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# EVALUATION OF FINANCIAL PERFORMANCE OF INSURANCE COMPANIES BY USING FINANCIAL RATIOS: CASE STUDY ON LIBYA INSURANCE COMPANY

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## ABSTRACT

The insurance sector plays an important role in the development of a nation's economy. The financial analysis of insurance companies provides an insight into the performance of the companies to check and exercise control. The researcher used the method of financial analysis to forecast the financial performance and safety position of the Libya Insurance Company, where the liquidity ratios were used in addition to the rates of return on investment. It was noted through the results of the analysis that, the company suffers from a deficit in cash in addition to the weakness in the coverage of its obligations in the short period, through net working capital, and the return on investment is very low. And, accordingly, a number of recommendations have been made, the most important of which are,

- Recommending the company to adopt advanced mathematical and statistical methods in the various forecasting fields, especially those related to general risks as well as investment risks.
- Recommending the company to reconsider all the contractual requirements and insurance contract implications in a way that makes insurance premiums as a basic return that meets the needs of the company to provide the necessary liquidity to pay compensation and fees resulting from debt.

**KEYWORDS:** Financial performance, Insurance, Financial ratios, Financial analysis

## INTRODUCTION

## SECTION I: RESEARCH METHODOLOGY

The development of insurance activity has spread in recent years to a large extent, until it became an industry and one of the most important pillars of the economic activity of any country. Companies and agencies find 'insurance' a protective shield and an effective means to protect their property and capital against the expected risks and ensure their continuation. The countries in which, insurance awareness has spread, have become aware of the importance of this activity and its importance in economic development, which led to the supervision of companies based on their management and attention to their accounting and financial organization by subjecting them to a range of regulatory and legislative laws, and urging public authorities to consider deep reforms in the insurance system and provide them with the tools necessary to operate as independent institutions with a view to achieving returns that allow them. And therefore, the need to resort to the assessment of insurance companies periodically, in order to know their financial status and the judgment on the level of good performance.

## RESEARCH PROBLEM

The problem of research is to adopt traditional financial analysis ratios to assess the financial situation of insurance companies, without taking into account the privacy of the activities of the companies.

## SEARCH LIMITS

The research sample (Libya Insurance Company) and will be for the years 2005-2010.

## THE HYPOTHESIS OF RESEARCH

The adoption of indicators of financial analysis is based on the specificity of insurance activity, which helps to know the financial situation of the company and the extent of exploitation of resources available, rationally.

## OBJECTIVE OF THE STUDY

The main objective of this study is to determine the method that is used in evaluating the performance of insurance companies, which will be an indication of the reality of their financial situation, in order to know the developments that may occur, in order to avoid the crises that can occur.

## SAMPLE RESEARCH

The company selected for this study is the Libyan Insurance Company, being the leading insurance company in Libya.

## SECTION II: THEORETICAL SIDE

### The Role of Financial Analysis in Evaluating the Financial Performance of Insurance Companies

*The concept of financial analysis and its objectives*

The financial analysis can be defined as a "critical study of the financial statements of the entity after reclassifying the appropriate tab for the purpose of analysis, using other necessary data not included in those lists, using the various methods of analysis to clarify the reasons for the results, and track their evolution over successive financial periods, and make a sound comparison between similar enterprises.”.[1]

Financial analysis is also known as "the process of converting the vast amount of data and historical financial figures recorded in the financial statements to a smaller, clearer and more useful way of making decisions"[2]

The use of the concept of financial analysis relates to two basic stages:

1. Conducting the financial analysis required to fulfill its purpose and using appropriate methods.
2. To interpret the results of financial analysis to reach the objectives of the analysis, whether specific direction, prediction or control or decision – making.

### The Importance of Financial Analysis

Since an entity - whatever it may be - is an entity that does not operate in isolation from its surrounding environment

Parties treated with them as investors, consumers (customers), suppliers, government and others.

Therefore, each of these parties has their own interest in this facility by reconciling with it, or from here highlights

1- Denis Clair, Lambert: Economie des assurances, Armand Collin / Masson, 1996, p08.
2- Ramadan Abu Saud: Assets Insurance, University of Alexandria, Egypt, 1992, p. 427.

the important role that financial analysis plays in each party's view, from the results of this analysis.

Therefore, the importance of financial analysis extends to the assistance of the Department in real planning, supervision and assistance, which are the main functions of the management of any project. It also helps the investor, borrower, researcher, clients, government agencies and NGOs interested in the field, to identify a specific part of each of them about the performance of the project, and its future directions. [3].

**Objectives of Financial Analysis**

We mentioned above that the importance of financial analysis arises from the multiplicity of entities that are interested in the establishment analysis, each of which has its own interest in one or more aspects of the activity in the establishment, hence the multiple objectives sought by each party, that there is a general goal comprehensive analysis of financial analysis is to give a real and clear picture of the strengths and weaknesses

In the performance of the entity under analysis, especially in relation to the following aspects:

- Financial stability of the entity (financial efficiency or solvency).
- Liquidity position.
- Profitability position.
- The efficiency of the establishment in exploiting its resources and its various uses.
- Know the cash flows of the entity.
- Predicting the financial failure of the establishment.

While some believe that financial analysis is intended to analyze the information received, and the financial statements are prepared for special purposes and use as other supplementary information to achieve the following objectives [4]

- Identify the economic and financial situation of the project
- Determine the overall direction of the project activity
- Forecasting
- Control
- Performance evaluation
- Provide external parties with useful information about the project
- Treatment of abnormal conditions suffered by the project
- Decision-making

3- Mohamed Boudjellal, Aperçu sur les assurances en Algérie au lendemain des réformes, polycopie non édité, Université FERHAT ABBAS, SETIF, 2000, p08.

4- Mohammed Al-Mahdi Ali: Marketing Strategies for Insurance Products, New Horizons Magazine, No. 2, Menoufia University, Egypt, 1997, p57.

**Methods of Financial Analysis**

The analysis of financial statements is considered as the first stage of understanding and interpreting the content of those lists for use in different fields from the point of view of its users, and from the point of view of management consideration in the prevailing economic conditions. The types of financial analysis vary. According to the purpose and the nature of the activity analyzed, the most important types of financial analysis are[5]

- Vertical financial analysis.
- Horizontal financial analysis.
- Multivariate analysis of financial indicators.
- Financial analysis using financial ratios.

**Financial Analysis Tools**

The tools of financial analysis are used in order to reach rational decisions that maintain the path of economic unity towards achieving their objectives. Analytical tools are divided into:

- Traditional tools: The financial analyst uses the financial ratios for financial analysis purposes, and the diagrams can be used to illustrate the analysis.
- “Modern tools: It includes mathematical methods, statistics, matrices and linear programming in the analysis process. It can also be used in the preparation of analytical programs in dealing with many of the problems faced by the economic unit”. [6]

Financial analysis using financial ratios is the best tool to clarify the relationship between the amounts in the financial statements. The financial ratios are defined as "expressing the mathematical relationship between the items of the balance sheet together or the income statement items together or between the income statement items and the items of the budget, logically from the analyst's point of view”.[7]

There are a number of financial ratios that can be used in the analysis of financial statements. Generally, the ratios are grouped into the following groups

## 1. LIQUIDITY RATIOS

### 1.1. Trading Ratio = (Current Assets / Current Liabilities)

Trading ratio measures the extent to which current short-term liabilities can be covered and paid by current assets (assets that can be converted into cash), at dates consistent with the maturities of these liabilities.

### 1.2. Fast Trading Ratio (Current Assets - Inventory / Current Liabilities)

Fast rate or the so-called fast rate ratio measures the project's ability to pay short-term current liabilities through current assets, without resorting to selling inventory.

5- Mohammed Al-Mahdi Ali: Marketing Strategies for Insurance Products, New Horizons Magazine, No. 2, Menoufia University, Egypt, 1997, p91.
6- Mohammed Al-Mansouri, "Early Warning System and Prediction of Insurers' Insurance", Journal of Social Sciences, Kuwait, 1988, p85.
7- Denis Clair, Lambert: Economie des assurances, Armand Collin / Masson, 1996, p24.

### 1.3. Working Capital

"Working capital measures the ability of the Company to cover its liabilities in the short and long term. It also clarifies its strategy in operating and employing its investments and shareholders' funds by stating the difference between current assets and liabilities to show net working capital. The more the company has its current assets, its ability to pay its obligations more and is affected by the net working capital negatively or positively, according to the investment policy pursued by the company is its strategic policy". [8]

Working Capital = Current Assets - Current Liabilities

### 1.4. Cash Rate: This Ratio Shows the Most Liquid Items of the Economic Unit through the Cash Capacity to Meet Current Liabilities

Cash rate = cash + short term investments / current liabilities

## 2. STRUCTURE OF FUNDING

### 2.1. =Current Liabilities / Total Liabilities and Capital X 100%

This ratio shows the extent to which third-party funds are used for financing, which means increasing the amount of the liabilities of the company.

### 2.2. Capital and Reserves / Total Liabilities and Capital × 100%

This ratio shows the amount of use of the company's funds in the financing operations, which means increasing the company's dependence on the company's internal financial sources.

**Debt Collection Efficiency**

The duration of debt collection can be extracted through the following formula:

Duration of debt collection = Debtor debt in the financial period (one year) / Net share of the company's premiums x 100%

The short duration of the collection refers to the company's efficiency in collecting the debts. The length of the collection period indicates the company's inefficiency in collecting the debts.

**Profit Analysis**

Profit analysis is one of the indicators of financial analysis in insurance companies, as it is used to measure the level or level of profit in the insurance companies, and this is based on some percentages. In order to determine these percentages, the income and payments account can be divided into the following sections:

- Gross profit margin
- Net operating profit

8- Fawzi Rashid: The Old Iraqi Laws, Dar Majdalawi, Baghdad, 1979, p15.

## ANALYTICAL SIDE

**Introduction to Libya Insurance Company**

Libya Insurance Company is a Libyan insurance company working in the field of insurance and reinsurance, established in 1964, with a capital of one hundred thousand Libyan pound and its headquarters in the city of Tripoli

In 1971, the company was wholly owned by the Libyan State and its capital was raised to one million Libyan Dinars. In 1981, the capital was raised to 2,000,000 (two million Libyan Dinars).

In 1989, the capital was raised to (30.000.000 LYD) thirty million Libyan Dinars. In the year 2000, the Medical Insurance Authority was incorporated into Libya Insurance Company and raised the capital of the capital to 50,000,000 LYD. In 2008, the company was privatized and the capital was raised to 70,000,000 LYD, and remains the largest insurance company operating in the Libyan market to reach the assets of the company to about 400 million Libyan dinars.

## 1. NET WORKING CAPITAL

Working capital measures the ability of the Company to cover its liabilities in the short and long term. It also clarifies its strategy in operating and employing its investments and shareholders' funds by stating the difference between current assets and liabilities to show net working capital. The more the company has its current assets, its ability to repay its obligations and is affected by the largest net working capital positively or negatively according to the investment policy pursued by the company Is its strategic offensive require any high-risk investment by increasing borrowing in either Tate P strategy balanced medium risks so that a balance between the requirements of traded and traded assets.

Net Working Capital = Current Assets - Current Liabilities

**Table 1**

| Statement | Current Assets | Current Liabilities | Net Working Capital |
|---|---|---|---|
| 2005 | 129,634,651.37 | 396,389,789.45 | -266,755,138.09 |
| 2006 | 112,028,830.14 | 309,537,283.10 | -197,508,452.96 |
| 2007 | 101,472,368.32 | 281,414,528.37 | -179,942,160.04 |
| 2008 | 121,735,574.98 | 272,518,618.56 | -150,783,043.58 |
| 2009 | 85,310,448.28 | 146,481,512.00 | -61,171,063.72 |
| 2010 | 110,602,259.39 | 292,235,869.17 | -181,633,609.78 |

**Source:** Financial Statements of Libya Insurance Company

The above table shows that the net working capital showed negative indicators during the period from 2005 to 2010, as it did not achieve any positive value, as in 2005 it had a negative value of over 266 million dinars, and this value decreased slightly in 2006 to 197 million dinars and continued During the following years between low and high until it reached in 2010 to 181 million dinars, This clearly indicates the inability of current assets to cover current liabilities during that period.

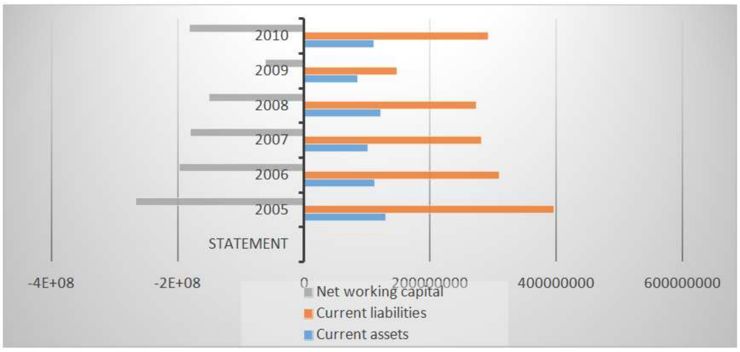


**Figure 1**

## 2. RATIOS OF THE ABILITY TO REPAY DEBTS IN SHORT TERM

### 2.1. Liquidity Ratio

Liquidity Ratio measures the extent to which current short-term liabilities can be covered and paid by current assets (assets that can be converted into cash), at dates consistent with the maturities of these liabilities.

= (Current Assets / Current Liabilities)

It should be 1: 2

**Table 2**

| Statement | Current Assets | Current Liabilities | Ratio |
|---|---|---|---|
| 2005 | 129,634,651.37 | 396,389,789.45 | 0.3 |
| 2006 | 112,028,830.14 | 309,537,283.10 | 0.4 |
| 2007 | 101,472,368.32 | 281,414,528.37 | 0.4 |
| 2008 | 121,735,574.98 | 272,518,618.56 | 0.4 |
| 2009 | 85,310,448.28 | 146,481,512.00 | 0.6 |
| 2010 | 110,602,259.39 | 292,235,869.17 | 0.4 |

**Source:** Financial Statements of Libya Insurance Company

With regard to the liquidity ratio, it is noted that the percentage is very low and did not exceed 0.5 in 2009, where it reached 0.6, while in the rest of the year it is noted that the percentage did not exceed 0.4 This indicates the inability of the company to cover the obligations in circulation in the short period and the company must Collection of debts owed to others in addition to the search for new sources of funding contribute to the provision of cash.

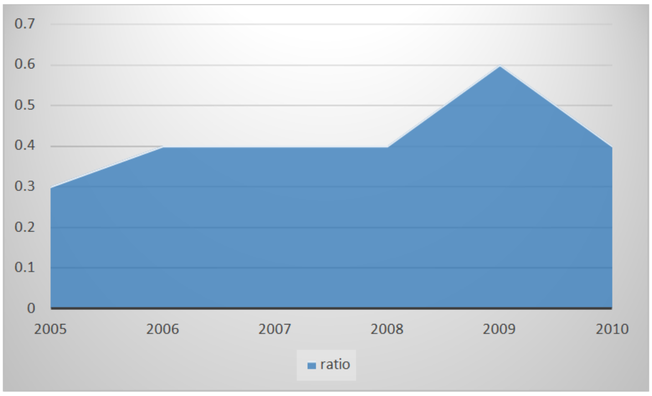


**Figure 2**

### 2.2. Cash to Current Liabilities

**Cash to Current Liabilities = Cash / Current Liabilities**

The cash rate shows the number of times cash and cash equivalents are able to cover current liabilities, and is an indication of the extent to which the Company can pay its current liabilities through its cash flow. It should be noted that very few companies maintain adequate liquidity to meet all short-term liabilities, so this percentage is uncommon, especially as they ignore the short-term maturity of short-term liabilities.

**Table 3**

| Statement | Cash | Current Liabilities | Ratio |
|---|---|---|---|
| 2005 | 20,001,597.391 | 396,389,789.452 | 0.05 |
| 2006 | 32,179,016.606 | 309,537,283.098 | 0.10 |
| 2007 | 33,448,475.379 | 281,414,528.366 | 0.12 |
| 2008 | 36,773,271.397 | 272,518,618.556 | 0.13 |
| 2009 | 20,245,002.186 | 146,481,511.998 | 0.14 |
| 2010 | 20,356,960.195 | 292,235,869.171 | 0.07 |

**Source:** Financial Statements of Libya Insurance Company

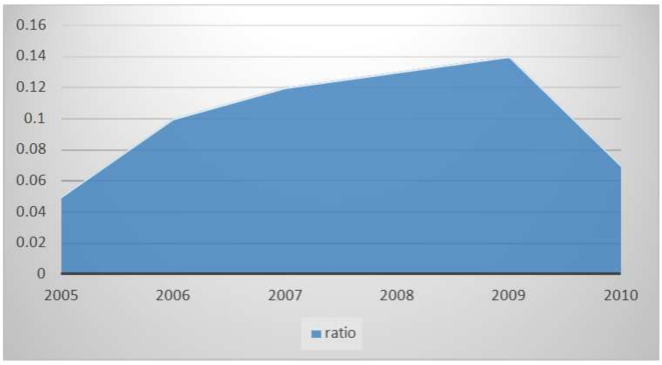


**Figure 3**

This ratio is very low and indicates a significant imbalance in the inability of the cash to cover the obligations traded, noting that in 2005 the ratio was less than 0.1, and in 2006 rose slightly to 0.1 and as in the rest of the year, and if the company continues to the same situation, it will suffer of the financial difficulty which may increase the size of the debt, and thus expose them to bankruptcy.

### 2.3. Cash to Total Assets

Cash to total assets = Cash/ Total assets

It should be between 10-80%

**Table 4**

| Statement | Cash | Total Assets | Rate |
|---|---|---|---|
| 2005 | 20,001,597.39 | 370,013,334.62 | 5% |
| 2006 | 32,179,016.61 | 383,903,841.55 | 8% |
| 2007 | 33,448,475.38 | 363,917,307.96 | 9% |
| 2008 | 36,773,271.40 | 354,737,491.97 | 10% |
| 2009 | 20,245,002.19 | 321,509,052.73 | 6% |
| 2010 | 20,356,960.20 | 343,644,719.05 | 6% |

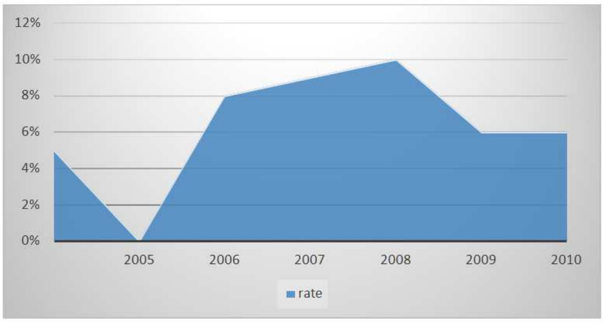


**Figure 4**

The ratio of cash to total assets in 2005 is down from 10% to 5% in 2006 to 8% and in 2007 and 2008 to 10%. This is a good indicator, when compared to the standard 10%, and in 2009 and 2010 the ratio dropped to 6%. The company must support cash, by so as not to face the problems of financial hardship in the event of payment of compensations to others.

## 3. RETURN ON INVESTMENT

### 3.1. Net Profit to Total Assets

Net profit to total assets=Net profit / Total assets

If it Less than 10%, that is considered bad in using assets.

**Table 5**

| Statement | Net Profit | Total Assets | Rate |
|---|---|---|---|
| 2005 | -142,346,795.167 | 369,019,589.881 | -39% |
| 2006 | 8,987,285.686 | 383,903,841.548 | 2% |
| 2007 | 17,123,506.833 | 363,917,307.963 | 5% |
| 2008 | 10,506,526.416 | 354,737,494.972 | 3% |
| 2009 | 9,019,895.586 | 321,509,052.733 | 3% |
| 2010 | 9,510,657.682 | 343,644,719.053 | 3% |

**Source:** Financial Statements of Libya Insurance Company

This percentage shows various indicators between 2005 and the rest of the year, where in 2005 it was 39% and suddenly rose in 2006 to 2%, due to the company's loss in 2005 of over 142 million dinars. In 2006, The Company continued to achieve profits during the following years. This was noticed by the increase in the average, but it is still below the required level, which necessitates the company to search for new resources to finance revenues.

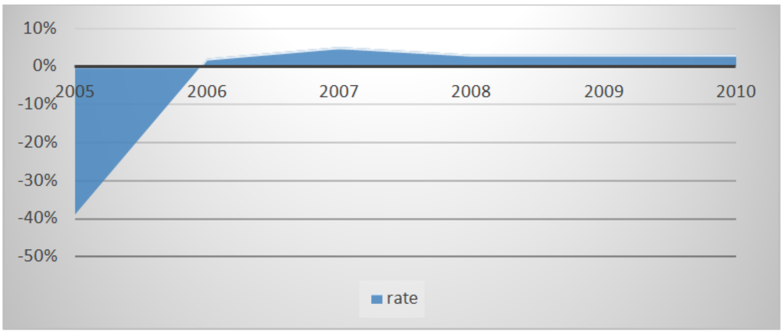


**Figure 5**

### 3.2. Net Profit before Tax to Current Liabilities

Net profit before tax to Current liabilities = Net profit before tax to / Current liabilities %

It should be 50% or more is very good

**Table 6**

| Statement | Net Profit Before Tax | Current Liabilities | Rate |
|---|---|---|---|
| 2005 | 18,989,961.909 | 396,389,789.452 | 5% |
| 2006 | -952,728.827 | 309,537,283.098 | 0% |
| 2007 | -666,771.845 | 281,414,528.366 | 0% |
| 2008 | -1,379,109.096 | 272,518,618.556 | -1% |
| 2009 | 19,644,442.055 | 146,481,511.998 | 13% |
| 2010 | 20,883,870.728 | 292,235,869.171 | 7% |

**Source:** Financial Statements of Libya Insurance Company

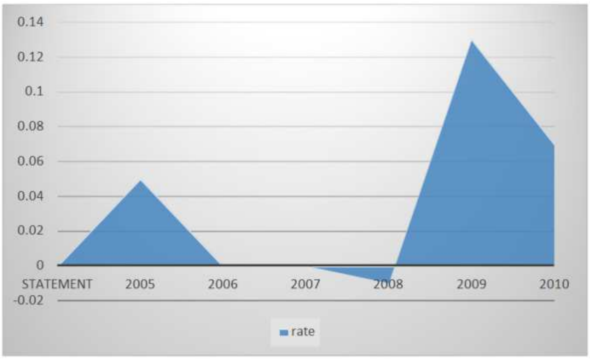


**Figure 6**

The data of the previous table shows that the percentage did not exceed 13% (only in 2009), and this indicates that there is an imbalance in the company should look for sources of income to diversify income and notes that the company suffers from the accumulation of losses from previous years, and also during the first five years, did not exceed 8%, and during the period 2005-2006, the ratio has remained unchanged, since the decline in profits before taxes. In 2008, the ratio has remained unchanged since the pre-tax profit increase to 13 million.

### 3.3. Return on Equity

This ratio measures the extent to which each dinar is used to achieve shareholders' profits and the higher the percentage, the higher the return to shareholders

Return on Equity. = Net Profit / Equity %

**Table 7**

| Statement | Net Profit | Equity | Rate |
|---|---|---|---|
| 2005 | -142,346,795.17 | -27,370,199.57 | 0% |
| 2006 | 8,987,285.69 | 74,366,558.45 | 12% |
| 2007 | 17,123,506.83 | 82,502,779.60 | 21% |
| 2008 | 10,506,526.42 | 82,218,876.42 | 13% |
| 2009 | 9,019,895.59 | 95,282,098.23 | 9% |
| 2010 | 9,510,657.68 | 96,674,849.88 | 10% |

**Source:** Financial Statements of Libya Insurance Company

The previous table shows that in 2005, the company did not achieve any profits and therefore the rate was less than zero. In the following years, the rate increased by 12%. This is a good indicator compared to 2005 and the same in

2007, The five have been 21% and in the last three years has fallen again to reach 10% in 2010 and as is known, the higher the rate the greater the maximization of the profits of shareholders, and thus it can be said that the company must diversify from sources of income, if it wants to maximize the profits of shareholders.

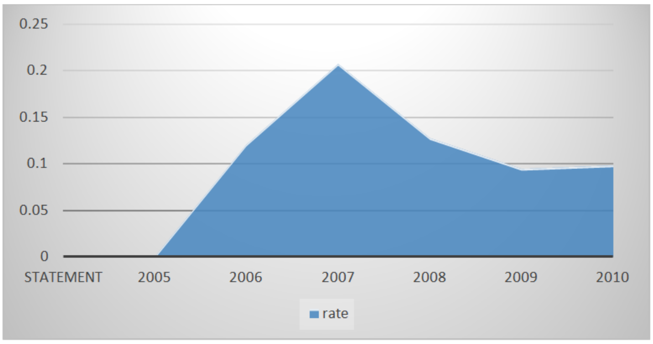


**Figure 7**

## RESULTS

- The net working capital indicates that the company suffers from its inability to cover its current liabilities, which increases the chances of exposure to the risks of financial hardship in addition to the risk of failure to recover part of its invested funds.
- Liquidity ratios indicate that the Company does not have the liquidity necessary to meet its financial obligations, mainly related to the allowances. The ability of its current assets to cover its current liabilities is very low.
- The ratio of return on investment in assets is to a significant decline, as it did not exceed 5%, which requires the company to search for new investments with high returns.
- Return on equity is an improvement over the years, due to the company's annual profit despite a rise in equity.

## RECOMMENDATIONS

The following are the main recommendations of the researcher

- Recommend to the official authorities that, control is needed by the Libyan economy to adopt advanced regulatory systems and policies that balance the granting of freedom to the insurance companies to manage their activities, and the reduction of increasing risks, that may lead to serious financial crises affecting the activity of insurance and other economic sectors.
- Recommend to the Libyan legislator to issue laws related to insurance activity, which will create a competitive environment with a more dynamic policy in providing services and employing its resources in a manner, that provides a state of reassurance to legal persons in various economic sectors to face the dangers.
- Recommending the company to organize advanced training courses to develop the skills of its employees in all job centers, especially in the areas of marketing full work, collecting premiums and investing available resources.
- Recommending the company to adopt advanced mathematical and statistical methods in the various forecasting fields, especially those related to general risks as well as investment risks.

- Recommending the company to reconsider all the contractual requirements and insurance contract implications in a way that makes insurance premiums as a basic return that meets the needs of the company to provide the necessary liquidity to pay compensation and fees resulting from debt.
- Recommending that the Company diversify its investments in new areas with high returns and controllable risks.

## CONCLUSIONS

Analyzing the results and evaluating the performance of insurance companies is of great importance, since these companies deal in the funds of others. Financial analysis in these companies means to assist management in predicting financial crises and determining the strengths, that must be focused and developed, and identify the weaknesses that must be overcome on her. The findings in the study indicate that, the company suffers financial liabilities. If the recommended measures are taken, and control in implementation is exercised, the financial performance of the company would improve.

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## AUTHOR DETAILS

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**Education:**

- Diploma in Accounting (1991-1992)

- Bachelor of Business Administration (2004-2005)

- Master of Financial Management of the Arab Academy for Banking and Financial Sciences Egypt "Cairo" (2009-2010)

**Employment History**

- Date of appointment: "1994" years of experience (22) years

- Employee in the financial department of the National Authority for Scientific Research.

- Head of Department of Sadness, National Commission for Scientific Research 1995-1997.

- Employee in the financial department of the Educational and Educational Research Center from 1997-2004.

- Head of the Office of Audit Center for Educational and Educational Research from 2004-2005.

- Director of the Office of Audit in the Ministry of Education from 2006-2007.

- Head of financial department at the Center of Educational Curricula from 2010-present.

- Head of Financial Section of the General People's Committee for Education previously 2008-2009

**Training courses**

- Training course in accounting in the Arab Republic of Egypt in 2005.

**Conferences and Seminars**

- Attend several conferences and seminars in Libya.

- Good use of computer - many qualifications in this area.

- Better Arabic - and English.