# EXPANDED ABSTRACT

## Determinants of Corporate Failure: Effect of Social Projection of Cooperative Societies against Other Legal Forms

**A) Objectives**

We aim to analyze the incidence of a set of variables in business failure, analyzing whether they act in a similar way in conventional capitalist firms and cooperative societies. Specifically, a set of economic and financial variables (profitability, solvency, liquidity, turnover, economic structure, financial structure and activity) and a group of non-financial variables (size, age, industry and region), some of them considered as control variables in previous studies. In addition, the predictive capacity of the model is analyzed in order to identify the variables that allow to anticipate insolvency situations, taking as a reference the economic-financial data of the previous year of entry to the insolvency proceedings. The aforementioned study is carried out for all the companies in the sample, analyzing if there are particularities for the case of cooperative societies. For this, the moderating effect of the cooperative legal form is included, distinguishing between two subsamples of insolvent companies: one formed by cooperative societies and a second one that includes conventional capitalist firms.

**B) Methodology**

A review of the literature on business failure has been made, as well as on the particularities of cooperative societies, especially in economic and financial aspects and their influence on insolvency proceedings. In order to identify the main contributions to the literature and to contextualize the study object, we have used the Web of Science (WOS) and SCOPUS, edited by Elsevier, as well as other databases such as, Dialnet, Academic Search Complete, EconLit, Business Source Complete (EBSCO) and JSTOR-Business. This review allowed us to formulate several hypotheses grouped into three blocks:

- Those related to the Relationship among Profitability, Solvency and Liquidity.
- Those linked to Non-Financial Variables (characteristics of the company).
- Those related to the effect of Other Economic-Financial Ratios on Liquidity.

Taking into account these hypotheses, we formulate a model that analyzes the behavior of the companies before the business failure, identifying the same with the condition of insolvent company, being the period analyzed the included between the years 2005 and 2014, both inclusive. The data of the year prior to the entry into bankruptcy proceedings have been taken, including cooperative societies as well as other legal forms. The model uses both financial and non-financial variables, collecting indicators of aspects such as structure or rotation, along with parameters such as age or region.

A Structural Equation Model is applied, based on Partial Least Squares, differentiating between external and internal models and statistical significance.

**C) Results**

The model has been evaluated according to the reliability criteria (absence of error, showing the accuracy of the measurement instrument), and validity (degree to which an indicator measures what it must measure), at two levels (construct and associated indicators) doing differently according to the relationship were Reflective (Size, Profitability, Activity, Rotation, Economic and Financial Structures), or Formative (Industry, Region and Age).

It also examines whether there is a moderating effect of the legal form on the liquidity and solvency of the companies analyzed. For this, a Multi-Group Analysis has been performed, applying the Non-Parametric Approach or PLS MGA. The legal form has been codified as a dichotomous dummy variable, presenting value 1 for cooperative societies and value 0 for non-cooperative societies.

Regarding the study of the significance of the hypotheses raised in the model, a procedure of bootstrapping has been implemented for all the companies involved, regardless of their legal form, and for the two differentiated groups (cooperative societies and non-cooperative societies), separating the results related to the hypotheses of the relations between profitability, solvency and liquidity, the hypotheses linked to the control variables and, finally, the hypotheses related to the effect on the liquidity of the other economic-financial variables.

From the contrast of the hypotheses put forward in the model for the totality of insolvent companies, the profitability has a positive and significant influence on the Solvency, as well as the Solvency on Liquidity, evidencing a great correlation between the solvency indicators in the short term. On the other hand, the selected Economic Structure indicators would have a small negative effect on Liquidity. Within the non-financial variables are only significant, with a lower level, on the one hand the Age on Solvency and on the other the Industry on Liquidity.

If the contrast is performed for each of the subsamples, the results show some differences of the cooperative societies in the hypotheses related to the effects of the non-financial variables on the characteristics for company on Solvency and Liquidity. However, not all of these differences are significant. It is possible to affirm that the legal form moderates only the influence of the effects of the Region and the Age on the Solvency, with a level of significance of 10 percent and 5 percent, respectively, not finding differences in the other variables analyzed.

**D) Research limitations**

We can highlighted the followings limitations:

The lack of a general theory about the behavior of a company that fail. Although it is usual using economic-financial ratios model, the selection of variables is conditioned and specific for the sample on which the research is carried out, so that the predictive capacity of a model is determined by the characteristics of the sample used. Therefore, there are already studies that include other qualitative variables that can increase the predictive capacity of the models.

The absence of a consensus on the concept of firm failure, taking as reference in this research the legal criterion, being the most used in most studies, given that it has less arbitrariness. This fact implies a reduction of the size of the sample and, therefore, of the results achieved.

The difficulties and limitations of the access to the data of the companies of small dimension, characteristic that underlies in the entities object of this study.

The effect of the change in Spanish accounting regulations that occurred in 2008 in the information of the sample companies, as a consequence of the adoption of the International Accounting Standards by the European Union. It should be taken into account that the time horizon contemplated for the sample data used is the period from 2005 to 2014.

**E) Implications, conclusions and original value**

In view of the results obtained, Profitability, Solvency and Economic Structure anticipate possible situations of business failure. The first two have a positive effect on long-term and short-term solvency, corroborating the hypotheses raised in the bibliography consulted, while the second one would have a negative effect, evidencing that a higher result in these indicators implies a lower weight of current assets, reached lower liquidity.

When analyzing the application of the model to cooperative societies, it is verified that the three variables mentioned are valid and significant for this legal form, so the model is also applicable to them. However, there are four differentiating factors: Region, Age, Size and Financial Structure, presenting significant differences only in the first two.

**KEYWORDS**: Contest creditors, cooperatives, insolvency, economic information financial, Model PLS.