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Impact of Premium on Profit of Insurance Companies in Pakistan

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Abstract. Life insurance is a major contributor to the insurance industry's expansion in Pakistan. From the standpoint of the overall growth of the insurance industry is critical. At the same time, there are numerous issues in this industry that affect its performance. The study provides insight into Pakistan's life insurance sector's performance. This research aims to determine the impact of life insurance premium earned on profitability. Regression analysis is done to analyze the outcomes. According to the study's findings, there is a significant relationship between earned premium and underwriting profit. Premium earn is increasing but underwriting profit is decreasing instead of generating more profit for the insurance industry.

Key words: Profit, Life Insurance Companies, Pakistan

1 Introduction

Insurance is a contract between two parties in which one undertakes to assume the risk of the other in exchange for a monetary payment known as a premium and promises to compensate the other in the event of an unforeseen catastrophe (Dutta et al., 2020). The major benefit of insurance is that it spreads the risk of a few individuals across a big group of people who are exposed to similar risks. Pakistan's financial planners have recognized insurance as a growing sector. The insurance industry in Pakistan has a lot of room to expand, penetrate, and serve the Pakistan people. It's all about protection when it comes to insurance.

The insurance industry plays a critical part in the service-based economy, and its services are increasingly being incorporated into the wider financial industry. Insurance businesses serve as financial intermediaries in Pakistan. Insurance firms (both private and public) are businesses that provide protection like life, fire, accident, causality, and many other types of insurance are available. During tough macroeconomic climate and global changes, Pakistan's financial sector has shown remarkable resilience (Echavarría-Soto et al., 2021; Irbad and Jayaprakash, 2019). In Pakistan, insurance sector is divided into three sectors: Life-insurance, non-life insurance and takaful (Echavarría-Soto et al., 2021).

In exchange for a regularly scheduled payment, known as premiums, life insurance firms provide financial assistance to a selected beneficiary in the event of the policyholder's death. The goal of life insurance is to offer financial support to the wage earner's family in the event of his or

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her death. Life insurance firms sell individual and group retirement policies that give retirement payments to insured's in addition to paying death benefits to chosen beneficiaries. Because life insurance firms gather money from policyholders in modest amounts and invest it properly over a longer time, they provide a long-term means of financing to society as institutional investors (Thomas, 2017). Currently, there are seven life insurance firms functioning in Pakistan. Life insurance companies account for 83.74 percent of the insurance sector's total assets in Pakistan (Echavarría-Soto et al., 2021). In 2020, life insurance firms collected a total of Rs. 2196 Billion in premiums.

In general, the profitability of a company can be used to measure its success, and the performance of an insurer is linked to the increase in written insurance premiums in the past (Shen et al., 2021). This paper provides the relationship between life insurance premium earned with the underwriting profit of the Pakistan life insurance sector. We get the data of life insurance sector from financial analysis report issued by State Bank of Pakistan. The data is from 2015-2020.

1.1 Problem Statement

It is taken for granted that as the premium rises, the profit rises with it. This establishes that earnings are in fact reliant on premium income. As a result, anytime the premium tends to rise, the profit earned is expected to rise as well. The study's goal is to determine whether the underwriting profit is increasing or not. The problem is solved by using regression analysis to determine the relationship between premium earned and underwriting profit. If the underwriting profit rises with the premium received which forms a pattern of normal distribution, accepts alternate hypothesis.

Underwriting Profit/Loss = Net Premium Earned – (Claim Settled + Commission And Management Expenses Incurred).

The phrase "underwriting profit" is used to describe the amount of earned premium that remains after the commissions and administrative expenses have been paid and claims have been settled. It does not include profits from investments made on the company's premium. It's the profit earned by insurance company as the normal course of business (Dutta et al., 2020) The objective of this research was to:

Investigate the impact of life insurance premium on underwriting profit in insurance sector.

2 Literature Review

Following the liberalization of the insurance market, the Life insurance sector has grown in importance, both economically and socially, and scholars have looked at these issues. It was examined that a competitive atmosphere is required, which can only be achieved through s insurance business (Chawla and Ellis, 2000). Devadasan et al. (2004), conducted a comparative study on the marketing of Life insurance policies in public and private companies and confirmed that private sector services elicited a better response than public sector services due to innovative methods and implementation of new technologies. Similarly, Pradhan et al. (2020), also studied a comparative study between public and private insurance sector and examined that most responders had filed a refund claim with a third-party administrator, and is higher in the public sector than in the private sector. Moreover, community Life insurance can be a crucial intermediate phase in the evolution of an equitable Life finance mechanism in Japan and Europe

(Devadasan et al., 2004). Kumar (2009), discovered that insurance can be a useful tool for mobilizing resources, risk mitigation, and Life insurance. Dror and Armstrong (2006) investigated the willingness of rural and poor to pay for Life insurance.

According to the findings, insured people were more eager to pay for their insurance than non-insured people. Irbad and Jayaprakash (2019) determined the roadblocks that prohibit people from purchasing Life insurance policies in the country, as well as ways for lowering the claims ratio in this industry. Personal factors impacting Life insurance policy purchasing decisions were investigated by (Yadav and Sudhakar, 2017). Factors like awareness, tax benefits, financial security, and risk were discovered to be important. Life insurance policyholders' purchase decisions are heavily influenced by coverage. Thomas (2017), looked at Life insurance through the eyes of consumers. Consumers are shown to evaluate a variety of factors when selecting a Life insurer, including a reputable hospital network, insurance coverage, and a firm with a diverse product offering and responsive workers are all desirable. Savita et al. (2014), investigated the reasons for the drop in micro-Life insurance membership in Karnataka. Lack of funds, as well as a lack of clarity, were major factors in the fall. The main challenge in this sector is to Design the scheme to meet the needs of the customer. Moreover, there was a significant between the premiums collected and claims paid, as well as demographic characteristics that are influenced (Shah and Rankin, 2017). It was discovered. Binny and Gupta (2017) looked at the benefits and drawbacks of Life insurance. These chances allow market participants to expand their business and increase their market competitiveness. However, corporations confront several structural issues, such as a high claim ratio and changing client needs, which necessitates them to reinvent products in order to satisfy customers (Abbas et al., 2018).

Allan et al. (2020), investigated private sector insurance's out-patient coverage in India. Despite the fact, that it was revealed that the share of private life insurance businesses has climbed significantly, hence life insurance is not a good deal. In the life insurance industry, Chauhan et al. (2019), looked at medical underwriting and rating modalities. It was discovered that while underwriting a Life policy, several characteristics of the insured's lifestyle, occupation, Life status, and habits must be considered. There have been several research studies on Life insurance has been conducted worldwide. However, no research has been done on the performance of the Life insurance industry with underwriting profit or loss. Dutta et al. (2020) reviewed the health insurance sector of India in 2020. They found that premium earned has a significant impact on underwriting profit/loss, and confirmed growth of this sector over the years.

2.1 Hypothesis

H_0: *Life Insurance Premiums have no impact on Underwriting Profit or Loss.*

H_1: *The amount of premium paid for life insurance has an impact on the underwriting profit or loss.*

3 Research Methodology

3.1 Sample Data

The secondary data was collected from the State Bank of Pakistan's (SBP) annual reports, as well as numerous publications, research papers, and websites, to assess the performance of Pakistan's life insurance industry. Appropriate research design were utilized based on the study's needs and nature. The information gathered has been categorized, collated, and analyzed in accordance with the study's objectives. The information is based on a 6-year period from 2015 to 2020. Regression analysis has been used to analyze secondary data:

$$Y = \alpha + \beta x$$

3.2 Methodology

For the regression analysis we use SPSS statistics software tool and Microsoft Excel was used for numerous graph, in this research.

3.2.1 Regression Model

$$Y = \alpha + \beta x$$

Where

Y = Dependent variable, x = Independent variable, α = Intercept of the line, β = Slope of the line

4 Results

4.1 Overview of Insurance Sector

Life insurance premiums climbed from Rs.1489 Billion in 2015 to Rs. 2196 Billion in 2020, as shown in Table 1. During the same period, however, claims incurred with commission and management expenses increased from Rs. 557 billion to Rs. 1771 billion. The claim shown above is the result of the risk covered for which a premium is paid and commission and management costs are required in order to obtain an insurance contract. Both of these costs are necessary for insurance businesses to generate new business, as the industry has been very competitive since its inception. For the period 2015 to 2020, Figure 1 displays the link between life insurance premiums earned and claims and administration expenses incurred by life insurance firms.

In every year of the study, the bar chart between premiums earned and claims and management expenses spent shows that claims and management expenses also increase with the premium earned. Claims, commissions, and management costs are all essential variables in the selling of insurance contracts, resulting in premium revenue for insurance companies. However, proper claim and commission management, as well as management expenses, will aid this sector's performance.

Table 2 shows the performance of the life insurance industry. Life insurance in Pakistan has grown from Rs.1489 Billion in the financial year 2015 to Rs. 2196 Billion in the fiscal year 2020. The growth percentage is 47 percent, implying that it is rising at a pace of 7 percent every year.

The claims incurred, as well as commission and administrative expenditures paid, grew with each unit of increase in premium income. As a result, the bottom line is raised. Rather than generating a bigger profit, the profit is decreased. Underwriting principles need to be streamlined so that each policy is thoroughly examined, and the sector's performance improves. Figure 2 shows that premiums earned have increased significantly over time, but claims, commissions, and administration expenses have also increased. As a result, the net impact resulted in low

Table 4.1:

Year	Premium Earned (Thousand Rupees)	Claims Incurred (Thousand Rupees)	Commission and management expense incurred (Thousand Rupees)	Total Claims Incurred and Management expense (Thousand Rupees)
2015	148,951,235	51,301,657	4,477,205	55,778,862
2016	169,155,733	95,585,828	5,382,926	100,968,754
2017	196,532,135	110,648,433	8,866,386	119,514,819
2018	210,747,319	122,753,371	21,091,441	143,844,812
2019	210,015,107	142,993,408	21,197,199	164,190,607
2020	219,615,590	158,284,405	18,869,032	177,153,437

Source: State Bank of Pakistan Report: Financial Statements Analysis of Financial Sector 2010-2015 and 2016-2020, Annual reports of Life-Insurance Companies.

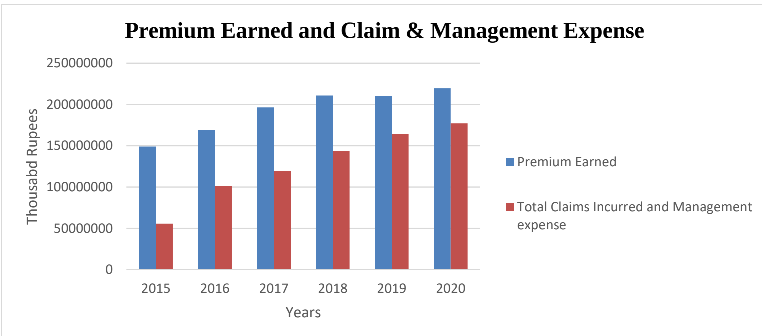

Figure 1: Source: Authors' Compilation

profit for this industry, as shown in the figure. However, there will come a moment when market forces will stabilize commission and management expenses, allowing for more underwriting profit. On the other hand, proper claim management will be required for the life insurance industry to emerge from its low-profit phase.

4.2 Interpretation of Regression Findings

4.2.1 Regression fit

Here, Y is the dependent variable (Underwriting Profit or Loss) that must be forecast, x is the known independent variable (life Insurance Premium Earned) that must be used to make predictions, and a and b are parameters whose values must be calculated (Table 3).

$$DV=IV+CV+E$$

Table 4.2:

Year	Premium Earned (Thousand Rupees)	Claims Incurred (Thousand Rupees)	Commission and management expense incurred (Thousand Rupees)	Underwriting profit / loss (Thousand Rupees)
2015	148,951,235	51,301,657	4,477,205	93,172,373
2016	169,155,733	95,585,828	5,382,926	68,186,979
2017	196,532,135	110,648,433	8,866,386	77,017,316
2018	210,747,319	122,753,371	21,091,441	66,902,507
2019	210,015,107	142,993,408	21,197,199	45,824,500
2020	219,615,590	158,284,405	18,869,032	42,462,153

Source: State Bank of Pakistan Report: Financial Statements Analysis of Financial Sector 2010-2015 and 2016-2020, Annual reports of Life-Insurance Companies

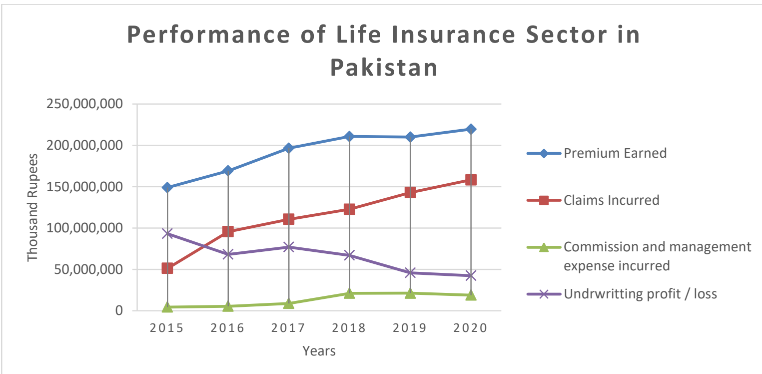

Figure 2: Source: Authors' Compilation

4.2.2 Predictive Ability of the Model

Value of R2 = 0.67, explains 67 percent of the difference between life insurance premiums received and profit incurred by this industry (Table 4).

At a 95% confidence level, the computed p-value is 0.046, which is less than 0.05.This is the degree of certainty with which the alternative hypothesis is accepted. As a result of the regression equation, life insurance premiums earned have an impact on the decreasing profit. It is possible that an increase in revenue in the form of premium will result in profit or loss.

Along with the tremendous growth in premiums, the claims, commission, and management expenses incurred in this sector have also increased significantly. As a result, underwriting profit in this industry has been poor. Surprising findings include a faster rate of increase in premium earnings, which has resulted in a low rate of underwriting profit over time. Even while the sector is showing signs of growth in terms of revenue, it is not enough to indicate that it is earn more profit with respect to previous year.

Table 4.3:

Model	Unstandardized Coefficients	
	β	***Standard Error***
1Intercept	174339206.2	38484759.16
Premium Earned	-0.564	0.19821676

5 Conclusion

Insurance industry plays a critical role in a service-based economy. The growth of insurance industry is high. With the growth in the insurance industry, the profit of this industry is decreasing. The reason is that the claims and expenses also increase with the increase in premium earned. This expense is important for to get the new business, but the manager must need to reduce that expenses. If the proper policies are not made on this issue this lead to an underwriting loss. The COVID- 19 pandemic is an opportunity for the life insurance sector in 2020 because new customer is fetched, but this is also challenging to pay more claims and earn low profit. This research is limited to the Pakistan's life insurance sector but the future researcher can la in future.

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