



Research Article



The Mediating Effect of Financial Adaptability in the Relationship Between financing and financial fragility

Mansoor Salman Ali

Department of Business Administration / College of Administration and Economics / Kirkuk University
Email: mansoor@uokirkuk.edu.iq

Abstract: This study aims to examine the mediating role of financial adaptation in the relationship between capital structure and financial fragility among industrial companies listed on the Amman Stock Exchange from 2010 to 2024. A quantitative research methodology a standard approach for studies of this nature was employed. The study identifies capital structure as the independent variable and financial fragility as the dependent variable, with financial adaptation serving as the mediating variable. Necessary analyses were conducted, including correlation and regression analyses, t-tests, and analysis of variance (ANOVA), utilizing SPSS and Smart PLS software for data processing. Secondary data were obtained from the companies' official websites. The study yielded significant findings, revealing that all dimensions of the dependent variable are directly influenced by the independent variable, an effect that is further reinforced by the mediating variable of financial adaptation. The study's key contribution lies in providing precise estimates regarding the financing trajectories of these companies specifically, identifying optimal financing choices, mitigating factors that exacerbate financial fragility, and adapting to sudden changes.

Keywords: Financial adaptability , short-term borrowing, long-term borrowing, financing structure, and equity financing.



Copyright © Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY).

Introduction

Most companies need to rely on loans whether short term or long term to finance their investments, or alternatively, they may utilize equity financing. The chosen financial structure essentially encompasses the entirety of the firm's financing activities. Loans utilized in this context whether short or long term operate through financial leverage. The costs associated with these loan based operations are generally lower than those of equity financing; the latter entails higher costs, partly due to associated legal obligations (Myers, 2003). Long term financing is also referred to as the "financing structure," a term that encompasses both equity and long term debt. Institutions aim to generate profits from the funds they secure for financing

purposes. Financing sources can be categorized as either external or internal (Biswas, 2019).

Financing could be one of the biggest issues that companies face, as the companies need major amounts of funds to be able to run their financial and expansion activities. Each funding source has its own different sources and conditions that you need to meet completely before being able to obtain it. When the position of the borrowing company changes, as well as the difference of conditions in every institution, the greater its potential in the market is, that easier the conditions would seem to be. The internal sources of financing include (reserves and retained earnings), while the external sources include (shares issuance and loans). Financing decisions could be impacted heavily due to the great amount of considerations, and along these considerations you get maximizing profits, whilst creating values and risks, that's why all these factors are crucial for achieving stability and success. Khan, et.al (2012) and Elbeltagy (2020) show in their numerous studies that the stock returns of the Pakistani companies would have a positive impact due to the effects of the financing structure on the performance of these companies, whilst the financing structure was measured using a couple of ratios on loans to equity (loans/equity), there was a large number of studies that showed a scale of negative impacts between both corporate performances and the financing structures due to the increased financial risks, and high interest cost, which would effect negatively on the companies performance, but there was a study (soumadi and hayajneh, 2012) that showed how the financial leverage would have a negative impact on a great number of companies listed on the Amman stock exchange from (2001-2006), as measured by return on equity (ROE). The study of Ngatno et al (2021) had its own perspective compared to the others after examining the mediating effect of corporate governance to examine the relationship between the financing structure and performance, where the findings revealed that the financial performance would be positively influenced by the financing decisions, especially those involved in short term debt.

The rarity of the studies between financial fragility and financing structure was the main cause that led to the adoption of those studies. So one of the main reasons that lead to this study was due to the incapability of the author to be able to locate any book about this particular subject in the Amman stock exchange. There were also a couple of other motives behind this research in particular, which is due to the funding and its significant impact on financial fragility. The lack of the study linking these two topics was the main cause that led to this study, which also made the researcher more knowledgeable about these topics, as well as marking and using a certain place of study in the Amman stock exchange which would be due to the favoritism of financial stability and politics in this market. This situation would lead to the encouragement of companies to expand the business, invest in funds, and that leads to awareness of company financial decisions. The previous studies gave us an idea on a couple of the most important decisions which is the focus on the financing dept and the decisions and how to use them practically during unstable times such as financial shock in the company, and the large impact it has on the company under such circumstances. Although it has such a large interest, researchers never gave it the attention to the link between financial structure and financial vulnerability. That the main reason that would lead to expanding the scope on such perspectives for making decisions that are appropriate to both the companies external and internal mechanisms, therefore this study focuses on financing structures because finance is the main lead to financial risks. The sources of funding are two variables the independent variable includes long-term loans, equity, and short-term loans. While the dependent variable represents financial fragility, which is measured under the Z-score scale.

Literature review

Large amounts of studies sought to give exact and precise explanations regarding these financing methods which include different foreign debts and property rights in order to provide the amount of finances needed for corporate investments. Currently, it won't be possible to adopt a single theory in corporate finance so more research would be needed. Thus, in the following research, the important influential theories would be highlighted. There's a particular challenge that faced most of the companies in the fifties of the last century, which gives the idea of the inappropriateness of most of the capital structures of all the companies (Miller and

modigliani, 1958). They would be among the first researcher who had a big interest in the links and relationships between the capital structures and the value of companies. What they presented said the the financing decisions do not affect the value of the company under the ideal hypothetical decisions. These works have been collected under the Designation of general theory (fixed barter), it's main point is so that companies would be able to determine the percentage of debts which they target in order to achieve them.

During the middle of the seventies of the last century, the direction of research changed to agency costs and focused on the large conflict between both managers and shareholders on one side, and between stakeholders and creditors on the other side During the mid-eighties of the last century the focus of many researchers was elsewhere, the focus was on the many causes of inconsistency about the ideal information regarding many of the companies as well as the investors. The pecking order theory (Myers,1984) was the beginning order of formation of the foundations about the new theory of borrowing funds, and whatever investor wants more clarification must have the amount of encouragement needed to invest in the most risky security which would make it appear that the money is generated inside companies which is the best given option in finance. Which gave the idea that the use of foreign funds as a source of financing would be the least and last resort you resort to as an alternative source of use in companies. whilst in the late eighties, based on myers (2001) " there is no universal theory of debt-equity choice, and no reason to expect one " Drawing on the preceding discussion, the main point of this idea is to focus on the issue of company financing which would be based on two types of financing, Which includes (borrowed money as well as private loans) both these loans contain risks that may affect firms, one major risk isn't apparent nor is it verified at an early stage is financial fragility. This kind of risk won't be noticeable, but creates massive damage to the firms after they're disclosed to financial shocks, afterwards the financial fragility would be seen on the firm.

A large sum of previous studies focused on the financing structure issues. The significance of this subject is emphasized because firms in general need financing to survive in the current business context, this funding is through self-funding, which would be represented in Proprietary interests, while the second type of funding would turn out to be external financing and is represented in both short and long-term commitments. The funding decisions influence the method by which firm gathers their sources of funding, If they would be self-funding (funding by ownership) or (Debt financing). Funding ratios are specified by the decisions taken. The funding blend consisting of Shareholders' capital and credit is called the financing structure. (rock and harris, 2019).the condition of financing structures denotes to the sources of funding used by firms of all types. Occasionally they would use a second concept, which would most likely be the capital structures, in which is Illustrated by the permanent financing factors of the entity, in which includes two factors that are equity alongside long-term debt. The financing decision is considered strategic whether if it was through long-term debt or equity (tanko et al.,2021). Also, the financing structure is meant to be a combination of both financing sources which are obtained by the firm for the procedure of funding its investments. The following investment includes all the channels of financing from both short-term and long-term debt obligations. In which also adds up to the Proprietary rights. Thus, it would show as the difference between the capital and financing structures, while the second term only includes the long-term financing sources (Regis and Nicodano, 2019).

The choices that are related to the capital structure would be some of the most important choices because of their affect at the return of the shareholders as well as the risks. Which would make this a reason for affecting the market value of those shares with the choices that are taken out of these structures. Therefore, the company should make a plan for their capital at the time of its establishment to fund its investment without falling into financial shock (Pandey, 2010). All capital structures are represented by the same structures as a blend of equity and long-term debts held by these firms. The difference between these two structures (capital structure and financing structure) is one of the most sought out topics for many researchers, the financing structure illustrates-all short-term and long-term financial responsibilities (Al Abass

et al., 2021).

There is a Interrelationship between funding risks and choices, in which means the there would always be financial risks on the financial structure, such as financial fragility, the shareholders would be at a high level risk due to financial leverage. In which, it was ruled to make a criteria for every company which is set by the firm in order to arrange its financial structure, in terms of factor aspects and the amounts of those factors. On these terms, firms would start working to achieve their strategic goals to raise their value. The value increase needs to be balanced out in the return with the risks which result from the financing structure(Raman and PeiZhi, 2020)

Financial fragility was first used by Minsky in 1972, which was through the development of a certain model that sought through and around the current model to explain the development periods of financial instability, such as a statement of reasons formed by funding problems, in which turned out to be a financial crises in some cases. Where financial fragility was regarded as demonstrating the fourth generation with regards to the Growing body of literature on financial crises, in which was attempted to show the Interrelationship between each of the debt crisis and banking crisis. A certain term of financial fragility was defined as an economic condition in which values all project owners, if gathered, are significantly less when contrasted with the investment projects (Schoeder, 2009)

The main goal of financial fragility is to give financial Supervisory authorities an easy way to comprehend the mechanisms of change in economic methods used by firms and banks in the purchases of assets, it's also used to recognize the reinforcement of these assets to financial instability. This would reduce a financial crises if used in advance, and it could also be prevented when the firm faces financial shocks suddenly, when Regulatory authorities obtain information, they would be able to stop precarious finances, which means an increase in profits won't directly mean or indicate financial health. The goal of this disclosure is to not be able to detect the prices of assets in financial fragility. Although it's the procedure of revealing risks in debts that result from interactions of value assets with debt which would be an upward manner. In which the firm would be fragile even during the firm being free from the existence of a difference in prices of its assets, and a company could be in a healthy financial status even if there was an asset bubble. Interest rates are one of the main causes of financial fragility. Lack of access in financing basis as well as natural calamities (Tymoine, 2011). (Hong, 2011) thinks that financial fragility would be a weakness of internal factors that lead to external crisis and shock. Financial fragility can be defined as a company's inability to cope with sudden changes and fluctuations which stem from accumulated issues and volatility that hinder access to investment opportunities. This highlights the vulnerability of institutions that struggle to sustain performance and operations during market turbulence, resulting in weakened economic activity and an inability to execute appropriate practices at the right time (Gaspar et al., 2020).

Developing hypotheses

1. The impact of the financing on financial fragility taking financial adaptability into account

When reviewing the literature on financing, one cannot overlook the work of the renowned researchers Miller and Modigliani (1958). They concluded that financing structures do not affect firm value particularly in efficient markets characterized by the absence of taxes, abundant information, and constant interest rates, regardless of debt levels. However, the researchers later presented a study that diverged from their initial findings. Subsequently, Fama and French (2002) concluded that corporate earnings are a critical factor for institutions when making financing decisions.

The study by Jean Marhart Smith (2005) focused on modeling the relationships between ownership concentration, distribution to shareholders, and shareholder financing rights particularly in the context of rising debt levels thereby illustrating the proportional dynamics between these variables. Furthermore, investment activities impact companies that fail to

address key factors for mitigating unsystematic risk; managing this requires a precise understanding and application of the mechanisms used to evaluate appropriate financing strategies.

One study addressing the issue of financial fragility is that of Siquwen (2015), which concluded that conditions exacerbating financial fragility arise from market volatility, the absence of efficient regulatory mechanisms, and a failure to meet obligations and liabilities to third parties in a timely manner. When liquidity is abundant and provided the market is relatively stable companies tend to become bolder, engaging in large scale, high risk investments. Furthermore, borrowing to meet essential needs can shift a company's operational approach toward market speculation. All these activities create a trap that leaves companies vulnerable to financial fragility in the event of sudden market shifts, particularly economic recession.

A 2005 study by Yu Zhang, focusing on airlines, found that shareholder-based financing offers significant advantages to competing firms; the study concluded that such financing plays a crucial role in shaping competitive behavior, alongside other factors such as the status of competitors and the organizations themselves that companies must consider. Meanwhile, a 2012 study by Sumayya examined financing processes and associated decision making, identifying a direct link between corporate investment decisions and borrowing activities, particularly when accounting for risks associated with financial distress such as the inability to repay debt during periods of loss. Separately, a 2002 study by Kainfeng investigated the relationship between financing activities, book value, and market value; the findings clearly demonstrated a direct link between market risk and corporate value. Based on the foregoing, the following hypothesis was formulated:

H1 – There is a statistically significant relationship between financing and financial fragility.

2. The impact of short- and long-term debt on financial fragility.

Myers' 1984 study focused on financing processes and the selection of funding sources, indicating that financial leverage is utilized only after the exhaustion of retained earnings and reserves. Various theories have demonstrated a sequential order in which leverage-based financing follows the use of retained earnings; furthermore, a positive correlation has been identified between financial leverage and market value. Borrowing serves as a crucial and fundamental financing source for many companies, often representing the preferred method. A 1988 study highlighted that companies capable of securing debt financing can benefit from tax shields, although such borrowing may also increase the risk of bankruptcy (Frielinghaus et al. 2005).

Relying on financial leverage is a key strategy for many profitable companies that achieve a return on assets exceeding their borrowing costs (interest expenses). Increasing financial leverage plays a significant role in boosting the return on equity, particularly during periods of economic improvement a dynamic that is sensitive to market fluctuations. Consequently, companies utilizing such debt must exercise caution to avoid excessive exposure to systemic risk; while favorable market conditions enable profit growth, adverse conditions can lead to substantial losses (Ross and David, 2002).

Financial leverage negatively affects the flexibility companies possess in meeting their obligations; it is a significant factor that clearly heightens the systemic risks these companies face during periods of market instability. Furthermore, increased leverage contributes to an inverse relationship with the allocation of funds for research and development, as resources are diverted to secure necessary liquidity. These dynamics impact corporate competitiveness and production efficiency, potentially becoming a primary cause of business failure (Reich, 1989). Since financial failure can stem from an inability to meet financial obligations, it is essential to adopt a clear, sound policy for making the right decisions when utilizing leverage to finance operations.

There is a clear and direct relationship between financial risk and financing decisions. Numerous

studies have demonstrated a distinct causal link between the risks faced by financial institutions and the financing decisions made by companies particularly those involving debt and liabilities, which play a significant role in escalating risk. Reliance on external debt is a key factor increasing the risk exposure of financial institutions; high debt levels, coupled with a lack of growth in financial resources, signify heightened risk. The importance of financing decisions lies in achieving operational efficiency while expanding investment opportunities (Legesse et al., 2021). Furthermore, the extent of debt utilization plays a crucial role in determining profitability or loss, thereby influencing the scale of investment activities; this, in turn, is vital for corporate survival and market competitiveness, as it helps safeguard companies against financial fragility during periods of volatility (D'Mello and Miranda, 2010). Based on this, the following hypotheses have been formulated:

H2- There is a significant impact of long-term loans on financial fragility.

H3- There is a significant impact of short-term loans on financial fragility.

3. The impact of equity financing with financial adaptability as a mediating variable on financial fragility.

Numerous studies indicate that companies relying on equity-based financing are more exposed to financial risks compared to those using other funding sources particularly during economic recessions or periods of sudden, severe market shocks. This vulnerability arises when firms adopt strategies ill-suited to volatile markets, leaving them unable to adapt to rapid changes. While financial institutions may not perceive this risk during periods of stability, the problems escalate quickly when market shifts and financial shocks occur. Consequently, this becomes a primary factor in curtailing the institutions' investment activities and limiting hiring (Bernanke and Gertler 1990).

During periods of financial crisis, the management of risk-exposed institutions has faced critical scrutiny, particularly regarding the link between moral hazard and the ownership structures of financial firms. Many companies were significantly impacted by their involvement in non-traditional, fee-generating activities that carried risks—factors clearly implicated in the onset of crises (Cyree et al., 2011). One study addressing this issue is that of Chen et al. (2021), which examined US firms facing external pressures across varying levels of activity (moderate to high); as banks imposed stricter lending conditions—thereby restricting access to debt financing these institutions were compelled to rely on equity financing.

Financial adaptability plays a significant role in seizing opportunities that arise during periods of market volatility, as it provides companies with resources aligned with their financial needs and strategic objectives. This is achieved through operational flexibility and the adoption of strategies tailored to the specific requirements of companies facing exceptional circumstances. Financial adaptability is directly linked to decision-making processes aimed at overcoming challenges such as financial fragility; furthermore, these processes help financial institutions maximize profits and navigate market fluctuations effectively (Boyun, 2007). Reliance on debt is also a critical factor that increases risk and significantly impacts financial stability (Bernstein et al., 2019). Consequently, a clear relationship exists between financial fragility, financial adaptability, and financing; therefore, the following hypothesis is formulated:

H4 There is a significant effect between equity financing and financial fragility.

H5 Financial adaptability mediates the relationship between financial fragility and financing.

Conceptual Framework

Key theories regarding the mediating role of financial adaptability between financing and financial fragility have been outlined. Drawing on these theories, the studies adopted to measure financing processes were those by Xianzhi and Mirza (2016) and Anh and Phuong (2018), while studies focusing on the equity financing variable included those by Nirajini and

Priya (2013) and Younas and Imran (2014). Meanwhile, to measure financial fragility, this study relied on other sources, specifically the work of Ashraf et al. (2016) and Fielding and Rewilak (2015).

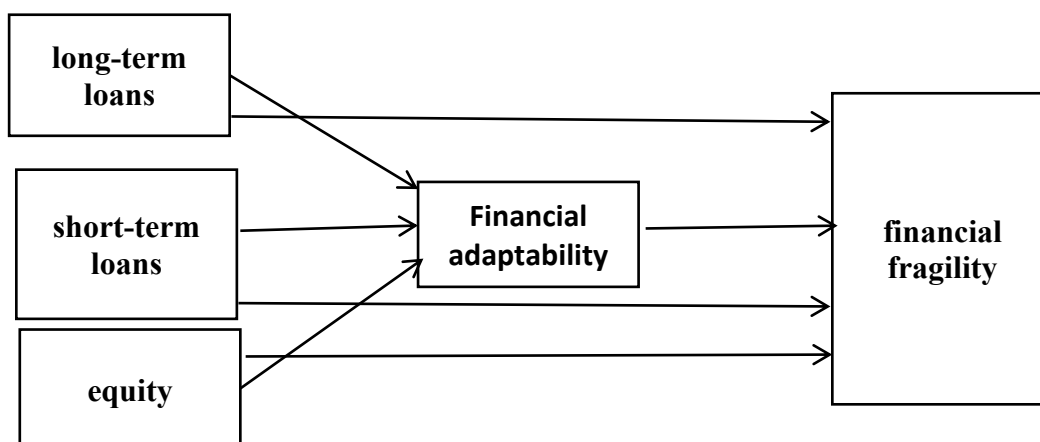


Figure 1. Conceptual Framework

Research Methodology

Many scholars agree that deductive and inductive processes or a combination thereof are addressed through research questions, with the choice of methodology determined by the nature and key themes of the research. Development typically begins with inferential processes, followed by rigorous testing. The deductive approach relies on foundations such as a realistic hypothesis linked to a specific phenomenon (Sekaran, 2003); this is subsequently formulated into a theory from which hypotheses are derived for testing. In contrast, the inductive approach focuses on theory construction based primarily on empirical reality. Despite some points of divergence between the two approaches, researchers generally agree that the problems they encounter are addressed using one of these methodologies (Saunders et al., 2009). The quantitative approach is characterized by a heavy reliance on numerical data (Newman, 2000); it involves collecting and analyzing data to answer research questions, followed by the testing of hypotheses.

Study Population and Sample

The companies included in this study are the industrial firms listed on the Amman Stock Exchange comprising 19 companies analyzed over the period from 2010 to 2024. The selection of Jordan for this study was deliberate, driven by the market's relatively high level of stability; such market stability serves as a significant incentive for many companies to expand their investments. Furthermore, an increase in financing activities is closely linked to rising investment levels and heightened risk, factors that can influence the degree of financial fragility.

Data Collection

Data used in research is generally categorized into two types: primary and secondary. Primary data is obtained through three established methods questionnaires, personal interviews, and field surveys whereas secondary data is gathered from sources such as previous journals, annual reports, and reports issued by charitable organizations (Kotler and Armstrong, 2010). This study relied on existing secondary data sources, specifically annual reports and the official website of the Amman Stock Exchange; the time frame selected for the study was determined by the availability of data for the chosen companies.

Financial scales

Numerous factors influence financing methods, including stock return rates, share values (whether par or market value), and the age of the stock. Management efficiency also plays a significant role. Consequently, variations in financing practices are observed across companies, differing between state-owned and private enterprises (Wang, 2014). Decisions regarding the choice of financing source whether internal or external drive the process. Short-term debt, long-term debt, and equity are the financing components adopted here, based on studies by Xianzhi and Mirza (2016), Javed et al. (2014), Nirajini and Priya (2013), and Anh and Phuong (2018), as shown in the table below.

Table 1. Detail of Variables

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

Financial Fragility Scale

Much of the literature considers the Z-score a key metric for assessing financial fragility and stability. Low Z-score values indicate financial fragility, whereas high values signify robust financial stability. This metric is calculated by determining the standard deviation based on the return on assets and the ratio of equity to total assets specifically by calculating the standard deviation of assets derived from the sum of the equity ratio and the return on assets (divided by total assets), an approach based on the study by Fielding and Rewilak (2015).

$$Z\text{-score} = \frac{ROA + E/A}{\sigma(ROA)}$$

whereas:

(ROA): Represented by return on assets

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

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

Financial adaptability scale

This study measures financial adaptability defined as a company's capacity to handle market fluctuations and keep pace with change. Given the difficulty of measuring this concept directly, the study utilizes indicators such as financial stability, operational efficiency, and liquidity. Current ratios reflect a company's ability to meet short-term obligations, while interest coverage ratios indicate its capacity to service interest payments using operating profits. Asset turnover

ratios serve as a concise proxy for short-term financial requirements. Debt ratios initially considered for the index were excluded to avoid linear correlation with the financial leverage control variables used in the regression models. To mitigate the impact of outliers, all variables were adjusted and standardized on an annual basis (Ganbat et al., 2026). Based on the foregoing, the financial adaptability index was constructed as follows.

$$FAI_{it} = i/k \sum_{k=1}^k Z_{kit}$$

The "Z-score" was adopted to measure financial fragility, as previously explained.

Based on the application of this index to screen for companies exhibiting signs of financial fragility versus those enjoying financial stability, a sample of 19 companies was analyzed over a 15-year period. The results detailed in Tables 2 and 3 revealed that 14 companies suffered from financial fragility, while 5 companies maintained financial stability.

Table 2. shows industrial companies suffering from financial fragility according to the Z-score standard.

N	Company Name	Z- score
1.	Jordanian industrial resources	-0.04339
2.	Life for Pharmaceutical Industries	0.24982
3.	Food House	0.76131
4.	Leading in Business and Projects	0.23866
5.	National Chlorine Industry	-0.53555
6.	Industrial, Commercial, Agricultural Company	0.50370
7.	National Poultry	-0.53726
8.	National Steel Industry	0.97765
9.	General Mining	-0.053483
10.	Jordan Iron	0.53350
11.	Phosphate mines	-0.57734
12.	Arab Center for Pharmaceutical Industries	-0.63310
13.	National Aluminum Industry	-0.33643
14.	Jordanian cement factories	0.74209

Table 3. shows financially stable industrial companies according to the z-score standard

N	Company Name	Z-score
1.	Al-Iqbal Investment Company	1.94468
2.	Arab Potash Company	1.88989
3.	Public Investments	0.89950
4.	Jordanian Dairy	0.99499
5.	Al-Asr Investment Group	0.85469

Descriptive Statistical Analysis

Descriptive analysis is employed to elucidate the characteristics of the study variables by presenting statistical measures such as the arithmetic mean and standard deviation. It also addresses the minimum and maximum values of the study variables. Furthermore, this analysis highlights the extent of data dispersion and the differences between observations, thereby facilitating subsequent analytical procedures.

Table 4. Statistical summary of the descriptive analysis

Variables	N	Mean	Std.Deviation	Minimum	Maximum
Financial adaptability	275	0.476	0.167	0.455	0.866
Short-Term loans	275	0.423	0.144	0.325	0.967
Long-Term loans	275	0.348	0.139	0.122	0.589
Equity	275	0.511	0.177	0.366	0.874
Financial fragility	275	0.411	0.123	-0.411	1.865

Table 4 presents the results of the descriptive analysis based on a sample of 275 observations regarding the study variables; these figures provide a clear and reliable overview of the data used for the necessary analyses. The arithmetic mean for financial adaptability was 0.476, with a standard deviation of 0.167. Regarding short-term debt, the mean was 0.423 and the standard deviation was 0.144, with values ranging from 0.325 to 0.967. For long-term debt, the mean was 0.348 with a standard deviation of 0.139. Equity financing showed a mean of 0.511 and a standard deviation of 0.144. Finally, the results for financial fragility showed a mean of 0.411 and a standard deviation of 0.123, with a range of -0.411 to 1.865; this clearly indicates that some of these companies enjoy a good level of financial stability.

Correlation Analysis

This analysis identifies the direction and strength of the correlation between the study variables. It utilizes the correlation coefficient to determine whether the relationship is direct or inverse that is, whether it is positive or negative as well as whether the relationship is strong or weak. This type of analysis is considered a crucial step prior to constructing regression models, as illustrated in Table 5.

Table No. 5. shows the correlation results which is related to the study variables.

		1	2	3	4	5
1.	Financial adaptability	1				
2.	Short-Term loans	0.499**	1			
3.	Long-Term loans	-0.411**	-0.421**	1		
4.	Equity Financing	-0.483**	-0.584**	-0.633**	1	
5.	Financial fragility	-0.553**	-0.653**	-0.442**	-0.667**	1

The correlation coefficient between financial adaptation and short-term financing is positive (0.499), indicating that short-term loans are strongly associated with higher levels of reliance on financial adaptation. Regarding long-term loans and their relationship with financial flexibility, an inverse relationship exists (-0.114): as financial flexibility increases, the proportion of long-term loans decreases. The correlation coefficient between financial adaptation and equity financing was -0.483. Conversely, the relationship between financial adaptation and financial fragility was negative (-0.553), meaning that higher levels of financial adaptation corresponded to lower levels of financial fragility.

Table 6. Results of the impact of financing on financial fragility, considering financial adaptability as a mediating variable.

Paths	Expected signal	Unstandardized Coefficient	Standardized Coefficient	Std. Err.	z stats.	p > z
Financial adaptability > Financial fragility	-	-0.715	-0.497	0.091	-7.865	0.000**
Financial Leverage > Financial adaptability	+	0.752	0.546	0.101	7.455	0.000**
Short-Term loans > Financial fragility	+	0.564	0.531	0.092	6.113	0.000**
Long-Term loans > Financial fragility	-	-0.356	-0.323	0.090	-3.975	0.000**
Equity > Financial fragility	-	-0.854	-0.646	0.124	-6.863	0.000**
Financing>Financial adaptability >Financial fragility	-	-0.538	-0.271	0.099	-5.43	0.000**

Table 6 reveals a significant negative relationship between financial adaptation and financial fragility; specifically, higher levels of financial adaptation correspond to lower levels of financial fragility. This effect is statistically significant at the 0.01 level, with an unstandardized coefficient of -0.715, a standardized coefficient of -0.497, and a z-value of -7.865. These results demonstrate an inverse relationship between financial adaptation and financial fragility. Regarding financial leverage, the results revealed a significant positive impact on financial fragility; the unstandardized coefficient was 0.752, the standardized coefficient was 0.546, and the z-value was 7.865. It was also demonstrated that a shift toward short-term financing leads to increased financial fragility, with an unstandardized coefficient of 0.564, a standardized coefficient of 0.531, and a z-value of 6.113. Conversely, results concerning long-term financing indicated that reliance on it helps mitigate financial fragility, showing an unstandardized coefficient of -0.356, a standardized coefficient of -0.323, and a z-value of -3.975. Finally, equity financing was also found to contribute to reducing financial fragility, with results showing an unstandardized coefficient of -0.854, a standardized coefficient of -0.646, and a z-value of -6.863.

Table 7. illustrates the direct and indirect effects of financing on financial fragility.

Path	Direct effect	Indirect effect	Total effect
Financing → Financial fragility	-0.538	-0.274	-0.812

The table 7 illustrates the path effects regarding the relationship between financing and financial fragility, incorporating financial adaptation as a mediating variable. The results indicate a negative effect of financing on financial fragility, with a coefficient of -0.538; this demonstrates that enhancing financial institutions' access to funding sources plays a significant role in mitigating financial fragility. Furthermore, the indirect effect of financing on financial fragility mediated by financial adaptation was -0.274, clearly showing that financial adaptation plays a crucial role in transmitting the impact of financing to financial fragility. Combining the direct and indirect effects yields a total effect of -0.812, revealing that the relationship is shaped by both direct and indirect influences; these findings confirm the existence of an indirect effect of financial adaptation on financial fragility.

Conclusion

This study focuses on the mediating role of financial adaptation in the relationship between financing and financial fragility within the Amman Stock Exchange. Three financing variables were adopted: short-term loans, equity financing, and long-term financing. Financing operations are fundamental to financial stability; selecting appropriate financing amidst market changes is

essential for corporate survival and competitiveness in a rapidly evolving market. The results indicate that excessive reliance on financing increases financial fragility and instability. Specifically, short-term loan financing exacerbates financial fragility due to a positive correlation, whereas equity and long-term financing exhibit a negative relationship with fragility, thereby enhancing corporate financial stability. Excessive reliance on debt plays a detrimental role in increasing financial fragility. Furthermore, the inverse relationship between financial adaptation and financial fragility underscores the study's significance, highlighting the role of financial adaptation in selecting suitable financing amidst rapid market changes.

The study also found that the majority of companies listed on the Amman Stock Exchange suffer from financial fragility, a condition that is not static but rather susceptible to market fluctuations. Consequently, many companies have resorted to excessive financing, leading to financial instability; such over-reliance exacerbates financial problems. Ultimately, relying on inefficient financing methods or failing to align financing with the company's financial structure compromises a firm's ability to withstand financial shocks. This study has contributed to enriching research knowledge by providing a precise understanding of the relationships between the study variables specifically financial adaptation (as a mediating variable), financial fragility, and financing. Furthermore, the findings reveal an inverse relationship between certain dimensions of the financing structure and financial fragility, thereby mitigating corporate financial vulnerability. Thus, this research goes beyond merely addressing existing gaps; it offers clear insights that assist in making appropriate decisions.

Suggestions

Accredited companies require precise, well-considered decisions regarding their financing structures to adapt to market changes. Furthermore, understanding the variables under study is crucial; accurately managing operations related to the strengths and weaknesses affecting financial stability plays a vital role in bolstering a company's ability to survive and endure in the market. To ensure strong performance and market longevity, management must adopt strategies aligned with prevailing environmental changes. Companies must also maintain continuous analysis of historical data to improve decision-making and optimize the use of available resources.

Analysis results indicate an inverse relationship between long-term financing and equity financing, whereas a direct relationship exists with short-term financing, and an inverse relationship with financial adaptability. Consequently, managers must closely monitor these ratios to manage them effectively and avoid problems arising from inefficient operations. Given the direct relationship between certain financing sources and financial fragility, financing decisions must be carefully weighed against market realities, avoiding excessive reliance on debt. Finally, companies must maintain sufficient flexibility to avoid critical pitfalls, adapting their financing methods to ensure optimal resource utilization and prevent falling into a state of precarious financial weakness.

REFERENCES

- [1] Ali, S., Rangone, A., & Farooq, M. (2022). Corporate taxation and firm-specific determinants of capital structure: Evidence from the UK and US multinational firms. *Journal of Risk and Financial Management*, 15(2), 55.
- [2] Ali, M., Raza, S. A., Puah, C. H., & Karim, M. Z. A. (2017). Islamic home financing in Pakistan: a SEM-based approach using modified TPB model. *Housing Studies*, 32(8), 1156-1177.
- [3] Anh, T. T. X., & Phuong, B. N. (2018). Impact of Ownership Structure on Capital Structure-Empirical Evidence From Listed Firms in Vietnam. *DLSU Business & Economics Review*, 28(1).
- [4] Ashraf, D., Ramady, M., & Albinali, K. (2016). Financial fragility of banks, ownership structure and income diversification: Empirical evidence from the GCC region. *Research in International Business and Finance*, 38, 56-68.
- [5] Barakat, A. (2014). The impact of financial structure, financial leverage and profitability on industrial companies shares value (applied study on a sample of Saudi industrial companies). *Research Journal of Finance and Accounting*, 5(1), 55-66.
- [6] Bernstein, S., Lerner, J., & Mezzanotti, F. (2019). Private equity and financial fragility during the crisis. *The Review of Financial Studies*, 32(4), 1309-1373.
- [7]
- [8] Bernanke, B., and M. Gertler. 1990. Financial fragility and economic performance. *Quarterly Journal of Economics* 105:87-114
- [9] Biswas, B. (2019). The Relation Between Capital Structure and Profitability of Some Selected Companies in Indian Ceramic Industry. *IUP Journal of Accounting Research & Audit Practices*, 18(3).
- [10] Chen, Y., Hasan, I., Saffar, W., & Zolotoy, L. (2021). Executive Equity Risk-Taking Incentives and Firms' Choice of Debt Structure. *Journal of Banking & Finance*, 133, 106274.
- [11] Cheema, M. H., Mahboob, H., Farooq, N., & Yousaf, A. (2017). Capital structure impact on financial performance of Sharia and non-Sharia complaint companies of Pakistan stock exchange. *International Journal of Business and Management Review*, 5(1), 54-70.
- [12] Cyree, K. B., Huang, P., & Lindley, J. T. (2012). The economic consequences of banks' derivatives use in good times and bad times. *Journal of Financial Services Research*, 41(3), 121-144.
- [13] Du, J., & Dai, Y. (2005). Ultimate corporate ownership structures and capital structures: Evidence from East Asian economies. *Corporate Governance: An International Review*, 13(1), 60-71.
- [14] D'Mello, R., & Miranda, M. (2010). Long-term debt and overinvestment agency problem. *Journal of Banking & Finance*, 34(2), 324-335.
- [15] Elbeltagy, Z. (2020). Financing Structure, Micro and Small Enterprises' Performance, and Woman Entrepreneurship in Indonesia.
- [16] Eriotis, N. P., Frangouli, Z., & Ventoura-Neokosmides, Z. (2002). Profit margin and capital structure: an empirical relationship. *Journal of Applied Business Research (JABR)*, 18(2).
- [17] Frielinghaus, A., Mostert, B., & Firer, C. (2005). Capital structure and the firm's life stage. *South African Journal of Business Management*, 36(4), 9-18.
- [18] Fielding, D., & Rewilak, J. (2015). Credit booms, financial fragility and banking crises. *Economics Letters*, 136, 233-236.
- [19] Gaspar, V., Hartmann, P., & Sleijpen, O. (2002). Second ECB Central Banking Conference. Frankfurt.
- [20] Guo, H., Legesse, T. S., Tang, J., & Wu, Z. (2021). Financial leverage and firm efficiency: the mediating role of cash holding. *Applied Economics*, 53(18), 2108-2124.
- [21] Hong, F. (2011, January). Empirical analysis on the financial fragility of the United States based on factor analysis method. In *MSIE 2011* (pp. 406-410). IEEE.
- [22]
- [23] Harris, C., & Roark, S. (2019). Cash flow risk and capital structure decisions. *Finance*

- Research Letters, 29, 393-397.
- [24] Javed, T., Younas, W., & Imran, M. (2014). Impact of capital structure on firm performance: Evidence from Pakistani firms. *International Journal of Academic Research in Economics and Management Sciences*, 3(5), 28.
 - [25] Khan, A. G. (2012). The relationship of capital structure decisions with firm performance: A study of the engineering sector of Pakistan. *International Journal of Accounting and financial reporting*, 2(1), 245.
 - [26] Kotler, P., and Armstrong, G. (2010). *Principles of Marketing* (13th ed.). Pennsylvania, United States: Prentice Hall.
 - [27] Kotsupatriy, M., Ksonzhyk, I., Skrypnyk, S., Shepel, I., & Koval, S. (2020). Use of international accounting and financial reporting standards in enterprise management. *International Journal of Management*, 11(5).
 - [28] Mahrt-Smith, J. (2005). The interaction of capital structure and ownership structure. *The Journal of Business*, 78(3), 787-816.
 - [29] Miller, S.E., (2007) Valuing Preferred Stock. *Journal of Accountancy* 203, 55–59.
 - [30] Modigliani, F., Miller, M. (1958), "The cost of capital, corporation finance and theory of investment", *American Economic Review*, Vol. VIII, No. 3, pp. 261-297
 - [31] Myers, S. C. (1984). The capital structure puzzle. 33. Chand, L. and Bhandari, 1988. Debt/Equity Ratio and Journal of Finance, 39 (3): 575-592. Expected Common Stock Returns. *Journal of Finance*.
 - [32] Myers, S. C. (2003). Financing of corporations. In *Handbook of the Economics of Finance* (Vol. 1, pp. 215-253). Elsevier.
 - [33] Myers, S. C. (2001). Capital structure. *Journal of Economic perspectives*, 15(2), 81-102.
 - [34] Myers, S. C., & Majluf, N. S. (1984). The cost of capital, corporate finance and the theory of investment. *J. Financ. Econ*, 13, 187-221.
 - [35] Newman, L. W. (2000). *Social Research Methods: Qualitative and Quantitative Approaches* (4th ed.). Needham Heights, MA: Allyn & Bacon, A Pearson Education Company.
 - [36] Ngatno, Apriatni, E. P., & Youlianto, A. (2021). Moderating effects of corporate governance mechanism on the relation between capital structure and firm performance. *Cogent Business & Management*, 8(1), 1866822.
 - [37] Nicodano, G., & Regis, L. (2019). A trade-off theory of ownership and capital structure. *Journal of Financial Economics*, 131(3), 715-735.
 - [38] Nirajini, A., & Priya, K. B. (2013). Impact of capital structure on financial performance of the listed trading companies in Sri Lanka. *International Journal of Scientific and Research Publications*, 3(5), 1-9.
 - [39] Pandey, L. (2010). *Financial Management*, 10th Ed. New Delhi, India: Vikas publishing House PVT Ltd.
 - [40] PeiZhi, W., & Ramzan, M. (2020). Do corporate governance structure and capital structure matter for the performance of the firms? An empirical testing with the contemplation of outliers. *PLoS One*, 15(2), e0229157.
 - [41] Ross S.A and, David W.(2002) *Fundamentals of Corporate Finance*, 6th Edition, Alternate Edition.
 - [42] Siqiwen Li. (2010). Financial fragility and securitisation: the discussions with Australian regulators and bank risk managers. In *International Banking in the New*
 - [43] Sekaran, U. (2003). *Research methods for business: a skill-building approach* (4th ed.). New York: John Wiley & Sons, Inc.
 - [44] Soumadi, M. M., & Hayajneh, O. S. (2012). Capital structure and corporate performance empirical study on the public Jordanian shareholdings firms listed in the Amman stock market. *European Scientific Journal*, 8(22).
 - [45] Sumayya, L. (2012). The impact of financial structure on financial decision for small and middle firms (master thesis). Warqla University–Algeria.
 - [46] Supanvanij, J. (2006). Capital structure: Asian firms vs. multinational firms in Asia. *The Journal of American Academy of Business*, Cambridge, 10(1), 324-330.
 - [47] Tanko, U. M., Siyanbola, A. A., Bako, P. M., & Dotun, O. V. (2021). Capital Structure and

-
- Firm Financial Performance: Moderating Effect of Board Financial Literacy in Nigerian Listed Non-Financial Companies. *Journal of Accounting Research, Organization and Economics*, 4(1), 48-66.
- [48] Tymoigne, É. (2011). Measuring macroprudential risk: Financial fragility indexes. Working Paper, Levy Economics Institute of Bard College.
- [49] Wang J. (2014). Study on the Determinant of Financing Structures: Based on the Difference of Ultimate Controlling Right. In: Qi E., Shen J., Dou R. (eds.) *Proceedings of (2013) fourth International Asian Conferences on Industrial Engineering and Management*
- [50] World Bank. (2015). *Global Financial Development Report 2015/2016: Long-Term Finance*. The World Bank.