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Raya International Journal of Business Sciences

volume (3), Issue (10), July 2024

<https://www.rijcs.org/>

Publisher

Raya Higher Institute of Management and Foreign Trade in New Damietta

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ABSTRACT

This paper examines the effect of capital structure on the financial performance of insurance companies in the Egyptian stock market from June 2020 to June 2024. There are only two insurance companies on the Egyptian Stock Exchange,

which are Al Mohandes Insurance Company (MOIN) and Delta Insurance Company (DEIN). Stock returns, Return on Assets (ROA), Return on Equity (ROE) and Earning per Share (EPS) were used to represent the financial performance. Both debt-to-assets and debt-to-equity ratios were used as a proxy for capital structure. The study also used the increase in capital of these companies as a proxy for the capital structure to test the impact of capital increase on the financial performance of these companies by collecting data before the capital increase and after the capital increase. The Kolmogorov–Smirnov test is used to test the normality. The paired

sample t-test is used to compare the financial performance of the insurance company before and after capital increase for data that is normally distributed. The Wilcoxon signed-rank test is used to compare the financial performance of the insurance company before and after capital increase for data that are not normally distributed. Regression analysis was also used to determine the effect of independent variables on the dependent variable. The results showed that increasing capital in the insurance companies does not affect financial performance. Also, the capital structure does not have a statistically significant impact on the financial performance.

Keywords: Insurance Company, Capital Structure, Capital Increase, Stock returns, Return on Assets (ROA), Return on Equity (ROE), Earning per Share (EPS)

JEL codes: G22, G32

Introduction

Recently, all over the world, the insurance industry has been subject to high regulations, and the primary objective of the regulator is to protect policyholders. It is important to note that a well-functioning insurance sector is the backbone of modern economic growth, development and progress. Insurance companies provide financial protection against property damage, loss of income, legal liability, and many other unexpected losses. According to the Insurance Information Institute, in 2023, natural disasters led to economic losses totalling USD 280 billion. Of this amount, USD 108 billion, representing 40%, was covered by insurance, surpassing the previous 10-year average of USD 89 billion.

The insurance industry is an important part of the Egyptian non-banking financial sector, it plays a necessary role in supporting the economy, and guaranteeing financial stability, helps to enhance national investment and provides protection for individuals and businesses from various risks. The Egyptian insurance market presents a wide variety of insurance products, such as personal insurance, property and liability insurance, and micro-insurance. These types can be realized through traditional business methods, Islamic Takaful methods or micro-insurance methods that are combined with microfinance.

The primary ways companies can secure funding are from their internal cash reserves, issuing new equity, or obtaining debt from banks and other sources, this is called the company's capital structure, which can be defined as the ratio of debt to equity Abor & Biekpe(2005). Capital is essential in maintaining stability within insurance operations. It acts as a financial cushion that allows insurance companies to fulfil their obligations to policyholders, withstand unexpected losses, and ensure solvency. Essentially, capital functions as a safety net, safeguarding both the insurer and the insured. Capital is crucial for insurance companies to meet their obligations to policyholders. When an insured individual pays their premium, there is an expectation that the insurer will be financially equipped to settle claims when required. Adequate capital is essential for ensuring that insurance companies possess the financial resources necessary to meet their obligations to policyholders in a timely and effective manner. This assurance provides policyholders with the confidence that their claims will be honoured, even in challenging circumstances.

Another importance of capital in insurance companies is that regulators set capital requirements to ensure the financial health of insurance companies. These requirements are designed to protect policyholders and maintain industry stability. In addition, insurance companies are required to uphold capital levels that satisfy these criteria to show they can handle potential losses. Therefore, companies' failure to comply with these standards may lead to penalties, limitations, or even the suspension of their operational license. According to Merton & Perold (2008), the equity capital for insurers has minimal impact on financing the firm's tangible assets and serves as a safeguard for the claims, making policyholders the lenders of insurers safe.

Through this study, we are trying to identify the impact of capital structure on the insurance companies' financial performance listed on the Egyptian Stock Exchange from June 2020 to June 2024. This study will be organized as follows. Section 2 will present theoretical and empirical literature. Section 3 presents the data and methodology. Section 4, provides empirical results, and finally, the conclusion will be in Section 4.

1. Theoretical Background and previous studies

1.1 Capital Structure Theories

The concept of Capital Structure was first addressed by F. Modigliani and Miller in 1958 through their irrelevance theory, which was based on several assumptions like perfect market competition, homogeneity of expectations, homemade leverage, absence of arbitrage opportunities, demand and supply frictions, agency costs,

transaction costs, bankruptcy costs, and primarily taxes. Their findings suggested that in an ideal world, the capital structure has no impact on the company's value.

Before Miller & Modigliani (1961) presented their study on dividend policy, there was a widespread belief that the higher the dividends, the higher the value of the firm. They argued that investors are rational, therefore, in case of uncertainty, investors avoid risks. Miller and Modigliani (1961) concluded that in an efficient market, the dividend policy does not affect the firm stock price, nor the cost of capital. Therefore, the dividend decision is not related to the firm value, which means that the investor's wealth is not affected by the dividend decision, as it is affected by the income generated from the firm investments, not by how this income is distributed. Accordingly, the value of the firm depends primarily on the earning power and investment decisions. Haugen (1978) expanded the theory by introducing the concept of bankruptcy costs and their impact on the value of the firm, encompassing liquidation fees, legal fees, and reorganization expenses that would arise if the firm were to go bankrupt; therefore, a firm with higher debt would confront greater bankruptcy costs compared to one with less debt. Shuetrim et al. (1993) emphasized that the firm's cash flows are distributed among debt holders, equity holders, and the government. They highlighted that the optimal capital structure is the one that minimizes the amount of cash flows allocated to the government as taxes, ultimately maximizing the firm's value.

Several other theories on Capital Structure intended to clarify how firms' capital structure behaves. Both Myers & Majluf (1984) pointed out that firms under the pecking order theory generally prioritize using retained earnings to fund their

operations, resorting to debt capital if necessary due to its cost-effectiveness and minimal impact on control, and considering equity capital as a final option. Finally, based on the pecking order theory, the company needs to establish a dividend payout policy and choose a dividend disbursement ratio that aligns with its investment projects. After analyzing firm size, Graham (2000) suggested that large companies with consistently high profits tend to operate with low levels of debt, choosing to retain their earnings for expansion and operations. However, in the financial industry, including banking and insurance, Cassa & Holmes (2003) revealed a negative correlation between firm age and total-term debt as well as short-term debt ratios. Erol (2011) also confirmed a significantly negative relationship between firm age and leverage, indicating that firms tend to retain profits for operational activities as they mature.

Ross (1977) introduced the theory that emphasizes the responsibility of a firm's top management to communicate accurate information about assets and projects to outside investors to maximize stock prices and increase the overall value of the firm. However, it is observed that managers often prioritize their personal interests over the accurate dissemination of information, which leads to misunderstandings and undervaluation of the firm in the market. Barclay & Clifford (2005) noted that stocks are frequently viewed as a way to raise capital at the lowest possible cost, and the signalling model suggests that financing choices are primarily intended to communicate. Managers typically engage in this practice to boost the worth of stocks they believe are underrated. Amidu (2007) examined the factors influencing banks' capital structure and found a strong negative correlation between company size and

capital structure. He concluded that large companies send signals that they have low levels of debt. Gatsi (2020) stated that when firms have debt, they are required to make predetermined cash payments to the debt holders throughout the duration of the debt security. He also explained that Failure to meet debt obligations could lead to bankruptcy and financial instability for companies, potentially resulting in job losses for managers and signalling poor company performance.

The trade-off theory is another theory that deals with capital structure, which is one of the early capital structure concepts developed after removing the constraints of tax shield in the MM irrelevance proposition. According to Baxter (1967), this theory specifically takes into account the advantages of tax shield on interest payments. The company can attain an ideal capital structure by managing the mix of debt and equity in a manner that offsets financial distress and agency costs with the benefits of debt, specifically the interest tax shield. According to Myers (1977), when a company takes on debt up to a certain level, it can counterbalance its financial distress cost and benefit from the interest tax shield. This theory also assumes that firms facing high financial distress costs tend to choose lower levels of debt in their capital structure. Abdeljawad et al. (201۳) also added that a company with a strong tax shield can increase its debt capacity by a higher percentage to optimize its capital structure.

1.2 Capital Structure of the Insurance Companies

Abor (2005) examined how the capital structure impacted the profitability of 25 listed insurance firms on the Ghana Stock Exchange from 1998 to 2002. He concluded that profitable firms tended to use more short-term debt, while long-term debt had a negative and significant correlation with return on equity. Based on these

findings, it was recommended that insurance firms adopt an appropriate mix of capital structure to enhance profitability, utilizing internal sources of financing to mitigate financial risks.

Ahmed et al. (2010) examined the life insurance sector in Pakistan. They found that factors such as size, profitability, risk, liquidity, and age play significant roles in shaping the capital structure of life insurance companies, as per the outcome of the OLS regression model.

In a study conducted by Najjar (2011) on Bahraini insurance companies from 2005-2009, the relationship between several factors like firm size, liquidity, growth opportunity, profitability, and asset tangibility and their impact on leverage was analyzed. The findings indicate that firm size and asset tangibility are positively correlated with firm leverage, while liquidity has a negative influence on the debt levels of insurance companies in Bahrain.

In a study carried out by Sherif & Elsayed, M (2013) on Egyptian insurance companies, factors such as profitability, growth, non-debt tax shields, liquidity, tangibility, size, and age were considered as independent variables, while the leverage ratio was the dependent variable. The findings of the study demonstrated that firm size, tangibility of assets, profitability, and age exhibited positive relationships with leverage, whereas growth, liquidity, and non-debt tax shield showed a significant negative impact on the leverage of Egyptian insurance entities. Sherif & Elsayed (2013) study focused on how corporate characteristics affected the capital structure of Egyptian insurance companies between 2006 and 2011. Their findings revealed that factors such as firm size, asset tangibility, profitability, and firm

age had a significant positive impact on total leverage, while growth opportunities, liquidity, and non-debt tax shield had a significant negative impact on total leverage and capital structure.

Tornyeva (2013) investigated the influence of factors like profitability, size, growth, tangibility, tax charge, and risk on leverage within the Ghanaian insurance sector over the period 2002-2007. The study concluded that firm size, profitability, and growth significantly affect capital structure. Notably, the research revealed that firm size and growth opportunities had a significant positive impact on leverage, while profitability is negatively associated with the dependent variable. Conversely, tax charge, tangibility, and risk did not exhibit significant explanatory power in relation to the debt level of insurance companies in Ghana.

Shala et al. (2014) examined the factors influencing capital structure in the insurance industry in Kosovo by collecting data from 11 insurance companies between 2009 and 2012. The study found a positive correlation between the debt ratio and company size, growth, fixed assets, and liquidity ratio, highlighting their significant impact on the debt ratio.

Regasa (2014) examined the factors affecting the capital structure of unlisted private insurance companies in Ethiopia by relying on secondary data from Ethiopian private insurance companies. The study revealed that Ethiopian private insurance companies maintain a moderate level of debt in their capital mix on average. Furthermore, factors such as firm liquidity, business risk, and non-debt tax shield were found to have a negative influence on leverage, while asset tangibility, firm size, and profitability positively impacted leverage.

Adaramola & Olarewaju (2015) conducted a study on the factors influencing the capital structure of insurance companies in Nigeria using a descriptive research design. The findings indicated that tangibility, growth, and liquidity had a negative impact on leverage, while risk, return on assets, and size had a positive influence on leverage. The study revealed that all identified variables were statistically significant except for return on assets and growth, and the model was deemed reliable for determining the capital structure of the insurance companies.

2. Data and Methodology

2.1 Data

The sample includes stocks of insurance companies listed on the Egyptian stock market from June 2020 to June 2024. The study sample consisted of only two companies, which are all insurance companies in the Egyptian Stock Exchange, namely Al Mohandes Insurance Company (MOIN) and Delta Insurance Company (DEIN). Data included:

- Four times increase in capital during the study period
- Daily stock returns before and after the capital increase.
- Calculate Return on Assets (ROA) before and after each capital increase.
- Calculate Return on Equity (ROE) before and after each capital increase.
- Calculate Earning per Share (EPS) before and after each capital increase.

2.2 Methodology

The study examines the impact of capital structure on the insurance company's financial performance in the Egyptian stock market. Stock return is calculated as follows:

$$\text{Stock return} = \frac{(P_t - P_{t-1})}{P_{t-1}} \quad (1)$$

Where, P_t is the closing price of the stock i at day t . Return on Assets (ROA) is calculated as follows:

$$\text{Return on Assets} = \frac{\text{Net income}}{\text{Total Assets}} \quad (2)$$

Return on Equity (ROE) is calculated as follows:

$$\text{Return on Equity} = \frac{\text{Net income}}{\text{Shareholders' Equity}} \quad (3)$$

In the absence of preferred stocks, Earning per Share (EPS) is calculated as follows:

$$\text{Earning per Share} = \frac{\text{Net income}}{\text{End of period Shares Outstanding}} \quad (4)$$

To test the normality, The Kolmogorov–Smirnov test will be used. For data that are normally distributed, we will use the paired sample t-test, and for data that are not normally distributed, we will use Wilcoxon signed-rank to compare Stock returns, ROA, ROE and EPS before and after capital increase.

3. Empirical Results

3.1 Measure the impact of capital increase in insurance companies on financial performance

Table (1) shows the statistical results of the Wilcoxon signed-rank test for stock returns before and after capital increase. Results showed that the data for stock returns are not normally distributed, as the data before and after the capital increase must follow a normal distribution. Where the results of the Kolmogorov-Smirnov test indicated that the p.value is $(0) < (0.05)$ before the capital increase, but the p.value is $(0.2) > (0.05)$ after the capital increase, as the p.value must be greater than 5% for the data to follow a normal distribution, therefore Wilcoxon signed-rank test was used to compare stock returns before and after the capital increase. Results of the Wilcoxon signed-rank test showed that the Z-value is (-0.819) , and its p-value is $(0.413) > (0.05)$, so there is no significant difference between stock returns before and after capital increase. This shows that increasing capital in the insurance companies has no effect on stock returns for these companies.

3.1.1 The impact of capital increase in insurance companies on stock returns

Table 1 the statistical results of stock returns before and after the capital increase

after - before	Description	N	Mean Rank	Z	Asymp. Sig. (2-tailed)	Kolmogorov-Smirnov Test			
	Negative Ranks	24	21.54	-0.819	0.413		Normal Parameters (mean)	N	Asymp.Sig. (p.value)
	Positive Ranks	18	21.44						
	Ties	0				before	0.0065	42	0
	Total	42				after	0.0007	42	0.200

Source: Authors construction

3.1.2 The impact of capital increase in insurance companies on Return on Assets (ROA)

Results in Table 2 showed that the data for Return on Assets (ROA) are normally distributed, Where the results of the Kolmogorov-Smirnov test indicated that p.value is $(0.2) > (0.05)$ before the capital increase, also the p.value is $(0.2) > (0.05)$ after the capital increase, therefore the paired sample t-test was used to compare Return on Assets (ROA) before and after the capital increase. Results of the paired sample t-test showed that the t-value is (0.197), and its p-value is $(0.851) > (0.05)$, so there is no significant difference between Return on Assets (ROA) before and after the capital increase. This shows that increasing capital in insurance companies has no effect on the Return on Assets (ROA) for these companies.

Table 2 the statistical results of Return on Assets (ROA) before and after the capital increase

	Mean	Std. Deviation		Std. Error Mean	Kolmogorov-Smirnov Test			
ROA before	0.0195	.00536		0.00202				
ROA after	0.0185	0.0128		0.00484		Normal Parameters (mean)	N	Asymp.Sig (p.value)
after - before	Paired Differences		t	Sig. (2- tailed)	before	0.0195	7	0.2
	Mean	Std. Deviation						
		0.00102	0.01367	0.197	0.851	after	0.0185	7

Source: Author's construction

3.2.3 The impact of capital increase in insurance companies on Return on Equity (ROE)

Results in Table 3 showed that the data for Return on Equity (ROE) are normally distributed, Where the results of the Kolmogorov-Smirnov test indicated that p.value is $(0.149) > (0.05)$ before the capital increase, also the p.value is $(0.2) > (0.05)$ after the capital increase, therefore the paired sample t-test was used to compare Return on Equity (ROE) before and after capital increase. Results of the paired sample t-test showed that the t-value is (0.323) , and its p-value is $(0.758) > (0.05)$, so there is no significant difference between Return on Equity (ROE) before and after the capital increase. This shows that increasing capital in insurance companies has no effect on the Return on Equity (ROE) for these companies.

Table 3 the statistical results of Return on Equity (ROE) before and after the capital increase

	Mean	Std. Deviation		Std. Error Mean	Kolmogorov-Smirnov Test			
ROE before	0.0729	0.01902		0.00719				
ROE after	0.0672	0.04219		0.01595		Normal/ Parameters (mean)	N	Asymp.Sig (p.value)
after - before	Paired Differences		t	Sig. (2- tailed)				
	Mean	Std. Deviation			before	.0729	7	0.149
	0.00578	0.04735			0.323	0.758	after	.0672

Source: Author's construction

3.1.4The impact of capital increase in insurance companies on Earning per Share (EPS)

Results in Table 4 showed that the data for Earning per Share (EPS) are normally distributed, Where the results of the Kolmogorov-Smirnov test indicated that p.value is (0.2) > (0.05) before the capital increase, also the p.value is (0.2) > (0.05) after the capital increase, therefore the paired sample t-test was used to compare Earning per Share (EPS) before and after capital increase. Results of the paired sample t-test showed that the t-value is (0. 327), and its p-value is (0.725) > (0.05), so there is no significant difference between Earning per Share (EPS) before and after the capital increase. This shows that increasing capital in insurance companies has no effect on Earning per Share (EPS) for these companies.

Table 4 the statistical results of Earning per Share (EPS) before and after the capital increase

	Mean	Std. Deviation	Std. Error Mean	Kolmogorov-Smirnov Test			
EPS before	0.5726	0.29815	0.09938				
EPS after	0.5375	0.26518	0.08839				
after - before	Paired Differences		t	Sig. (2-tailed)	Normal Parameters (mean)	N	Asymp.Sig (p.value)
	Mean	Std. Deviation			before	9	0.200
	0.03515	0.32250			after	9	0.200

Source: Author's construction

3.2 Measure the impact of capital structure in insurance companies on financial performance

Table 5 displays the outcomes of the regression analysis, where the return on assets represents the dependent variable and the capital structure measured by Debt to Assets and Debt to Equity represents the independent variable. Based on the results, the Adjusted R Square shows a very weak value of -1.2%, indicating that the independent variable has a very weak explanatory power. The results also show that the Debt to Assets coefficient is not significant, where t-statistic equals -1.340, with p.value equal to 0.2 which is higher than the 5% significance level. The Debt-to-Equity coefficient is also not significant, where t-statistic equals 0.185, with p.value equal 0.856 which is higher than the 5% significance level. The results also indicate

that the model is not significant, as the value of the F-statistic is 0.899 with a significance level of 0.428, which is higher than the 5% significance level. The findings suggest that the capital structure does not have a statistically significant impact on return on assets.

3.2.1 The impact of capital structure in insurance companies on return on assets

Table 5: Regression results of the capital structure indicators and return on assets

Model	Sum of Squares	df	Mean Square	F	Sig.	R	Adjusted R Square
Regression	.000	2	.000	.899	.428	.327	-.012
Residual	.002	15	.000				
Total	.002	17					
Coefficients							
	Unstandardized Coefficients	Standardized Coefficients		t-stat			P-value
	B	Std. Error	Beta				
(Constant)	.053	.049		1.091			.293
Debt to Assets	-.017	.013	-.331	-1.340			.200
Debt to Equity	.011	.058	.046	.185			.856

Source: Author's construction

3.2.2 The impact of capital structure in insurance companies on return on equity

Table 6 shows the results of the regression analysis, where the return on equity represents the dependent variable and the capital structure measured by Debt to Assets and Debt to Equity represents the independent variable. Based on the results, the Adjusted R Square shows a very weak value of 3%, indicating that the independent variable has a very weak explanatory power. The results also show that the Debt-to-assets coefficient is not significant, where the t-statistic equals -1.547, with a p.value equal to 0.143 which is higher than the 5% significance level. The Debt-to-Equity coefficient is also not significant, where t-statistic equals -0.125, with p.value equal 0.903 which is higher than the 5% significance level. The results also indicate that the model is not significant, as the value of the F-statistic is 1.267 with a significance level of 0.310, which is higher than the 5% significance level. The findings suggest that the capital structure does not have a statistically significant impact on return on equity.

Table 6: Regression results of the capital structures indicators and return on equity

Model	Sum of Squares	df	Mean Square	F	Sig.	R	Adjusted R Square
Regression	.002	2	.001	1.267	.310	.380	.030
Residual	.011	15	.001				
Total	.013	17					
Coefficients							
	Unstandardized Coefficients	Standardized Coefficients		t-stat	P-value		
	B	Std. Error	Beta				
(Constant)	.215	.128		1.683	.113		
Debt to Assets	-.053	.034	-.374	-1.547	.143		
Debt to Equity	-.019	.151	-.030	-.125	.903		

Source: Author's construction

3.2.3 The impact of capital structure in insurance companies on Earning per share

Table 7 presents the results of the regression analysis, where the dependent variable is earnings per share, while the independent variables are Debt to Assets and Debt to Equity, which measure the company's capital structure. Based on the results, the Adjusted R Square shows a very weak value of -0.8%, indicating that the

independent variable has a very weak explanatory power. The results also show that the Debt-to-assets coefficient is not significant, where the t-statistic equals -1.364, with a p.value equal to 0.139 which is higher than the 5% significance level. The Debt-to-Equity coefficient is also not significant, where t-statistic equals 0.2, with p.value equal 0.844 which is higher than the 5% significance level. The results also indicate that the model is not significant, as the value of the F-statistic is 0.930 with a significance level of 0.416, which is higher than the 5% significance level. The findings suggest that the capital structure does not have a statistically significant impact on earnings per share.

Table 7: Regression results of the capital structures indicators and Earning per share (EPS)

Model	Sum of Squares	df	Mean Square	F	Sig.	R	Adjusted R Square
Regression	.141	2	.071	.930	.416	0.332	-.008
Residual	1.138	15	.076				
Total	1.279	17					
Coefficients							
	Unstandardized Coefficients	Standardized Coefficients		t-stat	P-value		
	B	Std. Error	Beta				
(Constant)	1.524	1.297		1.175	.258		
Debt to Assets	-.471	.345	-.336	-1.364	.193		

Model	Sum of Squares	df	Mean Square	F	Sig.	R	Adjusted R Square
Debt to Equity	.305	1.528	.049		.200		.844

Source: Author's construction

3.2.4 The impact of capital structure in insurance companies on stock return

Table 8 shows the results of the regression analysis, where the dependent variable is stock return, while the independent variables are Debt to Assets and Debt to Equity, which measure the company's capital structure. Based on the results, the Adjusted R Square shows a very weak value of 6.5%, indicating that the independent variable has a very weak explanatory power. The results also show that the Debt-to-assets coefficient is not significant, where the t-statistic equals 0.668, with a p.value equal to 0.514 which is higher than the 5% significance level. The Debt-to-Equity coefficient is also not significant, where t-statistic equals 1.525, with p.value equal 0.148 which is higher than the 5% significance level. The results also indicate that the model is not significant, as the value of the F-statistic is 1.589 with a significance level of 0.237, which is higher than the 5% significance level. The findings suggest that the capital structure does not have a statistically significant impact on stock return.

Table 8: Regression results of the capital structures indicators and stock return

Model	Sum of Squares	df	Mean Square	F	Sig.	R	Adjusted R Square
Regression	.013	2	.007	1.589	.237	0.418	.065
Residual	.064	15	.004				
Total	.077	17					
Coefficients							
	Unstandardized Coefficients	Standardized Coefficients		t-stat	P-value		
	B	Std. Error	Beta				
(Constant)	-.509	.306		-1.662	.117		
Debt to Assets	.055	.082	.159	.668	.514		
Debt to Equity	.550	.361	.362	1.525	.148		

Source: Author's construction

4. Conclusion

This paper investigated the impact of capital structure on the financial performance of the insurance company in the Egyptian stock market. Stock returns, Return on Assets (ROA), Return on Equity (ROE) and Earning per Share (EPS) were used as a proxy for the financial performance of the insurance company. The study used both

debt-to-assets and debt-to-equity ratios as indicators of capital structure, and it also employed the companies' capital increase as a proxy to examine the influence of capital increase on financial performance. The results showed that increasing the capital of insurance companies has no significant effect on financial performance.

Despite the great importance of capital in the financial industries and the insurance industry in particular, the results were not statistically significant, this is due to several reasons, including low trading volume in insurance companies listed in the Egyptian market, due to a lack of interest in either buying or selling. The decrease in the number of companies listed on the Egyptian Stock Exchange also plays a major role in these results. Another very important reason is the lack of financial culture among investors regarding the importance of insurance.

This study has several limitations that could be addressed in future research. The small sample size is one of these constraints, therefore, a larger sample should be used by adding other insurance companies from outside the Egyptian Stock Market, as this could produce different results. Additionally, the study period was 5 years. It is recommended that future research consider extending the study period beyond 5 years. Moreover, using other measures of financial performance may lead to different results.

Egyptian governments and media must spread insurance awareness. Insurance awareness is one of the most effective means of increasing the public's awareness of insurance programs and increasing the economic demand for insurance services, making it an important and necessary matter for both the individual and the community.

The importance of insurance has increased in an era of increasing risks of all kinds, which have resulted from the tremendous developments in recent times, which have resulted in great possibilities for the emergence of multiple risks. The role of increasing insurance awareness among the public comes in clarifying that insurance is intended to bring security and safety to a group of individuals who may be exposed to such risks. The role of increasing insurance awareness among the public comes in clarifying that insurance is intended to provide security and safety for individuals who may be exposed to such risks.

5. References

1. Abdeljawad, I., Mat-Nor, F., Ibrahim, I., & Abdul-Rahim, R. (2013). Dynamic capital structure trade-off theory: Evidence from Malaysia. *International Review of Business Research Papers*, 9(6), 102-110.
2. Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *The journal of risk finance*, 6(5), 438-445.
3. Abor, J., & Biekpe, N. (2005). What determines the capital structure of listed firms in Ghana?. *African Finance Journal*, 7(1), 37-48.
4. Adaramola, A. O., & Olarewaju, O. M. (2015). Determinants of capital structure in Nigerian quoted composite insurance companies. *Global Journal of Management and Business Research*, 15(10), 7-15.
5. Ahmed, N., Ahmed, Z., & Ahmed, I. (2010). Determinants of capital structure: A case of life insurance sector of Pakistan. *European Journal of Economics, Finance and Administrative Sciences*, 24(24), 7-12.
6. Amidu, M. (2007). Determinants of capital structure of banks in Ghana: an empirical approach. *Baltic journal of management*, 2(1), 67-79.
7. Barclay, M. J., & Smith, C. W. (2005). The capital structure puzzle: The evidence revisited. *Journal of Applied Corporate Finance*, 17(1), 8-17.
8. Baxter, N. D. (1967). Leverage, risk of ruin and the cost of capital. *The Journal of Finance*, 22(3), 395-403.
9. Cassar, G., & Holmes, S. (2003). Capital structure and financing of SMEs: Australian evidence. *Accounting & Finance*, 43(2), 123-147.

10. Erol, M. (2011). Triangle relationship among firm size, capital structure choice and financial performance some evidence from Turkey. *Journal of Management Research*, 11(2), 87-98.
11. Gatsi, J. G. (2020). Capital structure of Ghanaian banks: An evaluation of its impact on performance. *The IUP Journal of Bank Management* (4):86–99.
12. Graham, J. R. (2000). How big are the tax benefits of debt?. *The journal of finance*, 55(5), 1901-1941.
13. Haugen, R. A., & Senbet, L. W. (1978). The insignificance of bankruptcy costs to the theory of optimal capital structure. *The Journal of Finance*, 33(2), 383-393.
14. Merton, R. C., & Perold, A. F. (2008). Theory of risk capital in financial firms. In *Corporate Risk Management* (pp. 131-161). Columbia University Press.
15. Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433.
16. Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3), 261-297.
17. Myers, S. C. & Majluf, N. S. (1984). Corporate Financing and Investment Decisions When Firms have Information that Investors do not have. *Journal of Financial Economics* 13(2):187–221
18. Myers, S.C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics* 5, 147-175.

19. Najjar, N. (2012). The impact of corporate governance on the insurance firm's performance in Bahrain. *International Journal of Learning and Development*, 2(2), 1-17.
20. Regasa, D. G. (2014). Determinants of leverage for unlisted firms: Evidence from Ethiopian private insurance companies. *Journal of Poverty, Investment and Development*, 4.
21. Ross, S. A. (1977). The determination of financial structure: the incentive-signalling approach. *The bell journal of economics*, 23-40.
22. Shala, A., Ahmeti, S., Berisha, V., & Perjuci, E. (2014). The factors that determine the capital structure among insurance companies in Kosovo: Empirical Analysis. *Academic Journal of Interdisciplinary Studies*, 3(2), 43.
23. Sherif, M., & Elsayed, M. (2013). The impact of corporate characteristics on capital structure: evidence from the Egyptian insurance companies. *East African Journal*, 6, 23-34.
24. Shuetrim, G., Lowe, P., & Morling, S. (1993). The Determinants of Corporate Leverage: A Panel Data Analysis. Reserve Bank of Australia Working Paper 9313.
25. Tornyeva, K. (2013). Determinants of capital structure of insurance companies in Ghana. *Research Journal of Finance and Accounting*, 4(13), 52-60.