

Antecedents of Financial Performance of Insurance Companies in Pakistan

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Abstract

The insurance sector plays a crucial role in the economic growth of a country by offering protection against financial losses and facilitating as an institutional investor in capital and money markets. The purpose of this study is to identify the factors that affect the financial performance of insurance industry in Pakistan. We took the data of 10 insurance companies having minimum IFS rating of A+ as per the rating of Pakistan Credit Rating Agency Limited for five years 2018-2022. The results of this study revealed significant negative associations between ROA and firm size, as well as loss ratio. However, investment income, premium growth, and capital ratios show insignificant relationships with ROA, emphasizing the multifaceted nature of profitability determinants within the insurance sector.

Keywords: Financial performance, takaful, return on assets, loss ratio

1. Introduction:

The insurance industry plays a vital role in the economic and financial development of a country. Offering a range of risk management tools, the insurance sector facilitates businesses, individuals and governments to effectively manage their operations and minimize the losses due to unforeseen circumstances. However, this crucial function of risk management of insurance firms is dependent on the health of their operational performance. A profitable and resource rich insurance company can indemnify its customers in case of their losses. Therefore, it is essential to study the quality of financial performance of the insurance firms for developing a stable financial intermediation model.

This study seeks to identify factors that affect the financial performance of the insurance firms in Pakistan. Several earlier researchers like Malik (2011), Tanveer (2017), Shawar & Siddiqui (2019), Bukhari et al. (2021) & Ahmad et al. (2023) had worked on highlighting the external and internal factors that might affect the financial performance of the insurance firms.

Extending their work, this study seeks to identify the firm specific factors that affect the financial performance of the insurance companies in Pakistan. Using a dataset of 10 insurance companies from 2018 to 2022, this study intends to understand the relationship among the different firm specific variables in order to document the key factors that can affect the financial performance of the insurance companies in Pakistan.

The next sections of this paper include a detailed literature review of the earlier studies related to the area of financial performance of the insurance companies, research methodology covering sampling technique, data analysis & results and conclusion.

2. Literature Review

The profitability and performance of insurance companies are influenced by a myriad of factors ranging from internal company characteristics to external market dynamics. Malik (2011) conducted a seminal study to explore the determinants of profitability in the insurance sector of Pakistan. Analyzing data from 35 listed life and non-life insurance companies spanning from 2005 to 2009, this study investigated factors such as company age, size, volume of capital, leverage ratio, and loss ratio. Using basic regression models, results found no significant correlation between profitability and company age. However, positive associations were observed between profitability and both company size and volume of capital. Conversely, profitability exhibited adverse correlations with leverage and loss ratios, indicating that higher leverage and loss ratios were associated with lower profitability.

Tanveer (2017) further supported these findings in her study focusing on the financial performance of Takaful and insurance companies. Analyzing data from 22 insurance companies and 5 Takaful companies in Pakistan between 2010 and 2016, this study identified significant influences of retention ratio, loss ratio, and efficiency ratio on Return on Assets (ROA), highlighting the importance of these factors in shaping profitability.

Studies beyond Pakistan offer insights into factors influencing profitability in diverse insurance markets. Oner (2015) examined the profitability of non-life insurance companies in Turkey, considering factors such as size, age, loss ratio, leverage ratio, current ratio, premium growth rate, motor insurance, and premium retention ratio. Studying 24 non-life insurance companies in Turkey from 2006 to 2012, this study showed that size and premium growth rate positively impacted profitability, while age, loss ratio, and current ratio had negative effects.

Shawar & Siddiqui (2019) conducted a study on the financial performance of insurance businesses in Pakistan, utilizing additional variables such as claims, reinsurance, real GDP, interest rate, and management expenses. Despite considering additional factors, their findings echoed those of previous studies, with gross written premium emerging as a significant driver of profitability.

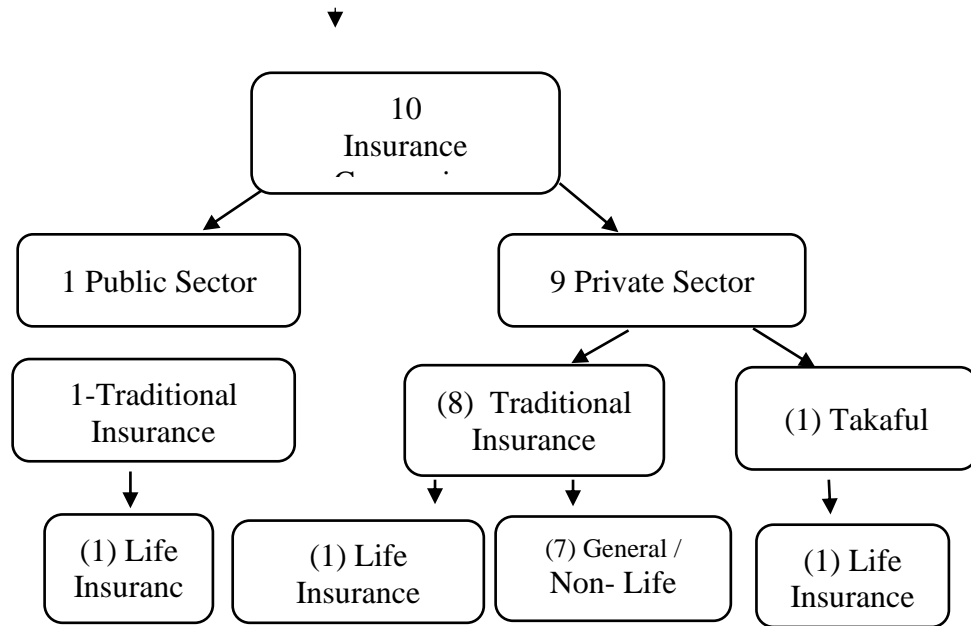
The Takaful sector, operating within the framework of Islamic finance principles, has garnered increasing attention in recent years. Ishtiaq & Siddique (2019) examined the financial performance of the Life Insurance Sector in Pakistan, considering variables such as liquidity, net premium, premium growth, underwriting risk, leverage, tangibility, equity capital, capital surplus, GDP, inflation, and market share. While tangibility, market share, net premium, insurance leverage, and GDP showed insignificant or negative associations with Return on Assets (ROA), other variables exhibited positive and significant impacts, underscoring the unique dynamics of the Takaful sector.

Bukhari et al. (2021) explored the relationship between sustainable growth, profitability, and intellectual capital in the Pakistani insurance sector. Their study highlighted the significant impact of intellectual capital aspects such as capital utilized and human capital on performance, emphasizing the importance of intangible assets in driving profitability.

Ahmad et al. (2023) discussed the transformative impact of technological advancements on the Takaful sector, advocating for strategic partnerships with technology firms to navigate competitive challenges and capitalize on emerging opportunities. Several other studies offer comparative analyses and global perspectives on insurance industry dynamics. Prakoso (2021) presented a publication on the Determinants of Islamic Insurance Performance in Indonesia, highlighting the influence of internal and external factors on profitability. Similarly, Ashraf (2019) compared the efficiency and productivity of conventional insurance and Takaful industries in Pakistan, finding that Takaful firms exhibited higher levels of technical efficiency. The above studies underscore the multifaceted nature of determinants influencing profitability and performance within the insurance industry. Insights emerging from empirical research, comparative analyses, and global perspectives contribute to a comprehensive understanding of factors driving profitability in the insurance sector, informing strategic decision-making and policy formulation.

3. Research Methodology

We selected to 10 insurance companies of Pakistan as a sample for this study based on the PACRA ratings. This study utilizes secondary data obtained from the audited financial statements of sampled insurance firms for 5-year period from FY 2018-22. Out of the 10 firms mentioned, one is a public sector company and nine are private sector insurance companies. Additionally, two of these companies specialize in life insurance while the remaining eight focus on general/non-life insurance.



The sampled companies include followings:

Sr. #	Name of Insurance Company	IFS	Category
1	State Life Insurance Corporation	AAA	Life Insurance
2	Adamjee Insurance Company Limited	AA++	Non-Life / General
3	EFU General Insurance Limited	AA++	Non-Life / General
4	Jubilee Life Insurance Company Limited	AA++	Life Insurance
5	East West Insurance Company Limited	AA+	Non-Life / General
6	Atlas Insurance Limited	IFS AA+	Non-Life / General
7	IGI General Insurance Limited	AA+	Non-Life / General
8	Askari General Insurance Company Limited	AA+	Non-Life / General
9	TPL Insurance Limited	AA	Non-Life / General
10	Dawood Family Takaful Limited	A+	Dedicated Takaful Operator – Life Insurance

Model and Variables:

The model taken for this paper is the Return on Assets (ROA) is the dependent variable while Size of company, Investment income, Premium Growth rate, Loss ratio and Capital ratio are taken as independent variables. The equation for the model is as follow;

$$ROA = \beta_0 + \beta_1 (Size) + \beta_2 (Investment\ Income) + \beta_3 (Premium\ Growth\ Rate) + \beta_4 (Loss\ ratio) + \beta_5 (Capital\ ratio) + e$$

Where,

Sr.	Type	Proxy	Measurement	Reference
1	Dependent Variable	Return on Assets (ROA)	Net income (before tax) / Total Assets	Junaid et. al. (2020).
2	Independent Variable	Size of Firm (FS)	Natural Log of Total Assets	Malik (2011)
3	Independent Variable	Investment Income (II)	Revenue generated from investments (Log of Investment Income)	Shawar & Siddiqui (2019)
4	Independent Variable	Premium Growth (PG)	Percentage growth in Gross written Premium	Ishtiaq et.al. (2019).
5	Independent Variable	Loss ratio (LR)	Net claims to Net premium	Malik (2011)
6	Independent Variable	Capital ratio (CR)	Equity to Total Assets	Kouser (2021)

4. Results:

Descriptive Statistics

Variable	Observations	Mean	Std. Dev.	Minimum	Maximum
ROA	50	.05	.04	-.002	.185
FS	50	16.908	1.838	14.627	21.194
II	50	5.742	1.35	0	8.146
PG	50	.139	.17	-.188	.759
LR	50	.49	.184	.075	.94
CR	50	.388	.326	.005	1.44

Above table displays the descriptive statistics of the data which includes mean, standard deviation, minimum and maximum values. Value of mean is

range from 0.05 (ROA) to 16.908 (firm size). The mean specifies average value of each variable. Standard deviation is the degree of deviation from mean. The standard deviation value is range from 0.04 (ROA) to 1.2960 firm size).

Matrix of Correlation:

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) ROA	1.000					
(2) FS	-0.511	1.000				
(3) II	-0.434	0.816	1.000			
(4) PG	-0.047	-0.130	-0.192	1.000		
(5) LR	-0.355	0.099	0.036	0.080	1.000	
(6) CR	0.316	-0.530	-0.356	-0.076	0.038	1.000

The above table presents the correlation analysis of the variables. It shows that return on assets positively correlated with capital ratio while negatively related with firm size, investment income, premium growth and loss ratio. Firm size negatively correlated with premium growth and capital ratio whereas positively correlated with investment income and loss ratio. Investment income positively correlated with loss ratio while negatively correlated with premium growth and capital ratio. Premium growth positively related with loss ratio while negatively correlated with capital ratio. Finally, loss ratio positively related with capital ratio.

Result of Regression Analysis:

ROA	Coef.	St. Err.	t-value	p-value	[95% Conf	Interval]	Sig
FS	-.013	.006	-2.11	.035	-.026	-.001	**
II	.004	.003	1.27	.205	-.002	.01	
PG	.014	.015	0.97	.33	-.014	.043	
LR	-.041	.021	-1.98	.048	-.081	0	**
CR	.027	.024	1.12	.262	-.02	.075	
Constant	.262	.106	2.47	.013	.054	.47	**
Mean dependent var		0.050	SD dependent var			0.040	
Overall r-squared		0.307	Number of obs			50	
Chi-square		16.267	Prob > chi2			0.006	
R-squared within		0.269	R-squared between			0.318	

*** $p < .01$, ** $p < .05$, * $p < .1$

This study used random effect model to test the hypothesis. The probability value of the model is significant (.006) which mean the model is correct. The

r-squared value of .307 indicates that this model explains 30.7% change in dependent variable (Return on Assets). As far as effect of independent variables are concerned, table shows that firm size negatively and significantly affect return on assets (-0.031, p-value < .05). The coefficient value of loss ratio is -0.41 (p-value < .05) which indicates the relationship between return on asset and loss ratio is statistically significant. Whereas investment income, premium growth and capital ratios do not significantly affect return on assets, which signifies that the relationship among investment income, premium growth, Capital ratios and return on assets are insignificant.

Conclusion:

In the current study, financial performance of the insurance sector of Pakistan was analyzed with respect to the firm specific variables. The dependent variable was considered return on assets while size of firm, investment income, premium growth, loss ratio and capital ratio are taken as independent variables. The results shown that loss ratio has negative and significant relationship with ROA and firm size is also negatively and significantly associated with ROA. The remaining variable investment income, premium growth and capital ratios are insignificant and do not exhibit any association with ROA.

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