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FINANCIAL DIAGNOSIS METHODS BANKRUPTCY RISK ASSESSMENT FOR RETAIL COMPANIES IN BRAŞOV

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Abstract: *The present study proposes the assessment of the bankruptcy risk for 11 companies in the field of retail trade in Braşov County, in the period 2008-2017. For this purpose, two of the most well-known methods for performing the financial diagnosis Altman and Conon-Holder were used. At the end of the study, the Conan-Holder method was designated as the more relevant method of the two presented in diagnosing the financial situation and the risk of a possible insolvency for the studied companies.*

Key words: *insolvency, financial diagnosis, financial structure, performance.*

1. Introduction

Over time, the financial balance sheet and the evolution of companies have been the subject of much research in both the financial and economic and accounting fields.

The financial diagnosis involves a complex analysis that allows highlighting both the negative and the positive aspects of the company's activity.

The analysis of the key factors following the financial diagnosis leads to the increase of the company's productivity, as well as to the use of information, both internal and external.

The analysis of financial statements is very important in the activity of financial diagnosis in order to make correct decisions for the future of the company. Thus, it is possible to establish the course in a certain period as well as the future trends.

Regular financial diagnosis is an integral part of the company's management or at least it should be. When we talk about productivity, we refer to the ability of invested capital to appreciate itself against the initial state through a constant activity over time (Durišová & Tokarcíková, 2009).

Managers, investors and shareholders use financial reports to see the actual situation of companies. In this case, managers use the financial statements to present to shareholders the return on investment, and to attract capital from potential investors. A financial statement, as a whole, uses methods, analytical techniques or tools which

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makes it a very useful financial diagnostic tool for practicing efficient management that involves important decisions for the operational activity or financing of the company.

However, a clear distinction must be made between productivity and performance, with productivity being closely linked to performance, but without the two being synonymous. Financial diagnosis is closely linked to poor performance or poor decision making.

Diagnosing a business means identifying a conceptual model that takes into account all the variables involved and how they relate. In the diagnostic process, probably the most important is the beginning, which is identified with determining the profitability of the business using key indicators (ITC, 2014).

In his book, Duran (2000) considers that, in order to make a correct diagnosis of a company, at least three steps must be taken:

• company analysis;

• analysis of the company's internal environment (employees, products, assets, liabilities);

• analysis of the external environment (customers, market, competition).

If we talk about the financial diagnosis, we talk about an investigation of the financial situation based on the information gathered from the financial-accounting documents identified by the profit and loss account or balance sheet, but without being limited to them. We need to take into account the analysis with reference to several aspects, considering both the value of the indicators and their evolution. We must pay more attention to the efficient management of resources, the level of debt, the state of receivables, the structure of capital, the structure of assets or economic profitability (Andekina & Rakhmetova, 2013).

Achimescu & Verisan (2011) opine that the main objective of a financial diagnosis focuses mainly on risk management and that, depending on this, three types of financial diagnosis can be distinguished: shareholders, managers and shareholders. It is also accepted that the financial diagnosis is not limited to risk management, as it is very important to study liquidity, financial structure, rates of return, and that they must be aggregated with information from the economic, fiscal, monetary or legal area.

An approach to financial diagnosis can also be formulated in relation to insolvency issues that are increasingly current, especially since topics such as crisis diagnosis with all its elements are not yet sufficiently studied. Thus, the diagnosis must be systematically subjected to several methods of comparative analysis, as well as to qualitative use, grouping and graphical methods (Mietule & Klodaāne, 2016).

The research provides a structured analysis of the financial situation of 11 retail companies in Braşov County. The research is very relevant in the context of the ongoing struggle to gain market share, given that the retail market has been invaded by major international store chains.

In the following sections, the risk of bankruptcy and insolvency of retail companies in Brasov County is determined.

Thus, in order to achieve the research objective, two of the most used models for determining this risk were used: the Altman model and the Conan-Holder model.

Personal contributions derive from the theoretical substantiation of a topic of national interest and at the same time from the practical application in the current difficult economic context.

Also, the elaboration of the content analysis, as well as the explanation of one's own opinions regarding the avoidance of food risk are included in the category of one's own contributions to research.

The note of originality derives from the fact that this research is carried out at local level, in this case Brasov County, thus avoiding the regional or even national economic context and with them the disparities between the country's counties that could affect the research results. At national level, Brasov is recognized as an important development pole (World Bank, 2021).

2. Literature Review

In their research, Andekina & Rakhmetova (2013) used the matrix of the normative model to determine trends and ranks of variables for financial diagnosis, and, in order to determine the further development of companies after diagnosis, they used the dynamic normative model. It has been established that, based on this diagnostic method, managers can easily identify indicators and phenomena that affect the company's performance. The authors went further and concluded that, in order to change an unfavourable situation, the tools that can generate the impact necessary for a change must first be known and that each economic decision must be separately integrated from the general strategy, the normative model serving as a regulatory tool for economic decisions.

Diagnosing the business is closely related to the company's performance. In their study, Hasanaj & Kuqi (2019), assumed two objectives, determining, forecasting, evaluating the best economic conditions for a company to perform in the future and analysing the financial situation to provide optimal conditions for managers to take the best good decisions. Thus, the authors concluded the study by presenting the results after calculating, analysing and interpreting the various financial statements of the company with reference to liquidity, degree of indebtedness, asset rate, return on capital and financial solvency rate.

Mietule & Klodaāne (2016) approached the financial diagnosis from the perspective of avoiding the insolvency risk. The authors pointed out that the possibility of preventing the insolvency of companies lies in identifying the symptoms of the financial crisis, while they are still in their infancy. Their study concluded that insolvency, which can be described as the company's inability to meet its commitments and a high rate of debt to its assets, is not only the last stage of the financial crisis, but also the most severe, a crisis that has its origins in the reluctance of managers to react in time to an obvious financial crisis, reducing or even nullifying the company's ability to react in a timely manner to a dangerous development of the crisis already outlined.

A study on the financial situation of companies before entering insolvency proceedings showed that, after analysing a set of indicators, most companies that were part of the study had poor and very poor results before this process (Schönfeld, 2020). The study concluded that financial rehabilitation should be done much earlier than two or three years, thus strengthening the research conducted by Mietule & Klodaāne (2016).

A study (Borlea & Achim, 2014) on the assessment of the insolvency risk of companies in the metallurgical industry for the period 2001-2012 concludes that the Conan-Holder model for diagnosing the financial situation of Romanian companies takes precedence over the Altman model.

According to Kim's (2010) study, the Altman model is effective in detecting a bankruptcy one year before this happens, and that the Z-score predictions of the model lose their significance when used in the analysis of longer periods of time.

In 2007, Kim studied the strength of Altman's Z-Score model, assuming it was no longer significant due to market factors. Kim found that the Z score seems to be a predictor of financial distress in firms one year before bankruptcy, but the calculations had to be used with caution because of the significance of some of the variables. Kim warns that Z-score predictions for periods longer than one year have lost some of their significance.

On the other hand, in 2006, Carton & Hofer concluded that the Altman model is not only a very good tool in identifying the risk of bankruptcy, but also that the Altman model is a very good tool for financial performance management and that the formula this leads to much more conclusive results in the face of established financial indicators such as ROE or ROA.

The study (Bărbuţă-Mişu & Codreanu, 2014) on construction companies in which both the Altman method and the Conan-Holder method were used to detect the risk of bankruptcy showed that a company can be placed in both companies at the same time, an area with a low risk of bankruptcy, as well as in an area with a high risk of bankruptcy, depending on the method used. Perhaps more important in this study is the fact that the authors concluded that the Conan-Holder model is much more relevant for diagnosing the financial situation of companies in this field, being in agreement with the research in the same sector by Borlea & Achim (2014). Attention is drawn to the fact that the Altman model can lead to actions that can make companies vulnerable to a situation of economic uncertainty and that the Conan-Holder model raises those much-needed warning signs.

Armeanu et al. (2012) warn that bankruptcy risk diagnostic models based on discriminatory analysis can be misleading because they are based on historical data and that the data used change over time, and the financial rates analysed may change significantly. Another problem raised is related to the fact that the result of these analysis models is a binary one and that in practice the situation is multiple and very varied.

Keener (2013), in a study on the prediction of a possible bankruptcy of retail companies in the analysed period 2005-2012, concluded that unprofitability is the main sign that a company is about to enter insolvency proceedings, and as a secondary indicator, we have the size companies; thus, companies with a small number of employees are much more prone to bankruptcy.

Last but not least, the financial diagnosis of a company can be viewed from the point of view of market attractiveness, both from the perspective of possible investments and from the perspective of suppliers and potential customers in order to assess the financial situation, to determine whether the company's financial position meets the requirements of stakeholders (Haruna, 2021).

3. Data collection and research methodology

3.1. Hypothesis

Based on the review of the literature (Borlea & Achim, 2014), the following hypothesis was developed:

H0: The Conan-Holder model is more suitable for the specifics of the Romanian economy regarding the diagnosis of the financial situation of companies compared to the Altman model.

3.2. Data collection

For this research, an initial sample was used consisting of 38 companies from Brașov County, which have the CAEN code 4711 - Retail sale in non-specialized stores, with predominant sale of food, beverages and tobacco. The data were extracted from the TPSoft website, the analysed period being 10 years, respectively 2008-2017.

Companies that: (1) did not report turnover for the entire analysed period were eliminated from the sample; (2) did not have complete data available; (3) reported assets in the range of 1-3 million lei in the last year analysed.

After these eliminations, we obtained a final sample of 11 companies considered relevant for research.

The essential condition underlying the determination of the final sample was the level of assets, which in this case is an indicator of the size of the companies. The companies whose level of assets is in the range of 1-3 million lei were selected, so that the determination of the bankruptcy risk was made for companies with similar dimensions, making the results indicated by the Z score relevant.

Table 3.1 presents the net profit situation for the 11 selected companies in which the unfavourable situation is highlighted, by years, in which the companies reported losses. It can be seen that out of the 6 companies, C9 and C10 had losses in one year of the analysed period, 2009 and 2017 respectively, C5, C6 and C7 reported losses in two years out of the 10 years, and company C11 reported losses in three years, 2008, 2013 and 2015 respectively.

Net profit situation Table 1

Company	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
C1	295,370	335,742	318,778	191,007	160,936	216,425	257,161	431,927	528,775	487,433
C2	22,725	46,351	115	27,273	44,992	74,209	37,125	139,106	151,202	222,037
C3	57,815	44,800	37,294	25,388	67,546	48,556	5,757	124,553	251,463	136,569
C4	23,092	19,967	34,144	48,551	80,221	167,936	22,098	65,414	65,513	68,155
C5	85,229	-65,616	-92,930	134,512	36,425	29,242	2,003	90,838	319,273	125,989
C6	-5,562	35,074	7,885	-36,897	104,590	217,154	429,559	519,108	603,178	604,829
C7	-4,809	-29,825	50,216	44,462	52,888	52,673	82,484	128,559	84,708	137,573
C8	9,635	134,847	205,109	239,062	214,705	139,978	339,970	476,288	643,192	649,552
C9	190	-13,307	9,874	24,793	19,821	91,579	195,398	61,150	291,600	20,088
C10	18,648	102,774	161,926	41,546	12,387	39,397	44,837	9,319	15,985	-56,318
C11	-5,525	29,058	36,653	16,508	10,430	-13,221	14,760	-4,008	59,759	60,915

Source: Author's own processing using the financial data of the selected companies

3.3. Methodology

In order to achieve the purpose of this research, the evaluation of the financial situation of the companies in the retail industry in Braşov, two of the most used models were used, Altman and Conan-Holder. The two methods are based on the score obtained by each entity analysed following the calculation of relevant indicators for determining the financial statement. The proposed models provide, first of all, an image regarding the risk of bankruptcy of the company subject to analysis, methods that are based on statistical techniques of descriptive analysis. The application of the two methods involves the observation of two distinct groups of companies with and without financial problems.

Thus, we divided the 11 companies into two groups: a group in which there are companies without financial difficulties (C1, C2, C3, C4, and C8), which reported profit for the entire analysed period, and a group in which there are companies which had financial difficulties, also reporting losses during the analysed period (C5, C6, C7, C9, C10 and C11).

The determination of the Z score involves a discriminant analysis and is the result of a linear function of a set of reports of the form:

$$Z = a_1 x_1 + a_2 x_2 + \ldots a_n x_n$$

where: x_n - represent the reports involved in the analysis

a_n – the percentage coefficient for each ratio

The Altman (1968) model, one of the first models created, involves the discriminant analysis of rates and is described by the equation:

$$Z = 1{,}2 \times x_1 + 1{,}4 \times x_2 + 3{,}3 \times x_3 + 0{,}6 \times x_4 + 1 \times x_5$$

The variables x1, x2, x, 3, x4 and x5 are the financial indicators defined by the Altman model, and the constants that amplify them are statistical indicators, expressing the percentage in the calculation of the Z score.

Indicator formulas for the Altman model Table 2

x1	*Current assets / Total assets*
x2	*Total reserves / assets*
x3	*EBIT / Total assets*
x4	*Equity / Liabilities*
x5	*Turnover / Total assets*

Source: *Altman (1968)*

Interpretation of the Z score for the Altman model Table 3

Score	Situation	Probability of bankruptcy
Z ≥ 3	Very good	Very low risk
1,8 < Z ≤ 3	Attention	Increased risk
Z ≤ 1,8	Alert	Imminent risk

Source: *Altman (1968)*

The proposed Conan & Holder (1979) model is based on the study of the two authors regarding companies in industry, construction, transport and sales. This study proposes the following equation for the calculation of the Z score:

$$Z = 0,24 \times x_1 + 0,22 \times x_2 + 0,16 \times x_3 - 0,87 \times x_4 - 0,1 \times x_5$$

The variables x1, x2, x, 3, x4 and x5 are financial indicators defined by Conan-Holder, and the constants that amplify them are statistical indicators, expressing the percentage in the calculation of the Z score.

Indicator formulas for the Conan-Holder model Table 4

x1	*Gross result / Total debts*
x2	*Equity / Liabilities*
x3	*(Current Assets-Stocks) / Liabilities*
x4	*Financial expenses / Turnover*
x5	*Staff costs / Value added*

Source: *Conan & Holder (1979)*

Table 5

Interpretation of the Z score for the Conan-Holder model

Score	**Situation**	**Probability of bankruptcy**
Z ≥ 0,16	Very good	<10%
0,1 < Z ≤ 0,16	Good	10% - 30%
0,04 < Z ≤ 0,1	Attention	30% - 65%
Z ≤ 0,04	Alert	65% - 90%

Source: *Conan & Holder (1979)*

4. Results, interpretation

Calculating the Z score according to the model proposed by Altman gives us an optimistic situation for most companies selected in the research.

Thus, with the exception of companies C6 in 2008, C7 in 2008, C9 in 2008, 2009, 2010, 2012 and company C11 in 2008, all companies obtained a score higher than the value of 3, which according to Table 3.3., indicates a good general condition with a low risk of bankruptcy.

We must note that the scores lower than 3 were recorded in the law of companies that are part of the group of those who have financial difficulties; at the same time, we note that no company is in the red zone of risk for the entire period analysed.

Calculation of the Z score according to the Altman model Table 6

Company	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
C1	7.0463	7.2749	6.3645	6.7601	5.8993	6.4420	6.4910	7.3337	7.8589	7.8698
C2	8.7338	10.4355	9.5789	9.4563	9.3974	10.4280	9.5296	9.6742	9.8870	9.7909
C3	15.9476	15.6946	13.5317	9.8776	7.7830	6.9601	5.2650	7.4508	7.6451	7.3559
C4	3.3187	4.2355	5.4253	5.1830	5.7924	6.3250	6.9465	6.8422	5.7668	5.5159
C5	11.0310	7.6779	6.5724	10.9567	8.6362	7.6899	11.0319	11.4928	12.1808	7.7843
C6	1.8053	4.2892	4.9233	4.5890	4.5582	5.6566	9.0693	8.9812	11.4753	12.9957
C7	2.4388	10.0472	7.9592	8.8057	13.2248	12.9407	15.7937	16.6236	11.4236	8.9056
C8	4.9069	7.3475	6.8267	5.5918	5.1323	5.0993	6.3471	8.2438	8.9867	8.8621
C9	2.9189	2.8483	2.6966	3.4150	2.3321	4.6595	3.6219	3.6124	4.1603	3.7556
C10	4.9981	5.7316	4.3130	4.4544	4.6272	4.4668	5.0423	5.0662	5.4522	5.0761
C11	1.9502	3.2597	4.6942	4.4387	4.9048	4.4555	4.6172	5.0389	6.1441	4.9944

Source: *Author's own processing using the financial data of the selected companies*

Based on the scores obtained, a graphical presentation was made for an overview of the financial situation of the companies when using the Altman model.

The ranking of companies according to the score obtained each year brings to the fore differences from the initial classification of companies. Considered to be in financial difficulties, companies C5 and C7 are in positions 2 and 3, respectively, reporting a very low level of bankruptcy risk. Company C6 is in position 7 in this ranking, while companies C11 and C9 confirm their status as companies with financial difficulties compared to the other companies included in the study, occupying the last two positions in the ranking.

On the other hand, the C4 company ranks 8th in the ranking in contrast to its position in the group of companies without financial difficulties.

It should be noted that C6 has the biggest jump in this ranking of scores. Thus, if in 2008 it occupied the last place in the ranking, being the most prone company, to a possible bankruptcy among those analysed, the year 2017 finds it in the first place, being the company with the lowest risk of bankruptcy among all companies included in the study, with a score of 12,9957, well above the value of 3 which marks the threshold above which companies do not present a risk of bankruptcy.

Conversely, the C3 company marks the steepest decline in this ranking. If in 2008 it was the company with the lowest risk of bankruptcy of all companies, occupying the first place, in 2017 it ranked 7th, with a total score of 7,3559.

Except for the company C7, which registered a fairly large fluctuation in terms of place in the ranking, from the 9th place in 2008 to the 3rd place in 2017, stating that for four consecutive years, 2012-2015, it was the company with the lowest risk of bankruptcy among all the analysed companies, the rest of the companies did not register major differences in terms of their evolution in the analysed period compared to the other companies.

The extremes of the ranking are occupied by the companies C2, in the first place with the lowest level of risk against bankruptcy, and the company C9, which, in four of the first five years, was in the alert zone from the point of view of the predisposition to enter bankruptcy according to the interpretation of the Z score of the Altman model.

Average score ranking - Altman model Table 7

Company	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	Average score	Rank
C2	3	2	2	3	2	2	3	3	4	2	2.6	1
C5	2	4	5	1	3	3	2	2	1	6	2.9	2
C7	9	3	3	4	1	1	1	1	3	3	2.9	2
C3	1	1	1	2	4	4	8	8	7	7	4.3	4
C1	4	6	6	5	5	5	6	6	6	5	5.4	5
C8	6	5	4	6	7	8	7	7	5	4	5.9	6
C6	11	8	8	8	10	7	4	4	2	1	6.3	7
C4	7	9	7	7	6	6	5	5	9	8	6.9	8
C10	5	7	10	9	9	10	9	9	10	9	8.7	9
C11	10	10	9	10	8	11	10	10	8	10	9.6	10
C9	8	11	11	11	11	9	11	11	11	11	10.5	11

Source: *Author's own processing*

The Conan-Holder model applied to the 11 companies studied offers us a rather different situation compared to the risk of bankruptcy that companies have.

Thus, according to the interpretation of the Z score obtained by the Conan-Holder method, unlike the Altman model, we have several companies and for a longer period of time that are placed in the area of imminent bankruptcy risk or in the alert area with a probability of bankruptcy in the range of 30% -65%.

Calculation of the Z score according to the Conan-Holder model Table 8

Company	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
C1	0.1874	0.4538	0.3177	0.2116	0.1869	0.2365	0.2702	0.4289	0.5948	0.6311
C2	0.3347	0.6109	0.584	0.6621	0.593	0.9347	0.8704	1.3586	1.6504	2.1563
C3	0.1187	0.0902	0.0579	0.0206	0.0168	0.0112	-0.0132	0.053	0.0738	0.0456
C4	0.0667	0.0723	0.1294	0.0783	0.0987	0.1775	0.1315	0.1692	0.0659	0.0588
C5	2.6279	0.7168	0.0444	1.726	0.6591	0.5463	1.1748	1.216	0.6518	0.1774
C6	0.0188	0.0439	0.0225	-0.0576	0.066	0.1053	0.4872	0.3073	0.5747	0.6972
C7	-0.124	-0.2001	0.0315	0.0424	0.0743	0.103	0.261	0.6416	0.3177	0.3491
C8	0.0983	0.3571	0.5173	0.5399	0.463	0.7065	1.079	2.1049	1.138	1.1106
C9	0.0536	0.0091	0.0259	0.3568	0.1813	0.9303	0.459	0.3464	0.3767	0.3224
C10	0.0835	0.144	0.1421	0.1109	0.1132	0.1321	0.1694	0.1619	0.1805	0.1525
C11	-0.2045	-0.163	0.1553	0.0703	0.0384	0.0158	0.032	0.0161	0.0744	0.0609

Source: *Author's own processing using the financial data of the selected companies*

The Z score interpretation table for the Conan-Holder model looks different for most of the analysed companies compared to the results obtained by using the Altman model.

The only two companies for which the Z score looks identical for the entire analysed period are the C1 and C2 companies that have a low risk of bankruptcy in all 10 years analysed.

Companies C6, C7, C9 and C11 from the group of those with financial difficulties confirm this status by registering values of the Z score that place them in the area of imminent bankruptcy risk or in the alert area, especially in the first half of the analysed period. It should be noted, however, that C6, C7 and C9 return in the second part of the period, 2013-2017, in the safety zone. The exception is the company C11 which, apart from 2010, according to the Z score obtained, is placed only in the red zone of imminent risk or in the grey alert zone.

Company C5 is the only company initially included in the group of those with financial difficulties that record Z-score values, which places it, except for 2010, in the green area of low risk of bankruptcy.

The ranking according to the average of the Z score obtained by the Conan-Holder method does not bring changes either in terms of the top of the ranking or in terms of the bottom of the ranking. Thus, in the first place, with a low degree of risk with reference to bankruptcy, we have company C2 and company C5, which was in position 3, while in the case of the Altman model it was in position 2; in last place, we have company C11, which presents the higher score on the risk of bankruptcy among all companies.

The biggest differences come from the company C9, which is now in position 5 after previously being in the last position, with the highest degree of risk of bankruptcy, and the company C3, which, after occupying position 4 in the ranking according to the Altman model, now it occupies position 10 having, since 2009, a Z score that has always placed it in the red zone with imminent risk of bankruptcy or in the grey alert zone.

Average score ranking - Conan Holder model Table 9

Company	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	Average score	Rank
C2	2	2	1	2	2	1	3	2	1	1	1.7	1
C8	5	4	2	3	3	3	2	1	2	2	2.7	2
C5	1	1	8	1	1	4	1	3	3	7	3	3
C1	3	3	3	5	4	5	6	5	4	4	4.2	4
C9	8	9	10	4	5	2	5	6	6	6	6.1	5
C10	6	5	5	6	6	7	8	9	8	8	6.8	6
C6	9	8	11	11	9	8	4	7	5	3	7.5	7
C4	7	7	6	7	7	6	9	8	11	10	7.8	8
C7	10	11	9	9	8	9	7	4	7	5	7.9	9
C3	4	6	7	10	11	11	11	10	10	11	9.1	10
C11	11	10	4	8	10	10	10	11	9	9	9.2	11

Source: *Author's own processing*

With the exception of three companies, C2, C4 and C6, the Conan-Holder model gives us different results from the Altman model, and we note that it shows the financial situation of companies from a much more pessimistic angle than the Altman model.

5. Conclusions

The study conducted to diagnose the financial situation of retail companies in Brasov was conducted using Altman and Conan-Holder models to calculate the Z score to determine the risk of bankruptcy in order to determine the most relevant model.

Of course, a very important factor in the analysis is the period chosen for the analysis, 2008-2017, the period after the financial crisis. Thus, there was an increase in the risk of bankruptcy for some companies using the Conan-Holder model, which was not confirmed by the application of the Altman model.

For the application of models using the Z score, we must also use other non-financial and qualitative indicators, significant for the analysed industry and based on key economic and social factors (Mandru et al., 2010).

It was observed that, despite the period after the financial crisis, which shook all economic sectors in Romania, the Altman model, with small exceptions, showed a high Z score for all companies and throughout the analysed period.

Instead, the Conan-Holder model captured through the Z score the situation from a more pessimistic perspective that places companies closer to the economic reality after the financial crisis.

The Romanian retail sector has undergone major changes in the last 10 years with the appearance on the market of large international chain stores, so companies with Romanian capital, in particular, have been unable to react to the aggressive expansion of these networks. If we look at the statistics of 2018 on insolvencies in Romania, we find that the sector of companies whose main activity is retail leads this top with a total of 1416 companies entered into insolvency, which represents 17% of the overall total of the most important 23 industries (Guda, 2018). So, in this research, the Conan-Holder model is considered more appropriate because it has managed to capture much better this trend of insolvencies, unlike the Altman model, and places companies in an area of attention that aims to keep up to date the evolving trends of this market, to make companies at risk of bankruptcy react to these changes and avoid the unfortunate case in which the state of insolvency must be declared.

The Conan-Holder continental model, considered more appropriate than the Anglo-Saxon Altman model for the specifics of the Romanian economy (Borlea & Achim, 2014), showed us that the company's financial diagnosis is influenced by financial performance, in our case the net profit, which confirms the hypothesis launched in this study, that for the financial diagnosis; in this case, for the degree of risk of bankruptcy of companies in the Romanian retail industry, the Conan-Holder model is more appropriate than the Altman model.

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