are not found elsewhere in the territory of the wilaya, but only in its capital. Otherwise, almost all of the business centers of private banks are in Bejaia commune, except three, which are located in Akbou commune. This is how Bejaia, home to an important banking network, on which we have not hesitated to focus our research.

With regard to companies, it should be noted that the region surveyed is home to a large and diversified number of SMEs, all categories combined, which operate in the different branches and sectors of activity, and whose needs in financing operations, particularly banking, are greatly felt by the high volume of credit requests addressed to financial institutions.

Finally, all the banks questioned carry out all credit operations. The respondents to our questionnaire are exclusively managers Heads of establishments, their answers and explanations have sufficiently enlightened us on the subject.

 $\triangleright$  The answer to question N  $^{\circ}$  01: What is the status of the banks surveyed?

	Nb		% cit.		_
Public		6	37,5%		37,5%
Private	1	0	62.5%		62,5
Mi		0	0,0%	0,0%	
Total	1	6	100,0%		

**Source:** Compiled by us from the results of the investigation.

The fig 1, represent the sixteen banking brands questioned, the latter are split into six public banks and ten private. According to the survey, it turns out that banks in the wilaya of Bejaia are 62% private.

Following our investigation, we were able to make the following representation, which traces the figures on the crowding of banking networks at the level of the wilaya of Bejaia as well as at the national level, these are represented in the table below:

 Table 2. Illustration of bank signs

BANKS	WILAYA OF BEJAIA	NATIONAL NETWORK					
PUBLIC BANKS							
BNA	6 agencies	216 agencies					
BEA	2 agencies	124 agencies					
BDL	5 agencies	152 agencies					
CPA	7 agencies	149 agencies					
BADR	13 agencies	326 agencies					
CNEP	10 agencies	218 agencies					
PRIVATES BANKS / MULTINATIONAL							
TRUST	1 agence mixed	30 agencies mixed					
NATIXIS	2 business center	20 business center					
AGB	2 agencies mixed	61 agencies mixed					
AL SALAM BANK	1 agency mixed	19 agencies mixed					
FRANSABANK	1 agency mixed	14 agencies mixed					
SGA	5 agencies et 2 business	90 agencies et 12					
SUA	center	business center					
BNP	3 agencies et 2 business	70 agencies et 6					
D141	center	business center					
HOUSING	1 business center	7 business center					
ABC	1 agency mixed	24 agencies mixed					
EL BARAKA	1 agency mixed	29 agencies mixed					

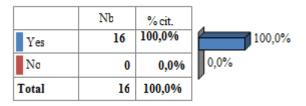
Source: Compiled by us based on survey results and NRC data

 $\triangleright$  The answer to question N  $^{\circ}$  02: Do you consider the SME as a strategic element in your activity?

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The results of the survey shown in the figure below confirm the fact that all the banks in the financial center of Bejaia consider SMEs to be a strategic element in their activity. This result approves the preponderant place that this type of business holds in the financial landscape of the wilaya of Bejaia.

Fig 2. The SME as a strategic element



**Source:** Established by us from the results of the survey

# $\succ$ The answer to question N $^{\circ}$ 03: What is the number of loan requests that are requested from you by SMEs over a one-month interval?

The answers to question 3 are shown in fig 03. According to the results of the survey, it appears that the number of credit requests sent by SMEs to banks differs from one institution to another, but the majority of respondents affirm that the number of financing requests made to them addressed is less than 20 requests per month. After investigation, it turns out that it depends on the offers put on the market as well as the financing campaigns adopted by these establishments, and which are coveted by these companies in search of financing adapted to their needs. On the other hand, it also depends to a large extent on the size and diversification of the customer portfolio available to the bank. Another equally important parameter to take into account is that of the cost of credit. Thus, we can see an influx of SMEs on banks which offer their customers preferential or derogatory conditions in terms of interest rates, the amounts of the envelopes devoted as well as deadlines and deferred repayments.

Fig3. Number of credit applications requested by SMEs

	Nb		% cit.	_
Less of 10		6	37,5%	37,5%
Between 10 a	nd 20	9	56,3%	56,3%
More than 20		1	6,3%	6,3%
Total		16	100,0%	

**Source:** Established by us from the results of the survey

# $\succ$ The answer to question N $^{\circ}$ 04: What are your bank's SME customer segmentation criteria?

According to the results of our study, it emerges that three quarters of the banks questioned opt for turnover as the main criterion for customer segmentation, which is undoubtedly very comforting from a financial point of view (but all of them remain similarly questionable if we examine the results of activity released), followed by the expected

profitability of credit to the tune of 50% which in turn remains an essential asset for bankers to defend their clients during credit committees.

Otherwise, when it comes to the industry and customer loyalty, they finish tied (37.5% each). So, according to the results obtained, the main lever of customer segmentation remains the turnover, because the categorization of companies is nowadays very important because we can't put on the same footing of equality, or Grant the same privileges and advantages to two completely different pool companies. This is because the business differs from one company to another, as does the expected profitability on the projects to be financed. We note the privileged treatment of large business groups with consolidated balance sheets, and whose turnover is the highest.

We also find as answers, the expected profitability as well as the sector of activity, which are two equally relevant segmentation criteria, because any credit can only be granted to viable and appropriate projects. In addition, the business sector must be buoyant and not subject to recurring crises, as is currently the case for the BTPH, which is in real decline and which most credit institutions are wary of, mainly companies that sign projects with the State, which is undoubtedly the best creditor in terms of settlement, but one of the worst in terms of settlement times.

Fig 4. SME customer segmentation criteria

**Source:** Established by us from the results of the survey

# $\triangleright$ The answer to question N $^{\circ}$ 05: What are the determining parameters for granting loans to SMEs?

According to the results obtained, 62.5% of the responses obtained in terms of granting loans tend towards two main parameters, namely the size of the company, as well as its ability to provide real and solid guarantees. Answers which seem quite legitimate to us.

Credit activity is a very risky area, and banks must first and foremost protect themselves against these hazards by their coverage, this is done primarily by collecting solid and relevant guarantees, up to the commitments granted.

The second observation is the size of the company, which implies large groups of companies with diversified activities, which can also in some way whet the appetite of bankers for business and cash flow. Then, we find the parameters of expected profitability at 56.3%, followed by the criterion of solvency at 50% and financial structure also at 50%.

Because, a bank is also an economic company and must above all make the figure in order to ensure its sustainability, while ensuring its coverage against the vagaries of credit.

Thus, a solvent and well-capitalized company can claim better support for its financing needs, whether they are intended for investment, operating or even innovation purposes.

The remaining criteria relating to company loyalty and customer satisfaction (43.8%) each). It is clear that the banking sector is evolving more than ever in a tough competitive environment, hence the importance it places on these two relational parameters.

Fig 5. Determinants for the credit granting agreement %obs Expected profitability 9 56,3% 62,5% The size of the SME 10\_ 62,5% The area of the activity 37,5% Company loyalty 43,8% The best customer satisfaction 43,8% The solvency of the company 50,0% 18,8% The competitive requirement of the market **10**50 0% **=** The financial structure of the company 50.0% The provision of solid real guarantees 62,5% 37,5% Turnover The seniority and reputation of the client 12,5% The legal form of the company 18,8% Willingness to pay higher cost 6,3% Other (s) to be specified 0.0% Λ

**Source:** Established by us from the results of the survey

## ➤ The answer to question N ° 06: What are the sectors most coveted by your bank?

From the responses obtained, it is clear that all business sectors are all coveted by financial institutions that are looking for bank / business partnership opportunities. With the exception of agriculture and construction, which recorded a sharp decline. This is clearly explained by the fact that most of the banks surveyed do not distinguish between the sectors of activity of client companies, their study is rather based on other parameters, in particular quantified, particularly those relating to the size of the companies. And guarantees that SMEs are ready to move forward in exchange for financing, their financial health reflected in their balance sheets and forward plans, but this also depends on the viability of their project faced with a techno-economic study, as well as their capacity to cope with repayment deadlines, which seems more professional to us.

Otherwise, the most attractive sector for a bank remains undoubtedly the industry, which is mainly explained by the financial, fiscal and parafiscal advantages granted by the government, also for the ease of collecting collateral, we site mortgages of buildings and pledging of equipment.

In the second place, we find the resale in the state, and this in spite of the instruction of the Bank of Algeria n ° 05-2017 of October 22, 2017, which obliges the importers to domiciliate their proforma invoices 30 days before embarkation of the goods. And to provision their operations up to 120% in exchange value, at least one month before shipment of the goods. The same applies to law n ° 20-16 of December 31, 2020 in its article 118 published in the official journal n ° 83 of 12/31/2020 which establishes a deferred payment for goods of at least 45 days after shipment of said goods. This paradoxically does not in any way lower the level of activity of these companies; on the other hand, this can also be explained by the large number of trading companies in Bejaia.

Νb Imp. Building, Public Works, Hydraulic 12 2,88 68,7% Agriculture 11 2,13 100,0% Production/Industry 16 4,56 87,5% Trade and resale as is 14 3,63 87,5% Services 14 1,81

Fig 6. Sectors most coveted by banks

**Source:** Established by us from the results of the survey

# $\triangleright$ The answer to question N $^{\circ}$ 07: What are the products most in demand by SMEs?

According to the responses collected, it follows that the most popular products are clearly conventional loans and financing, unanimously followed by cash advances (93.8%), refinancing operations (87, 5%) are when they are third in this ranking.

- The penchant of SMEs for conventional loans and financing can be explained by the preference that these companies have to finance their investment projects by bank loans, which is most often justified by their lack of cash, the lack of equity capital of its companies or the significant costs of their investments.

After further carrying out our investigations, it turns out that even in times of abundance of cash, the choice to resort to bank loans to finance investments remains a wise choice for these companies, because this does not penalize their operations by any means. the mobilization of large amounts of their own funds. On the other hand, in terms of the operating cycle, and in the presence of availability, recourse to credits remains a matter of priority.

- Advances on invoices, commonly called ASF in french banking jargon, are most often mobilized in lines of credit which must imperatively operate in a very rigorous manner called "saw-tooth". This type of credit is most often requested by commercial companies whose

goods revert to the nature of inputs to national production and therefore not subject to Law 05-2017, or by construction companies.

- The mobilization of this line of credit makes it possible to cope with the discrepancies created between invoicing and the collection of debts. The release of these advances is made following the presentation of a completed service, accompanied by a request for release. On the other hand, this in fact confirms the large number of commercial enterprises in the wilaya of Bejaia.
- As a follower, we find the refinancing of import invoices which also holds a fairly comfortable place in this ranking. This is justified by the abundance of importing companies in the Bejaia region, and reaffirms the fact that today, Algeria imports almost all of its food.
- In terms of consulting, more and more companies are seeking the advice of their bankers for a judgment prior to any investment transaction. The latter usually has a panoramic view of the economy, and can advise his clients based on his expert profile. We also site the banking platforms made available to customers and whose database offers a better view of the economy and investment prospects.
- Leasing / leasing remains a product not very coveted by business customers, it is requested periodically for a shorter or longer period (for example once every five years for rolling stock), in particular for the acquisition or renewal of the rolling stock as well as the production equipment of these SMEs. From a broader point of view, this may however be justified by government decisions which have decided to suspend vehicle import operations. The rest of the products occupy the last places in this ranking.

Nb Imp. 100.0% 9,44 Classic credit and financing 16 93.8% 7,44 Refinancing 15 **J** 100,0% Advances on invoices 16 8,06 87,5% 4,31 Securities transactions 14 **⊅**100.0% 5,19 Consulting and accompaniment 16 **7**93,8% Factoring operations 15 5,13 **1**00,0% Brokerage operations 16 5,13 93,8% leasing operations 15 3,50 **⊅**100,0% gesurance operations 16 4,00 **⊅**93,8% 2,25 Securitization transactions 15 Total

Fig 7. The products most in demand by SMEs

**Source:** Established by us from the results of the survey

# > Answer to question N ° 08: What are the reasons given by your agency for the rejection of credit applications?

According to the analysis of the responses, we find as the main argument, the insufficiency of guarantees provided by SMEs in exchange for financing, and this at more than 81%. The explanation put forward is that companies looking for financing are not always ready to provide concrete and solid guarantees in exchange for the requested credits, moreover, it should be noted that the amount of the guarantee must cover the entire credit advanced by the bank.

In the same vein and according to our interviews with the heads of banking establishments, it turns out that most foreign banks are satisfied with the personal and joint guarantees of the partners in return for the loans granted, which does not This is not always the case with public banks, which require real and tangible guarantees in return for funding, however less it may be.

The second problem posed is that of the insolvency of SMEs at 62.5%, this is reflected in large part in the financial statements presented by these companies. A company with unsatisfactory results or even in deficit, or already over-indebted, can in no way claim new bank loans which will worsen its financial health, and thus weigh more on their balance sheets. Which is totally unethical banking.

We looked at the point of "the adequacy of the file with the activity", it turns out that 56.3% of the establishments questioned are cautious about financing new projects that completely break with the activity initial of the company. This reflects the reluctance of these firms to take significant risks for projects whose profitability can only be expressed in the very long term. So, as an argument, the banks advance the stance in the know-how of the company, for this, the bank turns more to the investments of extension or renewal. The first part of the analysis having been completed, we go directly to the second point dedicated to the econometric estimation of the results obtained.

% obs. Nb81.3% Insufficient guarantees 13 81.3% 37.5% ■ Irrelevant techno-economic study 6 37,5% Incomplete file 25,0% 62.5% 62.5% Corporate insolvency 10 37,5% Chronic financial imbalance 37.5% 6 **7**56,3% Inadequacy of the file with the activity 56,3% Other answer 0 0.0% 16 Total

Fig 8. Reasons for loan rejection put forward by banks

**Source:** Established by us from the results of the survey

#### 4. ECONOMETRIC MODELING OF THE RESULTS

We estimated an econometric model called LOGIT (Ordinal Logistic Regression Model), which is a model widely used in the field of surveys because it allows to model ordinal variables.

#### 4.1 The principles of the logit ordinal model

Its principle is to relate the cumulative probability of being at a level equal to or lower than the level tested to explanatory variables. Therefore, it tries to model the probability of having answered at a level lower than or equal to the "satisfied" modality, and the answers are calculated automatically by XLSTAT (or SPSS in our case).

#### 4.2 The ordinal logit model

This model is expressed by the following analytical expression:

• Logit:  $p = \exp(\beta X) / (1 + \exp(\beta X))$ 

• Probit:  $p = 1 / \sqrt{2\pi} \int -\infty ... \beta X \exp(-x^2/2) \partial x$ 

Knowing that  $\beta X$  indicates the linear combination of the variables. Thus, to evaluate the parameters  $\beta$  of the model, one must maximize the likelihood function, but an exact analytical solution does not exist, which opposes it to the linear regression method.

When starting the calculations, each factor must be broken down into a sub-matrix with the same number of columns as there are categories in the factor. Therefore, several strategies are feasible depending on the desired interpretation:

- ➤ a1 = 0: the parameter linked to the first modality is zero, which means that this choice makes it possible to impose that the effect of the first modality agrees with a standard. So the model constant is equal to the mean of the dependent variable for group 1.
- ➤ an = 0: the parameter linked to the last modality is zero, which means that this choice makes it possible to impose that the effect of the last modality agrees with a standard. So the model constant is equal to the mean of the dependent variable for group g.

In our study, we will try to estimate four different models. The first model corresponds to the segmentation criteria, the second to the loan parameters, while the third model will express the most requested products and the fourth model will explain the reasons for rejecting loan application files. Estimation results are calculated by SPSS software, as follows:

# A. Logit model for segmentation criteria

 $a2^a$ Wald degrees Exp Confidence В Error Signif. interval std. of (B) freedom 95% for Exp(B)Lower Upper bound bound 1,609 ,775 4,317 .038 5,000 1.096 22,820 1b3

**Table 3.** Parameter estimates

Source: Established By the authors

#### a. The reference modality is: ,0

With regard to customer segmentation criteria, the banks' credit policy function is written as follows:  $a_2 = 1.609 b_3 + \varepsilon_i$  (1)

The estimation of the coefficient associated with b3 allows to have the odds ration when the turnover of the SME varies by one level:

$$RC = \exp(\beta_1) = (2)$$

Thus, the granting of loans by banks is a positive function of the turnover of SMEs.

Table 4. Pseudo R-deux

Cox et	,305
Snell	
Nagelkerke	,407
McFadden	,262

Source: Established By the authors

The overall goodness-of-fit test of the model shows that 40.7% of the variance of the dependent variable is explained by the variation of the independent variables. In other words, the model explains 40.7% of the variance of the dependent variable. This model is satisfactory for explaining the credit policy of banks.

# B. Logit model for the credit parameters

**Table 5.** Parameter estimates

a2 <sup>a</sup>	В	Error std.	Wald	degrees of freedom	Signif	Exp(B)	Confidence interval 95% for Exp(B)	
							Lower bound	Upper bound
1 p8	1,386	,791	3,075	1	,080,	4,000	,849	18,836

**Source**: Established By the authors

### a. The reference modality is: ,0.

Regarding the parameters of credit granting, the credit policy function of banks is written in the form:  $a_2 = 1.386 p_8 + \varepsilon_i$  (3)

Estimation of the coefficient associated with p8 gives the odds ration when the provision of real and solid guarantees varies by one level.  $C = \exp(\beta_1) = 4$  (4)

**Table 6.** Pseudo R-deux

Cox et Snell	,214
Nagelkerke	,285
McFadden	,174

**Source**: Established By the authors

## C. Logit model for the most popular products

**Table 7.** Parameter estimates

$a2^a$	В	Err	Wa	degrees	Sign	Exp(	Confi	dence
		eur	ld	of	if.	B)	interval	95% for
		std.		freedom			Exp	<b>o</b> (B)
							Lower	Uppe
							bound	r bound
1 s1	1,09	,57	3,6	1	,057	3,00	,968	9,302
1 51	9	7	21			0		

Source: Established By the authors

## a. The reference modality is: ,0.

Table 8. Pseudo R-deu

Cox et Snell	,230
Nagelkerke	,307
McFadden	,189

Source: Established By the authors

# D. Logit model for the reasons for rejection:

Table 9. Parameter estimates

a2 <sup>a</sup>	В	Erreur std.	Wald	degrees of	Signif.	Exp (B)	Confidence 95% for	
				freedom		, ,	Lower bound	Upper bound
1 m 1	2,398	1,044	5,271	1	,022	11,0 00	1,420	85,201

Source: Established By the authors

# a. The reference modality is: ,0.

Table 10. Pseudo R-deux

Cox et Snell	,456
Nagelkerke	,608
McFadden	,440

**Source**: Established By the authors

### 5. CONCLUSION

During this research, we tried to clarify our major concern which consisted in trying to identify the possible brakes and obstacles that SMEs encounter in their search for bank

financing, to do so, we focused our efforts on the credit institutions present in the financial center of Bejaia. Our initial idea is that this category of companies is constantly looking for funds and financial support to make their projects a reality, whether they are investment orders (creation / extension or renewal), exploitation, or else even innovation. And this, by identifying the various brakes and obstacles hindering the access of these SMEs to bank financing, which remains the main lever for the realization of their projects.

According to the results obtained following our field survey carried out by questionnaire with the banks of the financial center of Bejaia, and after analysis of the results and econometric confirmation, we were able to identify the following results:

- The banking procedural scheme considered long and rigorous, made up of numerous mechanisms and levels of analysis and validation of loans, which remains a brake on the development of SMEs, which causes them delays and deadly losses, especially those related to costs study of files);
- The Algerian regulatory aspect, considered penalizing, as much for SMEs as for banks (we use the example of the financing of resale companies as is, excluding medical equipment and inputs for national production), which is reflected in significantly negative on the activity of these two essential components of the economy;
- The requirement of banks in return for financing of real and tangible guarantees, without being satisfied with the personal and joint guarantees of the partners, which systematically slows down the projects of SMEs;
- The costs of loans granted to SMEs which remain high, which strongly penalizes these companies which must review their priorities as well as the volume of their investments, and sometimes even force them to abandon their projects;
- The privileges and flexibility of treatment granted by financial institutions to certain groups of companies to the detriment of others, or to certain sectors of activity more than others, in particular those granted to industry to the detriment of resale in state and building, public works and hydraulics.

The purpose being to put forward concrete recommendations to the problem posed, and in order to lighten the process of SME access to bank financing, in particular the bank brands present in the wilaya of Bejaia, we will illustrate the series of suggestions and of the following recommendations:

✓ Reduction of regulatory and government measures, such as instruction 05-2017 issued by the Bank of Algeria to importing companies involved in resale as is, which requires them to provision their operations up to 120% a months before the shipment of their goods, or Law No. 20-16 of December 31, 2020 on the finance law for 2021, in particular Article 118, which requires a payment deferral of forty five days after loading of the goods. These two texts considerably slow down the room for maneuver of companies by immobilizing their cash flow, and reconsider their relations with their foreign partners;

- ✓ The need to put in place real levers and prioritization mechanisms for certain projects or even certain sectors of activity, both by the public authorities and by the banks, and which are supposed to be bearers of wealth and create jobs, in especially industry;
- ✓ Favor so-called partnership approaches as opposed to those commonly called creditordebtor, with a view to solid and long-term collaboration;
- ✓ Make more use of negotiation and preferential tariffs in terms of costs and credit management, at least for certain projects or certain sectors of activity, which could undoubtedly create a boon for SMEs seeking financing for their projects;
- ✓ Reduction of the requirements of banks in terms of guarantees towards SMEs carrying projects, thus, we recommend the generalization of the personal and joint guarantees of the partners up to the commitments granted and for a certain volume of credit, at the same time, we recommend the recourse mortgages and pledges only for projects or companies deemed to be high risk or for which the amounts of loans are considerably large, and therefore not fully covered by guarantees;
- ✓ To conclude, we insist on the role of the State, which must be attentive to, facilitate and encourage this category of companies which is supposed to be the locomotive of economic growth and use.

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