

# Business Failure

Subjects: Business

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As living organisms, companies follow a three-stage life cycle: they are established, they grow and develop and, at some point, their life ends more or less suddenly. Business Failure is defined as liquidation, inactivation and legal declaration.

Keywords: business failure ; business ; entrepreneurship ; bankruptcy

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## 1. Introduction

As living organisms, companies follow a three-stage life cycle: they are established, they grow and develop and, at some point, their life ends more or less suddenly. From the 1960s to the present day, entrepreneurs and scholars have been particularly interested in identifying and analysing the factors that trigger business failure based on a simple premise: it is only feasible to achieve corporate success if it is known in advance what are the reasons that lead to the failure of a given company.

Business failure occurs when a company is unable to pay its creditors, shareholders and suppliers <sup>[1][2][3][4][5]</sup>. It is often the consequence of a national economic crisis reflected in some macroeconomic variables, such as high unemployment, declining gross domestic product, declining foreign direct investment and inadequate income distribution <sup>[6][7][8][9][10][11]</sup>. These socio-economic repercussions have led to a permanent interest, from an academic and professional perspective, in finding determinants that make it possible to explain, predict and anticipate risk scenarios for the company, with the intention of taking corrective measures to avoid business failure and the possible disappearance of the company from the market.

In the last 50 years, the study of business failure has generated a notable increase in the number of works. From an academic point of view, this boom is manifested by the multiple theories and approaches that research has applied to explain this phenomenon and the large number of empirical studies on business survival in the literature <sup>[12][13][14][15][16]</sup>, whereas, from a societal point of view, it is indicated by the interest exhibited by state institutions of regulation and control, which seek to develop effective public policies that allow a better business performance to achieve economic recovery.

With the establishment of the Sustainable Development Goals (SDG) by the United Nations and the well-known Agenda 2030, the study of business failure is more topical than ever. In particular, Goal 8, decent work and economic growth, is only possible if companies survive. The economic and financial disruptions caused by the COVID-19 pandemic make it very difficult for many companies to continue in business. Only inclusive and sustainable economic growth can drive progress, create decent jobs for all and improve living standards. Preventing business failure is also necessary to achieve the end of poverty (Goal 1), the eradication of hunger (Goal 2) and the health and well-being of the population (Goal 3), as well as the reduction of inequalities (Goal 10). People must have a decent job to feed themselves, have a dignified home and reasonable quality of life. For this purpose, there must be companies that provide proper and stable employment.

## 2. Explanatory Factors of Business Failure

Business failure is an adverse and undesired event for companies that leads to insolvency scenarios and, in some cases, the disappearance of a company from the market. By exploring the extensive literature on business failure, it appears that authors propose different meanings of this phenomenon, causing variability in the results of the research they conducted. The definition given to the term business failure causes the investigative baggage to be broad and deep, since there are different interpretations of this term.

For authors such as Balcaen and Ooghe <sup>[17]</sup> and Dimitras et al. <sup>[18]</sup>, definitions of failure have been made arbitrarily in work on business failure, and this could have severe consequences for the resulting models. Many authors give business failure a legal definition of bankruptcy <sup>[19][20][21][22][23][24][25][26][27][28][29][30][31][32]</sup>. Others, instead, define business failure as financial difficulties in meeting a company's obligations <sup>[33][34][35][36][37][38]</sup>. Altman <sup>[19]</sup> initially considered as examples of

business failure those firms that were legally in bankruptcy; in contrast, in a later study conducted in 1988, he indicated as business failure cases those companies that were in a situation of insolvency or inability to meet their obligations. Laitinen and Laitinen <sup>[39]</sup> defined failure as insolvency, i.e., as a company's inability to pay its debts. For Dimitras et al. <sup>[18]</sup>, business failure is a situation in which a company is unable to meet its financial obligations.

Various authors, such as Tascón and Castaño <sup>[40]</sup>, Correa et al. <sup>[41]</sup> and Romero Espinosa <sup>[30]</sup>, summarised the different interpretations of business failure, as detailed in **Table 1**. Romero <sup>[30]</sup> classified the concept of failure into three categories on the basis of the most common definitions used in research studies: (i) inability to pay debts or obligations in the short term; (ii) negative equity; (iii) legal declaration of suspension of payments or bankruptcy. In this study, failure is defined as liquidation, inactivation and legal declaration.

**Table 1.** Definitions of business failure.

Author	Term	Definition
Beaver, 1966	Failure	Impediment to affront debts
Altman, 1968	Bankruptcy	Legal bankruptcy declaration
Deakin, 1972	Failure	Insolvency
Ohlson, 1980	Bankruptcy	Legal bankruptcy declaration
Taffler, 1982	Failure	Voluntary liquidation, the legal order of liquidation or state intervention
Lo, 1986	Bankruptcy	Legal bankruptcy declaration
Theodossiou, 1993	Bankruptcy	Insolvency, legally bankrupt
Correa et al., 2003	Bankruptcy	Insolvency
Romero, 2013	Failure	Legal bankruptcy declaration
Zmijewski, 2013	Bankruptcy	Legal bankruptcy declaration

Source: own work.

In an attempt to explain business failure, the vast literature shows that most research has been directed towards the development of statistical models, using information from financial statements, i.e., statement of financial position, income statement and cash flow statement, through the generation of variables that allow forecasting the outcome of a company.

The first contributions in this field were made by Beaver <sup>[36]</sup>, who pioneered this line of research using a univariate approach. In his work, he demonstrated that financial ratios explain a large part of corporate insolvency, specifically, the proportion of funds generated by operations with respect to total debt. Since the nature of the firm is multidimensional, this conception was quickly replaced by a multivariate approach.

Under this new approach, a new wave of research began based on multiple discriminant analysis, a technique used to classify an element into one of several groups established a priori, depending on the individual characteristics of that element <sup>[19][42][43][44][45][46][47][48][49][50][51][52][53][54][55]</sup>. Despite the great acceptance of this technique and the excellent results achieved, the validity of the results was questioned. This methodology has statistical restrictions, especially the non-compliance with the hypothesis of normality and independence of the variables.

Over time, researchers sought less stringent techniques with respect to statistical requirements, focusing their attention on conditional probability models such as the logit and probit models, which allow for predicting the probability of failure of a company subject to a set of characteristics and attributes <sup>[26][51][56][57][58]</sup>. Authors such as Lo <sup>[24]</sup> concluded that the results from applying this new technique are similar to those resulting from multiple discriminant analysis. Other authors, such as Lennox <sup>[59]</sup>, stipulated that the logit technique is more efficient than multiple discriminant analysis due to the absence of statistical requirements in the latter and the possibility of incorporating categorical variables into the model <sup>[10]</sup>.

Artificial intelligence techniques have strengthened the literature on business failure in recent years. In some cases, the results have surpassed those of studies based on statistical and econometric methods, as evidenced by some research <sup>[32][60][61]</sup>. In all these investigations, the results obtained by a neural network outperform those achieved using other statistical techniques.

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