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# Financial characteristics of companies in failure situation in Morocco

# Les déterminants financiers des entreprises en situation de défaut de paiement au Maroc

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#### **Abstract**

The failure of the companies touches several disciplinary fields. The concept is analyzed under three aspects: economic, legal and financial. Its origins and its causes can be very different but they reflect all on the financial statement of the company. In general, the failure is defined by the incapacity of a company to honor its financial liabilities with respect to its creditors, in particular the bank. So the consequences of a failure remain very heavy.

The purpose of this article is to highlight the principal indicators of fragility of these companies. We aim to draw, through a sample of Moroccan companies, the profile of the failing companies through the analysis of the evolution of their principal financial indicators over three years preceding their failure, while comparing them with the indicators of healthy companies. Our study focused on a sample of 200 Moroccan companies, including 100 failing and 100 healthy. The objective is to understand the financial characteristics of failing compagnies and the factors which discriminate most between these two types of companies.

**Key words:** The failure, the failing companies, healthy companies, the financial characteristics, the discriminating factors.

#### Résumé

La défaillance des entreprises touche plusieurs champs disciplinaires. Le concept est analysé sous trois aspects : économique, juridique et financier. Ses origines et ses causes peuvent être très diverses mais ils se reflètent tous sur l'état financier de l'entreprise. En générale, la défaillance est définie par l'incapacité d'une entreprise à honorer ses engagements financiers vis-à-vis de ses créanciers, notamment la banque. De ce fait, les conséquences d'une défaillance demeurent très lourdes.

A travers cet article, nous visons la mise en évidence des principaux indicateurs de fragilité de ces entreprises. Le but est celui de tracer le profil des entreprises défaillantes à travers l'analyse de l'évolution de leurs principaux indicateurs financiers sur trois années précédant leur défaillance, tout en les comparant avec les indicateurs d'entreprises saines. Notre étude a porté sur un échantillon composé de 200 entreprises marocaines, 100 défaillantes et 100 saines. L'objectif est de comprendre les caractéristiques financières des entreprises défaillantes et les facteurs qui discriminent le plus entre ces deux types d'entreprises.

**Mots clés:** La défaillance, entreprises défaillantes, entreprises saines, caractéristiques financières, facteurs discriminants.

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#### Introduction

Any company risks confronting during its life, at one time or another, in financial problems. The failure of a company is not an event which occurs abruptly, but results from process which is spreads out in time while starting generally by the first economic difficulties, which can be related to factors micro-or macro-economic, until the financial problems.

The failure of companies affects several disciplinary fields. The concept is analyzed under three aspects: economic, legal and financial. Its origins and its causes can be very different but they reflect all on the financial statement of the company. In general, the failure is defined by the incapacity of a company to honor its financial liabilities with respect to its creditors, in particular the bank.

Indeed, the consequences of the default risk are very heavy for the latter, because any not paid off debt is an economic loss which support the creditor. So, the concern of every banker during the granting of a credit, it is the risk which the borrower does not pay off partially or entirely its debt, with the fixed expiry. Currently, its control is the principal one concern of all the banking institutions, in particular with the prudent constraints pressing on banks and who did not stop strengthening theses last years. Regulatory authorities are afraid of the emergence of a systematic crisis in which there would be propagation of banking bankruptcies.

This article settles for objective, the analysis of the failure of a financial point of view from quantitative data of failing companies. The purpose is to highlight the main indicators of fragility of these companies.

Our study is based on essentially balance-sheet data, to understand and especially determine, on one side the characteristics of the accounting and financial data of the Moroccan companies in situation of non-payment, through an analysis over three years the evolution of their financial situation of these companies with those healthy, having never known an incident of payment of their obligations toward their bank.

The purpose is to draw, through our sample, a profile of the healthy companies and those of failing, to understand on one side the financial characteristics of the latter and on the other hand the factors which discriminate most between these two types that of companies.

To better understand our problematic, we will ask the following questions:

- What are the explanatory factors for the company's failure?
- What are the most discriminating financial characteristics between healthy and failing companies in Morocco?

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For that and through our exploratory research, we are going to analyze in a first part, the concept of failure and its explanatory factors through a review of literature (I). Methodological choices as well as the presentation of the qualitative criteria of our sample will be the object of a second part (II). The results obtained from the analysis of the financial characteristics of our sample will be presented in the third part (III). Finally, we shall present our main conclusions.

# 1. The failure of the companies: a review of literature

The notion of the failure of the companies exceeds the field of a particular discipline. The analysis of this problem, will lead us to study the concept of the failure under three aspects: legal, economic and financial. We will present thus, the definition of the concept failure (1.1) and its explanatory factors (1.2)

# 1.1 Definition of the concept of the failure:

The failure, in its common and legal meaning, includes a set of situations which contributes to the disappearance of the company because in particular low registers financial problems which lead to the suspension of payment. Blazy and al. (1993) define the failure like: "the situation from which a procedure of rectification is opened against a company".

The flow of failures of companies became more marked these last years, in particular because of the economic crisis. So, for Gresse (1994) the economic failure sows itself by a negative added value. Also, Ooghe and Van Wymeersch (1996), specify that the notion of the ailing firm is defined as the one who does not anymore manage to assure in a continue way her economic objectives, considering the social and environmental constraints.

It is necessary to specify that these situations can be the result either of a bad economic situation, or of a reduction in the financial performances or still in the bad quality of management of the company. The analysis of these terminology qualifying the company failing. Indeed, most of the authors evoke the failure of the company by referring to the legal, economic and financial aspect.

#### 1.1.1 The legal failure:

A company is legally failing when it is in a state of suspension of payment, that it cannot cope anymore its due debts with the sums which it lays out. In this case, the company in question will be engaged by the law in a procedure o file for bankruptcy which could lead to compulsory liquidation.

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The opening of the procedure of liquidation depends on the moment of the legal intervention: hat is to say: that the latter was late done and the company does not have sufficient assets anymore to acquit its obligations, in this case the liquidation is imperative; is premature, where a simpler procedure of recovery is opened.

#### 1.1.2 The economic failure:

According to Zopounidis (1995), the economic failure returns to the absence of profitability and of effectiveness of the productive apparatus, with the deterioration of the relation company- products gone and by the not-contribution of the company to reducing social problems such as unemployment or an incapacity to improve the standard of living of its employees and purchasing power to them. Crucifixes and Derni (1995) add that, the company achieves its economic objective when it carries out a sufficient profitability and liquidity.

Thus, a company is known as in economic failure when it is not any more in measurement to ensure its economic objectives (to sell its products or to ensure its services), which is translated by losses. In this case, it supports more responsibilities than what it produces so accumulating deficits, and not contributing any more positively to the economy. This negative added value is considered by Gresse (1994) as the ultimate stage of the economic failure.

#### 1.1.3 Financial failure:

According to Malecot (1981), a company is considered as financially when she cannot deal with any more her current liabilities with its available assets. It is thus a "serious "event than the simple non-payment.

We speak about financial failure since the company meets cash flow problems further to a situation of financial imbalance. This cause the solvency of the company and becomes not able to honor all or part of its financial commitments (ex: Nonpayment of a monthly payment of loan), or does not respect one of the clauses of its loan agreement<sup>1</sup>.

At this level, it is important to specify that the company can know, in times of crisis, two types of problems: problems of liquidity when its availability of the exploitation is not enough to cover all expenses; or problems of profitability, in this case the exploitation of the company becomes threatened because she cannot pay any more stockholders' equity at the current rates on the market. So, the company will be in the obligation to request a new line of credit in order to continue it activity, this involves new loads which contribute to the degradation of its

<sup>1</sup> Akaaboune M. & Elafi R. (2018). « The business failure process :state of play in Morocco ». Revue du contrôle de la comptabilité et de l'audit, Numéro 6, Septembre, ISSN : 2550-469X.

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financial results. It is thus the couple profitability-liquidity which arrests best the notion of failure.

Thus, from the analysis of these various dimensions of the failure, it arises that it is a rather Broad concept and which it is difficult to define it with precision. However, it is important to know that the failure of a company starts initially on the economic plan, commercial then financial, to be translated lastly at the legal level. It is about one complex process by which the company passes, through a set of difficulties, before to declare its bankruptcy. One thus speaks about degrees of failure. We thus speak about degrees of failure.

In fact, the symptoms of poor health of a company show themselves by financial difficulties which it is necessary to manage and to control before, or it will be too late to react. These difficulties are generally preceded by others of external order "economic" or internal organizational".

Baldwin and Scott (1983), specify that when the situation of a company is degraded at the point to be unable to cope with its financial constraints, the company enters a state of financial distress. In the same way, these authors confirm that this situation is the result of one bad economic conjuncture, of a decline of their performances and a low quality of management.

Crutzen and Van Caillie (2007) specify that the process of failure of very undertaken be identified by four great common stages: the origin of the failure, appearance and deterioration of the symptoms of failure, the passage to the red of the indicators then the bankruptcy potential of the company. However, there does not exist a trajectory-types of failure, each company evolves in the process of failure according to the origin of failure as well as main features of the company.

Indeed, on the basis of the fact that the performance of the company is the resultant of the interdependence between three factors: individual, microeconomic (Crutzen &Van Caillie, 2008); the failure is thus the result of an imbalance between these three factor.

#### 1.2 The explanatory factors of the failure of the companies

The objective of this paragraph will be to analyze the determinants of the default risk of companies by highlighting the explanatory factors of this one. The aim is to show the risks which the companies must overcome, to avoid the gears of the process failure. In the same way the knowledge of the explanatory factors of the failure allows its good prediction.

Analysis of causes most frequent raised by the principal studies on the failure companies, enabled us to detect three major factors which explain the failure of the companies: financial factors; strategic, managerial and organizational factors; economic factors.

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# 1.2.1 The explanatory financial factors of the failure of the companies:

The research tasks relating to the failures of the companies have all succeeded even report: whatever the profiles and the characteristics of the companies in failure, it is characterized all by an unstable financial situation. They consider that any cause leading to the failure can be incarnated in the countable states and that the examination of these states is sufficient to exhaust all the factors leading to the failure.

In Morocco, for example, a number of bankruptcies of companies are explained by an unfavorable evolution of the stockholders 'equity accompanied by weakness by self-financing. It acts is an insufficient capital investment during starting, which creates problems relating to the needs for liquidity; maybe of a funded capital in fixed assets place to be injected in working capital, which generates financial problems; or rope up associated which prefers their enrichment rather than to increase the capital.

In the same way, the closed character of the Moroccan companies is source of insufficiency of the own capital. The situation worsens if the company does not generate a sufficient selffinancing. It the formless last on the credit-worthiness of the company and determine its capacities additional loans.

The financial failure can also be due: with a lack of effective forecasts of treasury for which the responsibility is allocated to the leader, with an absence of financing plans or with an excessive recourse to the credit. The capitalization is thus unbalanced and weighed down by the financial expenses which worsen the situation of dependence of the company. In the same way, the absence of an analytical accounting system is likely to lead the company to its run. Indeed, if the leader ignores the costs and the cost price of his products, it will not be able to calculate their profitability well and is likely to skew its decisions.

Thus, the analysis of countable and financial information makes it possible to appreciate the evolution of the activity of the company, through a comparison of a number of rations considered as indicators of profitability, solvency, the liquidity, and level of debt and the capitalization of the company front of the default risk.

# 1.2.2 The strategic factors, managerial and organizational explanatory of failure:

The concept of strategy can be defined like the choice, the intensity and the nature of commitments which could make a company, by taking account of the competition and of the future evolution of the environment of the fields in which it wants to engage. The choice of a strategy must take account, specificities of the company: strong point and weak points, assets and handicaps, as well as characteristics of its branch of industry.

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The failure precisely results from the non-observance of the strategic recommendations. Thus, when confrontation between the internal analysis: strengths and weaknesses and that extern: opportunities and threats is unfavorable, the company has strong chances to be failing.

In the same way, the failure can be explained by the organizational mode and managerial company. This one is appreciated through the structure of the company, its policies and its culture. It is in particular the quality of the management system, the behavior of the actors, the personality and the socio-cultural environment of the leader...

# 1.2.3 The explanatory economic factors of the failure

Explanatory factors of the failure which we have just evoked previously all concern the micro-economic plan related to the internal environment of the company. With present, we will develop the causes relate to the macro-economic plan. Many previous studies, in particular that of Altman (on 1983, 2005) specify that the aggregates and the macroeconomic conditions can explain the failure of companies. These macroeconomic environmental factors are bound in: the economic situation, the effect of the globalization and the flows of new business start-up...

Admittedly, there exist several explanatory macroeconomic factors of the failure of companies. However, the latter do not have a whole a direct effect on the companies and are not inevitably decisive in the failure of those. The proof is that, even in period of crisis, a large number of companies remain powerful when they are well managed. Also, when the economic situation is favorable, we find in the same sector, failing companies and other healthy. These factors should be considered rather catalysts, but not sufficient to precipitate the bankruptcy of a company. This one depends on more factors internal and specific to every company.

After having show the interest to understand the mechanism of the failure of the companies and after the clarification of the theoretical bases of the failure, we will now present our empirical study which assigned like objective: analysis of the main features and the indicators of brittleness of the Moroccan companies.

#### 2. Methodological choices and qualitative data of the sample:

Our methodological approach contains two stages, the selection of the sample for the construction of our database, and the choice of the financial rations used as indicators of analysis (1). After this methodological overview, we shall present the qualitative characteristics of our database (2).

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#### 2.1 The construction of the database:

The objective searched through this study, is the setting in light of the characteristics of Moroccan companies in situation of non-payment. For that, we were brought to seek data emanating directly from the bank and which concern companies having to settle their debts during no more than three months and who have to pass according to the law in situation of covering.

#### 2.1.1 Criteria of our database:

In order to achieve our aim, it was necessary to have a database, made up of two types of companies whose only criterion which distinguishes them is the state of payment of their appropriations with respect to the bank. Thus, the concept of failure retained within the framework of our study is: more than 90 days of delay of payment of the debt and the transfer of the account to the service covering

# 2.1.2 Criteria of delimitation of the field of studies:

Through our sample, we wanted to seek the maximum of representativeness in terms of areas of Morocco, and also size and type branches of industry of companies.

We thus used the existing database at a large bank of the place, as well for the failing companies as for those healthy. Only two selection criteria were posed, worth knowing:

- The exclusion from business sectors with financial character:
- The exclusion from companies having too much restricted history (less than three years of existence)

This sorting was essentially made by concern of homogeneity. The second sorting was made on this population and which brought to us to exclude a not insignificant number of companies for the following reasons:

- The companies whose information is missing for at least three consecutive years.
- Absence of data necessary for calculation certain ratios which we considered significant.
- Companies lately created (the relation of credit must at least be three years)

At the end, we found ourselves with a representative final sample, which is composed of 200 companies, which one has all countable and financial information during three years regular. These companies are divided into two pennies samples: 100 healthy companies and 100 failing companies.

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#### 2.1.3 Identification of the financial ratios:

The selection of the ratios of analysis was carried out following a logical and methodological choice with an aim of drawing up a relevant and credible list able to answer the objectives and waiting of our analysis. We thus chose ratios which present significant informational contents in the analysis of the financial situation of the companies. Indeed, through these rations, we seek to integrate main concerns having milked into the analysis of the financial situation of the company in order to examine its good health. The topics which we adopted in our analysis are: the structure, solvency, profitability, liquidity, debt, and commercial management. We calculated the average of every ratio for the healthy companies and those failing.

# 2.2 Qualitative characteristics of the sample:

Following the two sorting carried out on the population of origin; our final sample was thus composed of 100 failing companies and 100 healthy. We have two bases of data: one of the failing companies and the other of those healthy, of which each one contains the following elements: the branch of industry, the legal form, the creation date, the city, the countable and financial data; emanating from the assessment, CPC and ESG; over one three years duration, in order to study the evolution of the countable and financial situation of these companies. From these data, we calculated the financial ratios chosen for our analysis. Features characteristics of our database will be presented through the graphs below.

#### 2.2.1 The distribution by the legal form

The two samples of companies are represented mainly by two legal forms: private limited company and Limited company are more than  $90^{\circ}/^{\circ}$ . The failing companies are, with prevalence, of the private limited companies with  $65^{\circ}/^{\circ}$ . This probably reflects the difficulties of this category of companies.

# 2.2.2 The distribution by the city:

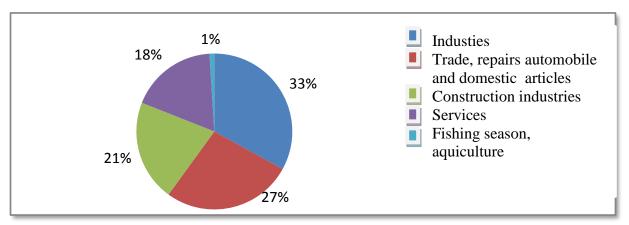
The majority of the companies of our sample are at Casablanca with  $55^{\circ}$ /° for failing companies and  $76^{\circ}$ /° for the healthy ones. This is explained by the concentration of majority of the companies in the pole of Casablanca. However, we tested to respect the representativeness of the companies of all the national territory, since our sample contains at least a company of each area of Morocco.

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# 2.2.3 The distribution according to the branch of industry

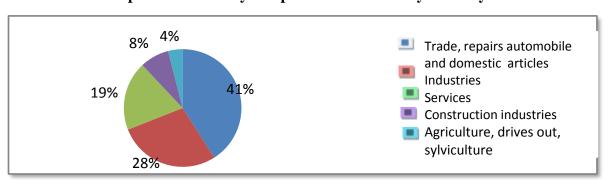
Graphic n°1: Failing companies distributed by industry branches



**Source**: Developed by author

The graph shows that the companies most touched by the failure exert either in a marketing activity or out of construction industry with respectively  $27^{\circ}/^{\circ}$  and  $21^{\circ}/^{\circ}$ . These two sectors are followed by manufacturing industries and those of the textile and clothing, with respectively  $13^{\circ}/^{\circ}$  and  $11^{\circ}/^{\circ}$ . These figures illustrate the difficulties of these four sectors in the last few years.

Graphic n°2: Healthy companies distributed by industry branches



**Source**: Developed by author

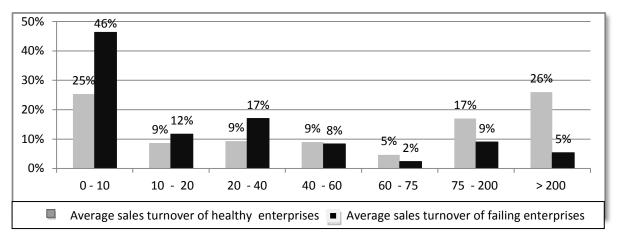
The graph shows us that the majority of these companies operate in the sector of Trade, automobile repairs and domestic articles with  $41^{\circ}$ /. This result is follow-up with "industry chemical" and "para-chemical" sector. The sector of the services comes in third place with  $19^{\circ}$ /°.

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# 2.2.4 The distribution by the size:

Graphic n°3: Average sales turnover (for both samples per range)



**Source**: Developed by author

The majority of the failing companies  $-46^{\circ}/^{\circ}$ -, have a turnover lower than 10 millions DH (Moroccan currency), therefore being located in the category of very small company and Small company. In the same way the Small and medium-size Company having one turnover lower than 60 million Dirham, are touched by the failure.

Contrary to the healthy companies of which 43°/° have a turnover higher than 80 million DH. This report affirms that the companies of big size present a default risk weaker. Those are older thus benefits from a great experiment. They are managed also better and thus less exposed to the risks, especially those of bad management.

#### 2.2.5 The distribution by the creation date:

Our sample of the failing companies contains companies of which the date of creation varies between 1933 and 2008. However, the average of the sample accounts for 1993 and median at 1997. Moreover, the graph above, watch that  $60^{\circ}/^{\circ}$  of the failing companies were created between 1994 and 2008. It is important to specify that the date of creation of  $44^{\circ}/^{\circ}$  these companies range primarily between 1999 and 2008. What proves he financial problems of the companies lately created.

Concerning the healthy companies, their creation date varies between 1927 and 2010. The average is of 1986 and the median at 1990. In the same way, the graph shows that 50°/° of these companies are created before 1990 and 75°/° before the year 2000. This report lets to us conclude that the old companies manage to acquire, through their long working years, a financial solidity, a know-how and a broad experiment which protect them from any difficulty.

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All in all, our analysis of the qualitative characteristics of the two categories of companies reveal that the legal form, the branch of industry, the size and the age of the company can to influence its brittleness.

This analysis of the qualitative features of our sample enabled us to have an idea precondition on the principal elements which are likely to influence the brittleness of a company. With present, the analysis of the financial characteristics of our sample will enable us to trace a more detailed profile of the failing companies in Morocco. The objective is to analyze the principal trends of each ratio, in order to evaluate the financial situation of those is to examine their good health. This study is carried out on the basis of history a three years while releasing the principal differences between the two categories of companies.

# 3 Exploratory analysis of the financial characteristics of failing companies:

Our objective is to analyze each indicator in order to release the principal trends of each ratio on the basis of history a three years, but also to analyze the principal ones differences between the healthy companies and those failing. This exploratory study will allow to describe, through our sample, the profile of these two types of companies in basing on their financial ratios.

In what follows, we will present the tables and graphs illustrating, for each ratio, this comparison between these two categories of companies, on a history of three years. We hold all the same, to recall that these ratios were calculated: for failing companies, on the basis as of the last three previous assessments their non-payment.

#### 3.1 Ratios of structure:

The ratios of structure put in report the stable elements of the assessment and of which evolution represented the changes of the structure of the company. These ratios compare elements of assessment of a company to study of them the means, employment, the heritage, the types of financing (for example: proportion of the long run compared to the short – term). They describe thus the structure of an organization.

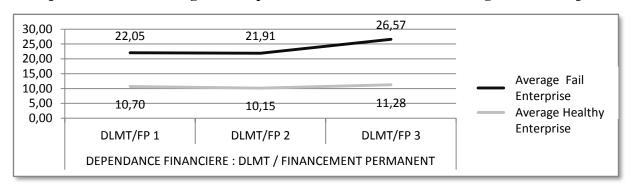
# 3.1.1 Ratio of financial dependence:

It is a question of comparing the weight of the debts in the medium and long term in the permanent financing of the company. In the same way, this ratio indicates the distribution of the invested capital between equities and debt in the long term.

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Graphic n°4: DLMT weight's comparison in the Permanent Funding of both samples

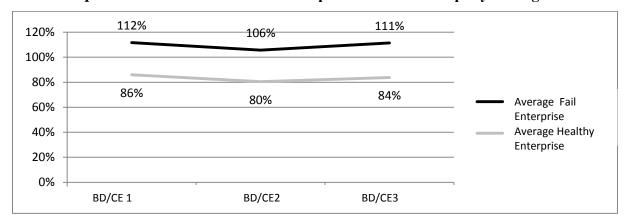


**Source**: Developed by author

It is clear that the financial dependence of the failing companies is higher than that healthy companies, it represents more than the double, with a rise during the year preceding the non-payment.

#### 3.1.2 Ratio of financial structure

Graphic n°5: Financial structure comparison of both company's categories



**Source:** Developed by author

The analysis of this ratio shows that the failing companies are heavily in debt, since it exceeds  $100^{\circ}$ /° the three years before the failure. They thus support heavy loads financial what impacts the bottom line negatively.

#### 3.2 Tests of solvency:

Solvency indicates the capacity of a company to answer in its financial term, with means and long run and thus to be able to ensure its future without being in non–payment.

# 3.2.1 Capacity of refunding:

The capacity of refunding of the company is ensured by means of the capacity of self-financing released by the company. It acts amongst years of self-financing necessary to completely refund the contracted loans. It is important to specify that it financial circle

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recommends prudence by fixing the debt at a lower or equal level at five capacity years of self-financing.

2,64 2,55 3,00 2,50 2,00 1,07 1,50 Average Fail 1,00 Enterprise 0,50 1,05 Average Healthy 0,65 0,00 0,54Enterprise DLMT/ CSF1 DLMT/CSF2 DLMT/CSF3 Capacity of refunding: DLMT/ CSF (Nbr of year)

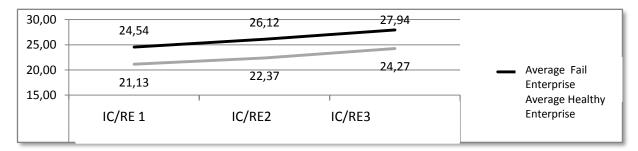
Graphic n°6: Comparison of repayment capacity

**Source**: Developed by author

The analysis of the capacity of refunding of the two categories of companies shows that the healthy companies have an average capacity of refunding which does not exceed one year. While the failing companies require more than two years and half for refund their debts with length and medium term, with a bullish tendency.

# 3.2.2 The weight of the interest charges:

This ratio represents the share of the result generated by the activity of exploitation devoted to return on the borrowed capitals.



Graphic n°7: Weight of the interest charges in Result of exploitation

**Source:** Developed by author

The weight of the loads of interest of the turnover of the failing companies is slightly higher those healthy with a difference in 3.5 points. The trend is with rise for the two categories of companies. Finally, the ratios of solvency inform about the capacity of the company to confront the expiries of its debts. Thus, we note, through the analysis of the ratio of the capacity of refunding, that the healthy companies are most solvent.

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# 3.3 Profitability ratios:

# 3.3.1 Net commercial profitability:

It is a question on behalf on the net earning contained in the turnover. This ratio measures capacity of the company to carry out benefit of its activity.

6,86 10,00 6,58 6,06 5,00 0,00 3,99 -4,63 Average Fail -5,70 -5,00 Enterprise Average Healthy -10,00 Enterprise NP/T1 NP/T2 NP/T3 Net commercial profitability: Net Profit/Turnover

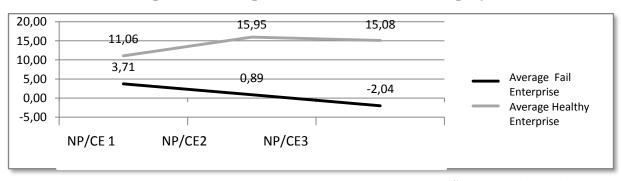
Graphic n°8: Comparison of net commercial profitability

**Source**: Developed by author

The clear commercial profitability of the failing companies remains negative during the three years of observation, with a downward trend which reaches almost  $6^{\circ}/^{\circ}$  one year before the failure. Contrary to the healthy company which follow an upward trend bordering the  $7^{\circ}/^{\circ}$  during the third year.

# 3.3.2 The clear profitability of the stockholders' equity:

This profitability, also called financial profitability or ROE "Return One Equity", is appreciated compared to the stockholders' equity which involves the investment of the shareholders in the company; moreover, the key objective of very undertaken is to provide a good profitability.



Graphic n°9: Comparison of the net return on equity

Source: Developed by author

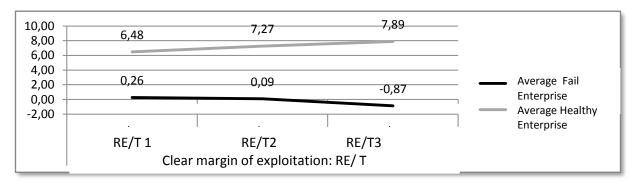
The analysis of the evolution of this ratio shows the great difference between the financial profitability from these two categories of companies. Indeed, the failing companies provide a



financial profitability, very poor (lower than  $5^{\circ}/^{\circ}$ ), which tends downwards to become negative one year before the failure. As for the healthy companies, they are powerful since theirs stockholders' equity releases a profitability which is in evolution and which exceeds the  $15^{\circ}/^{\circ}$ .

# 3.3.3 Clear margin of exploitation:

The EBIT allows to appreciate the sensitively of the result of business activity to the variations of the economic situation, independently of its financial policy, of the tax incidence and the noncurrent elements.



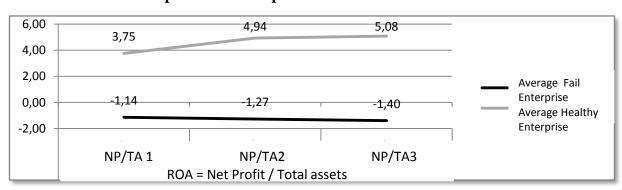
Graphic n°10: Comparison of the clear margin of exploitation

**Source**: Developed by author

The clear margin of exploitation of the failing companies is very poor. It tends towards zero to become negative the third year. On the other hand, the healthy companies carry out a margin clear which exceeds the  $7^{\circ}/^{\circ}$  with a bullish tendency.

# 3.3.4 The profitability of the credits:

This ratio also called ROA "Return On Assets", the relationship between the bottom line measures and credit mobilized in the activity. It informs on the percentage of the result that the company could to generate directly starting from its credits.



Graphic n°11: Comparison of the return on assets

**Source**: Developed by author

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The failing companies do not manage to recover benefit starting from their credits engaged. This ratio is negative during the three years of observation .However, companies healthy their credits of the incomes generate which exceed the  $5^{\circ}$ /° with a bullish tendency.

Finally, the variability study of the company makes it possible to appreciate its capacity to release from the profits. The analysis of our sample of Moroccan companies, has allow to us to note that the healthy companies are largely more profitable, since majority of the ratios of profitability appeared negative for the failing companies.

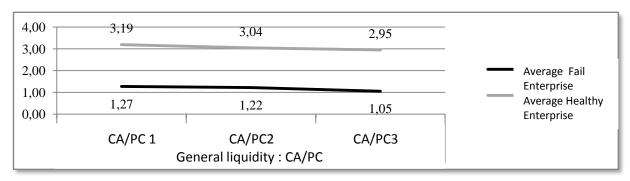
In the same way, the failing companies are unable to honor their commitments following a fall of the activity or profitability. This situation can to result either from a strategic choice of search for market shares, or of an evolution unfavorable of the costs. Contrary to the healthy companies which increase their margins.

#### 3.4 Working capital ratios:

They evaluate the capacity of the company of to the coped with commitments shortly by the implementation of the progressive liquidation of the circulation assets.

# 3.4.1 The general liquidity:

This ratio informs about the capacity of the company to pay off its most due debts from the liquidation of its most available assets .A working capital ratio general superior than "one" translated a positive clear working capital.



**Graphic n°12: Comparison of the general liquidity** 

**Source:** Developed by author

The analysis of the general liquidity of these two categories of companies shows that the healthy companies have current assets which can cover three times its current liabilities. Contrary to those failing where this ratio approaches "especially year preceding their failure, with a bearish tendency what proves that this in particular short-term solvency is insufficient.

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# 3.4.2 Reduced liquidity:

The working capital ratio reduced comes to cure the disadvantage of the general working capital ratio, namely the degree of liquidity of the current assets. In theory, this ratio should not be lower than "one", otherwise it can translate serious difficulties of payment and the company can be confronted with financing problems.

2,50 1,95 2,00 1,51 1,49 1,50 1,00 Average Fail 0,50 Enterprise 0,81 0,79 0,77 Average Healthy 0,00 Enterprise CA-STK/PC 1 CA-STK/PC2 CA-STK/PC3

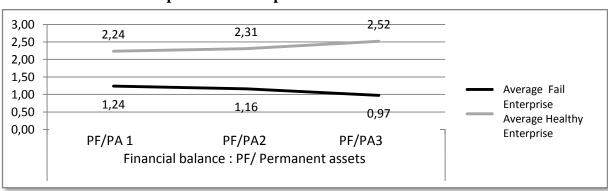
Graphic n°13: Comparison of reduced liquidity

**Source**: Developed by author

This ratio makes it possible to evaluate the liquidity of the company but by regarding stocks as fixed assets. The liquidity is appreciated in a restricted way starting from the realization of the claims. The analysis of this ratio for the two categories of companies, reveals us that the failing companies have less liquidity, this ratio is lower than "one" during the three years with a bearish tendency. What could explain the difficulties of this category of companies in particular because of lack of realization of their claims.

#### 3.4.3 Financial balance

The analysis of financial balance makes it possible to appreciate the solvency of the company. The first is the stable ratio of financing of the fixed assets which measures the stability of the resources allocated to the financing of the durable credits. A value higher than "one" states, that the company finances the totally of its investments cumulated by stable resources.



Graphic n°14: Comparison of financial balance

Source: Developed by author

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We note that the stable resources of the healthy companies represent more twice their permanent assets, which enables them to finance it entirely. Contrary to the failing companies which are characterized by a permanent financing with a bearish tendency. This trend could be explained is by a negative bottom line which worsens the stable resources of the company, or by the refunding of the long-term debts.

1,20 1,01 0,96 0,94 1,00 0,80 0,60 Average Fail 0,40 0,51 Enterprise 0,47 0,44 0,20 Average Healthy 0,00 Enterprise WC/RWC1 WC/RWC2 WC/RWC3 FINANCIAL BALANCE: Working capital/Requirement in working capital

Graphic n°15: The net cash situation's illustration of both companies

**Source**: Developed by author

We note the second ratio informs us about the clear cash flow statement which borders "one" for the failing companies does not exceed 0.5 with a bearish tendency. This is explained by the financing problems of this second category of companies.

The working capital ratios show that the healthy companies have a level of liquidity more important than the failing companies, which can go up to three times, in particular for the general liquidity. This report seems completely obvious, since the companies in difficulty find evil to honor their commitments, in particular for lack of liquidity.

Thus, we note through this analysis that the lack of liquidity places the company in the course of time, in a situation of insolvency with respect to its creditors. In the same way, when the solvency of the company is degraded, the banks take measures of tightening of the credit terms in order to prevent the credit risk, which worsens the situation of the company.

#### 3.5 Debt ratios

These ratios compare the weight of the debt with the stockholder's equity in the structure of the capital of a company.

#### 3.5.1 The debt ratio:

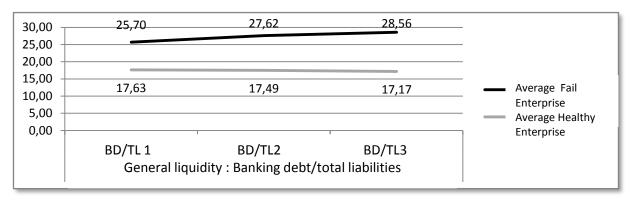
The debt ratio on the whole compares the whole of the debts (with short, average and long run) of the liability of the company. It translated the financial independence of the company. This ratio must be weakest possible to say that the company is involved in debt little. If this

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ratio is well managed, it makes possible to the company to preserve its solvency, by having the least recourse to the thirds (Banks, Suppliers...)

Graphic n°16: Comparison of Banking debt part in total liabilities



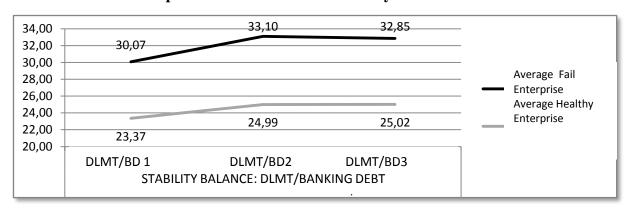
**Source**: Developed by author

We note that the healthy companies are involved in debt relatively little compared to those failing, their debt ratio does not exceed on average  $17.5^{\circ}/^{\circ}$ , while that of healthy companies exceeds the  $25^{\circ}/^{\circ}$  to reach up to  $28.5^{\circ}/^{\circ}$  one year before the defect.

# 3.5.2 Debt in the medium and long term:

It indicates the share of the debts with medium and long term in the total banking debt.

Graphic n°17: illustration of stability balance ratio



**Source**: Developed by author

The failing companies are characterized by a debt in the medium and long term slightly than that of the healthy companies. This ratio is about  $33^{\circ}/^{\circ}$  for the failing companies, whereas for the second category, it is established to 25%.

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# 3.5.3 The cover of the financial expenses:

It indicates the percentage of the financial expenses compared to the turnover of the company. This ratio is very interesting to know the capitalization of a company. It takes into account at the same time its level of debt and its management (choices relating to the funding sources, cost of the capital...) .For the banks, this ratio should not exceed 4°/° normally.

6,00 5,15 4,51 4,13 4,00 Average Fail 2,00 Enterprise 2,28 2,02 1,96 Average Healthy 0,00 Enterprise FE/TO 1 FE/TO3 FE/TO2 Cover of the financial expenses: FE/TO

Graphic n°18: Illustration of the financial expense coverage ratio

**Source**: Developed by author

We note that the weight of the financial expenses of the failing companies in turn over, exceeds the banking norms set at  $4^{\circ}$ /°; it represents 2.5 more than the healthy companies.

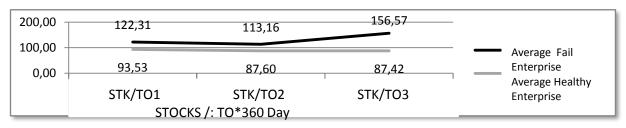
Approximately, the failing companies are characterized by a higher debt compared to those healthy, especially that in the medium and long term. Indeed, more the company is involved in debt, more it runs of risk. The refunding of the expiries remains an inevitable taking away what can lead the company to the failure.

The healthy Moroccan companies are involved in debt relatively little, compared to those at fault, which confirms their financial autonomy one again. The analysis of the debt ratios of the two categories of companies reveals that the financial dependence of the company with respect to its creditors, involves a financial brittleness which becomes unfavorable with time.

#### 3.6. Commercial management ratios:

#### 3.6.1 The inventory turnover:

It is measuring the total stocks rotation. This ratio represents the time of average flow of stocks.



Graphic n°19: Illustration of the inventory turnover ratio

**Source**: Developed by author

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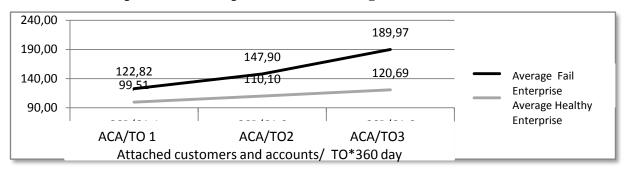
The comparison of this rate between the two categories of companies once again assures us the difficulties of commercial management of the companies in failure. Indeed, these last have a very slow rate of rotation which exceeds the 120 days and which tends to increase the year preceding the failure, which indicates a weak liquidity and an "on –storage" at these companies.

Nevertheless, this rate of rotation for the healthy companies does not exceed the 90 days and even tends to drop. This proves on a side, that the time of storage is short, which is a sign of good management and another side, the great liquidity of these companies or a better capacity of setting in market.

#### 3.6.2 The time of the credit customers:

It measure the average time of recovery the debt customers. This is to say that the time passed between the sale and the moment of regulation of the customer of his claim. This duration depends on the relations between the company and thus its cash management.

A short duration of recovery of the debts testifies to a great liquidity and effectiveness to the service covering. However, a very long time informs about a probability of non-payment of the claims to receive.



Graphic n°20: Comparison of the average credit customer time

**Source**: Developed by author

We notice through the comparison of the times of the credit customer of the two categories which the healthy companies recover their claims in less than 120 days, contrary to those failing whose time largely exceeds this number of days, to reach up to 190 days one year before the failure.

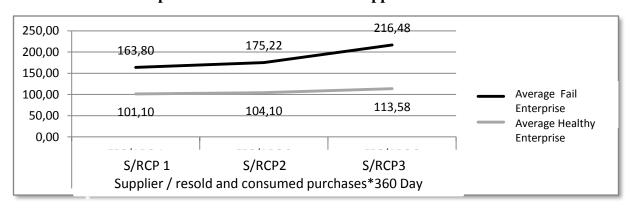
This rather long duration, which is passed between the sale and the regulation of the claims by the customers, proves the difficulties of this category of companies which does not manage to box their money in time and thus are not liquid; which is reflected on their solvency with respect to their creditors.

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# 3.6.3 The time of the supplier credit:

It is the time means of payment of the suppliers. It is the time run out between the purchase carried out by the company and the moment when it carries out the payment. The more important this time is, the more the company has financial resources in the short run. However, an abnormally high time proves that the company does not have the means to regulate its suppliers.



Graphic n°21: Illustration of the supplier credit ratio

**Source**: Developed by author

The table and its graph illustrating, watch that the average time of the supplier credit of the healthy companies is at the neighbourhoods of the 100 days, which remains in the standards. This time can also testify to the capacity of its companies to neggitiate their deadlines for payment with their suppliers, considering their size, their solvency or the implortance of the frequency of the orders.

Nevertheless, the failing companies have a time which exceeds to 160 days to reach up to 216 days one year before the failure. This abnormal lengthning of the supplier credits proves that these companies are confronted with cash shortage and that they push back the regulation.

Through the analysis of these three ratios, we can conclude that the failing companies have difficulty of commercial management, in particular with respect to the payment of their suppliers and flow of their stocks.

#### **Conclusion:**

In this study, we set ourselves a double objective: on a side to raise the qualitative features of the failing companies in Morocco, another side to analyze the financial characteristics of this category of companies through a three years history all while comparing them with those of the healthy companies.

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This study proves very interesting because it enabled us to trace, through a representative sample of the Moroccan companies, a rather detailed profile as well of the failing companies as those healthy.

Indeed, the analysis of the qualitative criteria of the two categories of companies shows that the legal from, the branch of industry, the age and the company size can influence its vulnerability. In the same way, the analysis of the financial characteristics of the failing companies shows clearly that these last present many difficulties, which generally constitute the immediate origin of their failure. These financial problems can result from factors of various origins, not inevitably of a financial nature, in particular those of outlets or management.

Thus, the analysis of the financial ratios of the two categories of companies confirms that the failing companies are determined by very poor economic performances. They are characterized by a commercial profitability and financial negative and thus are in the incapacity to honor their commitments following a fall with the activity or profitability. This situation is due either to problems of market shares, or with an unfavorable evolution of the costs. Contrary to the healthy companies which increase their margins.

The rate of debt is very high as well in the short run as in the medium and long term. Indeed, this rise of debt involves a financial brittleness which becomes unfavorable with time what increases the profitability of failure of the company. Contrary to that little involved in debt which have more than financial autonomy.

Moreover, these companies have a very low level of liquidity, which generates difficulties compared to the refunding of the debts in their term. In the same way, the ratios of financial balance revealed the financing problems of these failing companies which are explained by a bad structure of financing characterized by a marked deficit of the durable resources. Indeed, the fall of the working capital of these companies could result from a choice of too ambitious investment or badly financed.

In addition, the requirement in working capital is accentuated with a strong growth of the claims customer and stocks compared to the debts suppliers. It translates, thus, of the difficulties of payments of the customers or of the problems of outlets. This is confirmed through the commercial management ratios which reveal that these companies have difficulty on this level, had in particular with the growth of the times of the credits customer and those of the flow of their stocks, which is reflected on the deadlines for payment of the suppliers.

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#### **Abbreviations:**

BD : Banking debt
CE : Capital equity

CSF : Capacity of self financing

CCP : Clear commercial profitability

CAA : Customers and accounts attached

DLMT : Debt with length and medium term :

ER : Exploitation result

LI : Loads of interests

TL : Total liabilities

PA : Permanent assets

PF : Permanent funding

RWC : Requirement in working capital

RCP : Resold and consumed purchases

LC : Limited company

LCRL : Limited company with responsibility limited

LLC SA: Limited liability company to single associate

S : Suppliers

SE : Stockholders equity

TO: Turnover

WC : Working capital