

The Effect of Financing Structure on the Financial Fragility the Sample of Industrial Companies Listed on the Amman Stock Exchange for the Period (2005 - 2019)

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Abstract

This study aimed to investigate the impact of financing structure on financial vulnerability in industrial companies listed on the Amman Stock Exchange during the period 2005–2019. This study adopted a quantitative approach, the study comprised two variables: the independent variable, financing structure (measured based on long-term loans, short-term loans, and equity), and the dependent variable, financial vulnerability (measured using the Z-index). A range of statistical analyses were applied to the data to achieve the study's objectives, including linear regression, correlation, t-tests, and analysis of variance (ANOVA). SPSS and Smart PLS software were used for data analysis. Secondary data were obtained from the annual reports of companies listed on the Amman Stock Exchange and their official websites. The study concluded that all dimensions of the dependent variable affect financial vulnerability, but the overall organizational structure, financial leverage, and short-term debt had a positive impact, while long-term loans and equity financing had a negative impact. The scientific contribution lies in attempting to arrive at accurate estimates of companies' path towards an optimal financing structure, and reducing financial fragility in a way that supports financial decision-making processes.

Keywords: Financing structure, Short-term loans, Long-term loans and Equity financing

Introduction

Companies finance their investments through short-term loans, long-term loans and equity, this process is called financing the financial structure, this term is used to describe every type of financing. Also, the concept of financing for loans is related to financial leverage, and that loans have costs and these costs are fixed financing costs. However, the return on this type of loan is low if it is compared with equity financing, while equity financing is one of the types of financing whose risks are high because the costs are fixed and there is a legal obligation on it (Myers, 2003). Long-term financing is called the capital structure, which

includes long-term loans and equity. As companies seek to make a profit from the financing they obtain with a decrease in the risks resulting from the source of these types of financing. And the financing structure contains different types of financing sources, some of which are external financing and some of which are internal (Biswas, 2019).

Financing is also an important issue for companies because the businesses that companies do need funds to finance their operational and expansion activities. This funding has sources and conditions before obtaining it. Since the conditions differ from one institution to another, as well as the position of the borrowing company, its position in the market and its financial position, the more good its potential in the market is, the easier the conditions may be. As for the internal sources of financing, it includes (retained earnings and reserves), and the external sources include (loans and shares issuance). There are many considerations that have an impact on financing decisions, and among these considerations are maximizing profits, creating value and risks, so this is an important factor for companies in achieving stability and success (Cheema, et.al 2017)

Khan, et.al (2012) and Elbeltagy (2020) indicated in their study that the effects of the financing structure on the performance of Pakistani companies have a positive impact on stock returns, as it was relied on measuring the financing structure on (loans/equity), While other studies showed the negative impact between corporate performance and the financing structure, where the study (Soumadi and Hayajneh, 2012) showed that the financial leverage had a negative impact on the companies listed on the Amman Stock Exchange for the period (2001-2006) expressed as the return on equity. while This study of Ngatno et al (2021) dealt with the mediating effect of corporate governance to show the relationship between the financing structure and financial performance, where the results indicated that the financing decision contributes positively to the financial performance, as this applies only to short-term debts.

The adoption of this study was due to the scarcity of studies linking the financing structure to financial fragility. Therefore, the adoption of this study was due to the scarcity of studies linking the financing structure to financial fragility, one of the reasons behind this study is that the researcher did not find any similar foreign or Arab study on this subject in the Amman Stock Exchange. As well as from the other motives behind the researcher's dependence to focus on this study, which is represented in the funding structure and its impact on financial fragility, due to the lack of a study linking these two variables, to the knowledge of the researcher, in addition, choosing the place of study in the Amman Stock Exchange is because this market enjoys political and financial stability, this stability encourages companies to expand their business, as this expansion of investment needs funds for investment, so companies must be aware of their financial position and whether the companies suffer from financial fragility. One of the important decisions addressed in previous studies is the focus on financing and debt decisions and how to manage them during periods of financial shock and stability, and the impact this has on company performance and the decisions made. Despite all this interest, researchers have not paid enough attention to the relationship between financial structure and financial vulnerability. Therefore, there is a clear need to expand this scope to provide a broader perspective for making decisions that are appropriate to the company's internal and external mechanisms. Therefore, the focus in this study is on the financing structure because financing is one of the sources that lead to

financial risk. The sources of funding, which represent the independent variable, include long-term loans, short-term loans, and equity, while the dependent variable represents financial fragility, which is measured according to the Z-Score scale in the companies under study.

Literature Review

Many studies have sought to provide explanations regarding financing methods that include property rights and foreign debt in order to finance corporate investments. At the present time, it is not possible to adopt a single theory in corporate finance. Therefore, In this research, the most important influential theories in this field will be highlighted. One of the challenges faced by companies at the end of the fifties of the last century, which states the idea of the inappropriateness of the capital structure of companies (Modigliani and Miller, 1958). Where they are considered to be among the first researchers who were interested in the relationship between the value of companies and the structure of capital, the theory they presented was that the financing decisions do not affect the value of the enterprise under the ideal hypothetical decisions. These works have been compiled under the title of the general theory (fixed barter), whose main concept is that companies determine the percentage of debts that they are targeting in order to achieve them. In the middle of the seventies of the last century, the research direction changed to agency costs and focused on the conflict between shareholders and managers on one hand, and between creditors and stakeholders on the other hand. In the mid-eighties of the last century, the focus was on the causes of inconsistency in information regarding investors and companies.

The theory of pecking order (Myers, 1984) It was the beginning of the formation of the foundations for the new theory of borrowing, and that investors who need more clarification must have the incentive and encouragement to invest in the more risky securities and then it appeared that the money that is generated inside companies is the best option in financing operations, and that the use of foreign funds as a source of financing is the last and least alternative source of use in companies. In the late eighties. According to Myers (2001) "there is no universal theory of debt-equity choice, and no reason to expect one" Through the foregoing, the focus on the issue of corporate financing is based on two types of financing, which include (private funds, and borrowed money) and that these loans have risks that may affect companies, one of the risks that is not apparent and cannot be verified at an early stage is financial fragility. This type of risk is not apparent, but damages appear after companies are exposed to financial shocks, and then the financial fragility appears on the company.

Many previous studies focused on the issue of the financing structure. The importance of this topic is highlighted because companies in general need financing to survive in the contemporary business environment. This financing is through self-financing, which is represented in property rights, and the second type of financing is external financing represented in Short and long-term commitments. The financing decision determines the method by which companies obtain their sources of financing, whether they are self-financing (financing by ownership) or (by borrowing). Financing ratios are determined by the decision taken. The financing mix consisting of equity and debt is called the financing structure (Harris and Roark, 2019). The term of financing structure refers to the sources of financing used by companies of all kinds. Sometimes a second concept is used, which is the capital structure, which is represented by the permanent financing elements of the institution, which includes long-term debt with equity. The financing decision, whether through equity or long-term

debt, is considered a strategic decision (Tanko et al., 2021). Also, the financing structure is meant as a combination of financing sources obtained by the company for the process of financing its investments. This investment includes all sources of financing from long- and short-term debts, in addition to the right of ownership. Therefore, it can be noticed that the difference between the financing structure and the capital structure, as the second term includes only long-term financing sources (Nicodano and Regis, 2019).

The decisions related to the capital structure are among the important decisions because they affect the return of shareholders and the risks. As this may be a reason for affecting the market value of the shares with the decisions that are taken; Thus, the firm must plan its capital structure at the time of its establishment to finance its investments (Pandey, 2010). The capital structure is represented by a mixture of long-term debt and equity held by companies. The distinction between the financing structure and the capital structure is one of the topics that have attracted the attention of many researchers, as the financing structure represents all long-term and short-term financial obligations (Al Abass et al., 2021).

There is a correlation between financing decisions and risks, which means that the financing structure has financial risks, such as the risk of financial fragility, Financial leverage has high levels of risks to shareholders. Therefore, it was noted that every company has criteria that it sets in order to target its financial structure, in terms of its constituent elements and the proportions of those elements. On the basis of this, companies are working to achieve their strategic goals to increase or augment their value. This increase in value needs a balance in the expected return with the risks resulting from the financing structure (PeiZhi and Raman, 2020).

The term financial fragility was first used by Minsky in 1972, that was through the development of a model that sought through this model to explain periods of financial instability, as well as a statement of the reasons formed by the financial problems, which in some cases turned into economic crises. Where financial fragility was considered as representing the fourth generation with regard to the emerging writings of financial crises, which sought to reach to show the interrelationship between each of the debt crisis and banking crises. One of the definitions by which financial fragility was defined as an economic condition in which the values of project owners, if collected, are significantly small when compared with their investment projects (Schoeder, 2009).

The main objective of revealing financial fragility, it is to give financial regulators a way to understand the mechanism of change in economic practices used by companies and banks in the acquisition of assets, it also to know the reinforcement of these assets to financial instability. This can happen in advance to reduce financial crises, and also can be prevented in the event that the company or institution faced simple or difficult financial shocks. When regulators obtain proactive information, they have the ability to stop dangerous funding. This shows that the increase in profitability and default will not be an indication of financial health. On the other hand, the objective of the disclosure of financial fragility is not to detect the bubble in the prices of assets, but it is the process of revealing the risks in debt deflation that results from the interactions of debt with the value of assets in an upward manner. Therefore, the company is financially fragile even if the company is free from the existence of a bubble in the prices of its assets, and it is possible for the company to be in good financial health

despite the existence of an asset bubble. One of the causes of financial fragility is the rise in interest rates. Lack of access to funding sources as well as natural disasters (Tymoigne, 2011). (Hong, 2011) believes that financial fragility is a weakness in some internal factors that occur as a result of some external shocks and crises.

The fragility of the banking system is defined as the inability of banks to withstand the shocks that occur as a result of the accumulation of operations and areas, which stand in the way of allocating their savings and directing them towards investment opportunities. where it was find that this definition focuses on the lack of flexibility in the banking system and the weakness in continuing to carry out its basic functions, which is represented in the allocation of resources and the provision of financing services, and this is a form that negatively affects the economic activities of the state (Gaspar et al., 2020).

Developing Hypotheses

The effect of the financing structure on financial fragility

While researching the literature on the financial structure, we cannot forget what was presented (Miller and Modigliani (1958). In their study, which showed that the capital structure does not affect the value of the company in the event that a good and efficient financial market is available, as well as the availability of information and the absence of any kind of taxes. In addition, interest rates are fixed on the debt, regardless of the ratios of those debts. In 1963, a study appeared for them, and the results of this study were different from the primary study. The study of Fama and French (2002) showed that profitability is the most important factor in the decisions companies make about financing, and the relationship between debt and profitability is an inverse relationship.

As for the study of Jan Marhrt- Smith (2005), which focused in its entirety on building a model to show the relationship between dispersal and focus on shareholders' equity for the capital structure, this study concluded that the focus should be on shareholders' equity in the event that the debt ratios are high. This indicates that the investment ratios have a relationship and a relationship with the financial structure. And that investments have risks that may affect companies in the event of not focusing on the main points that help to avoid falling into irregular risks, which are made by understanding the correct mechanism in order to choose the appropriate financing (Jan Marhrt- Smith, 2005).

As (Siquwen, 2015) finds that financial fragility in financial institutions is caused by cash flows that occur as a result of unorganized operations in an efficient manner and that do not meet the obligations and financial dues. As this leads to covering the obligations of the borrowing process, companies start investment operations with more dangerous projects when the state of the country is more stable, as this prompts companies to finance their projects by borrowing to cover their financial needs. These events change the corporate policy from institutions that follow a conservative system to speculative companies. This will be one of the reasons that lead to the emergence of financial fragility in these companies in the event of any economic recession in the country.

The study of Yu Zhang (2005) concluded that financing through shareholders' equity provides many competitive advantages for the enterprise, where this study was conducted on the aviation industry in the United States of America, this study concluded that this type

of financing plays an important role in the competitive behavior of companies. In addition to the presence of other factors that companies must study, which relate to the situation of competitors and the situation in the market. While Sumayya (2012) showed in her study that focused on the relationship between the financial structure and the financial decision that there is a direct relationship between investment and borrowing decisions, as these loans have risks, which is the inability to pay. Kaifeng study (2002) focused on the relationship between the value of the enterprise, which was represented by the market value divided by the book value, with the financing risks. it showed in its results that there is a direct relationship between the financing risks and the value of the enterprise (Kaifeng, 2002). Based on this, the hypothesis was adopted that states:

H1- There is a significant effect between the financing structure and financial fragility.

The effect of short and long-term debt on financial fragility

Myers study (1984), which stipulates the sequence of choosing sources of financing, presented that financial leverage and debt financing after financing with retained earnings and reserves. The traditional theory and the theory of choosing the sequence of funding sources have proven that there is a positive relationship between financial leverage and the market value of companies. Thus, borrowing is from the sources that companies must rely on, as it is the best type of financing. In 1988 came the Miller study, which stated that companies with the ability to obtain a loan must obtain this loan in order to obtain the advantages in the tax savings, but this may increase the risk of bankruptcy because of these loans (Frielinghaus et al. 2005).

Financial leverage is desirable in the event that companies achieve profits and an increase in the return on assets over the cost of loans represented by interest. As the increase in the level of financial leverage for companies increases the return on equity based on improving economic conditions and which in turn depends on the prevailing circumstance. Therefore, companies should be careful before deciding to increase or decrease financial leverage in companies to avoid falling into the trap of irregular risks. If the economic conditions are good, the company will have a greater financial return, and in the opposite case, the risk will be high (Ross and David, 2002).

The financial leverage negatively affects the company's flexibility in paying its financial obligations. This is one of the reasons that increase the unsystematic risks that appear to the company after it is exposed to financial shocks. And that the rise in the level of financial leverage forces companies to reduce the specific expenditures on research and development operations, with the aim of obtaining liquidity to service the debt, and this negatively affects the competitive position of companies and production efficiencies, It may be the reason for the emergence of financial problems and risks that are the cause for the failure of many companies (Reich, 1989). Companies that fail to pay their financial obligations are exposed to risks, and these risks lead to financial failure. For this reason, the company must abide by the amount of financial leverage that it uses in its operations, because this policy represents the correct path that the company follows, to avoid the risks resulting from inflexibility in obtaining appropriate financing, as well as the company's ability to increase or decrease financial leverage will modify the financial structure of the company through Replacing one funding source with another (Ross et al, 2002).

The financial risks are directly related to the decisions regarding the financing structure. Contemporary thought proves that financing decisions are directly related to financial risks. Which is related to dependence on the percentage of debts and obligations that increase these risks, the more companies rely on debt as external sources of financing, the more severe the financial risks will be. Since the increase in debt with a decrease in financial resources will increase the risk of non-investment or decrease, therefore, the financing decision is important in achieving efficiency, as well as the role that it has a role to play in investments (Legesse et.al, 2021). It was also found that the increase in long-term debts may be a reason for increasing or decreasing investments, according to the company's profits or losses that help it continue to compete (D'Mello and Miranda, 2010).

Financial flexibility plays a role in making the company get the right opportunities, Because the financially flexible company can obtain its financial resources in proportion to its financial objectives, as a new developed strategy that these companies follow regarding the competitive conditions and environmental conditions of their own. Also, the term financial flexibility is linked to the decision of the financial structure, which aims to obtain an optimal financing structure and the goal is to reduce risks and reach an increase in the wealth of companies during a certain period of time (Boyun, 2007). The increase in indebtedness poses a risk and has an impact on the financial stability of companies (Bernstein et.al 2019). On the basis of this, it was found that there is a possible relationship between financial leverage represented by long-term debt and short-term debt with risks to which companies are exposed, represented by financial fragility, and based on this, the following three hypotheses were adopted:

H2- There is a significant effect between financial leverage represented by (long-term and short-term debt) and financial fragility.

H3- There is a significant effect between long-term loans and financial fragility.

H4- There is a significant effect between short-term loans and financial fragility.

The impact of equity financing on financial fragility

Much of the literature indicates that companies that are financed by equity are exposed to risks during periods of downturn or when these companies are exposed to financial shocks. This means that an unsuitable corporate structure may be chosen in boom times. Since companies do not feel the danger that they may be exposed to in good times in the market, But the effects of risks on companies appear in times of shock. This will lead to financial distress that these companies will be exposed to during financial crises. Consequently, it will lead to a decrease in investment operations and employment, in addition to the continuation of the contraction (Bernanke and Gertler 1990).

During the global financial crisis, financial institutions criticized the behavior adopted in dealing with risks. The problem of moral hazard is related to the ownership of companies and the participation of some financial institutions in some non-traditional activities on risks and fees was the reason for the emergence of the financial crisis (Cyree et .al, 2011). The study of Chen et.al (2021), which examined in its sample a group of American companies, that focused on the sensitivity which arises in companies due to the pressures on companies with high and medium activity, where banks begin to impose difficult conditions on such type of companies, which causes difficulty for companies to obtain loans to finance their investments,

so companies start to turn to alternatives to finance its operations, one of these types is property rights.

Obtaining financing through the issuance of ordinary shares helps the enterprise to obtain flexibility in investment operations and to stay away from debts through which restrictions are imposed by lenders and prevent them from expanding in a way that may be in the interest of companies, as well as to avoid bankruptcy resulting from external borrowing, this measure may be objected to by the shareholders because of their belief that this will reduce the return on the share in the event of an increase in the number of shareholders (Du and Dai, 2005). Reaching an optimal financing structure for all companies to reduce risks, it is not possible because every company has a policy and dynamic that differs from one company to another. This is considered one of the most difficult tasks that executive managers look for in order to reach such points. Because the manager needs to focus on a set of points, including the realized return and irregular risks that affects companies and which are the cause of the collapse of companies (Supanvanij, 2006). It has been concluded that the relationship between financial leverage and profit is an inverse relationship. Whereas, the facility prefers to obtain financing through retained earnings, depending on the theory of arrangement of mechanisms (Eriotis et. Al, 2002).

Through the establishment of a group of companies that could be fragile in periods prior to financial crises, equity financing may have a regular effect in downturns (Girod and Mueller 2015). And that financing by ownership may have flexibility if it is adopted in the most contracting periods, thus, this type of financing may achieve stability in the most dire situations. This type of financing is often relied upon, due to the difficulty in obtaining external financing, so companies are forced to turn to this type of financing (Bernstein et.al 2019). Based on this, the hypothesis was adopted that states:

H5- There is a significant effect between equity financing and financial fragility.

Conceptual Framework

Theories related to the variables of the study and the impact of the financing structure on financial fragility were discussed, as the conceptual design was built as in Figure No. (1), based on previous theories that were developed. Where the financing structure was measured based on the study of Xianzhi and Mirza (2016) and the study of Anh and Phuong (2018), while the study of (Nirajini and Priya, 2013) and the study of Javed, Younas and Imran, 2014) were adopted in quoting information related to property rights. The information related to financial fragility that was measured by (z-score), it was extracted from the studies of (Ashraf el.at, 2016) and (Fielding and Rewilak, 2015).

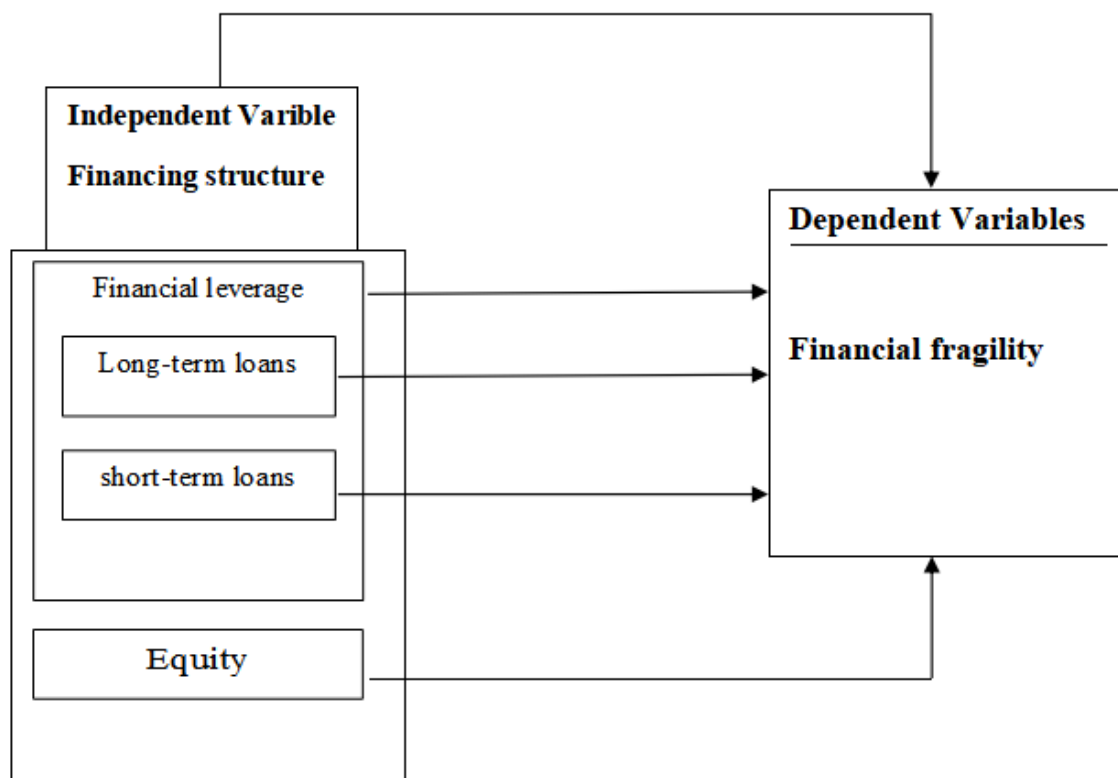


Figure (1) Conceptual Framework

Research Methodology

Scientists agree that research inquiries are dealt with through the process of deduction, induction, or through a combination of the two processes. Where the research methodology is chosen depending on the nature and focus of the research, and the conclusions usually start with "developing theories that depend and then doing a rigorous test. While the deductive approach works on a known and real hypothesis related to a particular phenomenon (Sekaran, 2003). These facts are expressed in the form of a theory, Then, through these theories, hypotheses are formulated and then a process of empirical tests are carried out for these hypotheses, as this is the opposite of the deductive approach, because the inductive approach depends on the formation of theories that are based on observations of the experimental reality, regardless of the difference between the two inductive and deductive approaches, researchers agree that the answer to the issues facing researchers is through one of the two approaches (Saunders et.al, 2009). In this approach, quantitative calculations are relied on, as well as the ability to test hypotheses that aim to generalize (Sekaran, 2003). Quantitative research deals with data collection in the form of numbers (Newman, 2000). The quantitative method includes a set of procedures that depend on collecting digital data, as well as carrying out the process of analyzing it in order to answer the questions of the research, in addition to testing the hypotheses of the search for the variables that are identified.

Study Population and Sample

Industrial companies listed on the Amman Stock Exchange will be selected as a research community for this study, and the number of companies in the study sample will be 40 for the period (2005 to 2019). Jordan was chosen for being a somewhat economically

stable country, and usually this stability motivates companies to increase their investments, which increases the demand for money and turn to financing, whether this financing is internal or external financing, as this financing may be the cause of the emergence of financial fragility or in Reducing financial fragility.

Data Collection

Data are collected in researches based on primary and secondary data. Secondary data is represented by data found in previously published research, annual reports, magazines and newspapers, reports of universities, charities, and Internet sources. While the primary data is that obtained for the first time. The three methods adopted in collecting primary data are the personal interview method, the observation method, and the survey method (Kotler and Armstrong, 2010).

The secondary data in this study was adopted based on the annual reports listed on the Amman Stock Exchange and on the official websites of these companies, the certain periods were taken for the availability of data during the study period that will relay on.

Study variables and measurement methods

The current study consists of two variables, where the independent variable includes the financing structure, which is measured based on (long-term loans, short-term loans and equity), while the dependent variable includes financial fragility, which is measured by the (Z-Score) scale, where these measures can be clarified as follows :

Financial Structure scales

There are many factors and determinants that have an impact on the financing structure, including (the characteristics of the shares, which are seen from the side of the market value and par value, interest rates on the shares, the life of the share) (and the characteristics of the company manager in terms of managing the company if it is well managed or not). In addition to the existence of a difference in the management of the financing structure between both private companies and government-owned companies (Wang, 2014). The financing decision determines how to obtain the sources of funds for the company, whether this financing includes external debt and internal debt, as the financing structure is measured in this study on the basis of long-term debt, short-term debt and equity based on the study (Xianzhi and Mirza, 2016, and Anh and Phuong, 2018). As well as the measurement of internal financing represented by equity (Javed et al, 2014, Nirajini and Priya, 2013) as shown in the table(1) below.

Table (1)

Detail of Variables

Independent Variable	Measurement	Formula	Reference
Financing structure	Long Term Debit to Assets(LTD/A)	LTD/A	Xianzhi and Mirza (2016)
	Short Term Debit to Assets (STD/A)	STD/A	Anh and Phuong (2018), Javed, Younas and Imran (2014)
	Equity to Assets(EQ/A)	EQ/A	Nirajini and Priya (2013)

Financial Fragility Scale(Z-score)

Usually, the Z-Score indicator is used in the financial literature as a measure of financial fragility, whose value is an indication of companies' financial stability or financial fragility. If the value of (Z-Score) decreases, this indicates that financial fragility is increasing, and in the event of an increase in the value of this indicator, this indicates that the institution has good financial health and financial stability. Therefore, the value of (Z-Score) measures standard deviations based on returns on assets, in addition to the ratio of ownership to total assets, it is divided by the standard deviation of the return on assets and is calculated based on the study (1) (Ashraf el.at, 2016) and (Fielding and Rewilak, 2015).

Z -score=	$ROA + E/A$
	$\sigma(ROA)$

whereas:

(ROA): Represented by return on assets

(E/A): It is represented by the proportion of equity divided by the total assets

$\sigma(ROA)$: It is represented by the standard deviation of the return on assets

Measuring financial vulnerability using the Z Score, which is denoted by (Z)

By applying the z-score formula to classify companies according to financial fragility, and based on 300 observations (with 20 targeted companies and a 15-year period), it was found that 200 observations indicated financially fragile companies, while 100 observations showed financial stability for the remaining companies, as shown in Table 2 and Table 3.

Table (2)

Shows industrial companies suffering from financial fragility according to the Z-score standard

N	Company Name	Z- score
1.	Life for Pharmaceutical Industries	0.13982
2.	Industrial, Commercial, Agricultural Company	0.60470
3.	Leading in Business and Projects	0.33826
4.	National Chlorine Industry	-0.63755
5.	Jordanian industrial resources	-0.03139
6.	National Poultry	-0.35226
7.	Food House	0.74131
8.	General Mining	-0.05483
9.	National Steel Industry	0.98765
10.	Phosphate mines	-0.48534
11.	Jordan Iron	0.12350
12.	National Aluminum Industry	-0.27643
13.	Arab Center for Pharmaceutical Industries	-0.42310
14.	Jordanian Pharmaceutical Production Company	-0.74569
15.	Jordanian cement factories	0.45309

Table (3)

Shows financially stable industrial companies according to the z-score standard

N	Company Name	Z-score
1.	Jordanian Dairy	0.958599
2.	Public Investments	0.987350
3.	Al-Iqbal Investment Company	1.87868
4.	Arab Potash Company	1.992289
5.	Al-Asr Investment Group	0.813969

Descriptive Statistical Analysis

Descriptive analysis aims to provide an initial overview of the characteristics of the study variables by presenting arithmetic means and their standard deviations. It also provides the minimum and maximum values for the variables under study. This analysis reveals the dispersion between data and the differences between observations to facilitate subsequent statistical procedures and hypothesis testing.

Table (4)

Statistical summary of the descriptive analysis

Variables	N	Mean	Std.Deviation	Minimum	Maximum
Financial Leverage	300	0.467	0.172	0.365	0.963
Short-Term loans	300	0.416	0.153	0.334	0.874
Long-Term loans	300	0.356	0.146	0.113	0.675
Equity Financing	300	0.512	0.176	0.341	0.775
Financial fragility	300	0.421	0.117	-0.423	1.992

The descriptive statistics presented in Table (4) indicate that the sample used in this study consisted of 300 observations of the variables collectively, providing a clear picture of the reliability of the data used in the necessary analyses. The arithmetic mean for financial

leverage was 0.467, and its standard deviation was 0.172. This indicates that companies clearly rely on debt financing at a rate of 46.7%, and the level of variation between companies is evident, with values ranging between 0.365 and 0.963. As for short-term loans, their mean was 0.416, and their standard deviation was 0.153, which explains that the average debt level was 42.6%, and the variation between companies in short-term financing operations was between 0.334 and 0.874. Regarding long-term loans, the average was 0.356 with a standard deviation of 0.146, which is a percentage of the value of short-term loans. This indicates that companies tend to favor short-term financing over long-term financing. As for equity financing, the average was 0.512 with a standard deviation of 0.176, clearly indicating that equity financing represents 51.2%. Financial fragility had an average of 0.421 with a standard deviation of 0.117, while the variation ranged between -0.423 and 1.992. This demonstrates that some companies enjoy good levels of financial stability, while others suffer from financial fragility and instability.

Correlation Analysis

This analysis aims to determine the strength and direction of the correlation between the study variables. This is achieved using the correlation coefficient, which indicates whether the relationship between the variables is positive or negative, and whether this relationship is strong or weak. This analysis is one of the most important steps before developing regression models, as it helps to determine the nature of the relationships between the study variables and to identify problems of linear interference, as shown in Table(5).

Table No. (5)

Shows the correlation results which is related to the study variables.

		1	2	3	4	5
1.	Financial Leverage	1				
2.	Short-Term loans	0.583**	1			
3.	Long-Term loans	-0.422**	-0.342**	1		
4.	Equity Financing	-0.742**	-0.591**	0.564**	1	
5.	Financial fragility	0.546**	0.638**	-0.434**	-0.677**	1

Table (5) shows a positive relationship between financial leverage and financial vulnerability (0.546). This indicates that higher debt levels can lead to increased financial vulnerability. A strong and clear relationship also exists between short-term debt and financial leverage (0.638), suggesting that reliance on short-term loans increases financial vulnerability. Conversely, the relationship between financial vulnerability and long-term loans is negative (-0.434), indicating that reliance on long-term debt reduces financial vulnerability. Furthermore, the relationship between equity financing and financial vulnerability is inverse, indicating that financial vulnerability is lower in institutions that utilize equity financing.

Table (6)

Results of the impact of financial leverage dimensions on stock return considering profitability as mediator.

Paths	Expected signal	Unstandardized Coefficient	Standardized Coefficient	Std. Err.	z stats.	p > z
Financing structure...> Financial fragility	+	0.695	0.547	0.033	8.235	0.000**
Financial-leverage ..> Financial fragility	+	0.812	0.623	0.042	7.365	0.000**
Short-Term.loans...> Financial fragility	+	0.614	0.441	0.036	5.223	0.000**
Long-Term loans...> Financial fragility	-	-0.376	-0.312	0.045	-3.785	0.000**
Equity Financing...> Financial fragility	-	-0.764	-0.566	0.044	-6.953	0.000**

Table (6) shows that the results regarding the relationship between the financing structure and financial fragility indicate a significant effect across all dimensions, but in different directions between the dimensions and financial fragility. This effect was statistically significant at the 0.01 level. The results demonstrate that the overall financing structure has a significant positive impact on financial fragility, with a Unstandardized Coefficient of (0.695), a standard coefficient of (0.547), and a z-value of (8.235). These results suggest that a shift towards short-term financing leads to increased financial fragility.

As for financial leverage in general, the results showed that there is a positive and significant effect on financial fragility, as the Unstandardized Coefficient reached (0.812) and the standard coefficient for this relationship reached (0.623), while the value of $z = 7.365$, as these results indicate that changing financial leverage to short-term financing leads to an increase in financial fragility. As for short-term loans, the results showed that there is a positive and significant effect on financial fragility, as the Unstandardized Coefficient reached (0.614) and the standard coefficient for this relationship reached (0.441), while the value of $z = 5.223$, as these results indicate that changing the financial leverage to short-term financing leads to an increase in financial fragility.

In addition, the relationship between long-term loan financing and financial vulnerability showed a statistically significant negative effect on financial vulnerability, with a Unstandardized of (-0.376) and a standardized coefficient of (-0.312), while the z-value was (-3.785). These results indicate that long-term financing increases stability ratios and leads to a decrease in financial vulnerability. Also the relationship between equity financing and financial fragility has shown that there is a statistically significant negative effect on financial fragility , as the Unstandardized Coefficient reached (-0.764) and the standard coefficient for this relationship reached (-0.566), while the value of ($z = -6.953$) was reached. These results indicate that changing the financial leverage to equity financing leads to a decrease in financial fragility .

Conclusion

The aim of this study is to investigate the impact of different financing structure dimensions namely, short-term loans, long-term loans, and equity financing on financial fragility in the Amman Stock Exchange. Financial fragility is considered a problem that affects the stability of a company's operations, requiring financing that is appropriate for market fluctuations in order to manage it. The results showed that the financing structure dimensions affect financial fragility, but to varying degrees and in different directions. The overall financing structure, including leverage and Short-Term loans financing, showed a positive impact, while equity financing and long-term financing showed a negative impact.

It is important to consider the impact of the financing structure, which positively and generally affects the financial fragility of companies listed on the Amman Stock Exchange. The financing structure is considered one of the main factors that have a clear impact on the financial stability of companies, because this reflects a mix of financing sources. Choosing appropriate financing increases the company's ability to get rid of financial troubles, and the results showed that excessive debt increases the fragility of financial companies. Therefore, the importance of linking the financing structure to financial fragility is one of the important and basic points for knowing and achieving the process of balancing between financing sources that increases the financial stability of companies.

The study concluded that the majority of companies listed on the Amman Stock Exchange suffer from financial fragility and are affected by market fluctuations. This has led many listed companies to resort to excessive financing, further exacerbating their financial vulnerability, as excessive debt financing increases disruption within the company's financial system. Therefore, inefficient financing practices and the failure to utilize financing appropriately for the company's structure will limit its ability to withstand financial shocks.

This study contributes to increasing market knowledge by providing a precise understanding of the relationship between organizational structure and financial fragility in companies listed on the Amman Stock Exchange. The study's findings highlight the pivotal role of efficient and effective financing in addressing the challenges faced by financial institutions. Furthermore, the study reveals the counterproductive effect of certain organizational structure dimensions, which contribute to mitigating financial vulnerability. This provides a deeper understanding of how to manage financing processes and ensure the continuity of companies when exposed to shocks or sudden market changes. Therefore, this research is not merely a filler of gaps in previous studies, but rather a means of providing decision-makers with a clear perspective that contributes to sound decision-making.

Suggestions

Based on the findings of this study, companies listed on the Amman Stock Exchange must utilize their financing structures effectively and efficiently, adapting to market changes while considering the individual impacts of the organizational structure's dimensions. Companies must also understand the relationships and interrelationships between the study's variables. Understanding how to manage financial vulnerabilities that affect a company's financial stability is crucial for enhancing its ability to survive in financially unstable markets. Furthermore, balancing financing strategies appropriate to the company's environment is essential for improving profitability and overall financial performance.

,Companies must also focus on and analyze historical data to guide future operations enabling them to make decisions that optimize their resource utilization.

The results of the hypothesis analysis indicate a negative relationship between long-term debt and equity financing, and a positive relationship with leverage and equity financing. Therefore, financial managers are advised to focus on these ratios and learn appropriate methods for managing them. The study also found that short term financing and leveraged financing increase a company's financial vulnerability; therefore, excessive reliance on these methods should be avoided, and companies should handle debt cautiously. Companies should adopt approaches that suit their internal and external environments to optimize the use of financing, thus helping them avoid falling into the trap of financial vulnerability.

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