

How do financially distressed companies overcome decline economics essay



**ASSIGN
BUSTER**

The present paper analyzes the recovery process of 526 US firms facing an initial financial distress situation in order to determine the variables of influence on their final survival status. The proposed model of this recovery process implies that severity and reaction capability should be understood as initial conditions that will impose restrictions in the selection of strategies which will drive the performance during recovery, thus, determining the final resolution of long term financial distress process. We found that these variables have an impact on i) the ability of a company to overcome decline; ii) the efficiency of the selected strategies and iii) the results of these strategies on post-distress fit position.

Keywords: Recovery process, financial distress, severity, Data Envelopment Analysis

Introduction

Every organization is inevitably exposed to ups and downs during its lifecycle (Krueger and Willard, 1991; Burbank, 2005) and failure is not a sudden event (Agarwal and Taffler, 2008). The ecological theory of organizations states that in a continuous process of firms, those who survive are better capable to compete. Kahl (2001) defines “fittest firms” as the ones that have greater chance to survive. In this way, the financial distress process should be understood as a selection mechanism by means of which good performers survive and bad performers do not. In this same line, Sheppard and Chowdhury (2005) consider that failure is a firm’s misalignment with its environment.

Failure is a reversible process and not necessarily degenerative if the company is able to detect signs of underperformance and to achieve an effort in its economic performance. Firms facing a distressed financial situation usually share a series of common patterns which make it difficult to estimate a possible outcome of this situation (Barniv et al., 2002). Among the distressed firms, there are little divergences in the financial weakness indicators in the different failure processes (Ooghe and Prijcker, 2008). The dissimilarities between the failure stages and the turnaround effectiveness as well, become evident on the how quickly the indicators evolve and on the ability of the management to react when distress signals are detected. Ignoring these alert signals may lead to a continuous decline process which may end up in failure without even trying any recovery strategy (Burbank, 2005).

Managing a crisis situation is a fundamental issue as it is not a spontaneous process. Moulton and Thomas (1993) affirm that the reorganizations during a financial distress situation are not a simple matter and the probability of a successful exit is very low. However, the percentage of firms that succeed in getting through decline cannot be disregarded. Barniv et al. (2002) found that 50% of the sample firms which filed bankruptcy from the Office of the General Council of SEC resolved their situation as emerged firms. One third of the financially distressed firms in Kahl's (2001) study survived as independent companies. Moreover, González-Bravo and Mecaj (2011) found that 22.5% of sample firms presenting a strong crisis situation were still active in the market 10 years later. Yet, we should consider that the exit from a difficult condition, as Moulton and Thomas (1993) sustain, is only the

beginning of the story. Not all the successfully exiting firms manage to keep the new situation stable. For some firms, operating in a crisis situation constitutes their normal state of environment with crisis periods that can attenuate or loose up. Anyway, being able to maintain this kind of condition is also a manner to survive. In this sense, Kahl (2002) states that the financial distress should be considered a long term process that makes firms end up debilitated even after having recovered from decline. This weakness is observed in poor performance that inevitably may again drag the firms to a new financial distress situation. Hotchkiss (1995) attested that during the first five years after exiting a bankruptcy, 35 to 40% of firms show negative operating income and up to one third of the firms that manage to ease their distress through debt restructuring re-enter a financial distress situation a few years later.

Several studies have shown that different factors may determine the exit from a crisis situation. These factors may have a direct influence on the recovery process or on the capacity of the company to develop appropriate redirection strategies. The initial severity degree is considered an important hurdle in implementing successful actions. In this line, Smith and Graves (2005) found that, among all variables of the study, severity and firm size were the only variables significantly important during a turnaround process. Other authors (Robbins and Pearce, 1992; Pearce and Robins, 1993; Harker and Harker, 1998) state that strategies oriented towards cost reduction and efficiency improvement were safe bets for a favorable outcome. However, Castrogiovani and Bruton (2000), Sudarsanam and Lai (2001) or Smith and Graves (2005) affirm that no positive relation could be found between

certain strategies and successful outcome. These results indicate that severity, through its influence on the selected strategy, could be an indirect factor in the turnaround process (Robbins and Pearce, 1992).

More consensual results were obtained when stating that the performance in-distress is fundamental for the outcome of the difficult situation. In particular, it is observed that successful companies show better returns when compared to unsuccessful firms (Routledge and Gadene, 2000; Pearce and Doh, 2002; Kahl, 2001).

The present paper analyzes the recovery process of 526 US firms facing an initial financial distress situation in order to determine the variables of influence on their final survival status. The proposed model of this recovery process states that severity and reaction capability should be understood as initial conditions that will impose restrictions in the selection of strategies which will drive the performance during recovery, thus, determining the final resolution of long term financial distress process. These variables have an impact on i) the ability of a company to overcome the difficult situation; ii) the efficiency of the selected strategies and iii) the results of these strategies on post-distress healthy position. The proposed model considers that final survival status measures the welfare quality of a firm based on its risk to re-enter in distress, so it discriminates well performers and best performers during the management of a crisis process.

Overcoming a financial distress: Determinant factors

Even though some weak crisis situations tend to show a natural evolution throughout the “ exit” and may be solved by simply making “ routine”

decisions (González-Bravo and Mecaj, 2011), recovery process is not a “spontaneous” event. The distressed firms will face a long term scenario involving a continuous effort of adaptation to the diverse situations through which a firm passes during the upturn. The effort invested in this process will allow the reestablishment of stakeholders’ trust, while the variables related to solvency and profitability gain stability (Burbank, 2005). Companies that do not have a long term orientation and just adopt patch strategies do not usually reach successful exits (Pretorius, 2008). However, certain initial conditions may affect the reaction capacity as well as the effectiveness of the measures taken by managers.

Severity

Similar to a disease process, the gravity of the initial crisis position not only conditions the measures to take but also their success possibilities. Firms that face worse starting situation need to make greater efforts. In this sense, Robbins and Pearce (1992) affirm that there exists a relationship between retrenchment strategies and performance in firms having a severe starting situation while this relationship is not observed in firms facing a weak crisis state. Although Smith and Graves (2005) indicate that the gravity of the starting situation is strongly associated with the probability of recovery, Kahl (2002) sustains that the financial distress diagnosis is an imperfect indicator of the economic feasibility of a firm. In the same line, González-Bravo and Mecaj (2011) affirm that the severity of the initial situation, observed in widely accepted indicators, does not have to be a crucial factor in the outcome of the crisis. Perhaps, following Moulton and Thomas (1993), the initial gravity status has an influence over the process of recovery more than <https://assignbuster.com/how-do-financially-distressed-companies-overcome-decline-economics-essay/>

on the final resolution. Thus, severity determines the rate of recuperation, so that the harder the severity, the greater the effort to react and the slower the process of healing the levels of solvency and profitability. This effort during the process, and not the starting situation, may be the main determinant of the final outcome. Moreover, solvency and profitability indicators such as continuous negative results, inability to generate income by means of operating activity, continuous solvency and/or liquidity problems or incapacity to generate cash flow which reflect problems in the health of the company, are widely accepted as measures of severity degree (Mutchler and Williams, 1990; Gilbert, Menon and Schwarz, 1990; Ponemon and Shick, 1991; Poston, Harmon and Gramlich, 1994; Geiger, Raghunandan and Rama, 1995; Raghunandan and Rama, 1995; Davydenko, 2007).

Reaction capability

The possible effect of severity on the initial state may be mitigated if the firm counts on appropriate resources which increase the probability of a successful recovery. The structural reaction capability may ease the recovery process to a safe position cushioning the possible actions to implement. The capacity to obtain additional funds or generate additional incomes to implement treatment strategies can soothe the prior pressure imposed by a deteriorated financial distress position. In this sense, Barker and Duhaime (1997) associate successful turnaround processes with increases in sales that make companies have more options to undertake change strategies. Similarly, Pearce and Doh (2002) affirm that firms in distress that used debt and supported their sales to improve profitability successfully solved their difficult situation. They also state that changes in <https://assignbuster.com/how-do-financially-distressed-companies-overcome-decline-economics-essay/>

activity and in leverage level are associated with different phases of a turnaround process. In turn, Jostarndt (2006) identifies three factors which could be helpful to measure the risk of becoming financially troubled. An excessive leverage level, a poor firm performance, and an industry downturn may inhibit firms from obtaining the right amount of cash flow to operate normally. Firm operating performance trend dominates as the reason causing financial distress showing that a firm may fail but not only for financial reasons. This allows the author to consider an association between financial distress and economic distress. These results are comparable to the patterns evidenced by González-Bravo and Mecaj (2011) when distressed firms with remarkable financial reaction capacity and/or a solid financial structure evolve mainly toward a healthy zone. However, concerning debt structure Kahl (2001) did not find evidence on if the debt level or the debt structure of a firm influences the final outcome of a crisis situation.

Severity Status and Reaction Capability, as initial restrictions, could be moderated by firm size when considering the exit from a crisis situation (Moulton and Thomas, 1993; Barniv et al., 2002; Schutjens, 2002). Altman and Hotchkiss (2006) found that one of the most obvious factor that discriminates between firms that successfully restructure and those that liquidate, after being classified inside Chapter 11, was the firm's size. Nevertheless, other works observe that this variable did not present any clear relation with the survival chance (Kahl, 2001; Ooghe and Prijcker, 2008). Possibly, firm's size does not determine the final resolution of a distress situation but it influences the reaction capability to confront it,

moderating /strengthening the drawbacks when additional support should be guaranteed and restructuring decision must be made.

Performance in-distress

Regardless of the initial state restrictions, the adopted strategies and the behavior of companies during a financial crisis are crucial for the “ exit” process (Sun and Li, 2007). An inappropriate diagnosis of the firm’s weaknesses in order to act and react quickly may lead to a fast deterioration of the financial indicators (Barker and Duhaime, 1997). Beaver (1966) already stated that if a difficult situation was properly detected, measures that lead to an improved position could be taken, avoiding so a state of ultimate failure. A series of strategies and action plans should be implemented aiming to reduce the detected weaknesses of the company (Smith and Graves, 2005; Krueger and Willard, 1991, Robbins and Pearce, 1992; Pearce and Robbins, 1993; Arogyaswamy et al., 1995; Castrogiovanni and Bruton, 2000, Pearce and Doh, 2002 and Pretorius, 2008).

The operating performance during the recovery process drives a successful evolutionary route towards a new healthy scenario (Kahl, 2001; Routledge and Gadenne, 2000). Improving efficiency through some actions like cost cutting and/or asset reduction is crucial in this sense, having a positive impact on firm’s performance despite the underlying weaknesses (Robbins and Pearce, 1992; Pearce and Robbins, 1993; Harker and Harker, 1998).

Firms facing a distress situation and carrying out a retrenchment strategy are more likely to survive, even though the performance was statistically not greater than that of not retrenched firms (Castrogiovanni and Bruton, 2000).

In this sense, Sudarsanam and Lai (2001) showed that the strategies applied by firms successfully recovering were not that different from the strategies applied by firms that did not recover. So, the implementation efficacy was the cause of these differences, even though more intensive restructuring was done by firms that could not redirect their situation.

The effectiveness of efficiency oriented strategies is supported by the results showing that firms resolving a situation of financial distress are statistically more profitable than those who did not settle (Campbell, 1996; Routledge and Gadenne, 2000; Pearce and Doh, 2002). These authors found that operating efficiency was the only variable used in distinguishing successful turnarounds from unsuccessful ones that significantly persisted during the recovery process. Kahl (2001) also stated that, in-distress, operating performance has a strong positive relation with the survival prospect. In particular, the author shows that an improvement in the standard deviation of ROA during a crisis period can increase the survival probability up to 0.62. In the same line, González-Bravo and Mecaj (2011) found evidence that the companies positioned in a "safety zone", starting from a situation of failure status, are characterized by a strong managerial action measured by ROA ratio, generating furthermore higher operating cash flow. However, other authors such as Barniv et al. (2002) or Laitinen (1993) found that the ROA coefficients were statistically not significant in predicting the outcome of a crisis situation.

The post-distress status

The main objective of a firm facing a distress situation is to heal the crisis state. Some researches, oriented to modeling the variables that influence a recovery process, identify the final stage of this process when a firm objectively exits a failure situation emerging as an independent firm, leaving Chapter 11 classification or keeping a defined period of positive income (Smith and Graves, 2006; Barniv et al., 2002; Altman and Hotchkiss, 2006; Kahl, 2001). However, the accomplishment of this objective should have one necessary quality condition. The new post-failure position should be achieved in suitable conditions that would permit an appropriate and continuous growth and performance rate.

A financial distress process could place a firm in a weak position, even if it had managed to solve its difficulties, inciting a poor performance that inevitably makes it enter again in an emergency situation (Kahl, 2002). If a firm does not emerge profitably in the restructuring phase, in order to achieve a long term success, the probability of a successful exit process is very low (Burbank, 2005). In this sense, Hotchkiss (1995) showed that up to one third of the firms that relieve their conditions by means of debt restructuring tend to go into a financial distress situation few years afterwards. With regard to post-distress position, Robbins and Pearce (1992) affirm that industry indicator variations should be considered in order to better identify the good performers or the exceptional good performers during turnaround. Despite of the assessment of Altman and Hotchkiss (2006) stating that the firms overcoming a Chapter 11 situation perform below firms of the same industry that did not pass through that same

situation, Kahl (2001) found that the post-distress operating performance of firms getting through a crisis situation is similar to the industry performance.

The model of recovery

When a firm is facing a distress situation and considering all the above analyzed dimensions, severity and reaction capability should be understood as initial conditions that will impose restrictions in selecting the strategies which will drive the performance during recovery, thus, determining the final resolution of long term financial distress process as shown in Figure 1.

(Figure 1 here)

The left side of the diagram gathers the initial determining factors to initiate the recovery process, outlining the firm's ability to improve its future and overcome the difficult situation. Severity Status offers valuable information about the initial degree of gravity of a firm's situation. This degree will condition the actions to be taken in a deteriorated situation and the possible outcome as well. Reaction Capability measures the firm's capacity to apply such actions through: i) the possibility to obtain further resources without worsening its position, ii) the capacity of debt negotiation or iii) the ability to generate additional incomes which may facilitate the application of strategy changes.

The right side of the above Figure 1 defines the final subsequent status of firms, once specific actions have been taken. Post-distress Status shows the effectiveness of the management effort in a crisis situation, not only because the firm solves the initial state, but also since the new position is reached

evidencing a well performance to set a suitable continuity in the new balanced situation. Accordingly, Post-distress status assesses the quality of firms' welfare accounting for the risk to re-entry into distress discriminating well performers and best performers in a crisis management process. In a distress context, a well-performer just achieves the objective (i. e. exiting the crisis situation) while best-performers are located in a new healthy scenario minimizing the likelihood to reenter in distress.

Hence, considering the above model, the following hypotheses will be tested:

H1: Severity degree of financially distressed firms is likely associated with the post distress status.

H2: Reaction Capability of distressed firms is positively related to a fit final position after recovery process.

H3: Performance in-distress is positively related with the welfare of the post distress status.

H4: Retrenchment strategies have a positive influence on the outcome of a distressed situation.

H5: Size of financially distressed companies is associated with the final position after recovery process.

Methodology, sample and variables

To test the hypothesis we use the financial data of US firms derived from the Compustat Database in an eight year period: 1993-2000 which is considered to be economically appropriate for the analysis. Smith and Graves (2005)

<https://assignbuster.com/how-do-financially-distressed-companies-overcome-decline-economics-essay/>

affirm that in an economic expansion context distressed firms could easily perform a successful turnaround. Particularly, the US economy experienced an economic expansion during the analyzed period. According to the National Bureau of Economic Research (2001), a peak in business activity occurred in the U. S. economy in March 2001. A peak marks the end of an expansion and the beginning of a recession[1]. So, the year 2001 was marked by events like the Dot-Com Bubble, Stock Market Crash, the loss of investor's confidence in the Stock Market or the emergence of corporate fraud and corporate governance. The September 11, 2001 attacks also, may have been an important factor in turning this decline in the economy into a recession. The financial data for the years after 2000 would be, to a greater or lesser extent, influenced by all these external factors.

From a total of 1721 companies that offer complete data in their financial statements during all years, only the ones that presented a crisis situation in the first year of analysis, 1993, were selected.

We consider a crisis status as a variety of enterprise adversity situations that threaten the future viability of the company (Turetsky and Mcwewn, 2001; Graveline and Kikalari, 2008), which show some " incapacity" to generate resources and/or to fulfill the payment of debts in time. This " incapacity" can be transitory and of a major or minor gravity and it can be observed through a series of symptoms alerting that the health and the future of the company are at risk. Considering this general approach and following González-Bravo and Mecaj (2011), we classify a firm as financially distressed if, in the first year of our analysis, it presented one or more of the following

criteria: Negative Net Income, Negative Operating Income, Negative
<https://assignbuster.com/how-do-financially-distressed-companies-overcome-decline-economics-essay/>

Retained Earnings, Negative Working Capital, Negative Cash Flow, Negative Operating Cash Flow and Negative Shareholder's Equity. In agreement with Gilbert, Menon and Schwartz (1990), to prevent the selection of firms that only had a poor performance in the starting year firms presenting merely a Negative Net Income for the year 1993 were not selected. This criterion made possible that poor performers were selected only when they also showed a continued instable situation such as losses in previous years or solvency problems. As a result, our study is performed on a total of 526 companies that satisfied all the previous conditions. Table 1 shows the principal features of the analyzed sample.

(Table 1 here)

The number of observed symptoms permits an objective a priori classification based on the gravity of the starting situation. A firm would experience a weak crisis if it presents three or less criteria and, on the contrary, a strong crisis if it shows 4 or more. Following this further, in the first year of the analysis 77.38% of the firms encounter a weak crisis while 22.62% are facing a situation of strong crisis.

Variables

Severity Status, Reaction Capability and Fitness Status, as representative indicators of post-distress position, in the above proposed model (Figure 1) are built by gathering information given by some individual variable-indicators according to the features evaluated. The complete picture integrating the model and variables is showed in Figure 2.

(Figure 2 here)

Severity status (SEV_STAT) should be understood as an index assessing the degree of severity distress by seven financial ratios. These ratios correspond to the 7 symptom-indicators used to classify a firm as being in financial distress previously described, all divided by Total Assets in order to eliminate the size effect. Ratios such as: Net Income/Total Assets, EBIT/Total Assets and Retained Earnings/Total assets, representatives of the economic performance, are also commonly used to determine the existence of a decline phase in turnaround and recovery research (Pearce and Robins, 1993; Arogyaswamy et al., 1995; Smith and Graves, 2005). Negative Operating Cash Flow is also an indicator of liquidity deterioration and of financial distress probability (Anandarajan et al. 2001; Bell and Tabor, 1991; John, 1993). These seven indicators should be considered in a negative direction with respect to financial distress. That is, the lower value of the indicators, the worse the starting situation of the firm. In the same way, the more the number of negative indicators in a firm, the higher the crisis severity degree will be.

Reaction capability is evaluated through three indicators: Sales/Total Assets (TURNOV), Shareholders Equity/Total Liabilities (FIN_AUT) and Current Assets/Current Liabilities (SOLV). The first one reflects the capacity of the company to enhance profitability while the other two indicators are linked to the financial structure of a firm and enable us to value its self-sufficiency and solvency. Together, these three variables measure the capacity of a firm to obtain external and additional funds or to reorganize its debts, the short term response capacity and the ability to generate resources.

<https://assignbuster.com/how-do-financially-distressed-companies-overcome-decline-economics-essay/>

Fitness status (FIT_STAT) is defined as an index measuring the final health position on an objective and on a quality base as well, by means of 4 variables. Final Position is a categorical variable which indicates the existence or not of a crisis situation, when the firm still presents any symptom of distress. This variable takes value 0 if the firm exits successfully and doesn't present distress signals or value 1 otherwise. Additionally, to measure the health quality of this position, we follow the approach of Jostarndt (2006) when he identifies three factors that could cause financial distress: excessive leverage, a poor firm-specific operating performance and an industry downturn. These factors could be interpreted as indicators of the incapacity of a firm to generate cash flow which may influence a continuous economic and financial deterioration. The variables are defined as follows: (For further details on all variables calculation refer to Appendix B):

Debt payment level: it permits the evaluation of the effects that a higher debt level of a firm has on cash flow generation, with respect to the industry where it operates. It indicates the level of interest payment the firm is paying compared to the median of the sector. If the level is above the median, the firm is paying more than other firms, so it should reduce it.

Firm Performance: It measures the effects that a poor performance, lower than the median of the industry, has on cash flow generation. It measures the operating income of a firm compared to the median of the sector. It indicates if the firm is performing above or below the median of the sector.

Sector performance: it allows analyzing to what extent the trend of the performance of the sector where the firm operates influences its capacity to

generate cash flow if it behaved as the industry average. This item measures the improvement or the deterioration of a sector's performance, compared to its performance the year before.

These three variables measure the risk of distress which could be the consequence of leverage problems or economic issues, including the downturn of the industry. The former three defined ratio-indicators should be understood in a negative sense, thus, the higher the three ratios are, the worse the quality position of the firm and the greater the probability of financial distress. Therefore, Fitness Status variable measures the position of a firm t years after the financial distress has been detected, allowing to evaluate the performance in managing a difficult situation.

Severity Status and Fitness Status indexes could be interpreted as two composite indicators gathering the information of 7 and 3 individual ratios, respectively. To overcome some of the drawbacks of aggregated indexes, such as the degree of subjectivity in attribution of weights to each individual component (Munda, 2005; Messer et al., 2006; Munda and Nardo, 2009; Ramzan et al., 2008), we decided to use Data Envelopment analysis to summarize the complex information in just one index (Nardo et al., 2005a; Cherchye et al. 2008; Dyckhoff and Allen, 2001). DEA is a non-parametric performance measurement technique, based on a productivity approach, widely used to evaluate the relative efficiency of Decision Making Units (Cooper et al., 1999; Seiford, 1997; Gattoufi et al. 2004; Sherman and Zhu, 2006). However, this methodology has also been used to create indexes combining different components by means of an optimization process, when the structure of weights of these components is not known, and without <https://assignbuster.com/how-do-financially-distressed-companies-overcome-decline-economics-essay/>

making any assumption concerning the internal operations of a DMU (Cherchye et al., 2006; Zhu, 2000 and 2001; Puig-Junoy, 1998; Sexton and Lewis, 2003). Thus, both Severity Status and Fitness Status scores are obtained applying a DEA model without explicit inputs, called DEA-WEI models by Liu et al. (2011). This formulation, discussed by Lovell and Pastor (1999), considering a model with only outputs and a single constant input, has been used by Chen (2002) and Cooper et al. (2009), and it is similar to other approaches as DEA-R (Despic et al., 2007) or DEA-Index composite (Cherchye et al. 2008).

Fitness Status use as DEA variables a series of indicators that measure negative features of a firm and they are also linked to the possibility of presenting a marked financial distress situation. This consideration is in agreement with the called pessimistic DEA approach, where the efficiency frontier contains, using Azizi and Ajirlu (2011) terminology, the worst-practisers as efficient in being poor-performers. In this way, DMUs scoring unity or close to unity levels will be the ones with higher degree of severity in their financial distressed situation. Furthermore, Fitness Score DEA manages a categorical variable - Final Status - indicating the existence or not of distress symptoms. In this sense we follow the approach of Banker and Morey (1986) concerning the treatment of exogenously fixed data.

To measure the strategies and the behavior of firms during distress, profitability and downsizing actions have been included in the analysis. With regard to profitability, we use ROA in the last year of the analysis (ROA) and the average of its variations in the previous years (ROA_AVG) to measure the impact of efficiency oriented strategies to the final post-distress position.
<https://assignbuster.com/how-do-financially-distressed-companies-overcome-decline-economics-essay/>

Concerning downsizing actions, variations in total assets during previous year are included to measure the impact of retrenchment strategies (RET_STG)

Finally, to control the size effect (SIZE), natural logarithm of sales [$\ln(\text{sales})$] is included in the analysis in order to assess the influence of size on the possibility to return on a healthy scenario.

Methodology

The DEA score Fitness Status will be treated as a dependent variable in order to analyze to what extent post-failure position could be explained by issues such as severity, reaction capability or certain strategies implemented by the firms. Many different approaches can be found in the literature when a DEA score is used as a dependent variable of a regression to relate “efficiency” to the factors and study their influence on the former. The consideration of the DEA score as a censored variable (showing values between zero and unity) has been the argument for using regression censored models such as Tobit. On the other hand, Mancebón and Molinero (2000) do not share this opinion and affirm that efficiency takes natural limits of zero and one and they estimate a model of the log type to explain inefficiency. In the same line, Puig-Junoy (1998) considers that DEA scores do not fit the theory of sampling censoring for Tobit models explaining inefficiency by a multiplicativ