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THE ROLE OF FINANCIAL FLEXIBILITY IN FACING THE FINANCIAL FAILURE CAUSED BY THE CORONA PANDEMIC: AN ANALYTICAL STUDY OF A SAMPLE OF COMPANIES LISTED ON THE IRAQI STOCK EXCHANGE

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ABSTRACT: The study aims to measure the impact of financial resilience on the financial failure caused by the Corona pandemic, and 12 of the companies listed on the Iraq Stock Exchange were selected as a sample of the study, and the study was based on a nine-year time series (2010-2018). The problem of the study was that studies and intellectual problems among researchers and intellectuals did not reach the level of cognitive maturity in trying to explain the failure of companies, and a number of statistical methods and methods were used to analyze the study variables and test hypotheses, the coefficient of multiple linear regression and test (f) and the coefficient of interpretation (R2) and through the outputs of statistical programs adopted in this field (EViews-9). After analyzing the data and hypotheses of the study, a number of conclusions were reached, most notably the existence of a morally significant adverse effect of financial resilience in financial failure, and based on the conclusions a set of recommendations, the most important of which is the need to increase the debt capacity and retain cash holdings to face negative shocks (due to low stock prices) and to face crises caused by abnormal circumstances.

KEYWORDS: Debt capacity, Proprietary financing, Default, Grover model, Companies.

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I. INTRODUCTION

The topic of financial flexibility has become one of the topics that have aroused the interest of researchers and specialists in the field of management science in general and financial management in particular (Byoun, 2007) if the attention and search and search for sources of financial flexibility and through the exploitation of debt capacity(Smith, 2014), to increase the ability of companies to face all emergency conditions and in order to reach the required levels of performance and this keeps the company from reaching the stage of financial failure Especially after the Corona pandemic and the paralysis it caused in the economy, According to a study carried out by the German company Covas, there is a significant increase in the number of bankrupt companies in the world due to the repercussions of the Corona pandemic crisis and the number of companies that will declare bankruptcy worldwide this year is expected to increase by 25%. The problem with the study was its intellectual dimension by answering the question (what is the impact of flexibility on the financial failure of companies resulting from the Corona pandemic?), In addition, many recent studies have consistently emphasized that financial failure requires more research to achieve the real impact of the causes leading to financial failure. The purpose of the study was to determine the influence of financial flexibility in financial failure.

II. LITERATURE REVIEW

(Fliers, 2019, p.100) defines financial flexibility as the ability of the company to adjust the structure of capital, while (De Jong et al., 2012, p. 244) defines Financial flexibility as the ability of the company's untapped debt, or the amount of debt that a company can issue before losing its place in the investment. The American Institute of

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Certified Public Accountants (AICPA, 1993) defines financial flexibility as "the ability to take actions that reduce the required and projected excess cash payments (Byoun, 2007, p. 5)." From the point of view of (Gamba and Triantis, 2008) that financial flexibility is the ability of any company to access its sources of financing and restructuring at a low cost. Based on this view, there are two main points through which financial flexibility becomes a value for companies. First, financial resilience can mitigate the problems of underinvestment in the case of restricted access to capital. Second, financial flexibility can help avoid the costs of financial hardship (Rapp et al., 2014). Refer (Lambrinoudakis et al., 2019) that financial flexibility is the company's ability to cope with the negative shocks that occur as a result of the depreciation of shares, resulting in companies classified as "financially flexible" and more likely to avoid financial hardship in the face of negative shocks (Sayyad and Ulvenäs, 2012).

2.1 Financial flexibility indicators

2.1.1 The Concept of financial flexibility

The concept of financial flexibility is a contemporary concept that has attracted the attention of many researchers (Byoun, 2007), and the growing literature on financial resilience has begun to explore the impact of cash and debt capacity on various corporate activities, and in particular, the recent global financial crisis has created an opportunity for researchers to better explore the impact of financial flexibility on various aspects of the company's performance (Smith, 2014), (Duchin et al., 2010).

1. Debt capacity: (Hess and Immenkötter, 2014) defines the debt capacity of the company as the minimum debt ratio to maintain the target debt level, and is called the distance between the debt capacity of the company and the debt ratio of the debt off the debtor (temporary debt storage), and refers to the amount of additional debt that the company can issue, and explains the company's financial position after investment and financing (Lemmon and Zender, 2010, p11169). Debt capacity is calculated through the following equation: (Woodruff, 2007).

$$DC = \frac{ET}{TC}$$

DC: Debt capacity.

ET: Tangible assets.

TC: Total assets.

2.2 Cash holdings

Cash holdings are defined as cash and highly liquid investments (securities) (Chen et al., 2020), in what (Zhang, 2020) cash holdings are defined as those held as ready cash. Cash holdings are calculated as in the following equation: (Marwick et al., 2020), (Tran, 2019), (Xie and Zhang, 2020).

$$CH = \frac{TC + MS}{TS}$$

CH: Cash holdings.

TC: Total cash.

MS: Marketable Investments.

TS: Total assets.

2.3 Net cash flow

Net cash flow is defined as cash that the company does not have to retain or reinvest to generate future cash flows, and net cash flow is produced from operations and other sources such as interest income and asset sales, in other words, available cash paid to shareholders (Pratt and Grabowski, 2014) net cash flow is calculated through the following equation : (Zhang et al., 2019), (Arslan-Ayaydin et al., 2014).

$$NCF = \frac{NOCF}{TA}$$

NCF: Net cash flow.

NOCF: Net operating cash flow.

TA: Total assets.

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2.4 The Concept of financial failure

The financial failure of companies has become one of the main topics that have been discussed in various business literature (Lukason, 2018), and that corporate failures (including legal processes for the reorganization of corporate bankruptcies) are a real economic reality that reflects the uniqueness of most global companies (corporate deaths), and this phenomenon will remain understudy and analysis in the future for as long as it will work in an environment that is shrouded in uncertainty and uncertainty with many sudden events (Altman and Hotchkiss, 2006). The term failure was associated with the researcher (Beaver, 1966), who defined failure as the company's inability to pay its financial obligations, and the company is considered to have failed when it faces bankruptcy, default, or unable to pay dividends (Dhamayanti, 2016). Beaver introduced another term for predicting financial failure called "predictability", which is essentially the usefulness of the data element in determining failure before it occurs (Wilson, 2012). (Parkinson, 2018), (Walsh and Cunningham, 2016) argue that there is no specific definition of financial failure, as the legislator uses the term "inability to repay the debt" to describe a situation in which a company may be subject to formal insolvency proceedings such as termination of judicial intervention.

2.5 The Causes of financial failure

(Abbas, 2010) refer to the causes of failure and its relative importance as described in table 2.

Cause	Relative Importance
Weak administrative efficiency	93%
Negligence	2%
Forgery	1.5%
Natural factors (disasters)	0.9%
other causes	2.5%

Table 1: The Causes of Failure and the Relative Importance of it

Source: Abbas, Ali, (2010). Identify the administrative and financial reasons for the failure of an analytical study on Jordanian solidarity companies. Journal of the Baghdad College of Economics University, 25, 185-112.

2.6 The Economic consequences of the corona pandemic

The disaster caused by the Corona pandemic is more influential than natural disasters (earthquakes, volcanoes, tsunamis), as all the countries of the world have completely or partially closed their countries, and the series of measures taken to address the economy has been questioned.

And the world markets have been paralyzed, so this scenario requires the adoption of appropriate mechanisms and plans to deal with this pandemic (Koirala and Acharya, 2020), Among the economic consequences of the Corona crisis are: (Koshle et al., 2020).

- Reduction in the workforce results in a discount in output capacity.
- Reduction in consumption (people staying at home) results in a decrease in demand.
- Lower revenues resulting in reduced profits and then financial failure, leading to a reduction in taxes paid.
- Reduction in income results in further consumption declines and consumption focused on necessities (healthcare insurance may become a luxury).
- Low income and hence reduced consumption and concentration of consumption on necessities.
- Business bankruptcies medium and little businesses will feel the pain because they need limited cash reserves.

2.7 Predicting financial failure

The study is based on a model (Grover, 2001) to predict financial failure as it is the most appropriate model for predicting corporate failure as the prediction accuracy of this model is 100%, while the prediction accuracy of the model (Altman) (80%), Springate (90%) and the prediction accuracy of the model (Zmijewskis) (90%) (Verlekar and Kamat, 2019).

The formula for this model is the following equation: (Aminian et al., 2016).

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 $G = 1.650X_1 + 3.404X_2 - 0.016\text{ROA} + 0.057$

According to the Grover model, if the value (G ≥ 0.01), the company is considered not to be a failure, but if the value (G ≤ -0.02) the company is considered to be a failure (Verlekar and Kamat, 2019).

III.THE STUDY DATA AND METHODOLOGY

(Chang and Ma, 2019) indicates that the controversy over the puzzling impact of financial flexibility on the company's capital structure is still under consideration and study. This dimension is reflected in the conceptual aspect, which indicates that the variables of the study (financial flexibility, financial failure) are topics that are still under discussion, both on the theoretical and the applied side.

The primary focus of this study was to answer the following questions:

- What are the philosophical trends of the current study topics and intellectual debate between them?
- Does financial flexibility affect financial failure?
- What are the models by the study sample companies to predict financial failure?

There is one main Hypothesis that will be investigated in this study as listed below:

There is a significant effect of financial flexibility in the financial failure caused by the Corona pandemic.

The study main hypothesis can be broken into the following sub-hypotheses:

- There is a significant influence of debt capacity in financial failure.
- There is a significant influence of cash holdings in financial failure.
- There is a significant influence of net cash flow in financial failure.

The hypothetical study plan was designed by looking at many of the literature and sober modern studies that are related to the variables of the study, as the hypothetical study plan represents a picture resulting from the ideas and visions generated by analyzing the reality of the working environment (in addition to conducting a survey of intellectual products) and seeking to address the problems experienced by companies. Figure (1) below represents the hypothetical study plan.

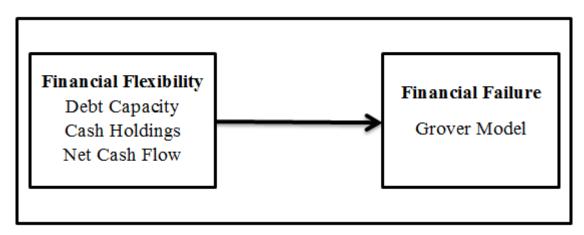


Figure 1: Hypothetical Study Model

This study was generated using a set of statistical tools for collecting both theoretical and practical data. This can be reviewed as listed below:

1. Theoretical data collection methods

The researchers in this study relied on a wide range of research and literature related articles to generate an understanding of the variables involved in this study. Also generated through credited Online Electronic Libraries (Databases).

2. Practical data collection method

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The researcher relied on financial reports and publications issued by the Iraqi Stock Exchange, it also included face-to-face interviews with key stakeholders to detail the study variables involved in the workplace. The study in financial analysis relied on a range of indicators including, debt capacity, cash holdings, net cash flow and to measure financial flexibility, in addition to which the Model (Grover) was adopted to measure financial failure, For the analysis of this data, statistical software (EViews-9) was used to provide some statistical measures of relationships. The target community is determined in the study before the selection of the sample so that its vocabulary enjoys the same characteristics, as the study community is determined in the light of the achievement of the objectives of the study, and the study community is represented by industrial companies listed on the Iraqi Stock Exchange. The sample of the study was selected in accordance with the requirements of the current study, as a sample of (12) industrial companies listed on the Iraqi Stock Exchange was selected in the light of cooperation regarding the provision of the required information that needs to be reviewed by companies, and the availability of financial data for the time period from (2010) to (2018) and table (1) shows the industrial companies sample the study.

Table 2: Study Sample

No.	Company Name	Establishing Date	Listing Date	The company's capital(ID)
1	Iraqi Date Processing and Marketing	1989	2004	17,250,000,000
2	Modern Sewing	1989	2004	1,000,000,000
3	Metallic Industries and Bicycles	1964	2004	5,000,000,000
4	Iraqi Engineering Works	1985	2004	1,500,000,000
5	Iraqi For Tufted Carpets	1989	2004	500,000,000
6	AL- Kindi of Veterinary Vaccines	1990	2004	5,940,000,000
7	Modern Chemical Industries	1964	2004	180,000,000
8	Al-Mansour Pharmaceuticals Industries	1989	2004	6,469,267,350
9	Ready Made Clothes	1976	2004	1,593,000,000
10	Baghdad Soft Drinks	1989	2004	133,000,000,000
11	Baghdad for Packing Materials	1962	2004	1,080,000,000
12	Iraqi Carton Manufactures	1972	2004	7,590,000,000

IV.RESULTS AND DISCUSSION

4.1 Results

4.1.1 Financial analysis of study variables

1. Analysis of financial flexibility

This paragraph includes the presentation and analysis of the results of financial flexibility indicators (debt capacity, cash holdings and net cash flow) for the period (2010) to (2018).

Table 3: Analysis of Debt Capacity for Iraqi Industrial Companies Sample Stud

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No	Company Name/Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	Company
											Average
1	Iraqi Date Processing and	0.092	0.000	0.108	0.112	0.157	0.237	0.339	0.339	0.270	0.184
	Marketing										
2	Modern Sewing	0.110	0.115	0.130	0.118	0.176	0.219	0.221	0.185	0.115	0.154
3	Metallic Industries and Bicycles	0.299	0.265	0.185	0.147	0.152	0.163	0.155	0.143	0.041	0.172
4	Iraqi Engineering Works	0.239	0.758	0.869	0.764	0.807	0.825	0.845	0.844	0.835	0.754
5	Iraqi For Tufted Carpets	0.089	0.029	0.037	0.031	0.031	0.033	0.033	0.026	0.021	0.037
6	AL- <u>Kindi</u> of Veterinary Vaccines	0.285	0.318	0.304	0.262	0.288	0.289	0.271	0.242	0.256	0.280
7	Modern Chemical Industries	0.144	0.033	0.025	0.036	0.149	0.151	0.024	0.022	0.095	0.075
8	Al-Mansour	0.300	0.272	0.197	0.150	0.015	0.152	0.172	0.302	0.513	0.230
	Pharmaceuticals Industries										
9	Ready Made Clothes	0.018	0.050	0.049	0.347	0.565	0.563	0.711	0.642	0.440	0.376
10	Baghdad Soft Drinks	0.606	0.543	0.507	0.458	0.487	0.334	0.696	0.704	0.660	0.555
11	Baghdad for Packing	0.722	0.427	0.595	0.420	0.517	0.645	0.734	0.740	0.750	0.617
	Materials										
12	Iraqi Carton Manufactures	0.464	0.515	0.600	0.616	0.675	0.692	0.733	0.755	0.744	0.644
	Period Average	0.281	0.277	0.300	0.288	0.335	0.359	0.411	0.412	0.395	0.340

Source: Preparing the researchers based on the output of the electronic calculator.

The general sectorial average of the industry is adopted as the basis for measurement, and the results of table (3) show that the overall rate has reached (0.340), and companies (Iraqi engineering works, Ready-made clothes, Baghdad soft drinks, Baghdad for packaging materials, Iraqi cartoon manufactures) achieved a higher average than the general sectorial average, and the Iraqi Engineering Company was the highest among the sample companies study, as the general company's average of debt capacity (0.754).

While the companies (Iraqi Date Processing and Marketing, Modern sewing, Metallic Industries and Bicycles, Iraqi For Tufted Carpets, AL- Kindi of Veterinary Vaccines, Modern Chemical Industries, Al-Mansour Pharmaceuticals Industries) achieved a lower average than the general sectorial average, and Iraqi For Tufted Carpets company was the lowest among the sample companies study, as the general company average for debt capacity (0.095).

Table 4: Analysis of Cash Holdings for Iraqi Industrial Companies Sample Stud

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No	Company Name/Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	Company
											Average
1	Iraqi Date Processing and Marketing	0.674	0.635	0.579	0.251	1.218	0.246	0.054	0.036	0.043	0.415
2	Modern Sewing	0.090	0.031	0.195	0.236	0.230	0.189	0.186	0.423	0.567	0.238
3	Metallic Industries and Bicycles	0.129	0.047	0.090	0.117	0.085	0.043	0.066	0.105	0.176	0.095
4	Iraqi Engineering Works	0.561	0.149	0.017	0.130	0.110	0.072	0.036	0.030	0.033	0.126
5	Iraqi For Tufted Carpets	0.692	0.794	0.801	0.825	0.820	0.797	0.794	0.839	0.841	0.800
6	AL- <u>Kindi</u> of Veterinary Vaccines	0.492	0.528	0.416	0.453	0.397	0.472	0.484	0.426	0.016	0.409
7	Modern Chemical Industries	0.829	0.566	0.352	0.124	0.036	0.006	0.011	0.011	0.012	0.216
8	Al-Mansour Pharmaceuticals Industries	0.028	0.124	0.015	0.273	0.270	0.215	0.144	0.200	0.008	0.142
9	Ready Made Clothes	0.219	0.493	0.506	0.062	0.012	0.021	0.046	0.143	0.162	0.185
10	Baghdad Soft Drinks	0.057	0.078	0.167	0.120	0.186	0.193	0.091	0.074	0.116	0.120
11	Baghdad for Packing Materials	0.053	0.424	0.182	0.405	0.215	0.076	0.014	0.007	0.020	0.155
12	Iraqi Carton Manufactures	0.535	0.483	0.399	0.384	0.241	0.222	0.175	0.151	0.163	0.306
	Period Average	0.363	0.363	0.310	0.282	0.318	0.213	0.175	0.204	0.180	0.267

Source: Preparing the researchers based on the output of the electronic calculator.

Table 4 shows that the general average has reached (0.267), and companies (Iraqi Date Processing and Marketing, Iraqi For Tufted Carpets, AL- Kindi of Veterinary Vaccines, Iraqi Carton Manufactures) achieved a higher average than the general sectorial average, and the Iraqi For Tufted Carpets company was the highest among the sample companies study, as the general company average (0.800).

While the companies (Modern sewing, Metallic Industries, and Bicycles, Iraqi engineering, Modern Chemical Industries, Al-Mansour Pharmaceuticals Industries, Ready Made Clothes, Baghdad Soft Drinks, Baghdad for Packing Materials) achieved a lower average than the general sectorial average, and the Modern Sewing company was the lowest among the sample companies study, as the general company average (0.095).

Table (5) shows that the general sectorial average has reached (0.003), and companies (Modern sewing, AL- Kindi of Veterinary Vaccines, Modern Chemical Industries, Al-Mansour Pharmaceuticals Industries, Baghdad Soft Drinks, Baghdad for Packing Materials) have achieved a higher average than the general sectorial average, and the Modern sewing company was the highest among the sample companies study, as the general company average (0.059).

Table 5: Analysis of Net Cash Flow for Iraqi Industrial Companies Sample Stud

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											-
No	Company Name/ Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	Company
											Average
1	Iraqi Date Processing and	0.382	-0.003	-0.025	-0.357	0.140	-0.126	-0.241	-0.014	0.000	-0.027
	Marketing										
2	Modern Sewing	-0.002	-0.032	0.163	0.054	-0.050	-0.010	0.029	0.273	0.100	0.059
	_										
3	Metallic Industries and	-0.148	-0.040	0.039	0.007	-0.064	-0.072	0.015	-0.060	-0.027	-0.039
	Bicycles										
4	Iraqi Engineering Works	0.500	-0.327	-0.159	0.115	-0.033	-0.049	-0.048	-0.056	-0.027	-0.009
	1 0 0										
5	Iraqi For Tufted Carpets	-0.298	0.003	0.015	0.225	0.147	-0.463	-0.016	0.138	0.004	-0.027
	1 1										
6	AL- Kindi of Veterinary	-0.061	0.040	0.013	-0.004	-0.085	-0.008	-0.001	0.137	0.070	0.011
	Vaccines										
7	Modern Chemical	0.567	-0.117	0.029	-0.039	0.000	-0.002	0.001	0.000	0.000	0.049
	Industries										
8	Al-Mansour	-0.047	0.100	-0.099	0.261	0.010	-0.060	-0.067	0.054	0.161	0.035
	Pharmaceuticals Industries										
9	Ready Made Clothes	0.217	-0.536	-0.080	0.008	0.000	0.009	0.020	0.084	0.099	-0.020
	2										
10	Baghdad Soft Drinks	0.039	0.022	0.098	-0.034	0.071	0.080	-0.147	-0.001	-0.048	0.009
11	Baghdad for Packing	0.036	0.393	-0.253	0.316	-0.201	-0.159	-0.060	-0.006	0.034	0.011
	Materials										
12	Iraqi Carton Manufactures	0.230	-0.019	-0.015	-0.027	-0.151	-0.028	-0.028	-0.027	-0.027	-0.010
	Period Average	0.118	-0.043	-0.023	0.044	-0.018	-0.074	-0.045	0.044	0.028	0.003

Source: Preparing the researchers based on the output of the electronic calculator.

While the companies (Iraqi Date Processing and Marketing, Metallic Industries and Bicycles, Iraqi Engineering Works, Iraqi For Tufted Carpets, Ready Made Clothes, Iraqi Carton Manufactures) achieved a lower average than the general sectorial average, and the Metallic Industries and Bicycles company was the lowest among the sample companies study, as the general company average (-0.039).

2. Analysis of financial failure

No	Company Name/Near	2010	2011	2012	2013	2014	2015	2016	2017	2018	Company
IND	Company Name/ Year	2010	2011	2012	2015	2014	2015	2010	2017	2018	1 /
		4 472	4 4 9 9	4.460	4.000	1 0 0 0	0.000	7.544	0.45.6	0.040	Average
1	Iraqi Date Processing and	1.472	1.480	1.462	1.288	1.300	0.926	7.511	0.456	3.048	2.104
	Marketing										
2	Modern Sewing	0.077	1.327	1.283	1.680	1.639	1.690	1.197	1.892	1.376	1.351
3	Metallic Industries and	0.003	0.133	0.403	-0.419	-0.788	-1.544	-2.225	-2.375	-1.726	-0.949
	Bicycles										
4	Iraqi Engineering Works	1.096	0.646	0.239	0.404	0.007	-0.159	-0.180	-0.129	-0.155	0.196
	1 0 0										
5	Iraqi For Tufted Carpets	1.181	1.192	1.257	1.152	1.282	1.418	1.360	1.410	1.525	1.309
6	AL- Kindi of Veterinary	1.769	1.695	1.680	1.534	1.025	1.220	1.248	1 4 3 5	1.343	1.439
Ŭ	Vaccines	1.707	1.075	1.000	1.551	1.025	1.220	1.210	1.155	1.515	1.155
7	Modern Chemical	0.427	1.384	1.716	1.780	1.062	0.733	1.503	1.605	1.353	1.285
	Industries	0.427	1.504	1./10	1./00	1.002	0.755	1.505	1.005	1.555	1.200
8		1 1 7 0	1 205	1.020	1.404	1 476	1 5 7 7	1 380	1 1 0 2	0.670	1.246
ð	Al-Mansour	1.170	1.205	1.239	1.494	1.476	1.577	1.289	1.193	0.572	1.246
	Pharmaceuticals Industries										
9	Ready Made Clothes	0.628	1.272	0.983	0.313	0.032	0.033	0.254	0.557	1.882	0.662
10	Baghdad Soft Drinks	0.839	0.855	1.189	1.271	1.216	1.238	0.880	0.908	1.011	1.045
11	Baghdad for Packing	0.261	0.930	0.744	1.126	0.714	0.351	0.453	0.423	0.515	0.613
	Materials										
12	Iraqi Carton Manufactures	0.847	0.757	0.672	0.590	0.497	0.431	0.262	0.326	0.293	0.519
	Period Average	0.814	1.073	1.072	1.018	0.789	0.659	1.129	0.642	0.920	0.901

Table 6: Analysis of the Financial Failure for Iraqi Industrial Companies Sample Stud

Source: Preparing the researchers based on the output of the electronic calculator.

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The model (Grover, 2001) is used to predict the financial failure of the sample companies study, because the accuracy of the prediction of failure for this model is very high compared to other financial failure prediction models.

Table 6 shows that the general sectorial average has reached (0.901), and companies (Iraqi Date Processing and Marketing, Modern Sewing, Iraqi For Tufted Carpets, AL- Kindi of Veterinary Vaccines, Modern Chemical Industries, Al-Mansour Pharmaceuticals Industries, Baghdad Soft Drinks) achieved a higher average than the general sectorial average, and Iraqi Date Processing and Marketing company was the highest among the sample companies study, with the general company average (2.104). While the companies (Metallic Industries) achieved a lower average than the general sectorial average, and the general sectorial average, and the Metallic Industries and Bicycles company was the lowest among the sample companies study, with the company's general average (-0.949), which is lower than (-0.02) so the company is considered a failure.

4.1.2 Statistical analysis of study variables

1. The Main hypothesis

This hypothesis indicates that there is a statistically significant influence relationship of financial flexibility in financial failure.

The used (debt capacity, cash assets, and net cash flow) to measure financial flexibility, The (G) value is used to measure financial failure, and any increase in the value of financial flexibility will increase the value of (G) for companies, (EViews-9) program is used to extract results by extracting the effect factor, value (t) and the level of morale that determines the acceptance or rejection of the hypothesis. As well as the coefficient of interpretation, which explains the extent to which financial flexibility is explained by the disparity in financial failure, Assuming there is a dalia relationship between the real value of financial flexibility and financial failure (FF) and can be expressed in the following equation:

$$FF = \beta_0 + \beta_1 DC + \beta_2 CH + \beta_3 NCF$$

FF: Dependent variable (financial failure).

β0: Hard limit.

βi: The relationship to the impact of financial flexibility in financial failure.

DC: Debt capacity.

CH: Cash holdings.

NCF: Net cash flow.

It is clear from the table (7) and in the light of the multiple regression equation, the results indicate that the constant (C =0.24), which means that there is a financial failure of (0.24) when the value of financial flexibility is equal to zero.

The results of table (7) indicate that the value of the (R2) factor was (0.57), which means that financial flexibility explains the ratio (0.57) of the variation in financial failure and that (0.43) of the variation is due to variables that did not enter the regression model, It is an acceptable indicator when comparing the calculated value (F) of (5,149) which is greater than its tabular value of (2.21) and according to the results of the level of significance of the value of (F) which amounted to (0.000) which is less than the level of significance determined by the researcher (0.05) and through that The results accept the first main hypothesis.

2. Sub-hypothesis No.1

Indicates a relationship of influence of statistical moral significance to the debt capacity in financial failure, The results of table 7 indicate that the value of the marginal tendency of debt capacity has reached (β 1=0.475) and accompanying (DC) indicates that a one-unit change in debt capacity (DC) will lead to increase in the value of (G) by (0.475).

The level of significance (0,000), which is less than the level of significance determined by the researcher (0.05), and through these results, the hypothesis is accepted at the level of debt capacity.

 Table 7: Results of the Relationship Test of the Influence of Financial Flexibility in the Financial Failure of Industrial Companies Sample Stud

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Ind. indicators	Dep. indicator	Coefficient	Std. Error	(t) t-Statistic	Prob.	Decision					
DC	FF	0.475	0.122	3.892	0.000	Accept the hypothesis					
СН	FF	0.280	0.089	3.151	0.000	Accept the hypothesis					
NCF	FF	-0.164	0.091	-1.803	0.075	Reject the hypothesis					
(C)	0.24	Method: Poole	d Least Squ	ares							
(R ²)	0.57										
(F)	5.149	FF = (0.24) +	FF = (0.24) + (-0.475)DC + (-0.280)CH + (0.164)NCF								
F-statistic											
(F) Sig	0.000										
Fixed Effects	(Cross)		Fixed Effects (Period)								
Company	Coefficient	Arrangement	(Period)	Coefficient	Arrangement						
(Cross)											
IIDPC	0.01	5	2010C	0.01	3						
IMOS –C	-0.12	12	2011C	-0.01	4						
IMIB —C	0.23	1	2012-C	-0.02	5						
IIEW —C	-0.05	7	2013C	-0.03	8						
птс –с	0.21	2	2014C	0.07	1						
IKLV –C	-0.10	9	2015C	0.06	2						
IMCI –C	0.01	4	2016C	-0.02	6						
IMAPC	-0.06	8	2017C	-0.04	9						
IRMC -C	0.07	3	2018C	-0.02	7						
IBSD –C	-0.10	10									
IBPMC	-0.10	11									
IICMC	-0.01	6									

Source: Preparing the researchers based on the output of the electronic calculator.

3. Sub-hypothesis No.2

Indicates a relationship of influence of statistical moral significance to the cash holdings in financial failure, The results of table 7 indicate that the value of the marginal tendency of cash holdings has reached (β 2=0.280) and accompanying (CH) indicates that a one-unit change in cash holdings (CH) will lead to increase in the value of (G) by (0.280), The level of significance (0,000), which is less than the level of significance determined by the researcher (0.05), and through these results, the hypothesis is accepted at the level of cash holdings.

4. Sub-hypothesis No.3

Indicates a relationship of influence of statistical moral significance to the net cash flow in financial failure, The results of table 7 indicate that the value of the marginal tendency of net cash holdings has reached (β 3=-0.164) and accompanying (NCF) indicates that a one-unit change in net cash holdings (NCF) will lead to decrease in the value of (G) by (-0.164), The level of significance (0,07), which is higher than the level of significance determined by the researcher (0.05), and through these results, the hypothesis is rejected at the level of net cash flow.

4.2 Discussion

The study aims to measure the influence of financial flexibility in the financial failure caused by the Corona pandemic, and the study showed that both debt capacity, cash holdings, and net cash flow adversely affect the financial failure of industrial companies caused by the Corona pandemic.

Studies in the field of financial management indicate that financial flexibility reduces the likelihood of financial failure under the influence of negative cash flow shocks (Sang, 2018). (Gamba and Triantis, 2008) noted that financially flexibility companies are able to avoid financial distress in the face of negative shocks. Financial flexibility is the most important factor in determining the company's capital structure and is reliable for the future development of the company or to avoid financial failure during crises (Mirkhalili and Mahmoudabadi, 2018). The results of the study show that industrial companies sample the study seeks to store the debt capacity and hold cash

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holdings and aims to achieve high levels of financial flexibility to cope with future negative shocks and emergency conditions. The results of the study show that the reason for some companies enjoying financial flexibility is the result of companies relying on retaining profits and issuing shares and not resorting to increasing leverage, and this is what showed that companies have a large debt capacity.

V. CONCLUSION

- 1. There was a negative influence of financial flexibility in financial failure.
- 2. The companies of the study sample tend to store debt capacity, to maintain the target debt level and to face emergency conditions.
- 3. Financial analysis of the sample companies showed that they had assets that were easily cash and quickly.
- 4. According to the model adopted to measure financial failure, it is clear that the study sample is away from the gray area and that it is working properly (not failed).
- 5. According to the approved (Grover) model for measuring financial failure, the value of (G) of the Metallic Industries and Bicycles Company has reached (-0.949), and therefore it can be said that this company is financially failure.
- 6. Companies do not set target levels of leverage, and leverage adjustment swells at these levels.

VI.RECOMMENDATIONS

- 1. The researchers recommend that officials in the research companies need to maintain specific levels of financial flexibility to face the emergency conditions and crises resulting from the Corona pandemic.
- 2. The necessity of increasing the debt capacity to face negative shocks (low stock prices), as a result of the Corona pandemic.
- 3. The researchers recommend that the study sample companies should maintain cash holdings that are easy to convert into cash quickly, to avoid liquidity risk.
- 4. The researchers recommend failing companies to adopt modern Prediction models to measure financial failure during specific time periods, to take the necessary measures within the framework of increasing financial flexibility.
- 5. The researchers recommend to officials at the Metallic Industries and Bicycles Company, the need to increase capital and go towards storing debt capacity and setting target levels for leverage, and not to rely heavily on debt in the financing, as well as adopting modern Prediction models to measure financial failure periodically if these measures would Reducing financial failure.
- 6. The need to determine target levels of leverage and not exceed these levels, and expand by leverage, as this increases the risk of default.

VII. REFERENCES

- [1] Abbas, Ali, (2010). Identify the administrative and financial reasons for the failure of an analytical study on Jordanian solidarity companies. *Journal of the Baghdad College of Economics University*, 25, 185-112.
- [2] Altman, E. I., and Hotchkiss, E. (2006). Corporate financial distress and bankruptcy. 3th Ed, John Wiley & Sons, Inc., Hoboken, New Jersey.
- [3] Aminian, A., Mousazade, H., and Khoshkho, O. I. (2016). Investigate the ability of bankruptcy prediction models of Altman and Springate and Zmijewski and Grover in Tehran Stock Exchange. *Mediterranean Journal of Social Sciences*, 7(4 S1), 208-214.
- [4] Arslan-Ayaydin, Ö., Florackis, C., and Ozkan, A. (2014). Financial flexibility, corporate investment and performance: evidence from financial crises. *Review of Quantitative Finance and Accounting*, 42(2), 211-250.
- [5] Byoun, Soku, (2007). Financial Flexibility, Leverage, and Firm Size. *Hankamer School of Business, Baylor University*, 1-83.
- [6] Chang, H. and Ma, C., (2019). Financial flexibility, managerial efficiency and firm life cycle on firm performance. *Journal of Advances in Management Research*, 16 (2), 168-180.
- [7] Chen, J., Gao, Y. C., Li, Q., and Zeng, Y. (2020). Cash holdings, M&A decision and risk premium. *Physica A: Statistical Mechanics and its Applications*, 537, 122571.
- [8] De Jong, A., Verbeek, M., and Verwijmeren, P., (2012). Does financial flexibility reduce investment distortions?. *Journal of Financial Research*, 35(2), 243-259.
- [9] Dhamayanti, H. (2016). Corporate governance and bankruptcy. *Master Thesis, Erasmus School of Economics, Erasmus University Rotterdam*.

ISSN- 2394-5125

VOL 7, ISSUE 10, 2020

- [10] Duchin, R., Ozbas, O. and Sensoy, B.A., (2010). Costly external finance, corporate investment, and the subprime mortgage credit crisis. *Journal of Financial Economics*, 97 (3), pp. 418-435.
- [11] Fliers, P.T., (2019). What is the relation between financial flexibility and dividend smoothing?. *Journal of International Money and Finance*, 92, 98-111.
- [12] Gamba, A., Triantis, A., (2008). The value of financial flexibility. *The Journal of Finance*, 63(5), 2263–2296.
- [13] Hess, D., and Immenkötter, P. (2014). How much is too much? Debt Capacity and Financial Flexibility. *Debt Capacity and Financial Flexibility (March 2014)*.
- [14] Koirala, J., and Acharya, S. (2020). Impact of Novel Corona Virus (COVID-19 or 2019-nCoV) on *Nepalese Economy*. Available at SSRN 3560638.
- [15] Koshle, H., Kaur, R., & Basista, R. (2020). Breakdown of Business and Workers in India: *Impact of Corona Virus*.
- [16] Lambrinoudakis, C., Skiadopoulos, G., and Gkionis, K. (2019). Capital structure and financial flexibility: Expectations of future shocks. *Journal of Banking and Finance*, 104, 1-18.
- [17] Lemmon, M. L., and Zender, J. F. (2010). Debt capacity and tests of capital structure theories. *Journal of Financial and Quantitative Analysis*, 45(5), 1161-1187.
- [18] Lukason, O. (2018). Age and size dependencies of firm failure processes: an analysis of bankrupted Estonian firms. *International Journal of Law and Management*, 60(6), 1272-1285.
- [19] Marwick, A., Hasan, M. M., and Luo, T. (2020). Organization capital and corporate cash holdings. *International Review of Financial Analysis*, 101458.
- [20] Parkinson, M. M. (2018). Corporate Governance in Transition: *Dealing with Financial Distress and Insolvency in UK Companies. Springer*.
- [21] Pratt, Shannon, P. and Grabowski, Roger, J. (2014). Cost of Capital: Applications and Examples. *4th Ed, John Wiley & Sons, Inc.*
- [22] Rapp, M., Schmid, T. and Urban, D., (2014). The value of financial flexibility and corporate financial policy. *Journal of Corporate Finance*, 29, 288- 302.
- [23] Sayyad, K. P., and Ulvenäs, J. A. (2012). Examining the sources of financial flexibility (Doctoral dissertation, Master Thesis). The School of Economics and Management. *Department of Business Administration, Lund University.*
- [24] Smith, G., (2014). After a market panic: cash is king. *Managerial Finance*, 40 (5), 506 -534.
- [25] Tran, Q. T. (2019). CORRUPTION AND CORPORATE CASH HOLDINGS: INTERNATIONAL EVIDENCE. Journal of Multinational Financial Management, 100611.
- [26] Verlekar, R. P., and Kamat, M. S. (2019). Recalibration and Application of Springate, Zmijewski and Grover Bankruptcy Models in Indian Banking Sector. *Business Analytics & Intelligence*, 7(2), 19-27.
- [27] Walsh, G. S., and Cunningham, J. A. (2016). Business failure and entrepreneurship: Emergence, evolution and future research. *Foundations and Trends in Entrepreneurship*, 12(3), 163-285..
- [28] Wilson, D. A. (2012). Data Envelopment Analysis of Corporate Failure for Non-Manufacturing Firms using a Slacks-Based Model, *Master's Thesis, Department of Chemical Engineering and Applied Chemistry, University of Toronto.*
- [29] Woodruff, G. S. (2007). Factors explaining debt capacity. *Management research news*, 30(4), 240-251.
- [30] Xie, J., and Zhang, Y. (2020). Anti-corruption, government intervention, and corporate cash holdings: Evidence from China. *Economic Systems*.
- [31] Zhang, Jianhua, Zhao, Zhao and Jian, Wenqing, (2019), " Do cash flow imbalances facilitate leverage adjustments of Chinese listed firms? Evidence from a dynamic panel threshold model", *Economic Modeling*, 83, pp. 270-286.
- [32] Zhang, X., Zou, M., Liu, W., and Zhang, Y. (2020). Does a firm's supplier concentration affect its cash holding?. *Economic Modelling*.