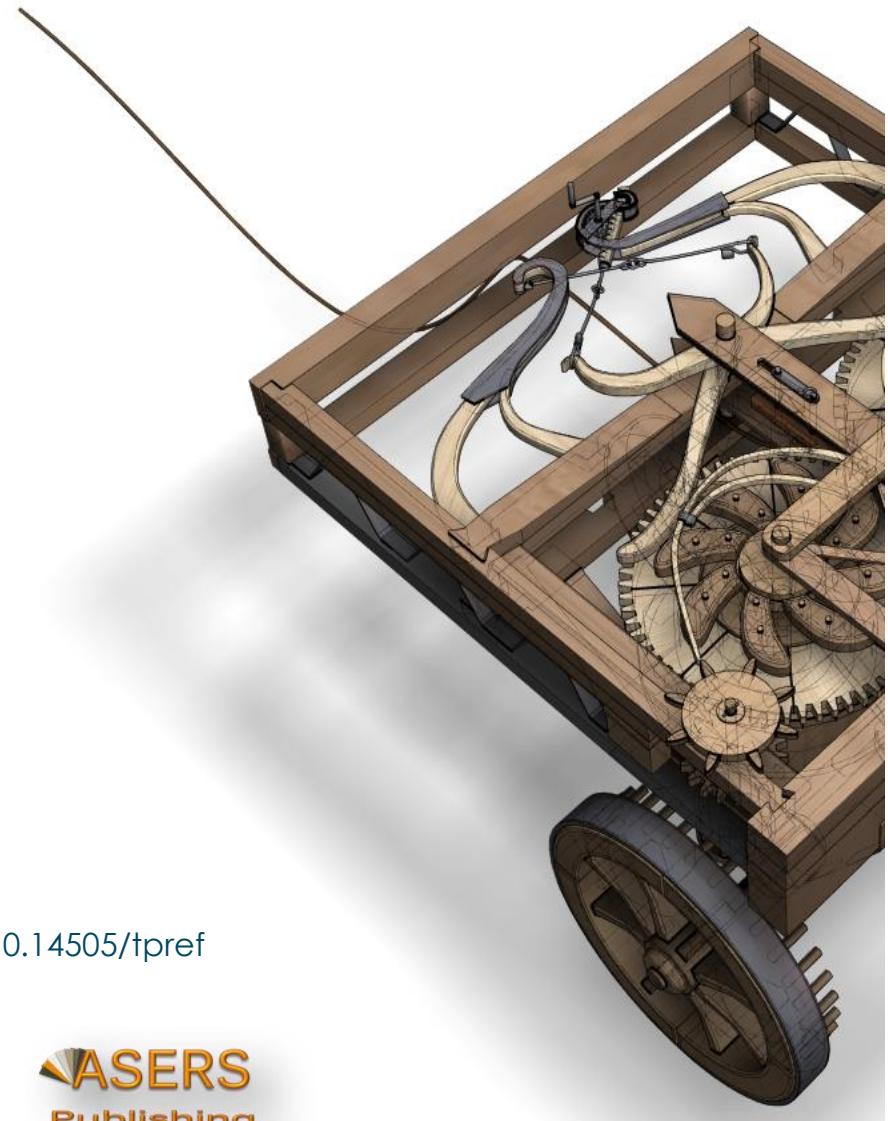
Theoretical and Practical Research in Economic Fields



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The Qualitative Determinants of Financial Failure in SMEs in Morocco. Case of SMEs in Casablanca-Settat Region

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Abstract: In the context of this scientific study, our objective was to contribute to the understanding of the financial failure of SMEs in Morocco to their bank creditors, with a particular focus on the Casablanca-Settat region. Our research focuses on the primary objective of the empirical identification of qualitative factors that impact this phenomenon, greatly threatening a particularly significant number of SMEs. To achieve this objective, a target population consisting of 158 SMEs from the Casablanca-Settat region was selected. Contingency and binary logistic regression analyzes revealed that specific characteristics of SMEs, such as the nature of their activity, competition from the informal sector and their size, as well as the characteristics of the SME leader, such as their previous professional experiences and their skills in management or financial management, play an important role in explaining the financial failure situation of SMEs in this region. The conclusions of this study could be of paramount importance for banking institutions, taking into account the explanatory variables of default when evaluating credit applications, or ensuring careful monitoring of the situation of already affiliated SMEs. The conclusions of our study could also be beneficial for SME leaders in Morocco, as they would allow them to anticipate upcoming financial difficulties and implement corrective actions to avoid a financial distress.

Keywords: financial failure; characteristics of SMEs; Moroccan SMEs.

JEL Classification: D22; G32; C10; C12.

Introduction

The issue of business failure has attracted the interest of various disciplines, such as Finance Beaver (1966); Sociology Freeman *et al.* (1983); Management Moulton *et al.* (1996). This concept has been interpreted in various ways (Ucbasaran *et al.* 2013). The failure of a business is closely linked to two fundamental factors. On the one hand, its ability to adjust to changes in its environment and, on the other hand, the strategic choices made by its leaders (Keasey and Watson, 1991). Research on risk factors emphasizes the importance of including determinants from both the internal and external environments of a company (St-Pierre, 2004). Consequently, integration data from external sources into the organization enriches the qualitative and quantitative data collected, providing a more holistic and economic perspective that transcends the financial dimension. Over the past decade, business failure has become an increasingly prominent topic in Moroccan economic news. In 2023, the number of companies in a state of failure reached 14 245 (Ministry of Finance Morocco, 2023). The city of Casablanca stands out significantly, with 27% of companies in default (Ministry of Finance Morocco, 2023).

According to El Manzani *et al.* (2018), several factors are behind the difficulties faced by SMEs in Morocco. Firstly, various elements such as the national economic situation, the institutional context, industry

specifics, and access to external financial resources impact the external environment of SMEs. Subsequently, the specific characteristics of SMEs that impact the organizational configuration, internal climate, and management style of the company are analyzed. In conclusion, the elements that influence the SME's dependence on the owner-manager include their experiences, skills, management style, and particular characteristics.

The consequences of SME failures in Morocco are particularly concerning due to their impact on the country's economic growth and the unemployment rate, which reached 13.1% in 2023, (HCP, 2023). Moreover, the volume of non-performing loans reached 94 billion dirhams during the same year, representing a litigation rate of 8.6% compared to the total outstanding loans according to Bank Al-Maghrib (2023).

According to HCP statistics (2019), SMEs primarily favor banking institutions as their main source of external financing. Consequently, the banker is the main provider of funds affected by the difficulties faced by indebted companies, due to the specific nature of the relationship between the company and its banking institution. Consequently, banks' paramount importance comes with a significant risk, as payment defaults result in substantial costs for these financial institutions.

The majority of international research on entrepreneurial failure has focused primarily on businesses in general (Altman and Sabato, 2007; Crutzen and Van Caillie, 2009), although SMEs represent the majority of economic actors. This research orientation is partly attributable to the diversity of SMEs and the difficulty in accessing data about them. At the national level, the phenomenon of SME failure arouses significant interest from several economic researchers, as evidenced by the work of Kherrazi and Ahsina (2016).

However, several scientific studies, both at the national and international levels, focus mainly on the quantitative aspect of the analysis of SME failure factors. As mentioned by Van Caillie (2000) traditional studies on the determinants of entrepreneurial failure are mainly based on quantitative modeling based on financial data, which make it possible to identify predictive indicators of bankruptcy in SMEs.

Even though, to improve the understanding of the processes leading to bankruptcy, it becomes essential to broaden the analytical framework beyond financial indicators. An approach integrating qualitative factors, particularly those relating to the organizational structure and strategic context of companies, is crucial. To make a prediction model based on qualitative data that is specific to small and medium-sized businesses, you need to look at a lot of internal and external data. This includes things like the company's size and type of business, the skills of the managers, and the strategies they use. By including variables that haven't been taken into account in traditional predictive models before, this broader view could give us a more complete picture of the complicated processes that cause small businesses to fail.

This article therefore aims to develop an economic model that will predict the financial failures of SMEs in Morocco based on qualitative variables, with a focus on the Casablanca-Settat region. The Casablanca-Settat region was chosen because of its significant economic weight and its high concentration of companies, particularly SMEs and VSEs, which makes it a strategic choice for analyzing the challenges faced by SMEs in Morocco.Indeed, it is the main economic region of the country, bringing together about 40% of national companies, including SMEs operating in various sectors such as manufacturing, trade, and services, as mentioned in the report on companies in Morocco by HCP (2019).

This scientific study aims to answer the following question: What are the qualitative determinants of SMEs in the Casablanca-Settat region that explain their financial failure?

We begin with a literature review concerning the concept of SME failure. The variables and research hypotheses will be presented next, followed by an analysis of our study's results.

1. Literature Review

1.1. The Concept of Business Failure

Numerous researchers have examined the multidisciplinary subject of business bankruptcies, leading to the identification of several definitions associated with this concept. Various economic, financial, and legal perspectives have analyzed corporate bankruptcy in reality. Therefore, she acknowledges multiple interpretations that challenge a universally accepted definition. Gresse (2003); Bienayme (2011); Levratto (2012) break down the process of corporate bankruptcy into three levels of severity: economic, financial, and legal.

As mentioned by Blazy *et al.* (1993) bankruptcy is characterized by the initiation of judicial recovery proceedings against a company. On the economic front, economic failure manifests itself through negative added value (Gresse, 2003). As demonstrated by Zopounidis (1985) economic failure is due to the inefficiency and ineffectiveness of the production apparatus, the deterioration of the relationship between the company, its products, and the market, and the absence of the company's contribution to reducing structural economic

problems. Thus, it is possible to consider that a company is in economic distress when it can no longer achieve its economic objectives, according to Sidi Mamar and Sail (2022).

As explained by Ooghe and Van Wymeersch (1996) a distressed company is characterized by its inability to consistently maintain its economic objectives while taking into account social and environmental constraints. SMEs can see their financial performance negatively impacted by economic crises, fluctuations in exchange rates, changes in trade policies, and unpredictable market conditions.

From a financial perspective, default occurs when the company can no longer repay its due debts with its liquid assets. From a financial point of view, default takes on a regulatory dimension, since it is linked to the risk of default emanating from the debt, so controlling this risk is of high capital importance. Financial institutions carry it out constantly and regulators require it (Adams and Hagras, 2020). Malécot (1991); Casta and Zerbib (1979) classify this situation as a financial crisis when a financially troubled company, heavily indebted, becomes unable to meet its obligations.

According to Wruck (1990), financial distress is defined as the inability to have sufficient liquidity to meet short-term financial obligations. In the same vein, Ross *et al.* (2013) confirm this observation and describe failure as the situation where companies are unable to meet their commitments to their financial and non-financial partners. Benjabeur (2017) suggests that struggling companies are characterized by a significant lack of liquidity. According to Baldwin and Scott (1983), a company is considered to be in a state of failure when it reaches a level of deterioration such that it becomes unable to meet its financial obligations. The deterioration of the company's financial situation can be identified and highlighted through the company's financial statements, Veganzones and Severin (2021) the company's financial statements can identify and highlight the deterioration of its financial situation. Dioko and Guo (2024) emphasize that, in the long term, business failures are associated with financial problems. Financial default occurs when a company fails to meet its financial obligations, resulting in unpaid debts that have come due and thereby forcing the company to undertake a debt restructuring to liquidate its assets (Alvi *et al.* 2024).

It is important to note that, within the framework of our study, we adopt a definition of failure from a financial perspective, describing it as the inability of SMEs to meet their commitments to their financial partners, with a particular emphasis on bank creditors. Circular 19/G/2002 of Bank al Maghreb defines a small or medium-sized enterprise (SME) in financial default as one that faces the risk of either total or partial non-repayment of its debt, as per the current Moroccan banking regulations.

1.2. Factors of SME Failure

Only one of the well-defined variables can express business failure. Indeed, a thorough understanding of these variables allows us to determine the nature of the constraints weighing on the Mrani and Loulid (2023).

1.2.1 The Effect of SMEs Characteristics

Scientific studies have conclusively established the existence of a causal correlation between a company's field of activity and the risk of failure. Beaver (1966) pioneered this correlation by examining company characteristics, operational scope, and failure probability. Lennox (1999) asserts that the industry sector plays a crucial role in determining the risk of failure. Similarly, the studies conducted by Sharabany (2004) conclude that the industrial sector, particularly the field of traditional manufacturing, has a higher failure rate than the service and commerce sectors.Thornhill and Amit (2003) observed that the majority of companies in bankruptcy belong to the industrial sector. Mrani and Loulid (2023) highlighted that the specific characteristics inherent to each sector of activity make the modeling and control of de business failure process complex. According to Arowolo (2025) the performance of construction companies largely depends on the prevailing economic conditions of the sector.

The informal economy represents a major challenge to the competitiveness of businesses, both internationally and nationally, exerting a substantial burden on economies. Excluding the agricultural sector, the informal economy accounts for more than 20% of the gross domestic product (GDP), as indicated by (Derkaoui *et al.* 2021). This situation primarily affects sectors such as trade, maintenance and repair, the textile and leather industry, construction, agri-food industries, tobacco, and transportation (Derkaoui *et al.* 2021).

According to Jayasekara *et al.* (2020) several factors, including its size, age, and the unfavorable environment in which it operates, contribute to the failure of a small business. González and Lamanna (2007) highlighted the association between the size of formal firms, their field of activity, and the competition from informal enterprises. Legally established small businesses operating in sectors with low entry barieres are more likely to face direct competition from informal enterprises. Other research has also suggested that informal businesses can be formidable competitors due to their smaller size, which provide them with greater flexibility in

terms of internal organizational methods (Ali and Najman, 2016). An indirect impact of informal competition on the efficiency of formal businesses arises from the direct impact of taxation on informal competition (Kerrouch, 2023). The inability of SMEs to adapt to change as well as the nature of the business environment are determinants of SME failure in Cameroon (Boubakary, and Moskolaï, 2021). Indjendje and Peter (2025) demonstrate in their study that the transition of very small enterprises from the informal to the formal sector improves their capacity to anticipate, respond to, and adapt to environmental changes, thereby reducing their vulnerability to failure.

By significantly hampering the competitiveness of formal enterprises, especially small and medium-sized enterprises. Schmalensee (1985) confirmed the existence of a significant relationship between market structure and business performance. Indeed, this sector presents risks that go beyond its national tax evasion and non-payment of social security contributions. It is also characterized by its negative impact on the market for goods and services, promoting unfair competition that manifests itself in price dumping practices. This situation often leads to revenue losses, which limits growth and investment opportunities. According to Burns and Burns and Stalker (1961) less formalized structures would be more adapted in an unstable and turbulent market, while highly formalized structures would perform better in a stable environment.

Several researchers, such as Hall (1992); Mitchell (1994); Baldwin (1997) have highlighted that the probability of a company's failure is positively correlated with its smaller size. According to Venkataraman *et al.* (1990); Lussier (1995 small businesses primarily face the challenge of finding the necessary resources and skills to implement their strategy. It is crucial for any new business to reach a critical size to become profitable, as highlighted by Blazy *et al.* (1993).

Moreover, small businesses are likely to go bankrupt if they exhaust their financial resources before developing value-generating strategic assets, such as Thornhill and Amit (2003). Large companies generally face a lower risk of failure compared to medium-sized or small businesses (Duffie *et al.* 2007). As stated by Welsh and White (1981) SMEs may encounter obstacles in terms of growth and development if they fail to reach a critical size early in their operations.

The age of companies is an important factor in business failure. Barron *et al.* (1994) demonstrated a negative relationship between mortality and the age of organizations. However, maturity can become a liability, serving as a source of organizational inertia that handercompanies in their adaptation to external constraints.

According to St-Pierre (2018) the age of companies plays an essential role in failures; the younger a company is, the higher its probability of failure.

Age is a determining factor among the quantitative and qualitative variables that positively impact the fragility of SMEs in Morocco, according to a study by Nokairi (2016) involving 140 SMEs in the country. In the same vein, Indjendje and Peter (2025) emphasize that resilience is key to reducing the risk of failure among very small enterprises, highlighting the age of the business as a potential predictor of economic vulnerability.

As mentioned by Munawaroh *et al.* (2023) despite the fact that small and medium enterprises in Indonesia create employment opportunities for citizens, the majority of them go bankrupt within the first five years due to recurring entrepreneurial shortcomings. Studies widely recognize that young SMEs are most likely to face failure. Gumel and Bin Bardai (2023) identified several determinants related to the company and its manager that influence its success, including age, company size, sector of activity and economic environment. The results highlight that newly created companies or those that have just started their economic life cycle have a greater probability of experiencing financial difficulties than older companies that have existed for a considerable time. In the same vein, the lifespan of an SME is positively correlated with its success, due to the accumulation of experience and management skills during the exercise of its activity (Ma'aji *et al.* 2023).

1.2.1. The Effect of Leader Characteristics

Studies on business management observe frequently a relationship between the intellectual level, the management skills and experiences of the leader of the company, and the barriers to growth or even bankruptcy. Ooghe and Waeyaert (2004) three categories of variables: the personal traits, skills, and motivations of its business leader, are the keys of performance of the company management. Abriane and Aazzab (2016) highlighted a positive link between business failure and the competence of their leader. Boubakary, and Moskolaï (2021) confirms that the incompetence of SME leaders is an important factor of SME failure in Cameroon.

According to Altman (1984) the main cause of business failure lies in the incompetence of their leaders. The conclusions of his study reveal that 50% of failures are due to the lack of experience or excessive specialization, while 44% are the obvious incompetence of the leaders. Perry and Pendleton (1983) attributed nearly 90% of SME failures to the manager or management team's lack of general knowledge or skills. The lack

of skills in strategic areas such as business management, accounting, or finance inevitably leads Cameroonian companies to failure (Boubakary, and Moskolaï 2021).

Agyapong and Attram (2019) found a positive correlation between the financial literacy level of SME leaders in Ghana and the performance outcomes of SMEs. A crucial factor contributing to the cessation of activity among SMEs in the province of Kénitra is the absence of clear guidelines on financial and accounting management (Kherrazi and Ahsina, 2016). According to Ooghe and Waeyaert (2004) company management difficulties mainly stem from a lack of its leader skills, personal qualities, and motivation among the management. The lack of management skills in the financial field, particularly in accounting, inventory control, and cash management, can compromise the sustainability of (Khan and Rocha, 1982). Management difficulties are often persistent and generally reflect a deficit in skills, flexibility, and adaptability (St-Pierre, 2004).

Therefore, the success of small businesses closely depends on the knowledge, skills, and general abilities of their leader. Mayr *et al.* (2020) observed that management experience significantly reduces the risk of failure for small and medium-sized enterprises in Australia. More specifically, business leaders with management experience recognize the crucial importance of accurate accounting, strategic planning, and effective management. They also seek specialized external advice, particularly from consultants, in areas such as taxation, legal, or financial accounting (Mayr *et al.* 2020).

As stated by Syahputra *et al.* (2021) small business owners do not develop management skills due to their limited level of education rather than their lack of understanding. According to the conclusions of these researchers, individuals with a higher level of education develop management skills easier, which enables them to impact significantly the performance of their businesses. As mentioned by Bensalah and Tinaztepe (2021) the level of education of business leaders influences positively business performance. In addition, most successful Moroccan entrepreneurs use their knowledge learned during their educational training cycle to improve their businesses performance. According to Rulangaranga and Isoh (2021) a higher level of education among managers is a key factor in the profitability of their businesses. García-Pérez-de-Lema *et al.* (2021) also highlighted that the higher education of managers has a direct and indirect impact on mitigating the financial limitations of the company.

Previous research emphasized the impact of the education level of business leaders on their propensity to focus on the effective transition from the national market to the international market (Coudounaris, 2021). The education level of SME managers plays an important role in the success of their business (Mabrouk *et al.* 2021). Several managerial determinants influence SME success, such as education level, previous work experience, management skills, and managerial orientation (Gumel and Bin Bardai 2023).

Regarding the same subject, Wiedeler and Kammerlander (2021), Wang and Guedes (2024) emphasize that the companies sustainability depends on the managerial skills of their leaders. By implementing training programs dedicated to entrepreneurs will contribute positively to strengthening their ability to understand the role of different financial ratios and their distinctions, enabling them to adopt preventive measures keeping the financial health of their companies.

Cooper *et al.* (1994) noted that management skills could influence organizational performance by encouraging adoption of more effective strategies and improving management practices. According to Thompson (1963) failures in entrepreneurship are mainly due to the deficiencies of the leaders. In addition to objective variables such as age, religion, education level, professional experience, and family background, the author has included more subjective variables in their analysis, such as personal values, individual and sociological traits, as well as moral principles. The results obtained consistently highlight a link between the environmental and psychological attributes of the leader and entrepreneurial failure (Thompson, 1963).

The works of Thornhill and Amit (2003); Ucbasaran *et al.* (2013) provide valuable insights. Baldwin *et al.* (1997); Hall (1992) confirms that a manager cannot bear the failure of a company alone, as the evolution of the market in which the company operates also plays a crucial role in its survival. From this perspective, St-Pierre (2004) reinforces this finding by emphasizing that numerous small and medium-sized enterprises, including those founded by seasoned entrepreneurs, have nevertheless faced bankruptcy. It is evident that the failure of a company is often due to the leader's inability to adapt the organization to external changes in the SME, as well as a lack of expertise and training, particularly in the field of management.

Entrepreneurs with a higher education degree at the time of finding their business have a higher probability of success than entrepreneurs without a university education (Ma'aji *et al.* 2023). Executives who have pursued higher education have acquired a set of knowledge and skills, as well as abilities that promote personal development in certain professional fields. This could help them improve their business management, thereby increasing their chances of entrepreneurial success (Ma'aji *et al.* 2023). In addition, entrepreneurs with a higher

education degree are much more presumptuous, which facilitates their engagement in entrepreneurial exercises while mastering the risks inherent in entrepreneurial success (Jiménez *et al.* 2015; Ma'aji *et al.* 2023). Majune and Kalume (2025) argue that experienced business leaders are more likely to adopt structured accounting management practices and support the ongoing development of their team. On a practical level, business leaders who seek to increase their turnover and sustain their activities over time must adopt agility as a core management philosophy (Binwa *et al.* 2025). The manner in which SME leaders utilize knowledge acquired through learning opportunities significantly influences the overall success of their enterprises (Koporcic, *et al.* 2025). Furthermore, Arowolo (2025) points out that the personal characteristics of small business leaders - particularly their ability to manage personal and professional conflicts - greatly contribute to business survival and help prevent failure. In the same vein, Dansu *et al.* (2025), in their study of businesses, found that SMEs led by risk-tolerant managers were more likely to survive and avoid bankruptcy. Supporting this view, Nkwinika and Obokoh (2025) reveal a strong correlation between poor financial practices and business failure, emphasizing the need for greater financial literacy among SME leaders and the adoption of effective accounting systems.

2. Hypotheses and Conceptual Model

SMEs are paramount importance in economic development, innovation, and job creation. However, they encounter a variety of financial obstacles that can result in substantial financial hardship. The reasons for the failure in entrepreneurship of SMEs are linked closely to their internal and external environments. Guilhot (2000) asserts that we can examine the reasons for business failures from four analytical perspectives: economic, financial, strategic, and managerial. In the same subject, Keasey and Watson (1987) argue that the significant influence of internal company variables is a key element of their failures.

2.1. Research Hypotheses

We have identified several factors directly related to the environment of SMEs that influence their financial stability through our previously conducted literature review. It is necessary to consider elements such as the nature of the activity, the presence of informal competition, the size of the company, the age of the SME, the experience of the manager, his qualifications, and his level of education. Therefore, we have chosen to investigate the causal relationship between the characteristics of SMEs, their managers, and financial distress. Thus, on the basis of the elements previously cited, we propose to verify the following hypotheses:

Hypothesis No. 1: The characteristics of SMEs are determinants of the financial failure of SMEs in the Casablanca Settat region.

- Sub-hypothesis No. 1.1: A causal relationship exists between the nature of the activity of SMEs in the Casablanca Settat region and their financial failure.
- Sub-hypothesis No. 1.2: The existence of an informal market contributes to the explanation of the financial failure of SMEs in the Casablanca Settat region.
- Sub-hypothesis No.1.3: The smaller size of SMEs in terms of workforce in the Casablanca-Settat region makes them more vulnerable to financial failure than their larger counterparts.
- Sub-hypothesis No.1.4: Young SMEs in the Casablanca-Settat region are the most vulnerable to financial failure.

Hypothesis No.2: The characteristics of the SME manager are determinants of the failure of SMEs in the Casablanca Settat region.

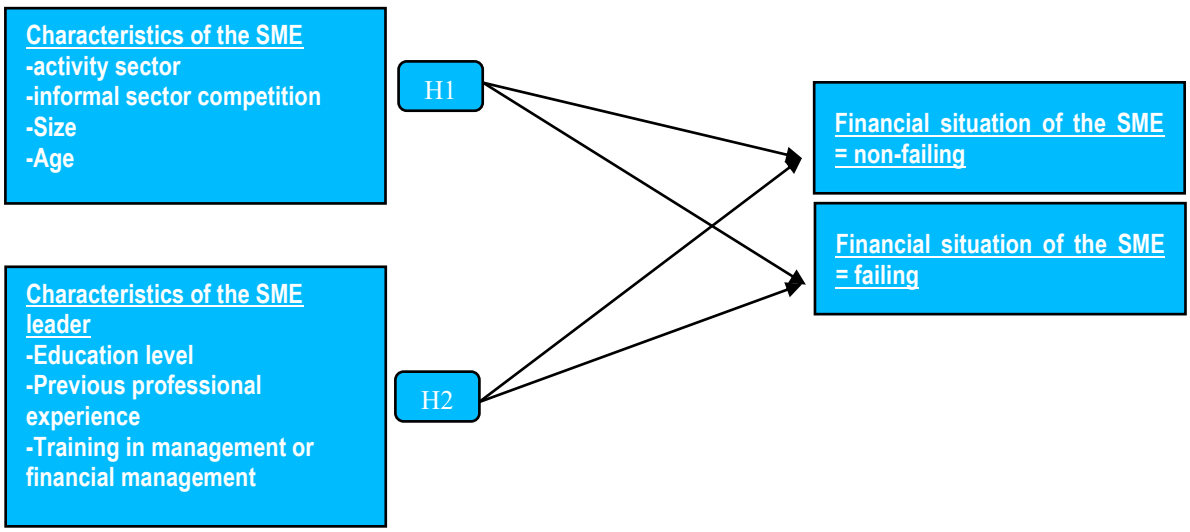
- Sub-hypothesis No.2.1: The number of years of previous professional experience of the SME manager helps explain the financial failure of the SME.
- Sub-hypothesis No.2.2: The level of education of the SME manager in the Casablanca Settat region helps explain his financial failure.
- Sub-hypothesis No.2.3: The management skills of the SME manager in the Casablanca Settat region help explain his financial failure.

2.2. Conceptual Model

We discussed business failure and its causes. We reexamine the theoretical factors we've identified as contributing to the failure of SMEs, focusing on the determinants of qualitative aspects. We have chosen to assign these factors to their respective dimensions in order to propose an easy-to-interpret and operational scheme at the level of various statistical tests. Thus, we have organized the structure of our conceptual model

into four blocks of variables: The first block of variables relates to the independent variables associated with SMEs, which include the sector of activity, informal competition, size, and age of the SME. The second block of variables relates to the independent variables associated with the SME leader, specifically: previous experience, level of education, and competence in management or finance. The third and final block corresponds to the dependent variables of our study and relates to the situation of the SME in relation to the bank (in a healthy situation or otherwise in default). We recall that in the context of our study, we adopt the definition of failure from a financial point of view, describing it as the inability of SMEs to honor their commitments to their financial partners as described by Baldwin and Scott (1983), with particular emphasis on bank creditors. Current Moroccan banking regulations define an SME in financial failure as one that faces the risk of total or partial non-repayment of its debt, as outlined in Bank al Maghreb's circular 19/G/2002.

Figure 1. Conceptual Model



Source: Statistical Results, Authors.

3. Methodology

The methodological framework will allow us to successively present the sample of our study, the measurement of the variables, and the statistical analysis tools used.

3.1. Sample

With the aim of forming our initial sample, we contacted the main investment banks and business centers located in the Casablanca Settat region. We have received several databases containing qualitative information concerning indebted SMEs headquartered in the Casablanca Settat region. In the end, we managed to create a global sample of 158 SMEs, with 74 in a state of failure and 84 in a healthy state at the conclusion of the 2023 fiscal year.

We primarily sourced our sample of SMEs from local banking institutions in the Casablanca-Settat region. However, banks must comply with strict regulations regarding the protection of customer data. Indeed, credit institutions in Morocco are required to adhere to the provisions of Law 08-09, related to the protection of personal data of their customers and falls under the jurisdiction of the National Commission for the Control of Personal Data Protection (CNDP). This limit our ability to assemble a more representative sample of all SMEs in the Casablanca-Settat region that have secured bank financing. We determine the selection criteria for our sample of SMEs in a state of failure by consulting Article 4 of Circular No. 19/G/2002 of Bank Al-Maghrib (BAM).

According to the article, non-performing loans are defined as follows: are considered as overdue debts, debts which present a risk of total or partial non-recovery, having regard to the deterioration of the immediate and/or future repayment capacity of the counterparty. We divide Non-Performing Loans into three categories: pre-doubtful, doubtful, and compromised, based on their degree of default risk.

3.2. Measurement of Variables

Before starting the processing of the data collected from the banks, the identification of the variable to be explained – in this case, the financial failure of indebted SMEs – is very important. Each SME in our sample determines the binary qualitative variable based on the presence or absence of financial failure. Then, we

identified the independent variables associated with the characteristics of the SME and its manager, aiming to assess their explanatory influence on the situation of financial failure. We assess the characteristics of the SME using six variables: sector of activity, age (date of creation), competition from the informal market and size (number of employees). The analysis of the characteristics of the manager is based on three main variables: level of education, training in management or finance and previous professional experience. In addition, the data collected from local banks were analyzed using the software "SPSS – Statistical Package for the Social Sciences", widely used by management science researchers due to its user-friendliness and efficiency.

3.3. Statistical Data Analysis Methods

Many researchers have used the LOGIT model to predict business failures, as it proves particularly well-suited for understanding the nature of bankruptcy prediction (Kherrazi and Ahsina 2016; Zizi, *et al.* (2020); Mrani and Loulid 2023). According to Hair *et al.* (2006) logistic regression is the appropriate statistical approach for modeling a categorical dependent variable based on categorical or continuous independent variables. Accordingly, the LOGIT model is considered the most appropriate choice among parametric models for interpreting the probabilities associated with a qualitative output variable.

Consequently, the statistical methods employed in this study include the chi-square contingency analysis, which will initially allow us to evaluate the existing relationship between our dependent and independent variables. We will then proceed with binary logistic regression tests to assess the form and direction of the relationship between dependent and independent variables that are significantly correlated at the chi-square test level.

Several methodological and empirical reasons motivate our use of the statistical method based on logistic regression in our study. First, social sciences widely recognize and use logistic regression because of its simplicity and interpretability. According to Hosmer *et al.* (2013) this method is a standard choice for modeling the probability of a binary event as a function of explanatory variables, and it provides reliable estimation of the relationships between independent variables and dependent variables. However, the prevalence of artificial intelligence (AI)-based failure prediction models persists. As stated by Kumar and Vadlamani (2007); Mrani and Loulid (2023) logistic regression does not require large amounts of data to produce meaningful results and is less prone to excessive complexity (Alvi *et al.* 2024). Artificial intelligence is beneficial for processing large datasets (Véry and Cailluet 2019).

Indeed, despite the implementation of artificial intelligence in various fields of management Tambe *et al.* (2019) and finance Veloso *et al.* (2021) AI models face numerous structural issues, such as the unintentional addition of unwanted features, excessive workload, and mistakes made by omitting certain elements (Zhang *et al.* 1999). Furthermore, Fletcher and Goss (1993) note that to achieve optimal performance, AI requires large sets of information. While AI methods, although powerful, can provide accuracy in specific contexts, such as banking risk prediction, they present challenges in terms of interpretability and understanding of the results (Leo *et al.* 2019). Adams and Hagras (2020) and Elliott *et al.* (2021) have criticized the opacity of artificial intelligence systems, which can mislead decision-making processes. In the same subject, Hsu *et al.* (2023) demonstrate that in the financial sector, the accuracy of the results can be more important than their transparency, and the use of artificial intelligence turns out to be a complex task that requires much more rigor.

Therefore, financial research continues to favor logistic regression because it is flexible and useful, especially when the goal is to report causal relationships in a clear and easy-to-understand way while also making sure the results are robust and valid (Alvi *et al.* 2024). Various studies on companies failure at national levels have demonstrated the effectiveness of logistic models in explaining this phenomenon (Benbachir and Habachi 2018; EL Haddad and Habachi 2020; Idrissi and Moutahaddib 2020; Zizi *et al.* 2020, 2021) are noteworthy.

3.3.1. Cross-Tabulation (chi-square)

Chi-square analysis allows the evaluation of the relationship between two categorical variables. We use this statistical test to verify the independence of two variables. By default, the null hypothesis (H0) indicates the absence of a relationship between the variables. The decision rule is based on the p-value, which represents statistical meaning. If the p-value is less than 0.05, we reject (H0), indicating that there is a significant correlation between the two variables.

The following formula computes the test statistic for the Chi-Square independence test:

$$\chi 2 = \sum_{i=1}^{R} \sum_{j=1}^{C} \frac{(oij - eij)2}{eij} \quad (1)$$

with:

−oij is the number of cells observed in the ith row and jth column of the table.

−**e**ij is the expected cell count in the ith row and jth column of the table, calculated as follows

$$\mathbf{eij} = \frac{\mathbf{row\ i\ total} * \mathbf{col\ j\ total}}{\mathbf{grand\ total}} \quad (2)$$

3.3.2. Multinomial Logistic Regression Test

Logistic regression allows modeling a variable with two binary response modalities or multiple polychromatic response modalities (K ≥ 2 classes) based on a matrix of explanatory variables (X1, X2, ..., XK), whether they are quantitative or qualitative. In general, the logistic regression test allows for the evaluation of the overall validity of the model and the assessment of the impact and relationship of each variable on the model. It also allows the verification of the validity of the model for each modality of the variable. The following equation expresses the logistic regression model.

$$\text{Logit}(p)=\ln(p/1-p)=\beta0+\beta1X1+\beta2X2+\cdots+\beta kXk \quad (3)$$

where:

• p is the probability of the event of interest,
• p/1−p is the odds ratio of the event,
• ln p/1−p is the logit transformation of p • β0 is the intercept (constant),
• β1,β2,…,βk are the coefficients of the independent variables X1,X2,…,Xk.

3.3.3. Hosmer and Lemeshow Test

This test evaluates the presence of significant differences between the observed values and the predicted values for each subject. The objective is to obtain a non-significant result with a P value less than 0.05. Indeed, a low p-value associated with the test, such as less than 0.05, indicates a significant difference between the observed and predicted values, implying a poor fit of the model.

This test is based on the χ^2 calculation, which is based on the differences between the observed and expected frequencies in each variable group. However, when the model only includes a dichotomous predictor, it becomes impossible to calculate this test due to its sensitivity to sample size.

The formula for the Hosmer-Lemeshow test is:

$$x^2 = \sum_{g=1}^{G} \frac{(O_G - E_g).^2}{E_g(1-\frac{E_g}{n_g})} \quad (4)$$

• G is the number of groups;
• O_G is the number of observed events in group g;
• Eg is the number of expected events in group g;
• n_g is the predicted mean probability for group g.

3.4. Characteristics of the Sample

Before starting the analysis of our database, it is essential to conduct a statistical presentation of the key properties of our research subject. This preliminary step will allow a better understanding of this population, the structure of the observed subjects, and the characteristics studied. In summary, the preliminary statistical analysis proves essential to adequately define our research items.

We have chosen to evaluate the size of SMEs based on their workforce rather than their revenue for several reasons. We plan to conduct a study on the qualitative determinants of financial failures of SMEs in the Casablanca-Settat region. Thus, size is qualitative data, unlike revenue, which is quantitative data. In Morocco, access to quantitative data, such as the turnover of SMEs, remains limited and subject to inaccuracies in the information reported. In addition, small and medium-sized enterprises are reluctant to share quantitative data even with their financial partners. On the other hand, data on workforce numbers are generally more accessible, particularly for SMEs.

Table 1. Sample Characteristics

Independent variable	Measured variable	Response modality	Response number
Characteristics of the SME	Activity	(1) Trade	45
		(2) service	47
		(3) industry	28
		(4) construction	38
	Age of the SME (date of creation)	(1) between 1990 and 2000	23
		(2) between 2000 and 2008	12
		(3) between 2008 and 2018	28
		(4) between 2018 and 2024	95
	Size (number of employees)	(1) less than 5 employees	70
		(2) from 5 to 10 employees	40
		(3) from 10 to 20 employees	38
		(4) from 20 to 40 employees	4
		(5) more than 40 employees	6
	Informal sector	(1) strong competition in the informal sector	85
		(2) moderate competition in the informal sector	43
		(3) weak competition in the informal	30
Characteristics of the leader	Level of education of the manager	(1) high school diploma or equivalent	10
		(2) two years of higher education	25
		(3 three years of higher education	55
		(4) five years of higher education	62
		(5) higher level	6
	Previous experiences of the leader	(1) no experience	16
		(2) year to 5 years	25
		(3) years to 10 years	66
		(4) more than 10 years	51
	Management or financial management skills	(1) executive with training in management or financial management	61
		(2) leader without training in management or financial management	97

Source: Statistical Results, Authors.

According to Bank Al Maghrib (2021) the informal sector in Morocco refers to a set of economic activities that are not subject to administrative, legal, and tax regulations. Basic commercial activities that circumvent tax, social, or labor law provisions are called the informal sector. About 60% of jobs in Morocco are in the informal sector (HCP, 2023). The underground economy and the informal sector in Morocco are linked by the prevalence of undeclared transactions and unregulated activities. The collection of taxes, social contributions, and labor market regulation in Morocco are negatively impacted by this phenomenon. The informal sector is defined by Buehn and Schneider (2012) as economic activities that are based on the market for goods and services and are concealed from state control authorities to avoid tax and regulatory obligations. Schneider *et al.* (2010) define the informal sector on the market for goods and services as any economic activity that remains hidden from public authorities due to the existence of tax burdens, social security contributions, the complexity of administrative procedures, and institutional constraints.

4. Empirical Results and Discussion

At this stage, our focus is on using an empirical approach to comprehend the financial failure phenomenon that SMEs in the Casablanca Settat region are experiencing. This title aims to present the statistical results from our empirical study using advanced statistical techniques such as chi-square contingency tests and binary logistic

regression. Finally, this section will conclude with a discussion of the results obtained, thereby providing an informed understanding of the issue addressed.

4.1. Qualitative Determinants of Financial Failure by SME Characteristics

4.1.1. Pearson's Chi-Square Test

According to our results, the Pearson chi-square analysis indicates statistical significance with a threshold of (Sig =<0.05) for the examined variables, namely Activity, competition from the informal sector, Number of employees, and Age of the SME. This implies that there is a relationship between the performance or failure of an SME and its specific characteristics. On the other hand, the analysis highlights that the dependence is not statistically significant (Sig > 0.05) for the use of the variable new management or production technologies.

Table 2. Chi2 test results related to SME characteristics

Independent variable	analysis variable	Chi-squared	significance level
Characteristics of the SME	Activity	X2(3) =31,841	0,000
	Informal sector	X2(1)=12,805	0,000
	Size (number of employees)	X2(4) =18,858	0,001
	Age of the SME (date of creation)	X2(3)=19,863	0,001

Source: Statistical Results, Authors.

We observed a significant correlation (Sig at the 5% threshold) between the activity's nature and its situation, indicating whether it is in a healthy or failing state. Commercial SMEs recorded the highest number of failure cases among SMEs, with 35 cases, followed by industrial SMEs with 17 cases. SMEs operating in the service sector stand out for their low failure rate, with only 9 recorded cases, while SMEs in the construction sector account for 13 cases.

Regarding the number of employees in SMEs, there is a significant correlation between this parameter and their situation, whether it is stable or in difficulty (Sig = 0.001). 42 recorded cases reveal that SMEs with fewer than 10 employees exhibit a high failure rate. SMEs with more than 20 employees have lower failure rates, according to a set of 32 observations.

The dependent variable related to the informal sector is also significantly correlated with the situation of SMEs (sig =< 0.05). SMEs that claim to face a strong threat from the informal sector show a higher failure rate.

4.1.2. Binary Logistic Regression Tests

We began the analysis by performing binary logistic regression tests, which grouped the explanatory variables related to the SME and the dependent variable that indicates the status of the indebted SME (healthy or failing). The Chi-square tests previously carried out made it possible to determine that these variables, concerning different aspects of the SME, such as activity, size (number of employees), and competition from the informal sector, are statistically significant.

Table 3. Results of the binary logistic regression test related to the characteristics of SMEs

Variables of the equation		B	Wald	Ddl	Sig.	Exp(B)
Step 1	Activity (1)	1,975	5,561	1	0,018	1,203
	Activity (2)	2,061	5,697	1	0,017	0,127
	Activity (3)	1,981	4,343	1	0,575	,603
	Size (1)	3,838	8,688	1	0,007	0,022
	Size (2)	2,732	4,094	1	0,043	,0650
	Size (3)	2,564	3,751	1	0,430	0,065
	Size (4)	2,342	1,515	1	0,409	4,995
	Informal sector (1)	2,945	8,853	1	0,000	1,006
	Age (1)	1,558	1,260	1	0,262	0,211
	Age (2)	19,807	0,000	1	0,999	0,000
	Age (3)	19,158	0,000	1	0,999	0,000

	Age (4)	0,022	0,001	1	0,977	0,978
	Constante	0,909	0,527	1	0,468	2,482
Variables of the equation		B	Wald	ddl	Sig.	Exp(B)
Step 2	Activity (1)	2,346	1,672	1	0,001	1,446
	Activity (2)	2,631	1,629	1	0,000	0,072
	Activity (3)	0,866	1,195	1	0,274	0,421
	Informal sector (1)	3,298	2,256	1	0,000	2,053
	Size (1)	3,566	9,004	1	0,003	1,028
	Size (2)	1,356	1,635	1	0,008	0,035
	Size (3)	3,353	6,954	1	0,201	0,258
	Size (4)	2,864	2,794	1	0,195	7,532
	Constante	0,866	0,579	1	0,447	2,377

Source: Statistical Results, Authors.

Step 1: Introduction of variables in step 1: Activity, Size, informal sector, Age.
Step 2: Introduction of variables in step 2: Activity, Size, informal sector.

We find that the Hosmer-Lemeshow test remains non-significant, with a p-value greater than 0.05. This implies that we accept the null hypothesis (H0): The model fits well the data and reject the alternative hypothesis (H1): The model does not fit the data well. In other words, this suggests that the logistic model fits the observed data fine. The model is therefore adequate.

Table 4. Hosmer and Lemeshow test

Chi-square	ddl	Sig.
13,426	7	0,092

Source: Statistical Results, Authors.

After gradually eliminating non-significant variables in two steps (from Step 1 to Step 2), we exclusively retained three independent variables that proved significant at the 5% level and contributed to explaining the failure of SMEs. These variables include the number of employees, the type of activity, and the level of informal sector competition. We removed the variable representing the age of the SME, as measured by the date of creation, from our model due to its statistical insignificance. According to our binary logistic regression study, it is demonstrated that the SME's sector of activity plays an essential role in its failure (sig < 0.05).

According to our model, the indebted SMEs most at risk of experiencing financial difficulties are those operating mainly in the trade sector (activity category (1) = trade) and in the service sector (activity category (2) = services). Furthermore, our binary regression model demonstrates that intense competition from the informal sector contributes significantly to the financial failure of SMEs, with a significance level of less than 0.05. Our binary logistic regression model indicates that SMEs (Informal competition level (1) face strong competition from the informal sector.

According to our binary logistic regression model, it is demonstrated that the size of the SME, measured by the number of employees, plays a decisive role in its precarious financial situation, with a (sig =< 0.05). Our binary regression model shows that the SMEs most at risk of experiencing financial failure are those with fewer than 10 employees, with a distinction between those with fewer than 5 employees and those with 5 to 10 employees. We can therefore accept Sub-hypothesis No. 1.1: there is a positive causal relationship between the nature of the SME's activity and its financial failure. In addition, we can accept Sub-hypothesis No. 1.2 which suggests that the existence of an informal parallel market contributes to the explanation of the financial failure of SMEs in the Casablanca region and Sub-hypothesis No. 1.3 which asserts a positive causal relationship between the size of the SME and its failure. Conversely, we reject Sub-hypothesis No. 1.4: there is a positive causal relationship between the age of the SME in the Casablanca Settat region and its failure situation.

4.2. The Characteristics of the Manager Determine the Likelihood of Failure

4.2.1. Pearson's Chi-Square Test

According to our results, the Pearson Chi-square test reveals statistical significance at a threshold of (Sig =<0.05) concerning the analyzed variables, namely the leader's experience and qualifications in management or finance.

Table 5: Results of the Chi-square test related to the characteristics of the leader

Independent variable	Analysis variable	Chi-squared	Significance level
Characteristics of the leader	Previous experiences of the leader	X2(3) =12,521	0,006
	Level of education of the manager	X2(4)= 28,293	0,418
	Management or financial management skills	X2(1)=6,145	0,010

Source: Statistical Results, Authors.

Regarding the characteristics of the SME manager, our cross-analysis highlights a significant correlation between the current state of the SME (healthy or failing) and the professional experience of the manager, as well as his or her qualifications in management or finance, with respective significance levels of 0.006 and 0.010. Financial failures are much more frequent among SMEs whose managers have less than five years of experience in a field related to the company's main activity, with 59 cases observed. On the other hand, SMEs managed by individuals with more than five years of professional experience show a lower number of failures, with only 15 cases recorded. In our sample, we observed a higher failure rate of 53 cases in SMEs managed by managers without management or management training.

4.2.2. Binary Logistic Regression Tests

We initiated our analysis by conducting binary logistic regression tests, which combined our explanatory variables related to the SME leader and the dependent variable related to the SME's current situation (performing or failing). These variables, which are statistically significant in the previously established Chi-square tests, relate to the characteristics of the SME leader, such as their experience and qualifications in management or finance.

Table 6. Results of the binary logistic regression test related to the characteristics of the leader

Variables of the equation	B	Wald	ddl	Sig.	Exp(B)
Previous experiences of the leader (1)	1,167	3,951	1	0,047	0,311
Previous experiences of the leader (2)	0,797	1,742	1	0,187	2,218
Previous experiences of the leader (3)	0,661	2,902	1	0,088	1,936
Management or financial management skills (2)	0,930	6,872	1	0,009	0,395
Constante	0,023	0,005	1	0,942	1,024

Source: Statistical Results, Authors.

We find that the Hosmer-Lemeshow test remains non-significant, with a p-value greater than 0.05. This implies that we accept the null hypothesis (H0): The model fits well the data, and reject the alternative hypothesis (H1): The model does not fit the data well. In other words, this suggests that the logistic model fits the observed data well. The model is therefore adequate.

Table 7. Hosmer and Lemeshow test

Chi-square	ddl	Sig.
13,024	6	0,073

Source: Statistical Results, Authors.

The binary logistic regression analysis shows that the level of previous professional experience of the SME manager is a decisive factor of its failure (sig $p < 0.05$). According to our model, the SMEs most likely to encounter financial gaps are those whose leaders do not have prior professional experience. Indeed, according to our logistic regression model, it is also demonstrated that the qualifications in management or finance of the SME leader play a decisive role in its failing financial situation with a $p < 0.05$.

Therefore, we can accept Sub-hypothesis No. 2.1: the number of years of previous professional experience of the SME's manager contributes to explaining the SME's financial failure. Additionally, Sub-hypothesis No. 2.3 suggests that the management skills of the SME leader play a significant role in explaining the financial failure of the SME.

On the contrary, we reject Sub-hypothesis No. 2.2, which suggests that the level of education of the SME leader contributes to the explanation of the SME's financial failure.

5. Discussion of the Results

We can affirm that the qualitative characteristics of the SME and its manager contribute primarily to the financial failure or nonpayment of bank loans in the Casablanca-Settat region. Indeed, our logistic regression model highlighted that the direct impact of the nature of the SME's activity, the simultaneous presence of an informal sector, and the size of the SME (measured by the number of employees) are decisive factors of financial failure. Scientific studies have clearly established the existence of a causal correlation between the field of activity of a company and the risk of failure (Boubakary, and Moskolaï, 2021; Gumel and Bin Bardai, 2023). The decline in the performance of SMEs results from a lasting deterioration in their activity (Benjabeur, 2017).

Regarding the same subject, El Manzani *et al.* (2018) point out that some SMEs in Morocco are facing financial crises due to the insufficient level of their development and the crises encountered in their sector of activity. The responsiveness of SMEs to the constraints of their industrial environment does not offer them guaranteed growth prospects, is responsible for this situation.

Our results are not consistent with the findings of Thornhill and Amit (2003); Sharabany (2004), who argue that the rate of financial failure of firms is higher in the industrial sector than in the service and trade sectors. Moroccan SMEs, particularly in the trade and service sectors, face higher risks of failure due to various internal and external factors such as limited access to financial resources, economic sluggishness, and poor financial management (El Manzani *et al.* 2018).

According to data from Bank Al-Maghrib (2023) the recorded companies operating in the trade and services sectors, respectively, are 19% and 28% of all sectors of activity in Morocco, have bad debt rate. According to statistics from Moroccan Observatory of SMEs (2021) more than 60% of companies operating in the trade and services sectors reported a drop in their revenues, which calls into question their short-term viability. According to research by Derkaoui *et al.* (2021) the informal economy accounts for more than 20% of the gross domestic product excluding agriculture. Other studies have also suggested that informal firms could constitute strong competition due to their smaller size, thus granting them greater flexibility in their internal organization modes.

According to Ali and Najman (2016) an indirect consequence of informal competition on the performance of formal firms arises from the direct effect of taxation. An indirect impact of informal competition on the efficiency of formal firms arises from the direct impact of taxation on said informal competition (Kerrouch, 2023). According to Jayasekara *et al.* (2020) the unfavorable environment in which small firms operate contributes to their failure.

In reality, the risks associated with the existence of an informal sector go beyond national tax evasion and non-payment of social security contributions. They are also characterized by its harmful influence on the market for goods and services, promoting unfair competition that manifests itself in dumping price practices. According to the HCP (2021) the commercial sector remains the main driver of the informal economy in Morocco, representing 50.6% of all sectors of activity. Furthermore, small SMEs are more prone to financial failure in Morocco, particularly in the Casablanca Settat region.

Researchers such as Jayasekara *et al.* (2020); Munawaroh *et al.* (2023); Gumel and Bin Bardai (2023) have demonstrated a positive correlation between the smaller size of a company and its probability of bankruptcy. Venkataraman *et al.* (1990); Lussier (1995) pointed out that small firms mainly struggle to obtain the resources and skills needed to execute their strategy. It is crucial for any new venture to reach a critical size to become profitable, as (Blazy *et al.* 1993) point out.

Moreover, small firms are likely to fail if they exhaust their financial resources before developing value-generating assets (Thornhill and Amit 2003). In the same vein, Munawaroh *et al.* (2023) point out that Indonesian small and medium-sized enterprises fail within the first five years due to recurring entrepreneurial problems. Duffie *et al.* (2007) point out that large firms have greater financial flexibility than small firms. Studies by Carroll (1983); Hall (1992); Mitchell (1994); Baldwin *et al.* (1997); Sorensen and Stuart (2000); Glennon and Nigro (2005) have validated the idea that small firms are more likely to encounter obstacles and face a higher risk of failure.

Our research also highlighted that the qualities of the managers of SMEs in the Casablanca Settat region exert a particular influence on the probability of financial failure of these companies. Indeed, our logistic model indicates that SMEs, with a management team lacking prior experience in the same sector of activity and without university degrees in management or finance, are expected to end in failure.

Indeed, our various logistic regression tests reveal that managerial skills and the manager's previous professional experience are key factors in ensuring effective management of the company. A manager faced with such shortcomings will run a higher risk of seeing his company one day end up in a state of failure. In writing dealing with business management, it is common to observe a relationship between the leader's intelligence, their

management skills, their experience, and the challenges of growth or even the failure of the company (Boubakary, and Moskolaï, 2021; Bensalah and Tinaztepe, 2021; García-Pérez-de-Lema *et al.* 2021; Rulangaranga and Isoh, 2021; Ma'aji *et al.* 2023).

In this sense, Abriane and Aazzab (2016) highlighted the frequent link between business failure and the competence of their leader. The lack of management skills in the financial field, particularly in accounting, inventory control, and cash management, can compromise sustainability (Khan and Rocha, 1982). Cooper *et al.* (1994) found that management skills could influence organizational performance by encouraging the adoption of more effective strategies and improved management practices. According to Boubakary, and Moskolaï (2021); Bensalah and Tinaztepe (2021) the managerial incapacity of managers of small and medium-sized enterprises (SMEs) is a major determining factor in the failure of SMEs in Cameroon.

Conclusion

The objective of this article is to identify the qualitative factors that contribute to the financial failure of SMEs in the Casablanca-Settat region. Thus, we applied binary logistic regression statistical tests to a sample consisting of 158 SMEs, of which 74 were in financial failure.

The study results indicate that factors such as the size of the SME, the sector of activity, the presence of an informal sector, the manager's qualifications in management or finance, as well as their previous professional experiences, have a prominent influence on the likelihood of financial failure of SMEs in the Casablanca-Settat region.

The findings of this research could be important for creditors, particularly banks. Indeed, in order to minimize the costs associated with counterparty risk, it is essential for creditors to adequately assess the financial situation of borrowing SMEs by taking into account the explanatory factors detailed in the article.

On the other hand, potential investors could potentially benefit from our research, given the detailed explanatory factors. Indeed, the explanatory variables of a failure situation will enable potential investors to avoid investing in companies that are highly susceptible to failure.

Furthermore, the conclusions of our study can help SME managers to anticipate difficulties, particularly in their relationship with their bank, and implement corrective actions to prevent financial difficulties.

Our study provides qualitative data to the Moroccan public authorities, demonstrating that the informal sector has a significant impact on SMEs in the Casablanca Settat region, particularly commercial SMEs, leading to their financial difficulties. It is therefore important to adopt an economic approach that considers the negative impact of the informal economy on businesses in Morocco, particularly SMEs, and by promoting fair regulation to encourage the emergence of fairer and more sustainable entrepreneurial environment.

However, our study has limitations: On the one hand, the sample size is limited to a single Moroccan region. On the other hand, the study only considers qualitative variables related to the characteristics of the SME and its leader. Other qualitative factors, such as organizational structure, human resources, marketing capabilities, and personality traits, could also contribute to the explanation of the phenomenon of SME failure in this region. In this regard, our study could serve as a catalyst for future researchers to expand their geographical scope and incorporate the previously mentioned variables into their econometric models, thereby enabling them to obtain more precise insights into the financial failure of SMEs in Morocco.

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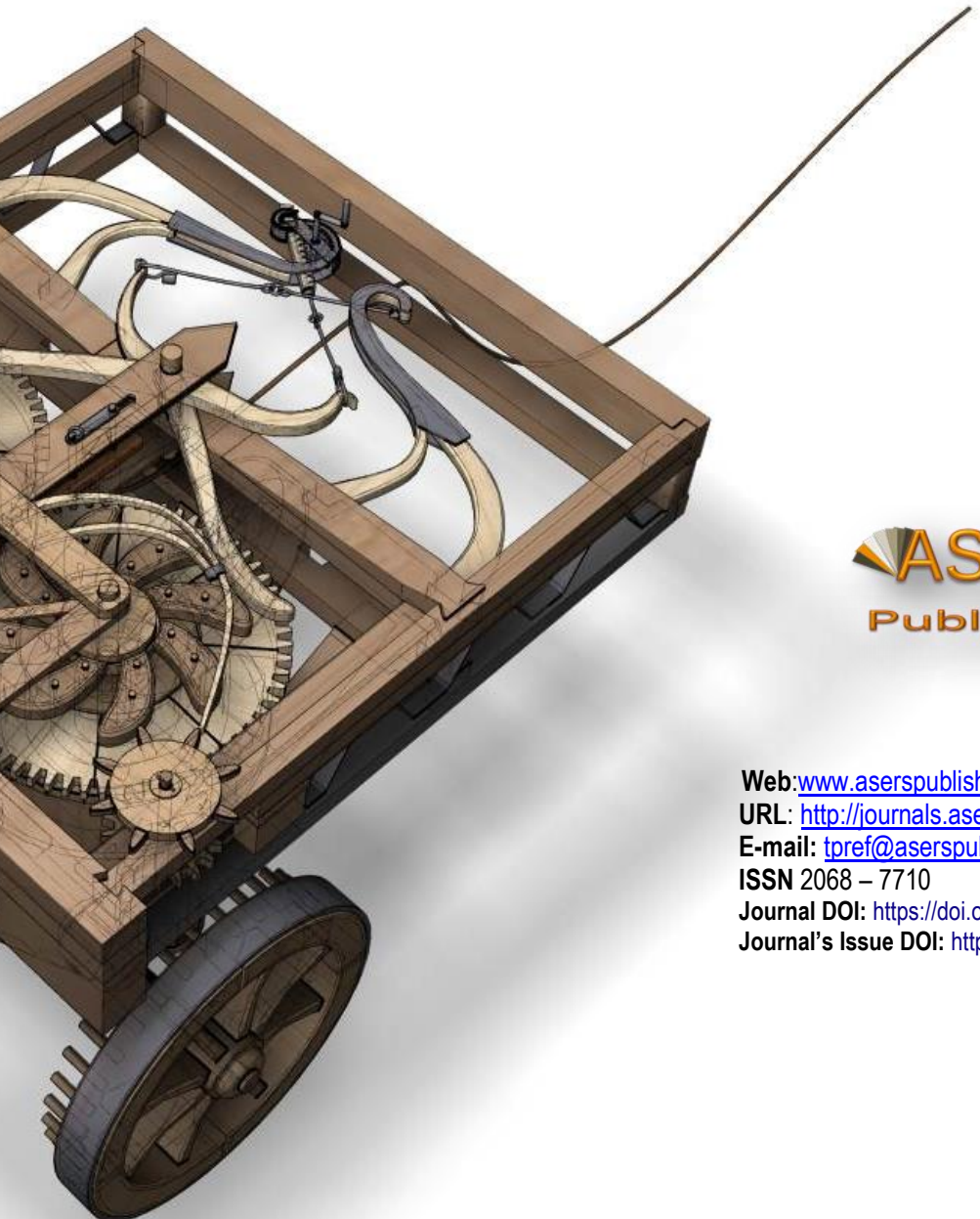

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