

## **A study on Financial Soundness of telecom companies in GCC - Using Altman's Z- Score Model**

**Dr. Nithya Ramachandran,**  
*Faculty, Department of Business Studies,  
IBRA College of Technology,  
Sultanate of Oman  
Mobile: +968 95780640*

**Ms. Jawaher Aamir Al Hajri,**  
*Student – Master of Business Administration,  
College of Economics and Political Science  
Sultan Qaboos University, Sultanate of Oman  
Mobile: +968 98990070*

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**Abstract:** The Gulf Cooperation Council (GCC) was established on 25<sup>th</sup> May 1981 in Riyadh, Saudi Arabia. The member countries are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE. The GCC was established in view of the member countries special relations, geographic proximity, political systems based on Islamic beliefs, joint destiny and common objectives. As telecommunication is gaining importance in this current technological era, a study on financial soundness of the telecom companies was found to be important. Studying financial soundness will be effective when done using an appropriate model, hence Z- score model has been selected to study the financial soundness of telecom companies in GCC. The Altman Z- Score model is a financial model in which five financial ratios are used to predict the possibility of bankruptcy in a company. The study was done with two objectives 1. To study the financial soundness by calculating various ratios and by applying “Z-Score” model. 2. To compare financial soundness of the selected companies. It was found from the study results that none of the companies of the companies Z-score is less than 1.8, hence there is no probability of bankruptcy in the next couple of years. The comparison of Z- score between the study periods shows that Ooredoo of Kuwait, Oman and Qatar shows negative change in the year 2017. Zain Company of Kuwait and Omantel Company of Oman shows a negative change during the year 2018. The rest of the companies shows a positive change during the study period. The study is a fundamental analysis of telecom companies in the GCC countries. The study can provide an idea for the investors in which company they can make investments to earn more returns. The parameters selected for analysis proves to be useful to an investor for his basic analysis of selecting portfolio of investment. The results of the study shows that the financial health of all the companies during the study period are comparatively better. The companies must go ahead with innovative steps to attract customers and increase their profitability.

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### **Introduction**

The Gulf Cooperation Council (GCC) was established on 25<sup>th</sup> May 1981 in Riyadh, Saudi Arabia. The member countries are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE. The GCC was established in view of the member countries special relations, geographic proximity, political systems based on Islamic beliefs, joint destiny and common objectives. Presently it encompasses a total area of 2,672,700 sq.km.

The Kingdom of Bahrain is a country in the Middle East formed by a group of 33 islands in the Persian Gulf, between Saudi Arabia and the Qatar peninsula. The largest of the islands is called Bahrain. The country has been named after that island. Most of the country's infrastructure is in the Bahrain Island. There are four other islands considered the most important islands in the Kingdom of Bahrain: Muharraq, Sitrah, Umm an-Nasan y NabiSalih.

Kuwait, as with other Middle Eastern countries, has an economy fueled by fuel, literally. Petroleum and petroleum related product exports account for 80% of total income for the Kuwaiti government. It has been reported that Kuwait's oil reserves can reach up to 104 billion barrels which is about 8% of the world's total reserves. Basically, the main industry of the country is obviously petroleum and petrochemicals. Kuwait also produces cement and is also known for shipbuilding and repair, food processing, water desalination and construction materials.

The oil and natural gas extraction account for around 51 percent of the country's GDP. Around 37% of the nation's GDP is gained from service sector. In the service sector the wholesale and retail trade account to 8% of the GDP. Public administration and defense account 7% of the GDP and around 6.8% from transport,

storage and communication. The Manufacturing and mining sector contributes 6 percent for GDP, construction, electricity and water distribution account for 5% and agriculture contributes 1 % to the nation's GDP.

The State of Qatar is a small Arab emirate in the Middle East. It is bordered by Saudi Arabia and a strait of the Persian Gulf separates it from its island neighbor, Bahrain. It is an oil producing nation and also has the third largest natural gas reserves. The trade and sale of these precious resources enabled Qatar to attain the second highest GDP per capita in the world.

Saudi Arabia is a founding member of the Gulf Cooperation Council (GCC), the United Nations, League of Arab States, Organization of the Islamic Conference, the Organization of Arab Petroleum Exporting Countries, the Organization of Petroleum Exporting Countries (OPEC) and numerous other international organizations. The Kingdom is a substantial contributor to the World Bank and the International Monetary Fund. Saudi Arabia is a major provider of aid to developing countries. The Kingdom's ratio of development assistance to gross national product (GNP) is the highest in the world, averaging 5.5 percent, and Saudi Arabia ranks second after the U.S. in overall assistance. Saudi Arabia is a large country located in the Middle East. Saudi Arabia borders in the North Jordan; Iraq and Kuwait. South of Saudi Arabia are Yemen and Oman. To the east is the Persian Gulf, Qatar and the United Arab Emirates. To the west, separated by the Red Sea are Egypt, Sudan, and Eritrea. A large part of Saudi Arabia is desert.

United Arab Emirates is a federation of seven emirates which are Abu Dhabi, Dubai, Ajman, Fujairah, Ras al Khaimah, Sharjah and Umm al Quwain. United Arab Emirates is located in the Southeast of Arabian Peninsula in Southwest Asia on the Persian Gulf. Oman and Saudi Arabia are the neighboring countries of the UAE. The tranquil Indian Ocean surrounds the UAE country. Abu Dhabi is the capital and is the second largest city in the country. Business activities, high skyscrapers, and luxury hotels are also centered in the country's progressive status. Before oil was discovered in the 1950s the UAE's economy was dependent on fishing and a declining pearl industry. But since oil exports began in 1962, the country's society and economy have been transformed.

The present study will be a source to find out the financial soundness of telecom companies in GCC. Financial soundness can be analysed by using a model. It was found that Z-score model will be best suitable for the research work.

### Research Significance

In order to study the financial soundness of telecom companies of GCC countries, a model was needed and it was considered that the Z-score model will be an apt tool to make a comparative analysis. The Altman Z-Score model is a financial model in which five financial ratios are used to predict the possibility of bankruptcy in a company. (Halageri, 2014)

The telecom services providers in GCC countries are listed below:

Country	Name of Telecom service provider
Bahrain	Batelco, Zain
Kuwait	Zain, Ooredoo
Oman	Omantel, Ooredoo
Qatar	Ooredoo
Saudi Arabia	STC, Zain,
UAE	Etisalat, DU

### Statement of the problem

The study is covers the telecom service providers across GCC countries. The service providers include both public and private sector companies in GCC. To study the financial soundness of the telecom companies in GCC, the last 3years from 2016 to 2018 was selected. The data for the study purpose has been collected from the secondary data collected from the annual reports of the companies. Basically financial soundness of a company must be managed in a systematic manner. Liquidity is a factor to find out the financial soundness of a company. Financial soundness can change negatively when operating cash flows are insufficient to meet the financial obligations. This negative financial change may lead to bankruptcy. The Z score model can be used to assess the financial soundness of a company.

### Research Objectives

Telecom companies were chosen for the study to find out the financial soundness in this era of advanced technology and increased expectations of the customers.

The major objectives of the study are:

1. To study the financial soundness by calculating various ratios and by applying “Z-Score” model.
2. To compare financial soundness of the selected companies.

**Limitations of the study**

The major limitation of the study is:

The data used are secondary data extracted from the annual reports of the companies. So, viability of data are not assured.

**Treatment of Data**

The financial health of the selected companies are derived through Altman score. To study the financial health, Z-score Model has been selected, which incorporates five weighted financial ratios for its formulation (Vijayalakshmi, 2013). The study has used secondary data extracted from the annual reports of the company. The annual reports were collected from the company website. The study covers a period of 3 years from 2016 to 2018.

**Altman’s Z- Score Model**

The Altman Z-Score is an analytical representation created by Edward Altman in the 1960s which involves a combination of five distinctive financial ratios used for determining the odds of bankruptcy amongst companies. Most commonly, a lower score reflects higher odds of bankruptcy. (Halageri, 2014). The current study has used the Z-score estimates on the financial reports of telecom companies for evaluating the financial health of companies over the study period of seven years from 2016 to 2018.

**Structure of Z-Score estimates for service sector**

The below table shows the structure of ratios used in calculating Altman’s Z score.

Component	Formula	Description
A	Working Capital / Total Assets	The ratio of working capital to total assets. When a company. A company which is repeatedly facing loss have to suffer a reduction of working capital
B	Retained Earnings / Total Assets	It indicates the efficiency of the management in all the segments. Measurement of reinvestment of company earnings can tend to create a positive response.
C	EBIT / Total Assets	It measures the productivity of assets Employed in a firm. Adjustment of company’s earnings and leveraging.
D	Market value of equity / Book value	This shows an indication on how much a company’s assets can decline before debts can exceed the assets.
E	Sales / Total Assets	It measures the ability of the company to generate sales through its assets.

(Halageri, 2014)(Vijayalakshmi, 2013)

**Interpretation of Z-Score results**

The Z scores formula used to evaluate the financial health of a company is as below:

$$Z = 1.2 A + 1.4 B + 3.3 C + 0.6 D + 0.99 E$$

The resulting Z-score puts a company in one of the three categories. The table below shows the rating based on the results of Z-score.

Z Score	Results
less than 1.8	High probability for bankruptcy in the coming couple of years.
between 1.8 to 3	Considered within “gray area”. i.e., financial viability of the companies is considered to be healthy.
above 3.0	Considered very healthy.

(Halageri, 2014)(Vijayalakshmi, 2013)

## **Materials and Methods**

### **Definition and explanation of terms:**

#### **Working capital:**

Working Capital is a part of the capital which is needed for meeting day to day requirement of the business concern. For example, payment to creditors, salary paid to workers, purchase of raw materials etc., normally it consists of recurring in nature. It can be easily converted into cash. Working capital can be classified into the following concepts.

- Gross Working Capital is the general concept which determines the working capital concept. Gross working capital is the capital invested in total current assets of the business concern. Gross Working Capital is simply called as the total current assets of the concern.
- Net Working Capital is the specific concept, which, considers both current assets and current liability of the concern. Net Working Capital is the excess of current assets over the current liability of the concern during a particular period. If the current assets exceed the current liabilities it is said to be positive working capital; it is reverse, it is said to be Negative working capital.

#### **Total Assets:**

In business, total assets consist of all assets of a company. An asset is defined in business as any items of ownership convertible into cash. Examples of assets include cash, notes and accounts receivable, securities, inventories, goodwill, fixtures, machinery, real estate and the like. All assets and the total cash value of the total assets, are reported on the company's balance sheet. Assets are defined by the Financial Accounting Standards Board and accounted for according to the Generally Accepted Accounting Principles. Total Assets are made up of Current Assets (CA) and Non-Current Assets (NCA). Current Assets (CA): A balance sheet account that represents the value of all assets that are reasonably expected to be converted into cash within one year in the normal course of business. Current assets include cash, accounts receivable, inventory, marketable securities, prepaid expenses and other liquid assets that can be readily converted to cash. Non-Current Assets (NCA): A company's long-term investments, in the case that the full value will not be realized within the accounting year. Noncurrent assets are capitalized rather than expensed, meaning that the company allocates the cost of the asset over the number of years for which the asset will be in use, instead of allocating the entire cost to the accounting year in which the asset was purchased. Examples of noncurrent assets include investments in another company, intangible assets such as goodwill, brand recognition and intellectual property and property, plant and equipment. Noncurrent assets appear on the company's balance sheet.

#### **Earnings before Interest and Taxes (EBIT):**

An indicator of a company's profitability, calculated as revenue minus expenses, excluding tax and interest. EBIT is also referred to as "operating earnings", "operating profit" and "operating income", as you can re-arrange the formula to be calculated as follows:  $EBIT = \text{Revenue} - \text{Operating Expenses}$ . In other words, EBIT is all profits taking into account interest payments and income taxes.

#### **Retained Earnings:**

The statement of retained earnings is affected by any transaction that affects net income and dividends. So, when total dividends paid out is increased or decreased, there is a definite effect on the statement of retained earnings. Anything that affects net income, also affects the statement of retained earnings. Some transactions that affect net income include those that increase or decrease in revenue, cost of goods sold and expenses.

#### **Book Value of Equity:**

The increase or decrease of a stock price is what causes investors to realize a profit or loss. The great thing about investing in stocks is the ability to profit when a stock price rises or declines. Stock prices increase and decrease based on investor supply and demand within the market. To make wise investment decisions, it is important to understand the factors that most commonly impact stock prices.

## **Literature Review**

A non-systematic literature review has been undertaken to identify the financial ratios included in articles in peer-reviewed journals, industry publications, and articles in magazines and newspaper.

1. Financial Performance of Indian Telecom Industry: A Comparative Study of Bharat Sanchar Nigam Limited and Bharti Airtel (Raza, April 2015). In order to earn continued profitability it is a must for every businessman to have a better knowledge on the industry he/she is working in. soundness of an industry is studied based on its financial or profitability performance. By conducting an analysis on financial

- performance, a company can bring up a strategy which will help for the growth of the business. In this research paper the author has analysed the financial performance of Indian Telecom Sector with a special focus on BSNL and Bharti Airtel. Telecom industry is one of the main contributor for the development of Indian economy. The result of the financial performance analysis of the selected companies revealed that the performance of Bharti Airtel was better than the BSNL.
2. Comparative Study of Major Telecom Providers in India (Ashutosh Mishra, May - Jun.2015). Increase in the level of performance is the primary aim of a company. To represent the position of a company, indicators like net sales, profit %, total income, total expenditure, level of satisfaction of customers are to be analysed from time to time. In the study the researcher has made a comparative analysis on major telecom service providers. The companies selected were Bharti Airtel, Tata communications limited, Idea cellular limited, Vodafone and BSNL. The study has been conducted based on both primary and secondary data collected by distributing questionnaire and from the annual reports of the selected companies. To verify the significance of the factors a sensitivity analysis was made. The result analysis shows that Bharti Airtel tops the business matrices index.
  3. Telecommunication sector of Saudi Arabia: Internal and External analysis. (Anis Ali, 2017). Telecommunication sector plays a vital role in the development of an economy. This study takes an approach to study the sales, financial performance, customer satisfaction and service quality. The Financial performance of service providers indicate STC as the best. In sales Zain is the leading company and the overall customers satisfaction is lower in the sector. Customer's perception about the quality of service is lower than the expectations in terms of all dimensions of SERVQUAL model. The results indicate both there is significant difference between satisfaction of customers and aspects of service quality of different service providers. Increasing quality of services would lead to increase in customer satisfaction and sales.
  4. The Application of Altman's Z-Score Model in Determining the Financial Soundness of Healthcare Companies Listed in Kuwait Stock Exchange.(AlAli, 2018)The study aims to examine the financial soundness of the companies listed in the healthcare sector in Kuwait stock exchange. One of the risks investors face when investing in any company is the risk of bankruptcy, with leman brothers setting the best example for that matter. It has been well documented that such collapse does not come all of a sudden, but there are some signs that would indicate such scenario. One of the most used models for predicting financial distress for any company is Altman's Z-score model. This paper examines the financial distress risk for the healthcare companies listed in Kuwait stock exchange and examines their financial soundness against any bankruptcy threat.
  5. Financial Soundness of Textile Industry: Altman Z-Score Measurement. (M.R. Ali, 2014). The Altman Z-score was developed by Edward I. Altman (1968) for discriminate analysis to predict bankruptcy or financial strength or financial distress while the model was originally developed from samples of publicly traded manufacturing companies; it is also widely used in private manufacturing, non-manufacturing and service companies. The original Altman Z-score is based on five financial ratios weighted by coefficients. In this study the Altman Z-score for publicly traded manufacturing company is used to assess the financial soundness or efficiency of textile industry. For this study 18 companies of the textile industry in Bangladesh have been selected and the secondary data from the annual report of these companies have been taken to calculate the relevant ratios of the Z-score model. Based on these ratios the Z-score has been calculated. The study has found that 28% companies of the sample industry have fall on "save" zone means shareholders of these companies are save and investor can invest in this companies as these companies are financially sound. But 22% companies of the sample industry have fall on "grey" zone means these companies have good chance of being financially distress within the next two years of operation. Again, 50% companies of the sample industry have fall on "distress" zone. But the average Z-score of the textile industry in Bangladesh has fall on "grey" zone. So, overall financial soundness of the textile industry in Bangladesh is not satisfactory
  6. Profitability Analysis of the Telecommunications Industry in Ghana from 2002 to 2006 (Koi-Akrofi, 2013). The profitability of telecommunication industry of Ghana has been studied during the period 2002 to 2006. The researcher has used correlation as a tool to analyse the relationship between NP, EBIT and NPM, ROA. Trend analysis is also calculated and the impact of assets, liabilities and revenue on NP, EBIT were also accessed. The study results shows that the growth level of the industry has increased upto 5 times starting from the base year 2002 to 2006.
  7. Financial Statements Analysis of Idea Cellular & Reliance Telecommunications: A Comparative Study. (Jan, 2016). Telecommunication is a fastest growing sector in India. Mobile network, internet facility and television broadcasting are the major telecommunication sectors in India. Modern elements like digital telephone exchanges, media gateways which are interconnected by fiber optics and microwave relay networks. Therefore it was found to be important to survey the different market players for their long term

survival. For the same studying on the financial performance was very much apt for it. Two service providers namely Idea cellular and Reliance telecom was compared in the study. Liquidity, profitability, asset utilization ratios were calculated to understand the financial health of the selected telecom service providers.

8. Liquidity - profitability tradeoff: An empirical investigation in an emerging market. (Abuzar M.A. Eljelly, 2004) In his study empirically examined the relationship between profitability and liquidity, as measured by current ratio and cash gap (cash conversion cycle) on a sample of 929 joint stock companies in Saudi Arabia. Using correlation and regression analysis, Eljelly found significant negative relationship between the firm's profitability and its liquidity level, as measured by current ratio. This relationship is more pronounced for firms with high current ratios and long cash conversion cycles. At the industry level, however, he found that the cash conversion cycle or the cash gap is of more importance as a measure of liquidity than current ratio that affects profitability. The firm size variable was also found to have significant effect on profitability at the industry level.
9. A Study on Financial Performance Analysis of Force Motors Limited. (Dr. M. Ravichandran, 2016) The financial performance can be measured by using various financial tools such as profitability ratio, solvency ratio, comparative statement, etc. Based on the analysis, findings have been arrived that the company has got enough funds to meet its debts & liabilities, the income statement of the company shows sales of the company increased every year at good rate and profit also increased every year.

### Analysis and Discussion

Objective 1: To study the financial soundness by calculating various ratios and by applying “Z-Score” model.

#### Z- Score Analysis:

The Altman Z-score is the output of a credit-strength test that gauges a publicly traded manufacturing company's likelihood of bankruptcy. The Altman Z- score is based on five financial ratios that can be calculated from data found on a company's annual report.

The elements of Z- Score values and their trend for selected telecom companies in GCC countries are listed in the table below.

Table: 1: Z- Score Analysis:

Country	Company	Z – Score Analysis		
		2016	2017	2018
Bahrain	Batelco	2.9	3	3.1
	Zain	2.7	2.8	3
Kuwait	Zain	3.0	3.1	2.9
	Ooredoo	3.2	3.1	3.2
Oman	Omantel	3.4	3.4	2.7
	Ooredoo	3.25	3.02	3.8
Qatar	Ooredoo	2.9	2.8	2.8
Saudi Arabia	STC	2.8	2.9	3.1
	Zain	2.6	2.7	2.7
UAE	Etisalat	3.2	3.3	3.3
	Du	3	3.1	3.1

From the above table it's clear that,

- None of the companies of the companies Z-score is less than 1.8, hence there is no probability of bankruptcy in the next couple of years.
- The calculation of Z-score on both the companies of Bahrain shows that they are in the grey area, which means they are financial healthy.

- The calculation of Z-score on both the companies of Kuwait shows that they are very healthy during the entire study period.
- The calculation of Z-score on both the companies of Oman shows that Omantel was in the grey area during the year 2018 and very healthy during rest of the study period and Ooredoo is found to be very healthy during the entire study period.
- The calculation of Z-score on the company of Qatar shows that during the entire study period, it is in the grey area, which means they are financial healthy.
- The calculation of Z-score on both the companies of Saudi Arabia shows that STC has been very healthy during the year 2018 only and the remaining 2 years shows grey area. Zain shows that the company is in the grey area during the entire study period.
- The calculation of Z-score on both the companies of UAE shows that they are very healthy during the entire study period.

Objective 2: To compare financial health of the selected companies.

### Comparative Study:

A comparison of Z-Scores of Omantel and Ooredoo during the study period is given in the table below:

Table: 2: Comparative Analysis:

Country	Company	Comparison of Z – Score Analysis					
		2016	Change %	2017	Change %	2018	Change %
Bahrain	Batelco	2.9	--	3	3.5	3.1	3.3
	Zain	2.7	--	2.8	3.7	3	7.1
Kuwait	Zain	3.0		3.1	3.3	2.9	- 6.5
	Ooredoo	3.2		3.1	- 3.1	3.2	3.2
Oman	Omantel	3.4		3.4	--	3.2	- 5.9
	Ooredoo	3.25		3.02	- 7.1	3.1	2.6
Qatar	Ooredoo	2.9		2.8	- 3.5	2.8	--
Saudi Arabia	STC	2.8		2.9	3.6	3.1	6.9
	Zain	2.6		2.7	3.8	2.7	--
UAE	Etisalat	3.2		3.3	3.1	3.3	--
	Du	3		3.1	3.3	3.1	--

The above table shows the comparison of the Z-Score between the study periods to find out the positive or negative change.

- Comparing Batelco of Bahrain, the change in both years were positive but in a decreasing trend and Zain shows a positive change in an increasing trend.
- Comparing Zain of Kuwait, the year 2017 shows a positive change whereas the year 2018 shows a negative change. Ooredoo shows a negative change in the year 2017 and a positive change in the year 2018.
- The telecom companies of Oman, Omantel and has no change in the year 2017 but a negative change in the year 2018. Whereas Ooredoo shows a negative change in the year 2017 and a positive change in the year 2018.
- Ooredoo Qatar shows a negative change in the year 2017 and remains constant in the year 2018.
- STC of Saudi Arabia shows a positive trend during the entire study period while Zain shows a positive sign in 2017 and no change in 2018.
- Both the companies of the UAE shows a positive change in the year 2017 and no change in the year 2018.

### Conclusion:

The present study is a fundamental analysis of telecom companies in the GCC countries. The analysis used in the study helps to identify the financial soundness of any business. Studying the financial soundness of telecom companies in the entire GCC gives a clear picture on the performance of all the companies during the study period. The study period selected was from 2016-18. Any financial analysis needs a minimum period of study which has been used in the current study also. The results shows that none of the companies of the companies Z-score is less than 1.8, hence there is no probability of bankruptcy in the next couple of years. The comparison of Z- score between the study periods shows that Ooredoo of Kuwait, Oman and Qatar shows

negative change in the year 2017. Zain Company of Kuwait and Omantel Company of Oman shows a negative change during the year 2018. The rest of the companies shows a positive change during the study period. The study can provide an idea for the investors in which company they can make investments to earn more returns. The parameters selected for analysis proves to be useful to an investor for his basic analysis of selecting portfolio of investment. The results of the study shows that the financial health of all the companies during the study period are comparatively better. The companies must go ahead with innovative steps to attract customers and increase their profitability.

The study has further scope to compare the financial soundness of GCC telecom companies with European telecom companies to further understand the performance of the companies.

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