Red flags in financial reporting - empirical studies in the AeRO market

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Abstract: Understanding the factors that cause fraud and properly defining key areas of conduct is one of the most effective ways to detect potential irregularities, where the auditor's professional judgment and skepticism are essential. In this respect, it is necessary to study some key financial indicators, but also to use various procedures to identify and detect fraud and possible manipulation in the financial reporting process. The objectives are aimed at identifying and highlighting possible red flags in companies whose shares are traded on the Bucharest Stock Exchange. The sample considered sensitive to fraudulent financial reporting is composed of four distinct categories of companies, namely: companies recently admitted to trading on the AeRO market administered by the Bucharest Stock Exchange (21), companies that obtained a zero Vektor score in 2020 (9), companies that obtained a low score in the White Letter publication (5), and companies in insolvency (4).

Keywords: Beneish model, fraudulent behaviour, financial reporting, AeRO market, Vektor, White Paper, insolvency, red flags, analytical procedures

JEL classification: M41, M42, G41

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1. INTRODUCTION

Numerous studies in the field of accounting are increasingly highlighting the seriousness of fraud in financial reporting and are stimulating research interests. Strong corporate governance and a strengthened organisational culture are the basic pillars of fraud prevention. Also, the boundary between error and fraud is very thin, the difference between the two well-known concepts is represented by the intention to perform a certain action in order to obtain unfair, illegal or immoral benefits (Voinea, 2018). The last two decades have witnessed high-profile corporate accounting scandals and multi-billion dollar frauds. Since then, forensic accounting has been in the spotlight and has played a prominent role in uncovering financial statement fraud (HALILBEGOVIC, 2020).

As the risk of misrepresentation of financial statements has increased, particularly in the wake of the 2008 crisis, users of financial information are focusing on the likelihood of financial statements being misrepresented through fraudulent misrepresentation. Therefore, scientific research is paying more attention to models capable of detecting manipulation of financial statements (Holda, 2020).

Fraudulent financial reporting is the intentional omission or misrepresentation of amounts presented in financial statements. In order to mislead the users of these financial statements, fraudulent reporting involves aspects such as (Macovei, 2010):
- manipulation, falsification or erroneous recording of the supporting documents on which the periodic and annual financial statements are based;
- the intentional omission or misinterpretation of transactions or events and other information that is material to the preparation of the financial statements;
- intentional misapplication of accounting policies.

Red flags are considered to be potential vulnerabilities existing in the management of the company and beyond that indicate a high risk of intentional misrepresentation of financial statements. Although not considered as clear evidence of fraudulent behaviour, these conditions are often present in companies with a weak corporate governance structure.

2. DEFINING THE RESEARCH PROBLEM

The term "fraud" describes an act intentionally carried out by a person or group of persons either within the company's management, third parties or employees, or those charged with governance (Oprea, 2010).

Perspectives on financial fraud are extremely diverse, but the literature focuses on three in particular. In 1980, Steve Albrecht conducted a study of a sample of 212 fraud cases, analysing the results of questionnaires administered to internal auditors of fraudulent companies during 1980. The main purpose of his study was to identify the determinants of fraud, both from the perspective of the fraudster and from the perspective of the environment of the company that was exposed to the fraud. After interpreting the results, Steven Albrecht established the following determinants attributed to the perpetrator of the fraud: the presence of the means to commit the fraud, the need for additional earnings, the high degree of indebtedness, family and social pressures (Albrecht, 2009).

Donald Cressey proposes a three-dimensional representation of the factors representing financial fraud, which is called the fraud triangle, in which each angle is represented by the motivation for committing fraud (Robu, 2012).

The fraud diamond was featured by Wolfe and Hermanson in CPA Magazine in December 2014 (Abdullahi, 2015). This fraud diamond is seen as an extension of Donald Cressey's perspective, namely the fraud triangle. The element that has been added to the fraud triangle is the ability to exploit a weakness in order to fulfill the fraud intent.

The Beneish model is a mathematical model that uses financial ratios and eight variables to identify whether a company has manipulated its earnings (Spătăcean, 2019). The variables are constructed from data in the company's financial statements which, once calculated, create an M-score to describe the degree to which earnings have been manipulated (Beneish, 1999) . Once these eight variables are calculated, they are then combined to create an M score for the company. An M-score less than -1.78 suggests no manipulation in the company's financial statements, while an M-score greater than -1.78 signals that the company is likely to be a manipulator.

Numerous authors have used the Beneish model to test the extent of financial manipulation in individual countries, including: (Paolone, Magazzino,2014), who investigated the financial statements of 1,809 Italian listed companies during 2005-2012, (Kara, Korpi and Ugurlu, 2015), who analyzed the financial statements of 132 Turkish companies listed on the Istanbul Stock Exchange during 2010-2012, (Repousis, 2016), who analysed 2011-2012 data of Greek companies, and (Anh and Linh, 2016), who investigated a sample of 229 non-financial companies listed on the Vietnam Stock Exchange during 2013-2014.

3. PRESENTING THE RESEARCH FINDINGS

3.1. Research methodology

The present study starts from the formulation of the three hypotheses underlying all the research carried out, and the authors seek evidence to validate them.

The first hypothesis (H1) correlates the selected sample categories considered susceptible to fraudulent financial reporting and the results obtained by applying the Beneish score. Thus this hypothesis will be validated if the results obtained are above the reference threshold of this prediction model.

The second hypothesis (H2) focuses on the opinions found in the audit reports on the financial statements of the companies covered by this study. This links the modified opinion expressed in the financial audits performed with the results found above the benchmark.

The selected companies fall into one of the following categories and are considered to be susceptible to fraudulent financial reporting:

a) **Companies whose shares are traded on the AeRO secondary market (listed during 2018-2020)**

By its specificity, the AeRO market does not have the same rigorous admission and maintenance requirements as the regulated market, i.e.: (i) there is no requirement for the preparation and approval of an issue prospectus by the Financial Supervisory Authority; (ii) there

is no IFRS reporting requirement; (iii) there is no high level of requirement to apply corporate governance principles. Also, the degree of transparency in investor relations is not specifically assessed by the Vektor index (calculated by ARIR). All these conditions were arguments for considering a higher degree of risk in financial reporting, justifying the research attention towards the AeRO market.

Table no. 1 - Companies in the category of AeRO-listed companies

Category of trading	Sector of Activity	Symbol	Name
PREMIUM	IT	2P	2PERFORMING NETWORK
PREMIUM	SERVICES	AG	AGROLAND BUSINESS SYSTEM
STANDARD	PRODUCTION	AVIO	AIRPLANES SA CRAIOVA
STANDARD	SERVICES	CACU	SIFI CJ LOGISTIC SA
STANDARD	PRODUCTION	CHOB	CHIMCOMPLEX BORZESTI
STANDARD	TRADE	COTM	COMAT GALATI SA
STANDARD	INDUSTRY	EMAI	EMAIL SA MEDIAS
PREMIUM	SERVICES	HAI	Holde Agri Invest S.A. - Class A
PREMIUM	IT	HUNT	IHUNT TECHNOLOGY
PREMIUM	IT	LIH	LIFE IS HARD S.A.
STANDARD	INDUSTRY	MACO	MACOFIL SA TG. JIU
PREMIUM	SERVICES	MAM	MAMBRICOLAJ S.A.
STANDARD	SERVICES	MAMA	UNIVERSAL STORE MARAMURES
PREMIUM	TRADE	NRF	NOROFERT S.A.
STANDARD	SERVICES	PRIB	PRIMCOM SA BUCURESTI
STANDARD	SERVICES	PRSN	ITS PROSPECTS
STANDARD	INDUSTRY	RORX	ROMAERO SA BUCURESTI
PREMIUM	IT	SAFE	SAFETECH INNOVATIONS
STANDARD	TRADE	EMAS	GERMINATE AGRIBUSINESS
STANDARD	INDUSTRY	SEVE	SEVERNAV SA
STANDARD	SERVICES	SPTU	SPIT BUCOVINA SA SUCEAVA
STANDARD	TRADE	UNISEM	UNISEM SA BUCURESTI

Source: authors' projection

Out of the total number of companies whose financial instruments are traded in the AeRO alternative segment (47 entities), the companies that constitute the sample of this research (21 entities) were selected taking into account the year in which they were listed on the Bucharest Stock Exchange and the availability of financial information. The main reason why some companies listed on the AeRO market were not selected in the sample is the lack of financial reports published on the website of the Bucharest Stock Exchange (www.bvb.ro). Attention was channeled to companies recently admitted to trading (2018- 2020), following corporate financing operations through the issuance of financial instruments (shares or bonds), under attractive conditions for investors through remuneration rates (interest) or attractive discounts on issue prices (shares).

b) Companies with a zero Vektor score

VEKTOR is the indicator that quantifies transparency in the investor communication process for listed companies and is calculated based on a methodology that includes 15 criteria, in line with international best practices in investor relations (IR). A total of 77 companies were scored from 0 (poor communication) to 10 (excellent communication). The analysis and evaluation of the publicly available information, website and investor relations (IR) section was carried out by ARIR and an index committee of corporate governance analysts, IR professionals, academics, non-financial reporting consultants from 21 November to 15 December 2020.

After analysing the 2020 VEKTOR results, we selected the following 9 companies that scored 0:

Table no. 2 Companies in the category of those with VEKTOR score 0

Crt. no.	Company name	SYMBOL
1.	ARMATURA S.A	MRA
2.	ARTEGO SA	ART
3.	BERMAS S.A	BRM
4.	COMCM SA CONSTANTA	CMCM
5.	COMPANY ENERGOPETROL S.A.	ENP
6.	ELECTROAPARATAJ S.A.	ELJ
7.	INDUSTRIAL GROUP ELECTROCONTACT S.A	ECT
8.	TURISM FELIX S.A.	TUFE
9.	UZTEL S.A.	UZT

Source: authors' projection

The companies in the sample scored 0 because they did not meet any of the evaluation criteria, such as: the company website does not include the contact details of the people in charge of maintaining the relationship with investors, the companies did not hold a conference call with investors, the companies did not publish press releases related to financial results, i.e. a non-financial report annually, etc.

c) Issuers listed on the main market of the BVB, which obtained a score between 0 and 2, following the analysis carried out by the BVB in the White Paper on Listed Companies Communication

The publication of the White Paper on the Communication of Listed Companies contains the analysis carried out by the Bucharest Stock Exchange, carried out in order to assess the quality and accuracy of the information provided by the issuers listed on the Main Market of the Bucharest Stock Exchange to investors.

This research is composed of a qualitative assessment and an evaluation matrix, with the aim of assessing performance and identifying best practices, but also areas for further improvement. The qualitative assessment is based on highlighting the strengths and weaknesses of the information found on the issuers' websites, while the evaluation matrix is used to measure the seven key aspects of investor communication.

The basis for the qualitative assessment is the list of general information that should be provided by an issuer whose shares are listed on the Main Market on its website.

Following the CACCL survey mentioned above, the following companies form part of the sample for this research:

Table no. 3Companies in the category of those from Carta Albă Publication

Company name	Symbol	Sector of activity	Score obtained
ALTUR S.A	ALT	Production	**0,5**
COMELF S.A	CMF	Production	**1,25**
ELECREOARGEȘ S.A	ELGS	Production	**1**
FINE MECHANICS S.A	MECF	Production	**1,75**
TOURISM, HOTELS, RESTAURANTS BLACK SEA	EFO	Services	**2**

Source: authors' projection

d) Insolvent companies

The research sample includes 4 of the companies listed on the Bucharest Stock Exchange that are in insolvency. These companies are presented in Table no. 1 below:

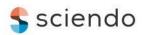**Table No. 4 - Companies in the insolvency category**

Company name	Symbol
Energopetrol Campina	ENP
CONDMAG	COMI
COS TARGOVISTE	COS
DAFORA	DAFR

Source: authors' projection

The methodology underlying this research is structured in three stages. The first stage focuses on the selection of categories of entities that are considered susceptible to fraudulent financial reporting. The second stage aims at applying the Beneish model on the observed financial data of the selected companies, and the third stage analyses the audit reports, the warning signals in the case of companies with an M-score above the benchmark of -1.78 and applies certain analytical procedures.

Three separate analytical procedures were applied:
- (i) comparative analysis of the profit margin achieved at individual level with that achieved at the level of the sector in which they operate. To this end, the turnover and profit figures for the financial year 2020 were identified according to the CAEN code of the companies in the four groups of entities in the sample. A reference threshold of (+)/(-) 15% of the profit margin calculated at sector level was taken into account.
- (ii) comparison of revenue and expenditure budgets with the results achieved
- (iii) identification of warning signals on key performance measurement indicators

3.2 Research results

3.2.1 Testing potentially fraudulent behaviour using the Beneish model

a) Companies traded on AeRO

Following the analysis of the data collected at the level of the selected sample, the results obtained reveal the possibility of classifying companies into fraudulent reporting risk groups, as well as the existence of classification ranges, based on the accounting manipulation detection indicators proposed by Beneish. Out of the 21 companies that were included in the selected sample, about 50% of the listed companies had an M-score value above the benchmark (-1.78) and were considered to be high risk.

Table no. 5 M-score parameters

M-score	MACO	MAM	MAMA	PRIB	PRSN	SAFE	EMAS	SEVE	SPTU	UNISEM
5 VARIABLE	-3.90	-4.10	-4.43	-4.99	-4.45	3.05	-3.04	-4.50	-5.08	-4.33
8 VARIABLE	-1.30	-1.21	-3.97	-4.68	-4.92	1.03	-2.73	-4.09	-4.07	-3.85
M-score	**2P**	**AG**	**AVIO**	**CACU**	**CHOB**	**COTM**	**EMAI**	**HOLDE**	**HUNT**	**LIH**
5 VARIABLE	9.10	-3.02	-3.66	-3.73	-3.26	-5.23	-4.36	-0.92	-3.83	-4.09
8 VARIABLE	5.59	-1.74	-4.98	-125.77	-356.41	-4.00	-5.50	0.03	-2.64	-2.65

Source: authors' projection

b) Companies with a zero VEKTOR score

Following the application of the calculation formulas within this sample category, of the nine companies that achieved a VEKTOR score equal to 0 in 2020, only one had an M-score value above the reference threshold initially set, namely ELECTROCONTACT INDUSTRIAL GROUP (ECT), with a value of approximately 8 using 5 variables and 9.34 using 8 variables.

Table no. 6 M-score parameters

M-score	MRA	ART	BRM	CMCM	ENP	ELJ	ECT	TUFE	UZT
5 VARIABLE	-4,81	-4,50	-4,31	-4,31	-6,89	-2,07	**7,99**	-4,64	**-4,66**
8 VARIABLE	**-4,48**	**-3,77**	**-3,96**	**-3,91**	**-5,72**	**-2,69**	**9,34**	**-3,96**	**-5,00**

Source: authors' projection

c) Insolvent companies

Of all the companies whose shares are traded on the Bucharest Stock Exchange, four of them are in insolvency. None of the insolvent companies, at the time of the calculations, had an M score above the benchmark of 1.75.

Table no. 7 M-score parameters

M-score	ENP	COMI	COS	DAFR
5 VARIABLE	-4.14	-3.98	-3.81	-4.42
8 VARIABLE	-2.91	-3.57	-1.86	-4.35

Source: authors' projection

d) Selected companies from the White Paper Publication

None of the seven companies selected in the White Paper achieved a score above the benchmark.

Table no. 8 M-score parameters

M-score	ALT	MRA	ART	CMF	ELGS	MECF	EFO
5 VARIABLE	(3,60)	(4,73)	(4,53)	(4,47)	(4,10)	(4,57)	(4,54)
8 VARIABLE	(6,23)	(4,49)	(3,49)	(4,08)	(4,46)	(4,08)	(4,16)

Source: authors' projection

Preliminary conclusion

(H1) correlates selected categories of entities considered susceptible to fraudulent financial reporting and the results obtained from the application of the Beneish score.

Table no. 9 Distribution of M-scores by categories of entities

Categories	Companies included	Results above the reference threshold	Weighting results score M
Companies whose shares are traded on the AeRO secondary market (listed during 2018-2020)	21	10	**~50%**
Companies that scored Vektor 0	9	1	**11%**
Selected companies from the White Paper Publication	7	0	**-**
Insolvent companies	**4**	**0**	**-**

Source: authors' projection

3.2.2. Analysis of audit reports

Out of the total number of companies that fall within the category of companies listed on the AeRO market, we have identified only one company (Norofert S.A.), in whose audit report a contrary opinion is presented. The auditor MGMT Audit & BPO noted a difference of 4.86 million lei between the value of stocks under management and the value of stocks presented in the company's financial statements. The publication of this audit report had a significant impact on the trading price, which decreased by more than 10% in one trading session (24.03.2021). For the remaining companies analysed, the audit reports were unchanged (unqualified opinion).

Following the study of the audit reports, the following audit opinions can be centralised:
- Failure to express an opinion (in the case of ALT)
- Unqualified opinion (ARTE, CMF, EFO)
- Qualified opinion (ELGS)
- Inability to express an opinion (in the case of COMI)
- Qualified opinion (for COS, ENP and DAFR)

Also, in the case of two of the companies in the sample, the audit report is not published on the website of the Bucharest Stock Exchange (ARM, MECF).

Preliminary conclusions

(H2) focuses on the opinions found in the audit reports on the financial statements of the companies covered by this study. Thus the connection between the contrary audit opinion and the results obtained from the M-score calculation is made.

In the case of companies that have achieved results above the reference threshold, the hypothesis can only be confirmed in the case of ELECTROCONTACT INDUSTRIAL GROUP, in which case the audit report cannot be found on the website of the Bucharest Stock Exchange.

Table no. 10 Correlation between audit opinion and M score

SYMBOL	SECTOR	SCORE OBTAINED	Audit opinion
2P	EN	6.28	No reservations
AG	SERVICES	-0.89	No reservations
HOLDE	SERVICES	0.18	No reservations
HUNT	EN	-1.52	No reservations
MACO	PRODUCTION	-0.69	No reservations
MAM	SERVICES	2.33	No reservations
PRIB	COMERT	7.74	No reservations
SAFE	SERVICES	3.11	No reservations
EMAS	EN	-1.52	No reservations
UNISEM	SERVICES	-1.02	No reservations
ECT	PRODUCTION	9,34	None

Source: authors' projection

3.2.3 Application of analytical procedures

a) **Comparison of individual information with that of the sector in which they operate**

The calculations show that 50% of the companies in the first sample category have a profit margin above the previously established benchmark. In addition, more than 66% of the companies with a zero Vektor score, 40% of the companies selected in the White Paper study and all the companies in insolvency are above the benchmark, with profit margins significantly higher or lower than the sector average.

As regards the sectoral distribution of companies considered to be susceptible to fraudulent financial reporting, in the first sample the significant share is held by the service sector (54.55%), while the share of the manufacturing sector is significantly higher in the other samples, respectively 67% (2), 100% (3) and 50% (4).

b) **Comparison of revenue and expenditure budgets with the results achieved**

Of all the companies whose shares are traded in the AeRO multilateral system, only five have their income and expenditure budgets publicly available on the website of the Bucharest

Stock Exchange. Four of the companies whose budgets are publicly available have achieved an achievement rate of more than 100%, managing to significantly exceed the forecast figures. The sales and marketing strategy adapted to the new market conditions, the prioritisation of value-added projects and the consolidation and expansion of the presence on local and international markets have contributed to the achievement of the objectives set, mainly those of increasing both sales and profitability.

Table no. 11 Budget vs. achieve income table

	ACHIEVE 2019	BUDGET 2020	2020/2019	ACHIEVE 2020	DEGREE OF ACHIEVEMENT
AVIO	30.859.253	98.057.000	218%	23.647.245	24,12%
EMAI	98.403	85.000	-14%	93.816	110,37%
LIH	6.076.929	5.369.974	-12%	7.196.206	134,01%
MAMA	4.196.623	3.026.420	-28%	3.348.051	110,63%
SAFE	**13.017.755**	**15.661.135**	**20%**	**18.517.660**	**118,24%**

Source: Authors' projection, company financial statements

Table no. 12 Budget vs. achieve Profit/Loss table

	ACHIEVE 2019	BUDGET 2020	2020/2019	ACHIEVE 2020	DEGREE OF ACHIEVEMENT
AVIO	-4.587.757	58.275.000	PROFIT	-6.630.000	NEREALIZED
EMAI	2.960	2.550	-14%	3.932	154,20%
LIH	1.420.822	632.846	-55%	1.087.082	171,78%
MAMA	1.321.722	969.234	-27%	2.248.956	232,03%
SAFE	**1.248.143**	**2.058.704**	**65%**	**3.092.618**	**150,22%**

Source: Authors' projection, company financial statements

From the category of issuers with a Vektor score of 0 in 2020 and whose sales and expenses budget can be found on the website of the Bucharest Stock Exchange are ARTEGO S.A and TURISM FELIX S.A.

Turnover for both companies was over 80%. In view of the current epidemiological conditions, in particular the effects directly felt by the HoReCa sector, the forecast values and the achievement rates are within normal limits. From the point of view of the degree of realisation of the net result, it is favourable in the case of the first company, significantly exceeding the estimates made, and less favourable, the degree of realisation of the company providing tourism services being approximately 7.26%.

Table no. 13 Budget vs. achieve income table

	ACHIEVE 2019	BUDGET 2020	2020/2019	ACHIEVE 2020	DEGREE OF ACHIEVEMENT
ART	197.949.953	176.610.000	-11%	157.480.254	89,17%
TUFE	94.249.431	38.785.544	-59%	54.549.456	140,64%

Source: Authors' projection, company financial statements

Table no. 14 Budget vs. achieve Profit/Loss table

	ACHIEVE 2019	BUDGET 2020	2020/2019	ACHIEVE 2020	DEGREE OF ACHIEVEMENT
ART	12.149.812	3.360.000	-72%	10.531.639	**313,44%**
TUFE	14.211.525	7.560.000	-47%	549.070	**7,26%**

Source: Authors' projection, company financial statements

From the category of issuers listed in the White Paper publication and whose sales and expenses budget can be found on the website of the Bucharest Stock Exchange, there are ALT, MECF and EFO. None of the three companies achieved more than 100% achievement in both revenue and net income.

Table no. 15 Budget vs. achieve income table

	ACHIEVE 2019	BUDGET 2020	2020/2019	ACHIEVE 2020	DEGREE OF ACHIEVEMENT
ALT	110.560.513	115.674.500	5%	65.947.229	**57,01%**
MECF	8.648.320	35.481.901	310%	19.492.785	**54,94%**
EFO	60.010.387	52.752.520	-12%	43.566.148	**82,59%**

Source: Authors' projection, company financial statements

Table no. 16 Budget vs. achieve Profit/Loss table

	ACHIEVE 2019	BUDGET 2020	2020/2019	ACHIEVE 2020	DEGREE OF ACHIEVEMENT
ALT	-1.986.118	372.938	-119%	-16.159.868	**NEREALIZED**
MECF	6.482.161	2.000.409	-69%	-2.338.925	**NEREALIZED**
EFO	5.592.062	5.766.830	3%	4.579.520	**79,41%**

Source: Authors' projection, company financial statements

Due to the fact that it was not possible to identify the income and expenditure budgets of insolvent companies, the application of this analytical procedure was not possible in this sample category.

c) Identification of warning signals on key performance measurement indicators

If cash flow from operating activities shows negative values, contrary to possible positive EBITDA values, the risk of fraudulent reporting becomes significant.

In the category of newly listed companies in the AeRO segment, 3 companies were identified that show a negative cash flow from operating activities in the cash flow statement. Negative values were observed for the following companies:

- AGROLAND BUSINESS SYSTEM S.A. (Symbol: AG)
- PRIMCOM SA BUCURESTI (Symbol: PRIB)
- GERMINA AGRIBUSINESS S.A. (Symbol: SEOM)

Table no. 17 Key performance measurement indicators, sample 1

COMPANY SYMBOL	SECTOR OF ACTIVITY	Cash flow from operations (RON million)	Growth rate of turnover	EBITDA (mil RON)
2P	IT	1,30	29,7%	**1,67**
AG	SERVICES	-13,34	24,8%	**11,67**
HOLDE	SERVICES	8,28	343%	**9,5**
HUNT	IT	n/a	71,14%	**7,9**
MACO	PRODUCTION	n/a	28,5%	**4,3**
MAM	SERVICES	n/a	35,89%	**3,6**
PRIB	TRADE	-1,29	-0,9%	**1,2**
SAFE	SERVICES	0,052	39,59%	**3,78**
EMAS	IT	-3,56	-0,18%	**-2,6**
UNISEM	SERVICES	1,46	-37,92%	**1,6**

Source: Authors' projection, company financial statements

These negative values are mainly generated by certain items which have a significant weight, such as payments to suppliers. Dependence on a supplier has a significant impact on the company's repayment capacity. The greater the dependence on a supplier, the greater the risks of the business, as any risk associated with them is passed on to the company in question. A dependence on one supplier up to 25% is considered satisfactory, in the case of Agroland the dependence on the first supplier exceeds 48%.

Accelerated turnover growth, given both the growth of its competitors and the current economic conditions, is also a factor that requires increased attention in assessing the integrity of financial reporting. The growth of more than 343% in turnover reported by HOLDE, which has Holding company activities as its core business, is considered to be accelerated compared to market conditions. According to a report issued by Statista, the holding company activities industry showed an annual growth rate of only 6.68% globally in 2020.

From the category of companies with a Vektor score of nil, the only company showing warning signals is GRUPUL INDUSTRIAL ELECTROCONTACT S.A (ECT). The warning signals identified in this company refer both to the cash flow generated by the operating activity and the unavailability of the audit report.

Table no. 18 ECT alert signals

SECTOR	PRODUCTION
Capitalisation	5.147.500
Negative cash flow from operations	-100.178
CA evolution	-2,66%
EBITDA	-339.319
AUDIT REPORT	DOES NOT EXIST

Source: Authors' projection, company financial statements

Cash flow from operating activities is negative, mainly due to payments to suppliers and employees, which are higher than cash received from customers. Another aspect that contributes to the suspicion of potential fraudulent behaviour is the lack of information on suppliers. Apart from the amounts in the explanatory notes to the financial statements, the company's annual report does not present any information on this aspect.

In the case of insolvent companies, negative cash flow is only found in the case of CONDIMAG S.A. (COMI). As the cash flow situation is not presented in detail, we have not identified the determinants of this negative cash flow.

Table no. 19 Warning signals, companies in insolvency

SYMBOL COMPANY	SECTOR OF ACTIVITY	Cash Flow from Operations	The growth rate of TURNOVER	EBITDA
ENP	SERVICES	152.199	39,95%	-294.620
COMI	SERVICES	-2.613.656	-41%	2.286.348
COS	PRODUCTION	2.296.911	-92%	-69.069.456
DAFR	INDUSTRY	8.525.491	38.69%	-11.881.816

Source: company financials

In the case of the companies in the White Letter Publication the only company with a negative cash flow is Mecanica Ceahlău (MECF). As this is in line with recording an EBITDA, also negative, it is not considered a red flag.

Table no. 20 Warning signals, Carta Albă Publication

SYMBOL COMPANY	SECTOR OF ACTIVITY	Cash Flow from Operations	The growth rate of TURNOVER	EBITDA
ALT	PRODUCTION	10.380.924	-27,32%	(13.571.220)
MRA	PRODUCTION	554.576	-30,51%	(1.170.724)
ART	PRODUCTION	189.812.095	-27,15%	13.248.226
CMF	PRODUCTION	11,869,787	-22,27%	2,702,863
ELGS	PRODUCTION	18.800.507	-21,53%	3.363.294
MECF	PRODUCTION	(3.152.715)	-36%	(2.041.025)
EFO	SERVICES	3.743.979	-52,52%	(7.689.765)

Source: company financials

4. CONCLUSIONS

Beginning with Steven Albrecht and ending with Wolfe and Hermanson, perspectives on financial fraud are found in a fairly diverse range in line with the complexity of this phenomenon. (H1) correlates selected sample categories considered susceptible to fraudulent financial reporting and the results obtained from applying the Beneish score. After centralising the results, this hypothesis cannot be validated, as the category to which the company belongs is not a characteristic element of companies susceptible to fraudulent financial reporting. (H2) focuses on the opinions found in the audit reports on the financial statements of the companies covered by this study. This links the qualified opinion to the failure to express an opinion, with results found above the benchmark. In the case of companies with results above the reference threshold, the hypothesis can only be confirmed in the case of ELECTROCONTACT INDUSTRIAL GROUP, in which case the audit report cannot be found on the website of the Bucharest Stock Exchange.

One of the main limitations of the research is the limited access to the financial information of the sampled companies. As the case study is concretised in the validation or not of the

hypotheses formulated, another limitation is the small number of hypotheses, there being an infinite number of hypotheses that find their applicability in the economic area studied. Although four distinct categories of samples have been identified, the number of companies selected can be considered a limitation of the research, as there is a possibility that the results obtained would be different in the case of a sample with a higher number of companies.

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