TIME LIMITS EFFICIENCY IN BANKRUPTCY: EMPIRICAL RESEARCH IN CROATIA

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ABSTRACT

World crises, limitations of domestic markets and inflexibility of management lead to increasing number of companies entering into bankruptcy. Bankruptcy costs depreciate company assets. The aim of this study is to perform the first research based on actual data on the duration of bankruptcy procedures on a sample of 457 bankruptcies completed in Croatia in last 3 years. The results of the research show that the average duration of bankruptcy procedures is 3.2 years, which is close to the figure produced by the research of the World Bank but still far from time limit of 1.5 years set by law.

I. INTRODUCTION

In Croatia, the narrow border between business survival and bankruptcy is unfortunately a common known fact to many employers and employees who live in constant agony.

Each crisis begins with insolvency because if the results and profits of accomplished businesses are not followed by a corresponding cash flow, the company enters into a cycle of no return.

Once the company enters into the bankruptcy procedure, the main goal of the trustee is to gain the maximum of value out of the bankrupt estate in as short time as possible and to distribute that value to creditors.

The present research analyzed the duration of bankruptcy procedures so that, based on the results of completed bankruptcy procedures in Croatia in last three years, the Croatian position can be determined in relation to research of the World Bank (WB) and the limits set out in the bankruptcy laws of the Republic of Croatia.

II. BANKRUPTCY

Bankruptcy procedures are executed when the legal terms are met for the initiation of the procedure. The most common causes in all countries are insolvency and illiquidity. Bankruptcy is voluntary when the company itself initiates bankruptcy because all possible solutions to resolve illiquidity issues have been tried without success. Apart from this case, most companies enter into compulsory bankruptcy initiated by their creditors, whether they are employees, suppliers, or creditors. Only a small number of companies successfully reorganize and continue their business activity as a result of bankruptcy procedures. Most companies end up in a real bankruptcy procedure, which entails the end of business activity, termination of employment contracts, selling the company's assets, and partial settlement with creditors.

In all countries, bankruptcy procedures conclude with more or less success with reorganization or total liquidation of the debtor, with the latter being the most common outcome.

The literature (Altman, 1993) offers four generic terms: failure, insolvency, default, and bankruptcy.

Bankruptcy acts of all countries proscribe that the goal of bankruptcy procedures is to settle creditors with as large an amount and in as short time as possible from funds in the debtor's bankruptcy estate. The world economic system as well as the changes in relations of the companies and their surroundings have had a direct effect on fundamental economic postulates and economic criteria of business success and company management. Jassie Hagen of U.S. Bank (Newton, 2010) stated that the main reasons for failure of company are:

- The absence of a solid business plan:78%,
- Too optimistic prognoses on sales and required funds: 73%,
- Not recognizing or ignoring the weaknesses and not seeking help on time: 70%,
- Inadequate business experience: 63%,
- Inadequate understanding of cash flow management: 82%,
- Starting the business with insufficient funds: 79%,
- Incorrect pricing of goods and services: 77%,
- Insufficient marketing: 64%,
- Not understanding or ignoring the competition: 55%,
- Too much focus on a single buyer: 47%,

- Not delegating work: 58%, and
- Employing wrong kind of personnel: 56%.

Bankruptcy is very often caused by several connected factors so that it is impossible to determine which of them caused the bankruptcy. According to the research conducted by Dun and Bradstreet (Newton, 2010), 47% of business closures occur for financial reasons, and 40% of those occur because of high operational costs, 3.6% result from the high rate of state taxes and fees, and only 3.2% result from insufficient capital.

III. THE BANKRUPTCY ACT IN CROATIA

The goal of each bankruptcy procedure is to settle the debtor's creditors by cashing in the bankrupt company's assets in as short time as possible and dividing these accumulated funds among creditors (art. 2 of the Bankruptcy Act).

In Croatia, bankruptcy can be performed with the assets of a legal entity as well as the assets of an individual debtor (private entrepreneur and craftsmen; art. 3 of the Bankruptcy Act). Unlike Great Britain, the United States, and many other countries, Croatia does not allow bankruptcy to distributed asset that belong to a natural person.

Reasons for the initiation of bankruptcy procedures in Croatia are similar to those of other countries and are proscribed by article 4 of the Bankruptcy Act. These reasons include inability to pay and excessive indebtedness. A debtor is enabling for payment if he cannot settle his due monetary obligations over a longer period of time.

The personnel involved in bankruptcy procedures include the trustee, bankruptcy judge, assembly of creditors, and the board of creditors (art. 15 of the Bankruptcy Act). The trustee undertakes the organization of and performs the bankruptcy procedure (i.e., cashing in the bankrupt estate). After the conclusion of final division, the judge issues a decree that ends the bankruptcy procedure. Article 193 of the Bankruptcy Act dictates that the closing hearing will be no later than a year and a half after the reporting hearing unless this is not possible because of a pending administrative or court case, which is a preliminary issue for conclusion of the bankruptcy procedure (art. 193 of the Bankruptcy Act).

IV. THEORETICAL BACKGROUND

A review of the literature review reveals large numbers of models designed to predict bankruptcy. One of the first in this area was Beaver (1967), who applied univariate analysis set of financial ratios to discriminate failed and nonfailed companies. The most famous failure predication model is the Z score by Altman (1968). Altman used linear discrimination analysis. After that, many others have also worked on predictive bankruptcy models: Edmister (1972), Wilcox (1971), Libby (1975), Blum (1974), Altman and Lorris (1976), Sharmaand and Mahajan (1980), Dutta and Shekhar (1988), Ohalson (1980), Klecka (1981), Maddala (1983), Theodossiou (1991), Coats and Fant (1992), Guajarato (1998), Morris (1998), and so on.

Several others studies have been conducted in Croatia, including Mirjana Pejic-Bach (1997), Branko Novak (2003), Novak and Crnkovic (2007), Vitezic (2006), Zenzerovic (2006), Sarlija, Bensic and Zekuc-Susac (2004, 2006).

As the main goal is to settle creditors in as short time as possible with as large a percentage of the bankruptcy estate as possible, the duration of bankruptcy procedures is especially significant and more so because extensions of bankruptcy procedures create additional costs and decrease the gained value. Because of this, many countries' bankruptcy acts have introduced a time limit for the duration of bankruptcy procedure. In Croatia, the time limit is 1, 5 years.

FYR Macedonia, Poland, Portugal, Serbia, Slovakia, Spain and the United States have all either introducedor shortened statutory deadlines for bankruptcy proceedings. Imposing time limits also makes bankruptcy cheaper: reforms in Bulgaria, Estonia and the United Kingdom have halved bankruptcy costs. But some countries have bucked the trend. Thailand abolished a 1999 regulation limiting appeals, making it easier for debtors to abuse the appeals process and prolong bankruptcy. (Doing Business in 2008, 2008, p. 1).

However, even with this kind of statutory time limit it is not always possible to complete the bankruptcy procedure (i.e., to cash in the bankruptcy estate at maximum possible value). Very often a need arises to continue the bankruptcy procedure even after its closure because of pending litigation, court procedure, or subsequently located debtor assets that must be cashed in and subsequently distributed to bankruptcy creditors.

According to the research of Hotchkiss (1992, as cited in Altman, 1993) the liquidation average of 1.52 years was established in Firms Filing Multiple Bankruptcy (Chapter 22, 1979 to 1992).

“The 2005 Act limits the extension to a maximum of 18 months, which is, perhaps not by coincidence, close to the average time in bankruptcy (20 months)” (Altman, Hotchkiss, 2006, p.76).

The World Bank regularly conducts research on the main indicators of bankruptcy, such as the duration of the procedure, indicators that maintain the priority of debt settlements, indicators of efficient outcomes, indices of court authority in the procedure, and indices of success in achieving the three goals of the bankruptcy procedure.

The method used by the World Bank was jointly developed by Simeon Djankov, Oliver Hrat, Tatiana Nenova, and Andrei Shleifer from Harvard University (US), the World Bank Work Group, and the International Finance Corporation, in collaboration with Oxford University Press. The Bankruptcy Committee of International Bar Association also has researched the basic indicators of bankruptcy procedure quality in the world, including Croatia.

The information gained from surveys and the opinions of interviewed participants represents only the opinions of survey participants and do not necessarily reflect the actual state. Survey participants were people with much experience in bankruptcy, including bankruptcy judges and attorneys at law. The survey presented a hypothetical case of a company with business problems. The participants had to assess specific parameters of the case, each for his/her own country, all based on detailed specifications of the hypothetical case.

Information provided by the survey cannot be used as a strict measurement or realistic statistical indicator of the duration of bankruptcy procedures in an individual country, but they can be the ground for comparing individual countries with the rest of the world (i.e., as general references and frame indicators of quality of bankruptcy systems of an individual country). The duration of bankruptcy procedures is shown in years and represents the average duration needed to complete the bankruptcy procedure. In 2004 in Croatia, the research entailed 16 participants and law offices, and in 2008 the number of participants was 69.

Table 1. Quality of Bankruptcy Procedure Indicators in Croatia and Other States (2004, 2008, 2009)

	2004	2008	2009
State		TIME (years)	
Austria	1.1	1.1	1.1
Bosnia and Herzegovina	3.3	3.3	3.3
Bulgaria	3.3	3.3	3.3
Croatia	3.1	3.1	3.1
Czech Republic	6.5	6.5	6.5
Finland	0.9	0.9	0.9
France	1.9	1.9	1.9
Germany	1.2	1.2	1.2
Greece	2.0	2.0	2.0
Hungary	2.0	2.0	2.0
Italy	1.8	1.8	1.8
Macedonia, FYR	3.7	3.7	2.9
Poland	3.0	3.0	3.0
Serbia	2.7	2.7	2.7
Slovak Republic	4.0	4.0	4.0
Slovenia	2.0	2.0	2.0
Switzerland	3.0	3.0	3.0
United Kingdom	1.0	1.0	1.0
United States	1.5	1.5	1.5

Source: Doing Business 2011, retrieved April 4, 2011, from http://www.doingbusiness.org/reports/global-reports/doing-business-2011/

V. THE GOALS AND HYPOTHESIS OF THE RESEARCH

The research in Croatia is more difficult because no one other than the participants in the bankruptcy procedure permitted to view the bankruptcy documentation. For this reason, this research has been conducted using a database of bankruptcy procedures announced in the Official Gazette of the Republic of Croatia and collected by author of this research.

The working hypothesis is that duration of bankruptcy procedures in Croatia is shorter than the average given by World Bank (i.e., 3.1 years) but longer than the duration allowed by Croatian bankruptcy law (i.e., 1.5 years).

These working hypotheses suggest the following two statistical hypotheses:

(1) H_0 = duration of bankruptcy procedure in Croatia ≥ 3.1 years,
H_1 = duration of bankruptcy procedure in Croatia < 3.1 years, and

(2) H_0 = duration of bankruptcy procedure in Croatia ≤ 1.5 years,
H_1 = duration of bankruptcy procedure in Croatia > 1.5 years.

VI. THE BASIS AND METHOD OF THE RESEARCH

The calculation base consists of bankruptcies completed in last three years (i.e., 2010, 2009 and 2008). The date of commencement is the date of that bankruptcy procedures were initiated and does not take into account any preliminary procedures and the date of decision on the closure of the bankruptcy procedure after the adoption of company's final financial report. The only problem with time calculation is that bankruptcy does not in fact end with the closure decision because there are almost always pending litigations or the discovery of new assets that needs to be cashed in, and so on.

The research includes data from a total of 457 bankruptcies, of which 88 were completed in 2008, 150 in 2009, and 219 in 2010. All bankruptcies that were executed under a shortened procedure (initiated and closed in the same day) are excluded from this research.

VII. RESULTS

The conducted analysis and statistical processing of the duration of bankruptcy procedure from the day of their initiation until the date of their closure based on 457 bankruptcy procedures completed within last three years (2008, 2009, 2010) produced the following conclusions for the time limit of 1.5 years and 3.1 years.

Table 2. One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Time in years	457	3.20400505	3.056133	1.429598

Table 3. One-Sample Test

	Test Value = 1.5					
					99% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Time in years	11.919	456	.000	1.704005	1.334217	2.07379

Table 4. One-Sample Test

	Test Value = 3.1					
					99% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Time in Years	.728	456	.467	.104005	-2.65782	4.73792

From the tables, it is evident that the average length of bankruptcy procedure is 3.2 years.

The research suggests that for the first hypothesis, the result did not confirm the main hypothesis, because the average is 3.2 whereas the World Bank's research found the time to be 3.1 years. In fact, only 63.58% of bankruptcies are completed within that time limit.

In the second case, the hypothesis is confirmed because the average bankruptcy procedure lasts 3.20 years, which is a lot longer than the anticipated 1.5 years. Only 4.37% of bankruptcies are completed within the deadline proscribed by law.

Table 5 and Figure the average duration of bankruptcies in years. The figure shows that in 2008, the average duration of bankruptcy procedure was 3.59 years; the shortest bankruptcy procedure lasted for 0.05 years, and the longest lasted 11 years. In 2009, the average duration of bankruptcy procedures was 2.89

years, the shortest was 0.12 years, and the longest was 9.87 years. In 2010, the average bankruptcy procedure lasted for 3.26 years, the shortest for 0.10 years, and the longest for 15.46 years.

Table 5. Duration of Bankruptcy Procedures in Croatia by Year

Indicators	2008	2009	2010
Average	3.59	2.89	3.26
Min	0.05	0.12	0.10
Max	11.00	9.87	15.46
St. Dev.	3.112	2.86	3.15

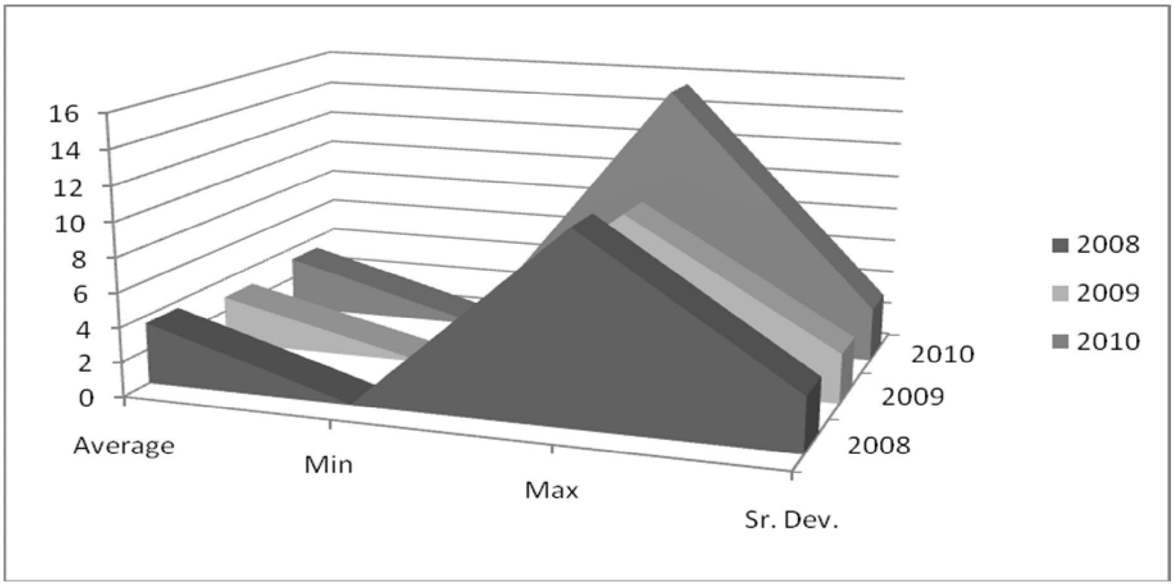

Figure 1. Duration of bankruptcy procedures in Croatia by year.

Table 6 and Figure 2 list business activities and indicate that the longest duration of bankruptcy procedure was registered in food manufacturing and in manufacturing activities in general (5.46 years in 2010), and the shortest duration of bankruptcy procedures was registered in trade activities at 2.91 years in 2010.

Table 6. Average Duration of Bankruptcy Procedures by Business Activities

Business Activities	2008	2009	2010
Manufacturing food	6.91	4.37	5.46
Manufacturing clothes and footwear	7.49	3.61	4.74
Manufacturing construction material	5.61	2.42	3.73
Other manufacturing	4.76	4.82	3.16
Construction	3.04	2.02	3.37
Trade	2.99	2.47	2.91
Road transport	3.02	3.89	3.06
Hotels, restaurants	3.55	3.17	4.15
Other services	7.16	2.02	2.29

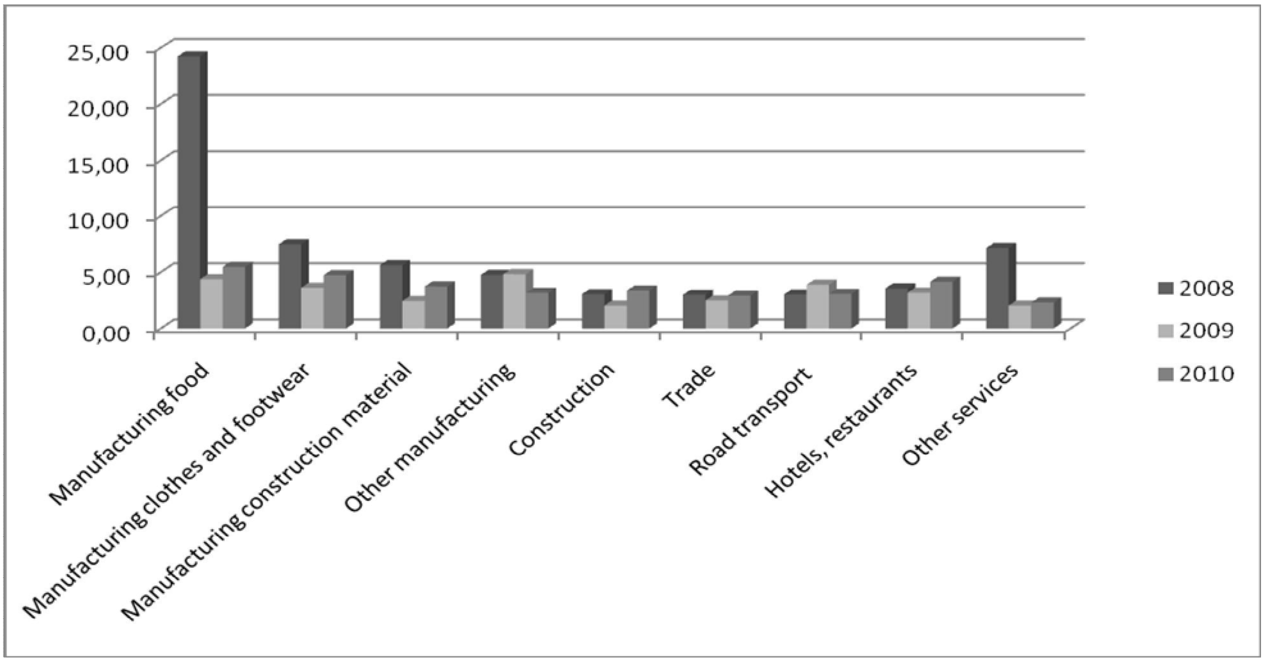

Figure 2. Average duration of bankruptcy procedures by business activity

VIII. CONCLUSION

The duration of bankruptcy procedures is an especially important area and of great importance to all participants in bankruptcy procedures.

The results of the research show that the average duration of bankruptcy procedures is 3.2 years, which is close to the figure produced by the research of the World Bank but still far from time limit of 1.5 years set by law. It will take a much work and development of bankruptcy procedures and education of participants in the process to reach the desired goal.

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