

EXAMINING THE NEXUS BETWEEN INTERNAL FACTORS AND PROFITABILITY OF INSURANCE COMPANIES LISTED AT KUWAIT STOCK EXCHANGE

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ABSTRACT

Insurance is a form of risk management where it is used to transfer risk from one entity to another for a premium to hedge against any risk of unexpected loss. As a result, the insurance sector is becoming an important part of the financial sector in the world, and Kuwait is no exception. The aim of this study is to investigate the internal factors that mostly affect the profitability of insurance companies listed at the Kuwait stock exchange for the period spanning from 2010 to 2017. The study examines the effect of leverage, liquidity, tangibility, growth, management efficiency, and the size of the company on the most commonly used parameter of measuring the profitability of any company and that is the return on assets (ROA). A panel data collected from the financial statements of the seven companies listed at the stock market were used to examine the effect of the factors on the profitability of these companies. Using ordinary least squares (OLS) regression method, the results showed a statistically significant inverse relation between leverage and the age of the company with profitability while there was a statistically significant direct relation with tangibility and the size of the company. The results also showed that liquidity, growth, and management efficiency did not have a significant effect on the profitability of the insurance companies in Kuwait.

KEYWORDS: Insurance companies, profitability, financial ratios, Kuwait stock exchange (KSE).

1. INTRODUCTION

The insurance industry in Kuwait can be traced back to the year 1960 where the first insurance company was established. Now there are 32 insurance companies working in Kuwait, but only seven of them are listed at the stock exchange as seen in Table 01. Kuwait insurance company was the first company in Kuwait where it was established in 1960.

Table 01. Insurance companies listed at Kuwait stock exchange

No.	Company Name	Establishing Year
1	Kuwait Insurance company	1960
2	Gulf Insurance Company	1962
3	AlAhlia Insurance Company	1962
4	Kuwait Reinsurance Company	1972
5	Warba Insurance Company	1976
6	First Takaful Company	2000
7	Wethaq Takaful Company	2000

The insurance industry is an important part of the financial system of any country and the successful operation of the insurance sector can energize other industries and general economic development. Naveed et al (2011) showed that the efficiency of the insurance sector in transferring risk can affect economic growth while at the same time institutional insolvencies can result in systemic crises which have unfavorable consequences for the economy as a whole. The health of the insurance industry can be measured by its profitability, Malik (2011) states that profitability is one of the main determinants of the performance of a company. Koller (2011) argued that profitability is the most important and reliable indicator to measure the risk of insolvency of insurance companies.

Profitability has a special place in finance literature since the ultimate goal of any company is to maximize its profits. For that, the main objective for any financial manager is to maximize the profitability of the company in order to maximize the owners' wealth. Profitability presents the bottom line for any business, it is the scorecard of any company. Having a low or negative profitability would have damaging consequences that might affect the survival of the company. While there are many ways to measure financial performance, such as return on invested capital (ROIC), return on equity (ROE) and return on assets (ROA), Panayotis et al. (2008) concluded that return on assets (ROA) emerges as the key ratio for the evaluation of profitability of any company. AlMajali et al. (2012) stated that return on assets (ROA) can be used as a proxy to measure the financial performance of companies. Hardwick and Adams (1999), Malik (2011) and others, proposed that while there are many different ways to measure profitability it is better to use return on assets (ROA). Claudiu-marian (2011) stated that, "Financial performance of companies varies among economic sectors, countries and regions over time. It is influenced by a very large number of factors. Profits are different from one year to another and from one company to another. Some companies obtain increases in profit; others record decreases and some even losses". Claudiu-marian (2011) findings can be confirmed when looking at previous literature. For example, Almajali et al. (2012) found a statistically significant direct relation between the leverage of insurance companies in Jordan and profitability, while Malik (2011) concluded that there was an inverse relation between leverage and profitability in Pakistani insurance companies. This conflict in results indicated that there is no universal model that can be applied to all countries and all times.

Previous studies conducted on the matter of factors affecting the profitability of insurance companies, used different factors that might explain the relationship. This study uses the factors that had the highest impact on the profitability of insurance companies based on previous studies. These factors would include leverage, liquidity, tangibility of assets, growth rate in assets, the age of the company, management efficiency, and the assets size of the company.

1.1 Leverage

Leverage indicates the amount of funds borrowed by the insurance company compared to its assets. It is a double-edged sword; while it can have a positive effect on the financial performance of the company and enhance the shareholders' return on their investments by making use of tax advantages on borrowed funds when used in an appropriate manner (AlMajali et al., 2012, Adams and Buckle, 2000, Shui, 2004, and Elango et al., 2008). On the other hand, when these borrowed funds are not used in a proper manner, then the company will face the risk of the inability to make payments on their debt and the risk of finding new lenders in the future. Nino Datu (2016) examined the relationship between indicators on profitability in Philippines insurance market using panel data over the period of 2008 through 2012. Return on assets (ROA) was used for profitability. The study found that financial leverage significantly affects profitability. Al-Shami (2008) examined determinants of insurance company's profitability in UAE. Using a data spanning from 2004 to 2007, he concluded that leverage ratio had a significantly and oppositely relation with profitability. Yuvaraj and Abate (2013) studied the factors affecting the profitability of insurance companies and concluded that leverage had a statistically negative relation with profitability. Ejigu (2016) conducted a study on insurance companies in Ethiopia for the period spanning from 2005 to 2012 and concluded that there is a statistically significant inverse relation between leverage and profitability.

1.2 Liquidity

Liquidity ratio measures the ability of the insurance company to meet its short-term obligations, it is calculated as current assets to current liabilities. Darzi (2011) stated that liquidity ratio is an important measure of financial performance for companies. AlMajali et al. (2012) argued that Liquidity ratio has significant influence on the financial performance, based on their study of Jordanian insurance companies. Ejigu (2016) found a statistically significant negative relation between liquidity and profitability in his research on Ethiopian insurance companies. In contrast, Naveed et al. (2011) found that liquidity has a statistically insignificant relationship with profitability when they investigated Pakistani Insurance companies.

1.3 Tangibility of assets

The tangibility of assets is the ratio of fixed assets the insurance company holds to its total assets. Malik (2011) found a positive and significant relationship between tangibility of assets and profitability of insurance companies operating in Pakistan. Cekrezi (2015) concluded that there is a statistically significant positive relation between tangibility and profitability based on his study on Albanian insurance companies over the period 2008- 2013. On the other hand, Boadi et al. (2013) conducted a study on Ghanaian insurance companies for the period 2005 to 2010 and concluded that there is a statistically significant negative relation between the tangibility ratio and profitability. Yuqi Li (2007) when studying insurance companies in the UK found no statistically significant relationship between tangibility of assets and profitability of insurance companies.

1.4 Growth of assets

According to Rebao and Kie (2004), one of the factors significantly affecting general insurers' financial health in Asian economies is growth. Growth is the change in size of the company as measured by the percentage change in total assets. Previous studies by Naveed et al (2011) in Pakistan, Yuqi Li (2007) in the UK, Al-Shami (2008) in the UAE, and Ejigu (2016) in Ethiopia all found a positive and statistically significant relation between growth and profitability of insurance companies. However, Boadi et al. (2013) did not find a significant relationship between growth and profitability in their study of insurance companies in Ghana over the period 2005 to 2010. The same result was also observed by Mazviona et al. (2017) in their study of insurance companies in Zimbabwe over the period 2010 to 2014 where they did not find a statistically significant relationship between growth in assets and profitability.

1.5 Age

The age of a company is measured by the number of years since inception. On one hand, old companies tend to be more experienced, they enjoy the benefit of learning over the years, and also enjoy the benefits of the reputation effect which allows them to earn a higher profit margin. On the other hand, old companies tend to suffer from bureaucracy in the way they conduct business, and over the years they established routines that are hard to change which makes them slow to adapt to any changes in market conditions. Kramaric et al. (2017) in their study of insurance companies in Eastern Europe, that included Croatia, Slovenia, Hungary, and Poland for the period 2010-2014, found that there is a statistically significant positive relation between the age of the insurance company and its profitability. Loderer et al. (2009) also found a positive and significant relationship between the age of a company and profitability. Omondi and Muturi (2013) conducted a study in insurance companies listed at Nairobi stock exchange over the period 2006 to 2012 and concluded that there is a statistically significant positive relation between the age of insurance companies working in Kenya and profitability.

1.6 Management

Mismanagement is considered to be one of the main causes of companies' financial distress. Having a well trained staff and qualified top management is essential for a good financial performance. AlMajali et al. (2012) stated that higher qualified employees in the top managerial staff would result in a better financial performance in insurance companies. An efficient management can be gauged by their ability to convert income to profit. In their study on Jordanian insurance companies AlMajali et al. (2012) did not find significant relation between management and profitability.

1.7 Size

on previous studies, assets size of insurance companies plays a crucial role in determining profitability. The rationale behind it is that large companies benefits from economies of scale resulting in a higher profit margin than smaller companies. Jonsson (2007) has studied the relation between profitability and size of the firms operating in Iceland, results of the study showed that bigger firms have higher profitability as compared to smaller firms. Yuvaraj and Abate (2013) in their study on Ethiopian insurance companies using seven factors (age of company, size of company, volume of capital, leverage ratio, liquidity ratio, growth and tangibility of assets) in determining profitability during the period 2003 to 2011, concluded that assets size is the most important factor in determining the profitability of insurance companies.

Burca and Batrinca (2014) studies the factors affecting the profitability of insurance companies in Romania over the period 2008 to 2012 and concluded that size had a significant positive relation with profitability. Almajali et al. (2012) concluded that there is a significant direct relation between the profitability of insurance companies in Jordan and assets size. Ullah et al. (2016) conducted a study on factors affecting the profitability of insurance companies

operating in Bangladesh over the period 2004 to 2014, and they concluded that there is a significant negative relation between size and profitability. In contrast to them, Kripa and Ajasllari (2016) found that the relation between size and profitability in Albanian insurance companies was not significant during their study period that extended from 2008 to 2013.

2. RESEARCH QUESTIONS AND HYPOTHESES

This research aims to examine the following null hypotheses.

- H1: There is no relation between return on assets (ROA) and leverage.
- H2: There is no relation between return on assets (ROA) and liquidity.
- H3: There is no relation between return on assets (ROA) and tangibility.
- H4: There is no relation between return on assets (ROA) and growth rate.
- H5: There is no relation between return on assets (ROA) and company age.
- H6: There is no relation between return on assets (ROA) and management efficiency.
- H7: There is no relation between return on assets (ROA) and company size.

3. DATA AND METHODOLOGY

This study aims to examine the effect of leverage, liquidity, tangibility, growth rate, company age, management efficiency, and the size of the insurance company on the profitability of insurance companies using the ratios shown in Table 02. Data for the study were obtained from the Kuwait stock exchange website and the database of the Kuwait institute of banking studies. The data used in this research expands over the period 2010 to 2017.

Table 02: Financial ratios used

Variable	Measured by
Financial Performance	Return on assets (ROA)
Leverage Ratio	The ratio of total debt to equity
Liquidity Ratio	The ratio of current assets to current liabilities
Tangibility Ratio	The ratio of fixed assets to total assets
Growth Rate	The percentage change in total assets
Age	Number of years since inception
Management Efficiency	Net Profit to total income
Size	Total assets

Descriptive analysis for the variables is shown in Table 03. From Table 03, it can be seen that the insurance companies in Kuwait had a negative average return on assets for the past seven years (2010-2017) of -0.012% with a standard deviation of 0.228%. The data also shows that the companies are maintaining a 5.584 times current assets to current liabilities ratio and a leverage ratio of 132.5%. In terms of tangibility, the table shows that insurance companies hold (on an average) 52.7% of their assets in fixed assets. When it comes to assets size, Kuwaiti insurance companies had an average total assets size of KWD 154.907 million (1 KWD = 3.277 USD) with an average growth rate of 0.085%.

Table 03: Descriptive Analysis

	ROA	Liquidity	Leverage	Tangibility	Growth	Age	Management	Size
Mean	-0.012	5.584	1.325	0.527	0.085	37.5	0.781	154.907
Median	0.030	4.145	1.309	0.441	0.032	41.5	0.280	103.587
Standard Deviation	0.228	5.480	0.950	0.181	0.373	16.416	5.291	138.389
Minimum	-1.633	0.000	0.002	0.325	-0.615	10	-3.667	3.542
Maximum	0.078	19.689	3.682	0.999	2.623	57	39.304	494.097
Count	56	56	56	56	56	56	56	56

The correlation analysis measures the strength and the nature of the relation between two variables. The correlation coefficient takes the value of +1 to -1, the closer the coefficient is to the 1 or -1 indicates the strength of the relation, while as the value comes to or near zero the relation is weakened, and zero coefficient indicates no relation between the two variables. The negative sign in the coefficient would indicate an inverse relation between the two variables while a

positive sign would indicate a direct relation. However, the correlation does not necessarily imply any cause-and-effect relationship (Guajarati, 2004). The correlation matrix is widely used to identify any multicollinearity in the data. Multicollinearity can cause unrealistically high standard error estimates of regression coefficients and in the end can cause false conclusion about the significance of independent variables in the model being evaluated.

Many researchers such as Ejigu (2016) used a correlation of above 0.90 to identify multicollinearity between two variables, while Ismail (2013) identified 0.80 as the threshold for multicollinearity, and on the other hand Kramaric et al. (2017) used 0.70 for that matter. By looking at Pearson correlation matrix in Table 04, it can be seen that the highest correlation is between tangibility and company age with a value of -0.683 which is less than the 0.70 indicating that there is no multicollinearity in the data.

Table 04: Pearson correlation matrix

	ROA	Leverage	Liquidity	Tangibility	Growth	Age	Management	Size
ROA	1							
leverage	-0.074	1						
Liquidity	0.329	0.322	1					
Tangibility	-0.372	-0.260	-0.671	1				
Growth	0.231	0.016	-0.223	0.176	1			
Age	0.286	0.681	0.577	-0.634	-0.013	1		
Management	0.122	-0.362	-0.049	-0.091	-0.049	-0.075	1	
Size	0.520	0.665	0.659	-0.683	0.045	0.633	-0.123	1

As it shown in Table 04, each variable is perfectly correlated with itself. The highest correlation is between tangibility and size of -0.683 which means that there is a strong inverse relation between them. On the other hand, the weakest inverse relation was between age and assets growth with a correlation of -0.013 followed by ROA and leverage of -0.074. A multiple regression (OLS) model that is based on panel data is used in this study to examine the influence of explanatory variables which are leverage, liquidity, tangibility, growth, age, management, and size on the dependent variable (ROA). The regression model is shown in equation 1.

$$ROA = \alpha + \beta_1 Leverage + \beta_2 Liquidity + \beta_3 Tangibility + \beta_4 Growth + \beta_5 LnAge + \beta_6 Management + \beta_7 LnSize + \varepsilon$$

(Equation 1)

Where;

α is the intercept (constant).

Profitability = ROA is the dependent variable.

Leverage, liquidity, tangibility, growth, natural log of age, management efficiency, and natural log of size are the independent variables.

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$, and β_7 are the coefficients while ε is the error term.

4. EMPIRICAL RESULTS

The R-square shows the level of which the independent variables can explain the dependent variable. The R-square obtained from the output shows that the independent variables used in this study managed to explain 56.51% of the ROA value, while the remaining 43.49% is contributed to other factors. The probability of the F-statistics for the model was 0 which is less than the 0.01 significant level meaning that the model is a "good fit" in explaining the profitability of insurance companies in Kuwait.

Table 05. Regression output

SUMMARY OUTPUT

<i>Regression Statistics</i>					
Multiple R	0.7517				
R Square	0.5651				
Adjusted R Square	0.5016				
Standard Error	0.1607				
Observations	56				

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	7.0000	1.6105	0.2301	8.9091	0.0000
Residual	48.0000	1.2396	0.0258		
Total	55.0000	2.8501			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-0.6055	0.3178	-1.9054	0.0627
Lev	-0.1138	0.0237	-4.7978	0.0000
Lq	0.0156	0.0194	0.8024	0.4263
Tan	0.5080	0.2371	2.1425	0.0372
G	0.0878	0.0645	1.3616	0.1797
lnAge	-0.3923	0.1309	-2.9977	0.0043
Man	0.0030	0.0046	0.6515	0.5178
lnS	0.3695	0.0750	4.9251	0.0000

When looking at each hypothesis that was stated, it can be seen that there is a negative relation of -0.1138 between leverage and profitability (ROA). The t-statistic which is 4.7978 is greater than the critical value of 1.97 which means that there is a statistically significant relation between ROA and leverage, meaning that we can reject the null hypothesis that there is no relation between leverage and ROA and accept the alternative hypothesis that there is a relation. The result obtained in this study was in line with previous studies such as Al-Shami (2008) and Bilal et al. (2013) that there is a statistically significant inverse relation between leverage and profitability. Liquidity coefficient was 0.015 which shows a direct relation with profitability but that relation is not statistically significant since the p-value of the coefficient is less than 0.05. The result obtained in this study contradicts Ejigu (2016) where he concluded a significant negative relation between liquidity and profitability.

The tangibility of assets is the factor that mostly affects the profitability of insurance companies working in Kuwait during the study period with a coefficient of 0.508. The coefficient also shows a statistically significant positive relation between the two variables with a t-statistic of 2.142 which is greater than the critical value of 1.97 and as a result, the null hypothesis is rejected. The result from this study supports Cekrezi (2015) finding that there is a significant direct relation between tangibility and profitability. When it comes to the growth of assets, the variable did not show a statistically significant relation against profitability since the p-value was 0.1796 which is greater than 0.05. This result confirms the finding of Mazviona et al. (2017) that there is no significant relation between growth in assets and profitability.

The results shown in the regression output indicates a strong negative relation between the age of the company and profitability. The coefficient was -0.392 indicating a negative relation between the two variables. The absolute value of the t-statistics was 2.998 which is greater than the critical value of 1.97 meaning that the relation is statistically significant. The result from this study agrees with Kramaric et al. (2017) and Omondi and Muturi (2013) that there is a significant relation between age and profitability, but at the same time disagree with them in terms of direction. While Kramaric et al. (2017) and Omondi and Muturi (2013) concluded a positive relation, the results obtained in this study showed that the relation between age and profitability is negative. This means that as the insurance company gets older, its profitability gets less. Despite the vast literature examining the effect of management efficiency on the profitability, the results obtained in the study does not support it. The coefficient of management efficiency was 0.122 but was not statistically significant since the p-value was greater than the 0.05 value. On the other hand, the size of insurance companies' assets plays a crucial role in the company profitability. The coefficient of size was 0.3695 indicating a strong

positive relation between the insurance assets size and its profitability. This relation has shown that it is statistically significant since it has a t-statistic of 4.925 which is greater than the critical value of 1.97.

5. CONCLUSION

The aim of this study was to examine the internal factors affecting the profitability (ROA) of insurance companies listed at the Kuwait stock exchange during the period 2010-2017. Results maintained from this study show that leverage, tangibility, age, and size had a significant effect on profitability. On the opposite side, liquidity, growth rate, and management did not have a significant effect on the profitability of Kuwaiti insurance companies. The results also revealed that tangibility had the most effect on profitability out of all the factors examined followed by age and then size.

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