



GSJ: Volume 10, Issue 2, February 2022, Online: ISSN 2320-9186

www.globalscientificjournal.com

**RATIO ANALYSIS AS A TOOL TO MEASURE FINANCIAL
PERFORMANCE AND MANAGEMENT EFFICIENCY:
A COMPARATIVE CASE STUDY OF BANK MUSCAT
AND BANK NIZWA IN OMAN**

Syeda Aliza Ali, Middle East College, 18S17669@mec.edu.om

Dr. Maria Teresa Matriano, Assistant Professor, Middle East College, maria@mec.edu.om

ABSTRACT

The paper sheds light on the importance of ratio analysis as a tool to measure financial performance and management efficiency by focusing on two heavily contrasting banks in Oman – Bank Muscat and Bank Nizwa. The differing status and nature of both banks makes for a more well-rounded analysis as it gives an insight on how a established market leader and a newer emerging bank, both, use ratio analysis as a metric for their financial performance and management efficiency. In order to preserve the sanctity and reliability of the study, very specific research instruments, methods and sources have been used. A variety of literature from different parts of the world such as Pakistan, Nigeria, Jordan and more has been reviewed in order to get all different types of arguments, debates and opinions on the topic. Furthermore, the study makes actual use of profitability, liquidity, efficiency, capital structure and market ratios in order to visually see the impact of all the theoretical discussion being done. The comparative case study has also been backed by descriptive statistics and correlation, so as to see the entirety of the trends in financial performance and management efficiency using ratios for both banks. Hence, the report covers the importance, possible links and impacts that come with using ratio analysis to monitor financial performance and management efficiency.

Keywords: Bank Muscat, Bank Nizwa, Ratio Analysis, Bank Muscat Financial Performance, Bank Muscat Financial Performance

Introduction

The primary goal of any organization is to ensure that it is profitable, liquid and efficient so that it may safely carry out its operations whilst also grow in the market. All these aspects must be effectively monitored to determine whether the organization is meeting its goals or if it's falling short and strategic changes need to be made. This is where ratio analysis comes into the equation.

Ratio analysis is a method of assessing a company's financial performance based on the data provided in financial statements (ACCA, n.d.). This type of analysis includes measuring the profitability, liquidity, efficiency, capital structure and market. All these computations are extremely beneficial as they allow an organization to measure the actual results with their targets, contrast with past records and most importantly, compare against other competitors in the economy. Hence, ratio analysis is vital for companies to flourish and at the same time, positive ratio analysis results also have the potential to attract investors (AccountingTools, n.d.).

As test subjects for this project, Bank Muscat and Bank Nizwa have been taken. The financial statements of both banks will be used to compute ratios and compare in light of their financial performance and management efficiency. This will not only highlight the importance of ratio analysis, but it will also allow for a prominent bank to emerge from which all other banks can learn

Statement of the Research Problem

Ratio analysis is a vital part of the measurement and analysis of performance for the financial state of any sector or industry, and banking is no exception to that. As per the in-depth secondary data collection conducted for this study, there is little to no research in the way of a comparative study between bank Muscat and Bank Nizwa. Research exists for the comparison between Bank Muscat and other banks in Oman, like, National Bank of Oman, Oman Arab Bank and Bank Dhofar. But these are relatively major banks. There was hence a need to compare the performance of a major industry player like Bank Muscat, and a fairly smaller and newer bank like Bank Nizwa, to fully understand how the ratio fact that their differences themselves impact how the analyses of their finances turn out.

Aims and Objectives of the Study

The main aim of this report is to study the role of ratio analysis in measuring the financial performance and management efficiency of Bank Muscat and Bank Nizwa. Furthermore, the report hopes to delve into a financial comparison between both banks in an attempt to see the rate at which each bank is growing and how it stands as an individual player in the market. The study will analyse and evaluate the financial records of the two banks for the past 5 years, to calculate the appropriate ratios and perform the necessary analyses.

In addition to ratio analysis, the performance of the banks will also be measured and evaluated based on the correlations and other descriptive statistical methods, to have a holistic and in-depth inspection of how the financial records, in tandem with the ratios and the other methods of evaluation, provide an outcomes-based discussion on the financial performance of Bank Muscat and Bank Nizwa, in comparison to each other.

Research Objectives

The research objectives for this report are:

- i. To evaluate the importance of ratio analysis in monitoring the financial performance and management efficiency of banks
- ii. To measure and compare the financial performances of Bank Muscat and Bank Nizwa
- iii. To measure and contrast the management efficiency of Bank Muscat and Bank Nizwa
- iv. To offer recommendations on how Bank Muscat and Bank Nizwa can improve their financial performance and management efficiency based on ratio analysis

Research Questions

The research questions for this report are:

- i. What is the importance of ratio analysis in monitoring financial performance and management efficiency in banks?
- ii. How is the current financial performance of Bank Muscat and Bank Nizwa?
- iii. How is the current management efficiency at Bank Muscat and Bank Nizwa?
- iv. How can Bank Muscat and Bank Nizwa improve their financial performance and management efficiency based on ratio analysis?

Hypothesis

H₁. Ratio analysis does efficiently depict a company's financial performance and management efficiency

H₀. Ratio analysis does not efficiently depict a company's financial performance and management efficiency

Scope of the Study

The scope of this study refers to it being an example of ratio analysis as a comprehensive and fundamental tool to measure financial performance. Hence, it makes sense to have ratio analysis researched in great depth. For this study, it is studied in reference to the performance of Bank Muscat and Bank Nizwa, for the express purpose of detailing a comparison between two distinctly different players in the Omani banking sector. In addition to the analysis of the major areas where ratios are applicable: profitability, liquidity, efficiency, capital structure and market; descriptive statistics and correlation are also applied on these areas of the financial situation of each bank.

Significance of the Study

This research and its outcomes hold remarkable significance for the field of ratio analysis, financial performance and management efficiency. The reason for this is that the two institutions have not been studied in comparison before, in this particular manner. Bank Muscat and Bank Nizwa are two very different institutions, with Bank Muscat being a major player, with many years of experience, a large variety of clientele and important connections. On the other hand, Bank Nizwa does not have that major of an impact on the market. So, the comparison between them, and the outcomes of this comparison, as well as the inferences from it, is an interesting result. The outcomes of this study can be used by these companies to each identify how they stand in comparison to the other, and how certain areas can be improved upon. In terms of other companies, it is useful as a guide in the future, as this study will also benefit other sectors in terms of the ratio analysis between companies of similar statures, for suitable outcome inferences.

In addition to the above, this is a useful study as a part of academia. This is in part due to the very different natures of these two companies, and the in-depth analysis being conducted. It will also show the method of evaluation of financial performance, as a future template for such studies. This study is intended to contribute to society by helping in detailed comparisons between the banks, finding trends that are otherwise not

noticeable in their performance, using a different method of applying correlation, so that people can make informed decisions regarding their banking operations.

Limitations of the Study

Whilst the project holds a great amount of information, there are some limitations too.

Firstly, there was a time constraint. Usually, conducting research takes a very long time but this paper had to be completed in the span of just a few months. The field of ratio analysis is quite vast and whilst all major aspects of it have been covered in the report, some smaller avenues could not be talked about owing to the shortage of time.

Secondly, certain financial constraints were also there. The project was not funded by any higher body and hence, certain more advanced analytical softwares could not be used as they were not free. However, an alternate to these softwares was Excel which was used for the purpose of analysis.

Lastly, the biggest limitation came because of the COVID-19 pandemic. Face to face interviews could not be conducted with personnel from both the banks and hence, an online interview had to be scheduled. This did prove to be a slight challenge but with the immense cooperation of the interviewees, the process went smoothly.

LITERATURE REVIEW

Ratio Analysis

Financial ratios are used as tools in order to analyze the performance of a firm over a period of time. Barnes (1987) mentions in his research that various financial ratios are used by researchers and financial analysts over a specified time period across different sectors to get an accurate perception of a firm. In other words, it can also be said that ratios showcase the outcomes as a result of the conditions and decisions taken by the firm (Benishay, 1971).

Tool for Comparative Study

According to (Vimrova, 2015), there are many financial analysis tools such as vertical analysis, trend analysis, cash flow analysis and more but ratio analysis as a tool outdoes all the rest when it comes to drawing comparisons. This is because ratio analysis allows for benchmarking and hence, it proves to be one of the most ideal tools for a company to assess its growth and financial position. By being able to draw comparisons with its own past records and also with competitors in the economy, an organization is able to see if it

is indeed utilizing its potential to the fullest or if it's lacking (Kariyawasam, 2019). This can provide a push to the said company to do better and make strategic changes where necessary. Ratio analysis can also prove to be a good tool to attract potential investors and that will ultimately have a positive impact on the company's future financial statements.

However, there are some researchers such as (Alani, Yaacob and Hamdan, 2013) that disagree and consider one of the other tools to be a better analysis tool. This is due to the fact that ratio analysis does have certain limitations such as ratio analysis does not consider the human component of a company and its information is historic as opposed to being current (Awan and Bukhari, 2011).

How ratio analysis is used as a tool to effectively draw comparative studies between organizations will further be seen as analysis is done on both Bank Muscat and Bank Nizwa

Importance in Banking System

The banking sectors way of financial reporting differs widely from the approach that is used by most of the other sectors. As the primary goal of banks is to grant money at fair rates and invest them again to achieve a higher return, hence the calculation of the profitability, risk, liquidity, asset management and capital maintenance require financial ratios that are specific to the particular sector (Babalola and Abiola, 2013). Therefore, in order to cater this, the need for financial ratio analysis for banks arises.

According to Padake and Soni (2015), selection of relevant financial ratios from a substantial number of outcomes can become challenging for a researcher where a significant number of ratios that are obtained from research articles could cause more confusion instead of clarification. Moreover, the difficulties are experienced by the administration in deciding what ratio must be employed during the process of decision making

The analysis of the financial ratios can be used for two main purposes, both of which are useful in their own respective way. Firstly, it could be used to do a comparison between the past and current financial performance of an organization. Simply put, it can be said that it helps to measure the financial performance over a period of time. Additionally, according to Burja and Marginean (2014), another way in which ratio analysis can be

used is by comparing one firm's ratios to that of another. This showcases the stronger and more prominent firm in the market.

The comparative analysis is considered very beneficial as it helps in identifying the issues that need to be fixed and the areas in which immediate strategic action needs to be taken. Furthermore, the management of an organization can avoid potential problems by doing trend-analysis in which certain ratios are compared over a period of time to analyze whether the financial performance of a company has improved or not over time. Liesz & Maranville, (2011) in their study find out that in trend-analysis, ratios serve as an indicator of success and also, a red flag for worrisome problems. External and internal operators can make use of these financial ratios. The internal users comprising of directors, managers and more can use ratio analysis to evaluate the weaknesses and strengths of the firm whereas the external users such as investors, creditors, competitors, and security analysts can determine the financial worth of a company, its security and investment potential through these ratios.

Helfert (2001) states that despite of the evident advantages of ratio analysis, one must consider certain precautionary measures while calculating these ratios such as:

- Ratios are to be calculated in certain combinations
- Ratios are used to compare a company's performance with that of its competitors keeping in mind the economy or the sector it is operating in.
- Certain ratios may get distorted due to the impact that accounting standards have on the financial statements

Financial Performance and Management Efficiency

According to Naz, Ijaz and Naqvi (2016), financial performance is a reflection and measurement of a firm's cumulative financial health and position. Additionally, management efficiency refers to a company's ability and potential to utilize its resources in a manner that leads to the least amount of waste and maximizing of profits (Capon, Farley and Hoenig, 1990). There are many metrics that can be used to measure an organization's financial performance and management efficiency but the one most commonly used are financial ratios.

Profitability Ratios

Lesáková (2007) states in her study that profitability ratios are ones that show the firm's capacity to earn a reasonable return and profit on their investments. Profitability ratios indicate the financial health and also measures how efficiently the firm is looking after its assets. Surjaatmadja and Yusuf (2018), highlight the importance of profitability in sustaining the firm's survival in the long run and shows if the firm is having any positive prospects in the forthcoming years. Profitability ratios can be separated into two main groups. The first being the margin ratios which are the ratios used for the analysis regarding how the sales revenue of a company is converted into profit. The other are the return ratios which are used to determine how the owners/shareholders are given a profit by the company.

Hall and Weiss (1967), Bothwell et al. (1984) and Wilder (1990) all have claimed the positive link that profitability shares with a company's financial performance and management efficiency. The higher the profitability, the more financially sound a firm is. Additionally, Gangadhar (1982) carried out a study on firms in India where he noted that a fluctuation in the profitability of those firms directly impacted the profitability of those said firms.

Liquidity Ratios

Liquidity refers to an organization's ability to pay off its short-term debts. It is ideal that these short-term debts are internally financed by the organization and the need for external financing does not arise (Ahmad, 2016). In order to calculate a company's liquidity, liquidity ratios are computed. The four main types of liquidity ratios are current ratio, cash ratio, quick ratio and working capital ratio (Andre, 2013). Each varying liquidity ratio takes into account differing elements of a company's financial statements to calculate liquidity such as current assets, marketable investments, cash, current liabilities and more (Robinson et al., 2015).

Various research has been carried out on trying to understand if there is any connection between a firm's liquidity and its financial performance. According to Bardia (2004), the financial performance of an organization is indeed determined by how effectively its liquidity is managed. This claim is further supported by Ali and Bilal (2008) from Jordan and Ehiedu (2014) from Nigeria as their research, too, founded that a company's liquidity significantly impacts its ROA (return on assets) in a positive manner – the higher the

liquidity, the higher the profitability. Furthermore, studies carried out in Sri Lanka and Kenya used both ROA and ROE (return on equity) as test subjects and they also discovered a positive link between the two variables (Madushanka & Jathurika, 2018).

Whilst many researchers are of the opinion that liquidity does largely impact a firm's profitability, there are some studies that indicate the opposite. Recently, a study carried out by Mohammed et al. (2020) asserted that liquidity and by large, liquidity ratios are not a tell-tale sign of a firm's financial performance or efficiency. Infact, some research even concluded that liquidity and financial performance are inversely proportional by stating that there is a negative impact of both variables on one another (Noor & Lodhi, 2015).

Some research papers are very consistent with their findings whereas some are unsure and allow room for further study. The main focus of this project are Bank Muscat and Bank Nizwa and since banks are an influential business, it is all the more important to carefully assess their liquidity and the impact it has on their financial performance.

Efficiency Ratios

Efficiency ratios determines how intelligently a company is able to utilize and allocate its resources such as assets, labour and capital (Baik et al, 2013). Essentially, the amount of revenue a company is able to generate in comparison to the money it spends on carrying out its operations. This is calculated through ratios such as asset turnover ratio, account receivables turnover, account payables turnover and more (Santosuosso, 2014).

A firm's efficiency does have a direct impact on many other variables but primarily on financial performance and management efficiency (Santosuosso, 2014). A study carried out by Barr et al. (2013) on banks in the USA concluded that there is a positive association between efficiency, financial performance and management efficiency. This claim was further supported by Baik et al. (2013) who did research on multiple sectors within an economy and by Greene and Segal (2004) who conducted a study on the insurance sector. All these studies were done using analysis methods and techniques such as Data Envelopment Analysis and Stochastic Frontier Analysis. Additionally, a technique known as the Dupont System has also been used by various researchers to examine the link between efficiency, financial performance and management efficiency (Fairfield & Yohn, 2001). Additionally, Nguyen and Swanson (2009) have also gone on to compare efficient and inefficient firms from around the world in their research to

provide an all-round view of the effect efficiency has on financial performance. It was found from their study that indeed these variables are directly proportional and do share a positive correlation – the higher the efficiency, the better the financial performance and management efficiency.

Clearly, most research indicate and point to the same conclusion which is that efficiency has a positive impact on a company's financial performance and management efficiency. This will further be delved into in this paper.

Capital Structure Ratios

Alkhatib (2012) defines capital structure or gearing as the degree to which a company finances its operations from its borrowings – equity or debt financing, in order to improve its financial performance. A company's capital structure can positively or negatively affect its value and position since it also increases risk and return (Ivo & Anyanwaokoro, 2019). Capital structure is calculated through ratios such as debt to equity ratio, debt to assets ratio, interest cover ratio and more (Shahimi, Hanafi and Yusof, 2021).

An old study carried out by Barclay, Smith and Watts (1995) and a comparatively newer one carried out by Khatab et al. (2011) both showcased a strong affirmative correlation between capital structure ratios and a firm's financial performance and profitability. This is also compatible with Nadeem et al. (2015) research who also commented on the prominent positive impact of capital structure on financial performance mainly ROA and ROE. However not all researchers reached the same conclusion. According to Rehman, Khan and Khokhar (2015), there is and favourable relation between capital structure and ROA but an unfavourable one between capital structure and ROA whereas a study carried out by Nguyen et al. (2019) claims the opposite.

Furthermore, there are some researchers who propose that there is infact no positive correlation between the two variables whatsoever and it is only negative. These studies were carried out in a host of different industries in different countries around the world. The earliest of these studies was carried out by Yoon and Jang (2005) who highlighted a negative correlation between capital structure and financial performance. More supporting studies were carried out by Kaumbuthi (2011) for the stock exchange in Nairobi and by Ino and Anyanwaokoro (2019) in Nigeria. One of the latest ones was carried out on the oil and gas industry by Mohammed et al. (2020). All these writers concluded that the variables at hand are inversely proportional and negatively correlated.

Different writers have reached their own respective conclusions. There is a lot of fluctuation and lack of uniformity in the results amongst the different research papers. This could be the result of the different industries chosen, the different geographic regions targeted or just the personalized understanding of each researcher himself. Regardless, all this reviewed literature will be taken into account when analyzing the data ahead so a bird's eye view of the situation can be taken.

Market Ratios

Market ratios are used to measure the stock value and worth of a company (Al Manaseer, 2020). Normally, these ratios are computed so investors can determine whether the market stock prices are in harmony with the performance of the company. As a result, it can be determined if the stock prices have been undervalued or overvalued and this ultimately helps investors decide whether the company is worth investing in. The types of market ratios available to a company are dividend payout ratio, EPS, price earnings ratio and more.

Fama (1970) talks about the relationship between market ratios, financial performance and management efficiency. Her study discusses the efficient market theory which states that stock prices directly impact a company's performance and efficiency by affecting the stock exchange. In the arbitrage theory, Ross (1976) states that micro and macroeconomic factors, too, influence stock prices which in turn then impact the company's financial performance.

Additionally, Dobija and Klimezak (2010) carried out a study in Poland on all companies listed in their stock exchange from 1997 to 2008. Their research concluded a positive correlation between financial performance, efficiency and stock prices. Another study carried out by Dzialek and Saranda (2011) on companies in Lithuania further went on to show a positive association between most market ratios and profitability ratios. The exception was the debt ratio. According to Dadrasmoghadam and Akbari (2015), a positive influence on stock prices was found by both liquidity and profitability ratios.

Most studies have reported positive impacts on financial performance and efficiency management at the hands of market ratios but there are certain loopholes that will be discussed further in this report.

RESEARCH METHODOLOGY

Knowledge is power and there is no end to learning. One can never know enough about a certain topic or field and hence, constantly researching and reading up is the way to go. Consequently, it is very integral that the research methodology adopted when conducting a study is one that will reap the most benefits out of the topic.

Research Design

The methods, techniques and approach chosen by the researcher in order to carry out the research is known as the research design (Questionpro, 2020). Trochim (2005) states that an effective research design acts as glue for any project and well-designed research enables the researcher to achieve the objectives of the research efficiently.

The research design adopted for this project are both descriptive, correlational and exploratory. A descriptive research design allows for trends, averages and variables to be measured and monitored whilst a correlational research design is used to test whether certain variables are related and if they are, how so (McCombes, 2021). Further, an exploratory design aims to examine and scrutinize the research questions and provide a deeper understanding of the topic (Business Research Methodology, n.d.). Since the main aim of this project is to see how ratio analysis is used as a tool to measure financial performance and management efficiency between two banks, descriptive, correlational and exploratory designs are the most appropriate for this study.

Moreover, a mixed method approach comprising of both qualitative and quantitative data was used to gather data for the purpose of this paper.

Qualitative research refers to the analysis and evaluation of non-numeric data (Farnsworth, 2019). This data may be in the form of text, videos and more. Qualitative research holds great significance as it allows for a deeper understanding of the problem and leads more innovative and thought-out ideas (QuestionPro, n.d.). This is because this type of research doesn't only focus on 'what' is happening, but it also probes why it is happening (Bhandari 2020). In this paper, the source of qualitative data is the interview. Two personnel were interviewed from Bank Muscat and Bank Nizwa, after the computation of analysis, in order to inquire why the trends are the way they are. The information acquired from the interviews was something that could only be collected through personal interaction and direct communication. Hence, the interviews greatly

supported the study by providing a detailed insight on the ideology behind the working of both banks.

Moreover, quantitative research deals with the analysis of numerical data (Farnsworth, 2019). This type of research makes it easier to identify patterns, trends, relationships and averages between numerical data (Bhandari, 2020). For the purpose of this study, ratios for the last five years have been computed and then analyzed for both banks using financial statements. This numerical data is what the crux of the study lies upon as it allows for changes in the banks' financial performance and management efficiency to be seen clearly.

Adopting this research design further allowed for the best approach to be adopted in terms of data collection and analysis techniques which will give an all-round bird's eye view on the topic.

Population of the Study

The population of the study refers to all the target individuals that have played a part in relaying some information for the purpose of this study (Banerjee and Chaudhry, 2010). The main population for this project is the workforce of Bank Muscat and Bank Nizwa of about 30 – 35 respondents in total.

Sampling Technique and Sampling Size

Sampling size can be defined as the number of samples or specimens undertaken in a study (Zamboni, 2018). For this project, however, there was no questionnaire used and the only source of gathering primary data were the interviews conducted. Hence, the entire population of the study was not used and the sampling size was adapted to accommodate a selected part of the population for the interviews only.

Hence, the sampling technique used was purposeful sampling. This technique allows a researcher to choose individuals who possess knowledge and can act as an aid for the topic under study (Statistics Solutions, n.d.). The technique is extremely beneficial as the researcher handpicks the participants under a set criterion depending on who will add most value to the study. As a result, the learned nature of the chosen individuals leads to an extremely insightful and precise take on the topic.

The individuals chosen through purposeful sampling for this paper were two personnel from Bank Muscat and Bank Nizwa. These personnel were interviewed, in line with the study's objectives and theme, in order to increase the worth of the study.

Research Instruments and Validity and Reliability Testing

Research instruments are defined as tools that are used for the purpose of collecting and evaluating data, relevant to your area of focus (DiscoverPhDs, 2020). There is a wide variety of instruments to choose from but each researcher cherry picks the ones best suited to their vision and research methodology.

Questionnaire

A questionnaire aims to gather information from respondents through a sequence of questions that are crafted keeping the research objectives in mind (McLeod, 2018). It roughly contains about 12-14 focused questions that are targeted at getting specific information relevant to the research topic.

For the purpose of this study, a questionnaire was not used. This is because the study is heavily focused on the concept of ratio analysis and how it serves as a metric for financial performance. The data required to monitor this includes things like the banks' profits, revenue, expenses, assets and more and this can only be found in the financial statements of the banks. A questionnaire would've provided little to no information as the respondents would not have been able to give any insight on the above-mentioned factors and the jargon would've proved to difficult for them to comprehend. Hence, a questionnaire was not an appropriate research instrument for a study like this and was not used.

Interview

The primary research instrument used for this research was an interview and there are multiple reasons why this was chosen as a key instrument. As mentioned before, the area of focus for this project is ratio analysis and how it is an effective tool to measure the financial performance and management efficiency of banks in Oman. Hence, whilst the ratios can be calculated through the help of financial statements and then analyzed, it is important to understand why the trends are the way they are. This is where the importance of conducting an interview comes in. Interviewing two targeted, focused and knowledgeable personnel from both Bank Muscat and Bank Nizwa allowed a clearer understanding of the overall financial health of the banks, the trends seen through the

ratios and how the banks hope to grow and improve in the years to come. This added a lot of depth to the study and helped summarize the findings beautifully.

Data Collection Techniques

Data collection techniques refer to the methods adopted in order to collect and gather the required information and data (QuestionPro, n.d.). It is very important that the collection techniques adopted are appropriate and also provide accurate and reliable information.

The approach adopted for this report is a mixed approach which comprises of both qualitative and quantitative research. Furthermore, the data has been collected from both primary and secondary sources of data. The primary source comprises of two interviews that were conducted – both from personnel at Bank Muscat and Bank Nizwa. Additionally, the secondary data was collected from websites, journal articles and textbooks. A major chunk of the secondary data came from the companies' financial statements that were extracted from the Muscat Securities Market and a detailed ratio analysis was done on those figures.

Data Analysis Techniques

Data analysis techniques comprise of those tools and methods that help to systematically describe, illustrate and evaluate information and data (Coursera, 2021). The main analysis technique used in this report is ratio analysis itself as ratio analysis calls for figures to be taken from Bank Muscat and Bank Nizwa's financial statements and compared against set benchmarks in order to see and evaluate where the companies stand in terms of profitability, liquidity and more. These ratios have been further represented through graphs in order to clearly see the trends and fluctuations present in the data. Furthermore, analysis techniques such as descriptive statistics and correlation have also been used.

In addition to this, these analysis techniques have been backed up by detailed commentary and elaboration supported by information gathered from online resources as well as the interviews conducted.

Legal, Ethical and Social Considerations

Whilst carrying out research, it is important to keep in mind that the study must be legally, ethically and socially sound. As this study has been carried out on the financial

aspects of two of the most prominent banks in Oman, the sanctity and integrity of both the banks involved were given immense priority.

Ethical considerations ensure that the research does not harm any individual and their values or principles. The data utilized in this study has been gathered through interviews and authentic secondary sources such as the Muscat Securities Market. Due to the financial nature of this study, it was key that all data collected was from the most reliable of sources. Additionally, ethical consent and confidentiality was clearly defined to the interviewees to ensure they understood that there was no risk associated with the research. None of the interviewees were forced to be a part of this study and none of them were forced to reveal any information that they considered to be private and confidential. Furthermore, the identity of the interviewees has also been kept anonymous to value their privacy. Conclusively, the academic policies of Middle East College were also abided by during the course of this research to ensure a completely ethical environment.

Societal considerations such as language, cultural norms, race and gender have been carefully considered throughout this research. The multicultural social balance of Oman has been protected by giving importance to the shared values of every individual who is a part of this society. The study does not target or share any discriminatory views regarding any specific culture or race – it is completely unbiased and free of this.

Lastly, legal considerations ensure that all consumer, organizational, federal and state laws are being abided by throughout the research. The data has been gathered legally from the Muscat Securities Market and no data has been misused. Every part of the process has been properly documented and has been approved by Middle East College.

DATA ANALYSIS

Ten significant ratios covering profitability, liquidity, efficiency, capital structure and market have been computed using Bank Muscat and Bank Nizwa's official financial statements for the last five years. These statements were directly acquired from the Muscat Securities Market to ensure authenticity and reliability. Further, these computations have been presented through tables, line charts and bar graphs in order to clearly show the trends – both in comparison to the other bank and also with that of the bank's own past records. Additionally, descriptive statistics and correlation has also been done on this ratio data set of 100 in order to capture every aspect of ratio analysis and its

importance as a comparative tool. Conclusively, an in-depth analysis on the interviews conducted from working personnel at Bank Muscat and Bank Nizwa has also been done.

Ratio Analysis

Ratio analysis has been done on both Bank Muscat and Bank Nizwa. The different types of ratios have been segmented into their respective categories and presented through tables and graphs. The formulae to calculate each ratio has also been mentioned.

Master Table of Ratios

BANKS	YEARS	PROFITABILITY			EFFICIENCY	LIQUIDITY		CAPITAL STRUCTURE			MARKET
		ROA	ROE	NP Margin	Asset Turnover	Cash Ratio	Current Ratio	Debt to Equity	Equity Ratio	Debt Ratio	EPS
Bank Muscat	2016	1.6318	11.4150	42.4245	0.0356	3.0875	0.4812	5.9954	0.1430	0.8570	0.0670
	2017	1.5859	9.7242	40.5577	0.0397	2.4884	0.5176	5.1316	0.1631	0.8369	0.0610
	2018	1.4619	9.3183	40.2101	0.0381	3.0155	0.5244	5.3743	0.1569	0.8431	0.0610
	2019	1.5097	9.2653	39.2972	0.0384	1.4980	0.4536	5.1372	0.1629	0.8371	0.0550
	2020	1.3117	7.9935	35.7818	0.0369	1.1791	0.6799	5.0939	0.1641	0.8359	0.0480
Bank Nizwa	2016	0.0213	0.0864	0.6313	0.0403	1.2358	0.4846	1.8098	0.2462	0.4457	0.0040
	2017	0.5430	2.8960	16.9103	0.0369	2.0325	0.3270	2.5888	0.1875	0.4854	0.0030
	2018	0.8613	5.4754	27.7203	0.0345	3.9413	0.3321	3.0066	0.1573	0.4729	0.0050
	2019	0.9841	6.8820	30.8286	0.0346	4.0327	0.3730	3.8948	0.1430	0.5569	0.0070
	2020	0.9175	6.9304	28.1933	0.0350	2.2515	0.5608	4.2613	0.1324	0.5641	0.0070

Table 1 – Master Table of Financial Ratios

The master table above contains an organized summary of all the ratios computed for Bank Muscat and Bank Nizwa for the last five years. A total of ten ratios have been taken – three from profitability, one from efficiency, two from liquidity, three from capital structure and one from market. This collectively brings the total number of ratios to be analyzed to 100.

Further details on trends and comparison between both banks has done ahead in the chapter using ratio analysis, descriptive statistics and correlation.

Profitability Ratios

The profitability ratios computed for this study are return on equity (ROE), return on assets (ROA) and net profit margin. The formulae used to calculate each are as follows:

- $ROE = \text{Net Income} / \text{Shareholder's Equity} * 100$
- $ROA = \text{Net Income} / \text{Total Assets} * 100$
- $\text{Net profit margin} = \text{Net Profit} / \text{Revenue} * 100$

2016	11.4150 %	0.0864 %
2017	9.7242 %	2.8960 %
2018	9.3183 %	5.4754 %
2019	9.2653 %	6.8820 %
2020	7.9935 %	6.9304 %
Return on Assets		
2016	1.6318 %	0.0213 %
2017	1.5859 %	0.5430 %
2018	1.4619 %	0.8613 %
2019	1.5097 %	0.9841 %
2020	1.3117 %	0.9175 %
Net Profit Margin		
2016	42.4245 %	0.6313 %
2017	40.5577 %	16.9103 %
2018	40.2101 %	27.7203 %
2019	39.2972 %	30.8286 %
2020	35.7818 %	28.1933 %

Table 2 – Profitability

Ratios for Bank Muscat and Bank Nizwa (ROE, ROA and NP Margin)

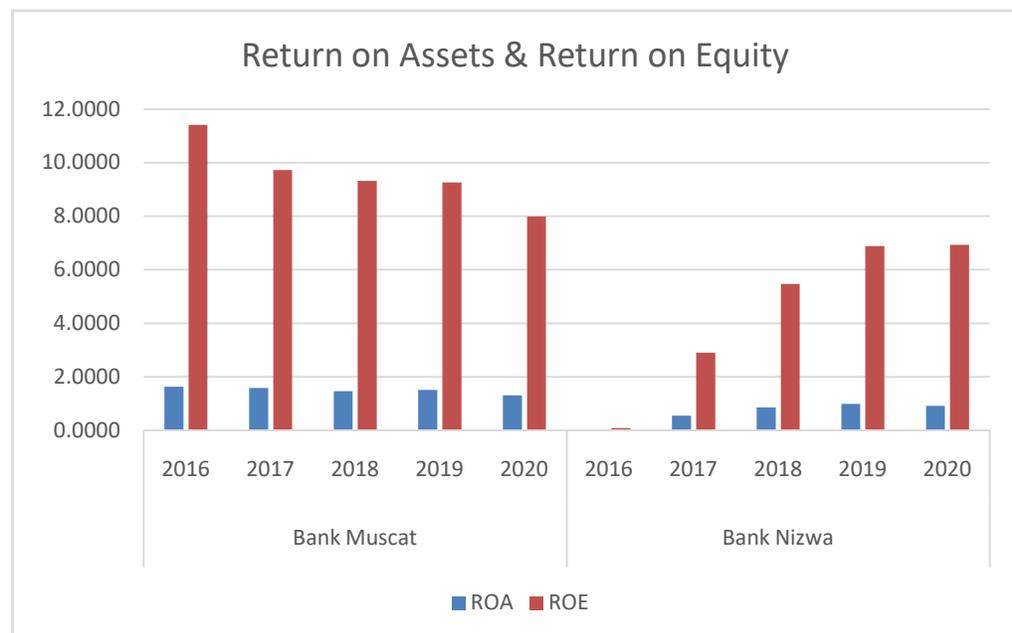


Figure 2 – Bar Chart for ROA and ROE

The chart above shows the trends in ROA and ROE for Bank Muscat and Bank Nizwa for the last five years.

ROA can be defined as the profit or income a company is able to generate on the basis of its assets (Corporate Finance Institute, n.d.). In the bar graph above, it can be seen that the ROA for Bank Muscat is showing a slight continuous decline through the years. In 2016, the ROA is shown to be 1.6318% at the end of 2020, it stands at 1.3117%. As for Bank Nizwa, the ROA shows an increase from 2016 to 2020 standing at 0.0213% to 0.9175%, respectively, with the highest ROA in 2019 at 0.9841%. Whilst the ROA for Bank Nizwa has increased throughout the years, hinting at growth and prosperity of the bank, it still stands below Bank Muscat at the end of 2020. As a result, it can clearly be seen that Bank Muscat is earning a higher return on its assets as compared to Bank Nizwa.

ROE can be termed as the efficiency with which a firm manages the investment of its shareholders whilst also generating income on the same equity (The Economic Times, n.d.). The ROE for both banks follows the same trend as the ROA. Bank Muscat is showing a continuous decline whilst Bank Nizwa is showing an increase. In 2016, the ROE for Bank Muscat was 11.4149% and for Bank Nizwa, it was 0.8635% and in 2020, it was 7.9934% and 6.9303%, respectively. Whilst Bank Nizwa is showing improvement when compared to its own past records, Bank Muscat is still taking the lead overall.

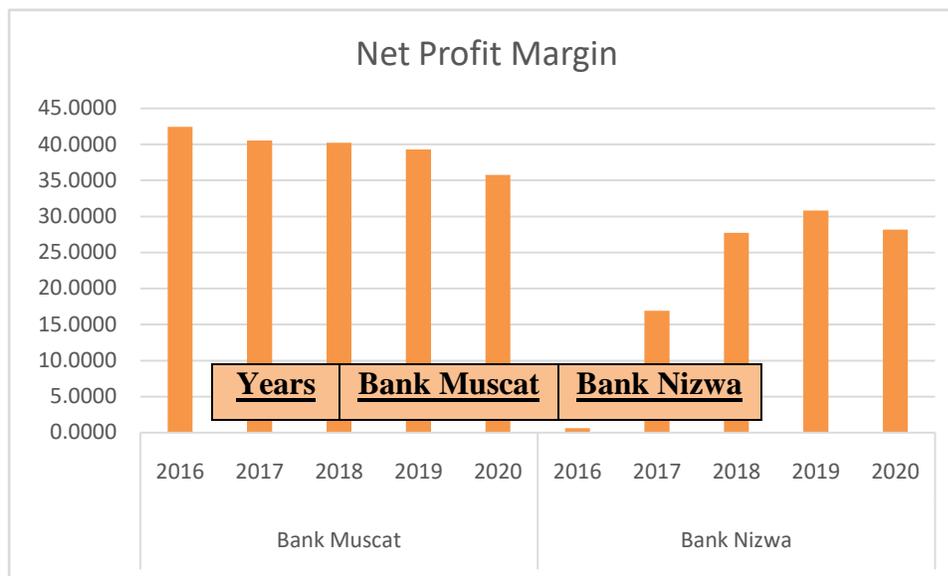


Figure 3 – Bar Chart for Net Profit Margin

According to CFI (n.d.), NP margin is the net profit a company is able to generate per dollar of total revenue. This, too, shows the same trend for both banks as the other profitability ratios. A net decline of 6% can be seen in the NP margin of Bank Muscat from 2016 (42.24%) to 2020 (35.78%) whereas Bank Nizwa shows a tremendous increase of 27.56% from 2016 (0.63%) to 2020 (28.19%). The highest NP margin for Bank Nizwa was in 2019 at 30.82%. Even though, Bank Muscat again reigns supreme at the end, Bank Nizwa is fairly close this time.

Collectively, it can be seen that Bank Muscat is clearly the more profitable bank out of the two but at the same time, Bank Nizwa’s personal performance has improved substantially throughout years whereas Bank Muscat fails to show any major improvements when compared to its own past records.

Efficiency Ratio

The efficiency ratio calculated for this research is asset turnover ratio. It as computed using the following formula:

- $Asset\ Turnover = \frac{Net\ Sales}{Average\ Total\ Assets}$

<i>Asset Turnover Ratio</i>		
2016	0.0356	0.0403
2017	0.0397	0.0369
2018	0.0381	0.0345
2019	0.0384	0.0346
2020	0.0369	0.0350

Table 3 – Efficiency Ratio for Bank Muscat and Bank Nizwa (Asset Turnover Ratio)

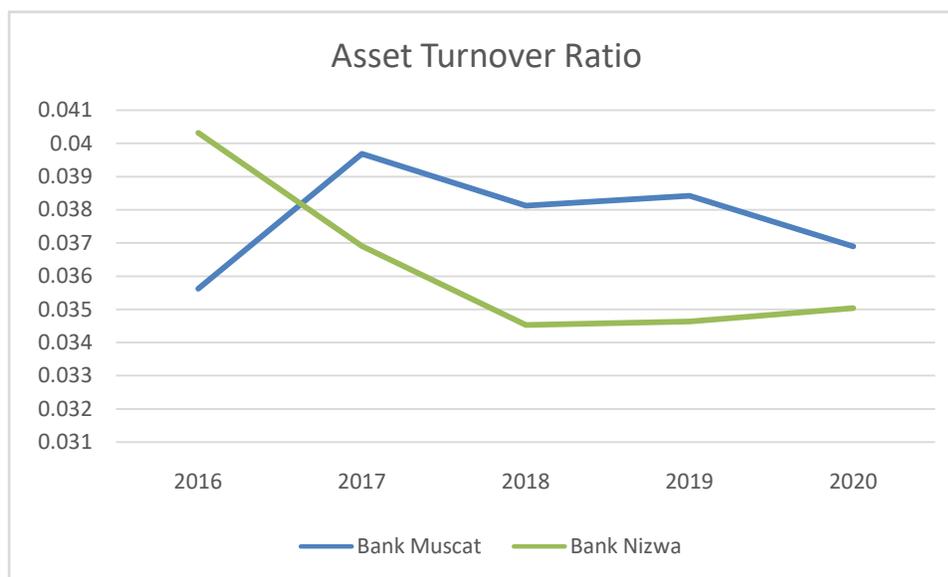


Figure 4 – Line Graph for Asset Turnover Ratio

The asset turnover ratio measures how efficiently a company is able to utilize its assets to generate sales (Accounting Tools, 2021). It is important to note that the asset turnover ratio only focuses on the revenue and not profit.

The asset turnover ratio for Bank Muscat is fluctuating quite a lot between the five years. In 2016, it stands at 0.0356 and in 2017, it skyrockets to an all time high of 0.0397. Then, it recurrently dips and increases in the following years and in 2020, it stands at 0.0369. On the other hand, Bank Nizwa starts off its strongest in 2016 with an asset turnover ratio is 0.0430 and then it gradually decreases in the following years before it finally has a slight improvement again in 2020 (0.0350).

The asset turnover ratio for Bank Muscat has been very rocky while for Bank Nizwa, it has showed steady degradation. However, the final results show a net increase (0.0013) in the asset turnover for Bank Muscat and a net decrease (0.0053) for Bank Nizwa. Conclusively, Bank Muscat has had a better performance efficiency wise, both in respect to its competitor firm and in respect to its old records.

Liquidity Ratios

The liquidity ratios tallied for the banks are the cash ratio and the current ratio and the formulae used are:

- Cash Ratio = Cash & Cash Equivalentents / Current Liabilities
- Current Ratio = Current Assets / Current Liabilities

Table 4 – Liquidity Ratios for Bank Muscat and Bank Nizwa (Cash Ratio and Current Ratio)

<u>Years</u>	<u>Bank Muscat</u>	<u>Bank Nizwa</u>
<i>Cash Ratio</i>		
2016	3.0875	1.2358
2017	2.4884	2.0325
2018	3.0155	3.9413
2019	1.4980	4.0327
2020	1.1791	2.2515
<i>Current Ratio</i>		
2016	0.4812	0.4846
2017	0.5176	0.327
2018	0.5244	0.3321
2019	0.4536	0.3729
2020	0.6799	0.5608

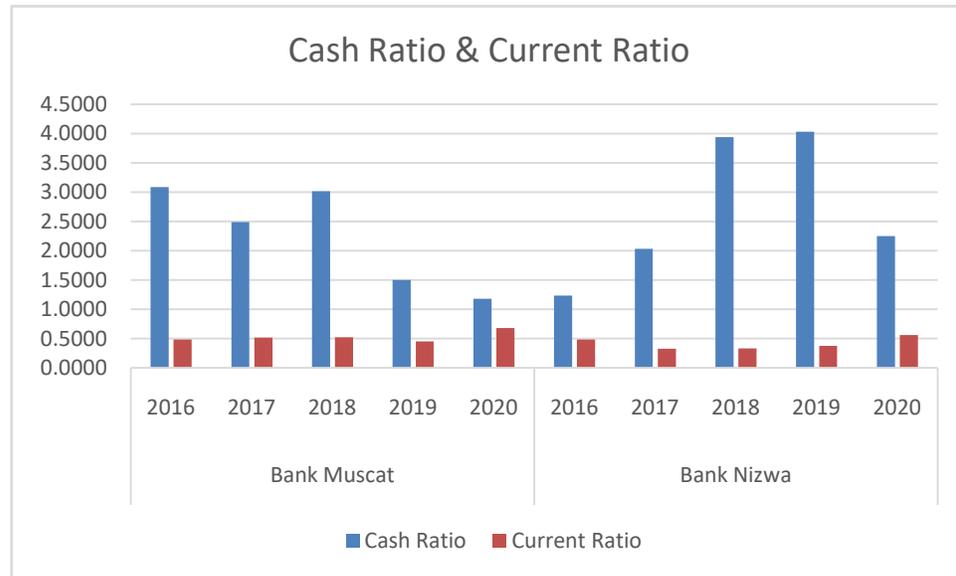


Figure 5 – Bar Chart for Cash Ratio and Current Ratio

Cash ratio determines a firm's ability to pay off its short-term liabilities and debts using its cash resources (Mukhopadhyay, n.d.). Bank Muscat's cash ratio is plummeting from 3.0875 in 2016 to 1.1709 in 2020 which shows a prominent decline in its cash resources to fund its current liabilities. Conversely, the cash ratio for Bank Nizwa shows an upward trend from 2016 (1.2358) to 2020 (2.2515). The peak for Bank Nizwa, however, is in 2019 at (4.0327). The net difference between the cash ratios of the two banks at the end of 2020 is 1.0724, with Bank Nizwa being the leading bank in this regard.

Current ratio is the organization's capacity to pay off its short-term liabilities and obligations using its current assets (Kibet, 2021). Whilst the current ratio for Bank Muscat is fluctuating through the years, it is majorly showing an increase from 0.4812 to 0.6799. As for Bank Nizwa, the current ratio is showing a dip in the three years following 2016 (0.4846) but is ultimately taking off in 2020 (0.5608). Both banks are showing improvement as compared to past years and Bank Muscat is at a better standing in comparison to Bank Nizwa's figures.

Henceforth, Bank Muscat and Bank Nizwa are both doing fairly well in terms of liquidity.

Capital Structure Ratios

Debt to equity ratio, equity ratio and debt ratio are the capital structure ratios calculated for this study and their formulae are:

- Debt to Equity Ratio = Total Liabilities / Shareholder's Equity
- Equity Ratio = Shareholder's Equity / Total Assets
- Debt Ratio = Total Liabilities / Total Assets

<u>Years</u>	<u>Bank Muscat</u>	<u>Bank Nizwa</u>
<i>Debt to Equity Ratio</i>		
2016	5.9954	1.8098
2017	5.1316	2.5888
2018	5.3743	3.0066
2019	5.1372	3.8948
2020	5.0939	4.2613
<i>Equity Ratio</i>		
2016	0.1429	0.2462
2017	0.1631	0.1875
2018	0.1569	0.1573
2019	0.1629	0.1429
2020	0.1641	0.1324
<i>Debt Ratio</i>		
2016	0.8570	0.4457
2017	0.8369	0.4854
2018	0.8431	0.4729
2019	0.8371	0.5569
2020	0.8359	0.5641

Table 5 – Capital

Structure Ratios for

Bank Muscat and Bank Nizwa (DTE, Equity Ratio and Debt Ratio)

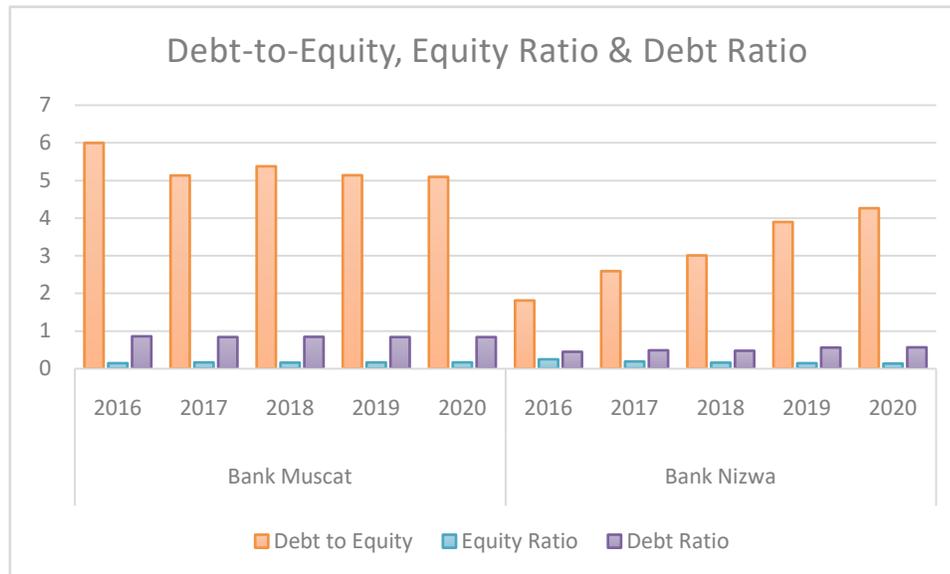


Figure 6 – Bar Chart of DTE, Equity Ratio and Debt Ratio

Debt to equity ratio can be defined as a measure of a firm’s liabilities against shareholder’s equity. In simple terms, it is an indicator of how much debt and equity a business utilizes to fund its operations and working (Carlson, 2020). Bank Muscat shows a very gradual downward trend with a slight upward fluctuation in 2018 (5.3743) whereas Bank Nizwa is consistently improving as the years go on from having a debt-to-equity ratio of 1.8098 in 2016 to 4.2613 in 2020. Comparatively, Bank Muscat is the leading market contender but it is personally not showing as much growth as Bank Nizwa is over the years. Across the board, Bank Muscat is showing a net decrease of 0.9015 between 2016 and 2020 and at the same time, Bank Nizwa is showing a net increase of 2.4514.

Equity ratio is referred to as a metric that determines the coherence and proportion of an organization’s equity and assets (My Accounting Course, n.d.). Bank Muscat shows an upward progression between 2016 (0.1429) and 2020 (0.1641). Alternatively, Bank Nizwa shows a downward slope between 2016 (0.2462) and 2020 (0.1324). This shows that Bank Muscat has improved its equity ratio over the years by owning more assets while Bank Nizwa has taken a downhill plunge. Bank Nizwa is not only the weaker firm in comparison to Bank Muscat in this regard but its performance has also deteriorated when compared to its own past records.

Lastly, debt ratio shows how much of a firm’s assets are being financed by its debt (Debitoor, 2021). The higher the debt ratio, the higher the financial risk for the company. In the trends between 2016 and 2020, it can clearly be seen that Bank Muscat’s debt ratio

is decreasing from 0.85704 in 2016 to 0.83590 in 2020. This shows that Bank Muscat is gradually decreasing its financial risk as the years go on. On the other hand, Bank Nizwa's debt ratio is gradually increasing through the years, and this isn't healthy as it shows an escalation in the bank's financial risk. Hence, not only is Bank Muscat performing better in comparison to its competitor firm but it is also in a much better position when compared to its past years.

© GSJ

Market Ratio

The market ratio computed for Bank Muscat and Bank Nizwa is EPS. The formula for it is as follows:

- $EPS = (\text{Net Income} - \text{Preferred Dividends}) / \text{Weighted Average Shares}$

<u>Years</u>	<u>Bank Muscat</u>	<u>Bank Nizwa</u>
<i>EPS</i>		
2016	0.067	0.004
2017	0.061	0.003
2018	0.061	0.005
2019	0.055	0.007
2020	0.048	0.007

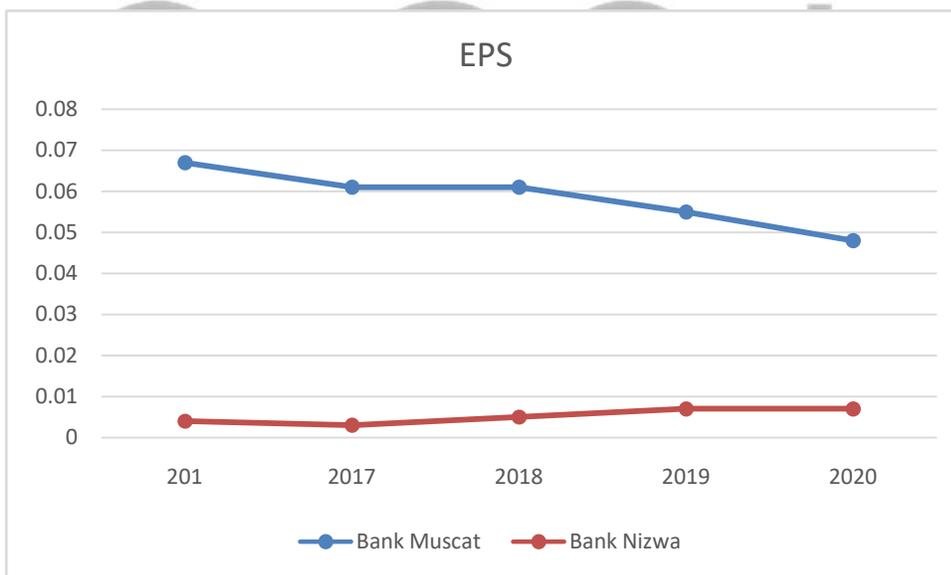


Table 6 – Market Ratio for Bank Muscat and Bank Nizwa (EPS)

Figure 7 – Line Graph of EPS

A company’s EPS refers to the profit per share that is generated (Bankrate, n.d.). The trend line for Bank Muscat’s EPS is deteriorating over the years from 0.067 to 0.048 whereas the trend line for Bank Nizwa is improving from 0.004 to 0.007. It is evident from that Bank Muscat’s performance has gone down over the years in terms of EPS whilst Bank Nizwa’s has slightly improved.

Descriptive Statistics

Descriptive Statistics - Bank Muscat										
	ROA	ROE	Net Profit Margin	Asset Turnover	Cash Ratio	Current Ratio	Debt-to-Equity	Equity Ratio	Debt Ratio	EPS
Mean	0.0150	0.0954	0.3965	0.0378	2.2537	0.5313	5.3465	0.1580	0.8420	0.0584
Standard Error	0.0006	0.0055	0.0109	0.0007	0.3909	0.0393	0.1697	0.0040	0.0040	0.0032
Median	0.0151	0.0932	0.4021	0.0381	2.4884	0.5176	5.1372	0.1629	0.8371	0.0610
Standard Deviation	0.0012	0.0123	0.0245	0.0015	0.8741	0.0878	0.3794	0.0089	0.0089	0.0072
Sample Variance	0.0000	0.0002	0.0006	0.0000	0.7641	0.0077	0.1439	0.0001	0.0001	0.0001
Kurtosis	0.4866	1.8125	1.9441	-0.3197	-2.6847	3.1241	3.1925	2.8371	2.8371	0.1029
Skewness	-0.8347	0.6266	-1.0241	-0.2936	-0.3979	1.6466	1.8170	-1.7406	1.7406	-0.5509
Range	0.0032	0.0342	0.0664	0.0041	1.9084	0.2263	0.9015	0.0211	0.0211	0.0190
Minimum	0.0131	0.0799	0.3578	0.0356	1.1791	0.4536	5.0939	0.1430	0.8359	0.0480
Maximum	0.0163	0.1141	0.4242	0.0397	3.0875	0.6799	5.9954	0.1641	0.8570	0.0670
Sum	0.0750	0.4772	1.9827	0.1888	11.2684	2.6566	26.7324	0.7900	4.2100	0.2920
Count	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Descriptive Statistics - Bank Nizwa										
	ROA	ROE	Net Profit Margin	Asset Turnover	Cash Ratio	Current Ratio	Debt-to-Equity	Equity Ratio	Debt Ratio	EPS
Mean	0.0067	0.0445	0.2086	0.0363	2.6987	0.4155	3.1122	0.1733	0.5050	0.0052
Standard Error	0.0018	0.0131	0.0559	0.0011	0.5526	0.0461	0.4424	0.0205	0.0236	0.0008
Median	0.0086	0.0548	0.2772	0.0350	2.2515	0.3730	3.0066	0.1573	0.4854	0.0050
Standard Deviation	0.0040	0.0294	0.1250	0.0024	1.2357	0.1031	0.9892	0.0457	0.0527	0.0018
Sample Variance	0.0000	0.0009	0.0156	0.0000	1.5269	0.0106	0.9785	0.0021	0.0028	0.0000
Kurtosis	1.3843	-0.5840	1.3479	1.8431	-2.4412	-1.5558	-1.3803	1.1556	-2.6533	-2.3242
Skewness	-1.4102	-0.9270	-1.4133	1.5276	0.1713	0.7798	-0.1539	1.2661	0.2753	-0.0524
Range	0.0096	0.0684	0.3020	0.0058	2.7970	0.2338	2.4515	0.1139	0.1185	0.0040
Minimum	0.0002	0.0009	0.0063	0.0345	1.2358	0.3270	1.8098	0.1324	0.4457	0.0030
Maximum	0.0098	0.0693	0.3083	0.0403	4.0327	0.5608	4.2613	0.2462	0.5641	0.0070
Sum	0.0333	0.2227	1.0428	0.1814	13.4937	2.0775	15.5612	0.8664	2.5250	0.0260
Count	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

Table 7 – Descriptive Statistics for Bank Muscat

Table 8 – Descriptive Statistics for Bank Nizwa

Descriptive statistics offers a summary and compilation of the main characteristics of the data set (Bhandari, 2021). Simply put, it organizes all the main features into an easy-to-understand format.

Bank Muscat has an overall higher mean for all the ratios except cash ratio and equity ratio. The cash ratio for Bank Nizwa and Bank Muscat are 2.6987 and 2.2537 respectively whilst the equity ratio is 0.1733 and 0.1580 respectively. Overall, the mean for the ratios of Bank Muscat is collectively higher showing Bank Muscat as the stronger firm.

Through and through Bank Muscat has a higher median for all the ten computed ratios as compared to Bank Nizwa. The biggest difference between both the banks in terms of mean and median lies in the debt-to-equity ratio. The difference in mean for DTE is 2.2343 and for median, it is 2.1306. This is the only area where Bank Nizwa is better performing as opposed to Bank Muscat. In the light of the descriptive statistics detailed above, Bank Muscat is seen to have a significant margin above Bank Nizwa and this could be tied back to it having an overall the better financial performance and management efficiency

Correlational Analysis

Correlation - Bank Muscat										
	ROA	ROE	NP Margin	Asset Turnover	Cash Ratio	Current Ratio	Debt-to-Equity	Equity Ratio	Debt Ratio	EPS
ROA	1									
ROE	0.914845	1								
NP Margin	0.943845	0.940071	1							
Assets Turnover	0.050346	-0.33849	-0.058095773	1						
Cash Ratio	0.681328	0.768079	0.862646435	-0.116064794	1					
Current Ratio	-0.83023	-0.70119	-0.817710199	-0.185536976	-0.492210007	1				
Debt-to-Equity	0.591498	0.86645	0.719976815	-0.728541066	0.709712623	-0.382936461	1			
Equity Ratio	-0.59009	-0.86487	-0.726537271	0.719869313	-0.72464684	0.389379238	-0.999557081	1		
Debt Ratio	0.590088	0.864867	0.726537271	-0.719869313	0.72464684	-0.389379238	0.999557081	-1	1	
EPS	0.889801	0.932118	0.981551667	-0.128324288	0.934086963	-0.698123473	0.772133882	-0.779903957	0.779903957	1

Correlation - Bank Nizwa										
	ROA	ROE	NP Margin	Asset Turnover	Cash Ratio	Current Ratio	Debt-to-Equity	Equity Ratio	Debt Ratio	EPS
ROA	1									
ROE	0.98345	1								
NP Margin	0.999315	0.978736	1							
Assets Turnover	-0.98932	-0.95354	-0.99325134	1						
Cash Ratio	0.803152	0.745146	0.821686633	-0.837242811	1					
Current Ratio	-0.16435	0.00604	-0.190058862	0.256173432	-0.525233907	1				
Debt-to-Equity	0.902718	0.957749	0.887888227	-0.837409882	0.542568206	0.242254801	1			
Equity Ratio	-0.98649	-0.98882	-0.980859157	0.963932664	-0.699602139	0.024560994	-0.947319535	1		
Debt Ratio	0.783739	0.85362	0.761815519	-0.686195495	0.394488173	0.307704719	0.956001066	-0.837895131	1	
EPS	0.713101	0.822001	0.701393064	-0.63185386	0.516746733	0.424920877	0.877697645	-0.744747653	0.849592124	1

Table 9 – Correlation for Bank Muscat

Tables 10 – Correlation for Bank Nizwa

Correlation measures the relationship and association between two variables and how they impact one another (Hayes, 2021). A positive correlation indicates direct proportionality and negative correlation indicates inverse proportionality.

For Bank Muscat and Bank Nizwa, all three profitability ratios show positive correlation.

Additionally, the liquidity ratios for both banks show negative correlation. For Bank Muscat, a negative correlation of -0.49221 can be observed between the cash ratio and current ratio and a negative correlation of -0.52523 for Bank Nizwa can be seen in the same ratios. This indicates that both banks have alternating resources between cash and assets to fund their debts at a particular given time.

Furthermore, for the capital structure ratios, the debt to equity and equity ratio of both banks shows negative correlation, -0.99955 for Bank Muscat and -0.94731 for Bank Nizwa. The correlation between equity ratio and debt ratio follows a similar pattern as it stands at -1 for Bank Muscat and -0.83789 for Bank Nizwa. Alternatively, the capital structure ratio of DTE and debt ratio show a positive correlation of 0.99955 and 0.87769 for Bank Muscat and Bank Nizwa, respectively.

EPS is shown to have positive correlations with all other elements except asset turnover (-0.12832), current ratio (-0.69812) and equity ratio (-0.77990) in Bank Muscat and asset turnover (-0.63185) and equity ratio (-0.74474) in Bank Nizwa. Lastly, the efficiency ratio of asset turnover has negative correlations with all other ratios except equity ratio (0.7198) for Bank Muscat and current ratio (0.2561) and equity ratio (0.9639) for Bank Nizwa.

All in all, the positive and negative correlations between the differing variables shows the impact, link and proportionality between them. This serves as an effective measure of the financial performance and management efficiency of both banks.

Interview Analysis

In addition to all the data collected and analyzed above, interviews were also conducted. These interviews add great meaning and depth to the analysis as they offer a much-needed personal insight into the working mechanisms of both banks.

There were learned personnel from each bank that were interviewed - the questions asked, their responses and their analysis have all been given below.

Q1. What are some key metrics that your bank uses to measure financial performance and management efficiency?

Bank Muscat: Many metrics are used but some of the main ones are a range of metrics such as ratio analysis, cash flow analysis, horizontal analysis.

Bank Nizwa: A combination of ratio analysis, SWOT, PESTEL and horizontal and more are used. The reason we use so many is that each analysis views the business in a different light and hence, all offer inputs on different aspects of the business.

Q2. How effective do you think ratio analysis is and how helpful is it when making strategic decisions?

Bank Muscat: We highly value ratio analysis when it comes to measuring our progress financially. Whilst we do use ratio analysis to compare with other firms, we mainly use it to track our own progress. It helps a great deal to see where we are falling short and where we need to improve and focus our attention on.

Bank Nizwa: Ratio analysis has served as an incredible measurement tool for us as we are still in our early growth phase. It has allowed us to track where we are now from when we started, what our problem areas are and especially how we are performing as compared to other banks in the market. It has helped us a great deal by measuring the status of the bank in specific areas like profitability, liquidity, and more by allowing us to make strategic decisions based on ratios where necessary. Also, the comparison of our financial figures with other firms has acted as a motivating force and we wish to reach the heights of some of the most prominent banks in the country.

Q3. What are the projected financial objectives that the company hopes to achieve in the next five years?

Bank Muscat: I believe there is no end to growth and whilst Bank Muscat already has a very large volume, we have several financial plans and objectives in the coming few years to further expand our business. We aim on further improving our profitability, reducing debt and potentially the prospect of a merger might be on the horizon.

Bank Nizwa: As I mentioned before, we are still a relatively new bank since we started our operations in 2013. That is less than 10 years ago and so, we have a long way to go. We have many objectives for financial growth, expansion and more on our list. As with all businesses, our primary objective is to improve our current profitability. Additionally, we also hope to open more branches, earn more revenue, offer more services and improve our overall financial position so we can grow to be one of the banking pioneers in Oman.

Q4. How do you survive in a competitive market?

Bank Muscat: I think the key towards surviving is to be adaptable. To be ready for what uncertainties and unforeseen circumstances that might get thrown at you takes you a long

way. Also, knowing your customers and knowing your competition is also key. You need to know what your customers want and need and you must give it to them before your competition can. These factors ultimately impact your financial performance and the better your financial performance, the higher your chances of survival.

Bank Nizwa: Our main aim is to please our customers and build customer loyalty to the brand. We want to ensure that our customers are pleased with us and we strive to make sure they keep coming back. That is how we view our survival in the market. Along with this, using metrics such as ratio analysis really helps as it makes you aware of your financial position and how much you need to improve.

Q5. Could you describe the extent to which market share has an effect on your financial performance and management efficiency?

Bank Muscat: It most certainly has a very large impact on the financial performance and management efficiency,

Bank Nizwa: The effect is very real. The higher the market share, the better the financial performance and vice versa.

After conducting detailed interviews, many factors that impact the banks' financial performance and management efficiency have come to light such as market share. This was something that was also apparent in the ratio calculations of both banks as Bank Muscat (higher market share) showed better trends than Bank Nizwa (lower market share) but the interview further supported this. Additionally, both banks do show intentions to grow and build stronger customer bases in order to improve financial performance and management efficiency especially Bank Nizwa as it is the newer bank. Furthermore, both personnel also talked about how the banks themselves make use of ratio analysis as a financial metric and how important it is in their eyes. Hence, proving ratio analysis as an integral comparative and analysis tool.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Importance of ratio analysis in monitoring the financial performance and management efficiency of banks

As a result of the extensive primary and secondary research conducted, it is indeed true that ratio analysis holds a great significant in monitoring the financial performance and management efficiency of banks. Ratio analysis is a fundamental metric of evaluating a firm's overall financial position as it takes into account factors such as profitability, liquidity, efficiency and more. The generation of revenue, the expenses incurred, the assets held, the debts owed and more are all accounted for through the computation of ratios, hence making it an integral tool. Additionally, ratio analysis also helps in determining trends when compared to a company's past records or with that of competitor firms in the market. Not only does this aid businesses such as banks in reaching their personal goals but it also serves as a catalyst for their growth because companies are able to see where they lack and then strategically work towards improvement. Hence, business are accurately able to track and improve their financial performance and management efficiency through the help of ratio analysis. All these claims have been backed up and supported through all the literature reviewed the interviews conducted and the trends seen in the financial ratios of both banks.

Comparison of Bank Muscat and Bank Nizwa's financial performance and management efficiency

The financial performance and management efficiency of both banks was compared over the last five years. This was done both in respect to their own historic records as well as with each other.

When compared with their own records, it was found that Bank Muscat was at a standstill or was showing slight downward trends over the years in certain ratios such as ROA, NP margin, EPS, debt-to-equity and cash ratio. Other ratios such as current ratio and asset turnover show an upward trend throughout the years for Bank Muscat. Overall, the trends and figures for Bank Muscat are very stagnant and hence, no significant growth can be seen over the last five years. However, in Bank Muscat's case, the stagnancy or the slight downward trends don't seem to cause any issue because of the

enormous size, market share and volume of the bank in the Omani market and economy. It is the leading bank across the country and continues to uphold its position. Furthermore, taking into account the trends of Bank Nizwa, there were improvements and upward trends in almost all of the ratios computed over the last five years. This shows a consistent determination and potential for the bank to improve and grow. Whilst Bank Nizwa is still fairly a newer bank in the economy, it holds promise because of the consistent yearly improvement, even if the figures themselves aren't that huge yet.

When compared with each other, Bank Muscat is clearly the bank with a better financial performance and management efficiency when compared to Bank Nizwa. Whilst Bank Muscat's figures don't show any major escalation in the last few years, it is still far ahead from Bank Nizwa, even though Bank Nizwa is consistently improving its figures yearly. A major reason behind this is the fact that Bank Muscat is experienced and established whilst Bank Nizwa is still fairly new. That was also the entire concept of this paper – to take a very prominent market player and a developing one and draw comparisons between both in an attempt to aid the banking sector and other sectors at large.

All in all, the comparison done between both banks through ratio analysis, descriptive statistics and correlation clearly show that Bank Muscat has a healthier financial performance and management efficiency but Bank Nizwa does show potential in years to come.

Hypothesis

The alternate hypothesis (H_1) stating that ratio analysis efficiently depicts a company's financial performance and management efficiency has been accepted on completion of this paper and the null hypothesis (H_0) has been rejected.

Conclusion

This paper perfectly captures the essence of ratio analysis as a tool to measure the financial performance and management efficiency of banks. As found in this study, it is an extensive and excellent instrument that allows a firm to monitor its own growth as well as its standing in the market when compared to other competitive firms. The comparative study between Bank Muscat and Bank Nizwa is visual proof of the accurate use and importance of ratio analysis and both banks can make further use of this concept to grow to an even greater extent and expand in a profitable manner. Hence, ratio analysis can be termed as a universal tool that allows for a firm's overall financial health

to be measured against multiple factors and variables. It comprehensively analyzes the different elements in a company's financial statements and brings forth the true picture of a company's financial performance and management efficiency.

Recommendations

As per the research conducted, there are certain recommendations for both banks to improve their financial performance and management efficiency. The recommendations are as follows:

- i. Both banks must identify areas for further growth. Even though Bank Muscat is an expansive bank in terms of its size, services and more, there is still always room for improvement. There is never an end to how much a business can grow or how much profit it can earn. Hence, Bank Muscat can grow even more and as a result, the financial performance will get even better. Alternatively, Bank Nizwa is a new bank and hence, it is small. It has a lot of room for growth in order to improve its overall financial health.
- ii. Bank Nizwa must improve its marketing and must adopt innovative ways to present themselves. It is purely an Islamic bank and hence, it must market itself innovatively to attract customers who are more inclined towards commercial banks. Building a strong customer base by marketing to customers why they should pick an Islamic bank such as Bank Nizwa over the common commercial banks will hugely benefit the bank.
- iii. Bank Nizwa must update their website. The website does not showcase the services and products it offers and hence, potential customers are not well-informed. In today's digital world, people have gotten used to convenience and acquiring everything in one place with the touch of a button. The bank must amend its website so that everything is in one place and easily accessible. Bank Muscat's website is one to learn from.
- iv. Bank Nizwa must also come up with new services to diversify its portfolio.
- v. Bank Muscat must give attention to all its financial ratio figures especially its profitability. While the bank is still a market leader, it has shown downward trends in most of the financial ratios when compared to its own past records. It must be kept in mind that it doesn't take long for competitors to catch up and

hence, Bank Muscat must take immediate action to revert these downward trends into upward trends.

Limitations

This paper was subject to certain limitations and challenges.

Firstly, there was a time constraint. The duration given for the completion of this study was just a few months and within those months, too, time was divided between this paper and other academic obligations. Normally, the time allotted for an extensive research paper is much more than what was granted and hence, certain aspects or avenues could not be looked into. Regardless, the maximum output that could be generated in the given amount of time was delivered.

Additionally, another limitation was that of funds. Access to funds would've granted access to purchasing more advanced analytical softwares and this would have led to the possibility of more types of analysis being run on the data.

Lastly, the biggest limitation was COVID 19. Due to this, face to face interviews could not be conducted. Hence, the alternative way of conducting the interviews online was sought after.

Future Research

There are many prospects for future research on the topic of ratio analysis. There are many other avenues that can be looked into, in light of ratio analysis as a financial performance measurement tool.

There is room to incorporate more ratios in future studies. In this paper, ten ratios were taken from the main five categories but future research can contain a wider plethora of ratios. Additionally, more banks or the whole banking sector in Oman can be taken in the future to offer a more diverse outlook on how ratio analysis serves as a measure of financial performance and management efficiency. Banks within Oman and outside of Oman can be compared too to offer a global perspective to the study.

Furthermore, companies within different sectors or different sectors as a whole can be compared using ratio analysis to showcase how it reflects on firms that have different business operations.

Lastly, a study comparing different metrics and tools can be conducted to show the most effective tool of all.

REFERENCES

1. ACCA. (n.d.). *Ratio Analysis*. <https://www.accaglobal.com/gb/en/student/exam-support-resources/fundamentals-exams-study-resources/f2/technical-articles/ratio-analysis.html#:~:text=The%20ability%20to%20analyse%20financial,in%20many%20of%20ACCA's%20exams.&text=The%20syllabus%20categorises%20ratios%20into,%2C%20liquidity%2C%20activity%20and%20gearing.>
2. AccountingTools. (2021, March 10). *Ratio Analysis Definition*. (<https://www.accountingtools.com/articles/ratio-analysis.html#:~:text=Ratio%20analysis%20is%20the%20comparison,efficiency%20of%20operations%2C%20and%20profitability.&text=Trend%20lines%20can%20also%20be,direction%20of%20future%20ratio%20performance.>)
3. AccountingTools. (n.d.) *Market Value Ratios*. <https://www.accountingtools.com/articles/market-value-ratios.html#:~:text=Market%20value%20ratios%20are%20used,%2Dpriced%20or%20under%2Dpriced.>
4. AccountingTools. (n.d.). *Total Asset Turnover Ratio*. <https://www.accountingtools.com/articles/what-is-the-total-asset-turnover-ratio.html>
5. Ahmad, R. (2016). A Study of Relationship Between Liquidity and Profitability of Standard Chartered Bank Pakistan: Analysis of Financial Statement Approach. *Global Journal of Management and Business Research: C Finance*, 16 (1), 77 - 82.
6. Alani, F., Yaacob, H. & Hamdan, M. (2013). The Comparison of Financial Analysis Tools in Conventional and Islamic Banking: Evidence from Kuwait. *International Journal of Business and Management*, 8 (4), 85 – 103.
7. Ali, M., & Bilal, M. E. (2018). Determinants of Financial Performance in the Industrial Firms: Evidence from The Impact of Liquidity on Profitability of Some Selected Companies: The Financial Statement Analysis (FSA) Approach. *Research Journal of Finance and Accounting*, 5 (5), 81 – 90.
8. Alkhatib, K. (2012). The Determinants of Leverage of Listed Companies. *International Journal of Business and Social Science*, 3 (24), 78 – 83.

9. Andre, O. (2013). The Effect of Profitability, Liquidity and Leverage in Predicting Financial Distress: Empirical Study of Various Companies Listed on BEI. *Jurnal Akuntansi*, 1 (1).
10. Awan, H. M., & Bukhari, K. S. (2011). Customer's Criteria for Selecting an Islamic Bank: Evidence from Pakistan. *Journal of Islamic Marketing*, 2 (1), 14 – 27.
11. Babalola Y. A. and Abiola F. R. (2013). Financial Ratio Analysis of Firms: A Tool for Decision Making. *International Journal of Management Sciences*, 1 (4), 132 – 137.
12. Baik, B., Chae, J., Choi, S., & Farber, D. B. (2013). Changes in Operational Efficiency and Firm Performance: A Frontier Analysis Approach. *Contemporary Accounting Research*, 30 (3), 996 – 1026.
13. Bankrate. (n.d.). *Earnings per Share*.
<https://www.bankrate.com/glossary/e/earnings-per-share/>
14. Bardia, S. (2004). Liquidity Management (A case study on TISCO). *The Management Accountant*, 463 – 467.
15. Barnes, P. (1987). The Analysis and Use of Financial Ratios: A Review Article. *Journal of Business Finance and Accounting*, 449 – 461.
16. Barr, R., Killgo, K. A., Siems, T. F., & Zimmel, S. (2002). Evaluating the Productive Efficiency and Performance of U.S. Commercial Banks. *Managerial Finance*, 28 (8), 3 – 25.
17. Benishay, H. (1971). Economic Information in Financial Ratio Analysis: A Note. *Accounting and Business Research*, 174 – 179.
18. Bhandari, P. (2020, July 30). *What is a Qualitative Research?*. Scribbr.
<https://www.scribbr.com/methodology/qualitative-research/>
19. Bhandari, P. (2021, December 13). *Descriptive Statistics – Definitions, Types and Examples*. Scribbr. <https://www.scribbr.com/statistics/descriptive-statistics/>
20. Bothwell, J. L., T. F. Cooley, et al. (1984). A New View of the Market Structure - Performance Debate. *The Journal of Industrial Economics*, 32(4), 397 – 417.
21. Burja, V., & Mărginean, R. (2014). The Study of Factors that may Influence the Performance by the Dupont Analysis in the Furniture Industry. *Procedia Economics and Finance*, 16, 213 – 223.

22. Business Research Methodology. (n.d.). *Exploratory Research*. <https://research-methodology.net/research-methodology/research-design/exploratory-research/>
23. Capon, N., Farley, J. U. & Hoenig, S. (1990). Determinants of Financial Performance: A Meta-Analysis. *Management Science*, 36 (10), 1143 – 1159.
24. Carlson, R. (2020, January 6). *Debt-To-Equity: Calculation and Measurement*. The Balance. <https://www.thebalancesmb.com/what-is-the-debt-to-equity-ratio-393194>
25. CFA Institute. (n.d.). *Capital Structure, Level I*. <https://www.cfainstitute.org/en/membership/professional-development/refresher-readings/capital-structure>
26. Complete Dissertation. (n.d.). *Qualitative Sampling Techniques*. <https://www.statisticssolutions.com/qualitative-sampling-techniques/>
27. Corporate Finance Institute. (n.d.). *Financial Ratios*. <https://corporatefinanceinstitute.com/resources/knowledge/finance/financial-ratios/>
28. Corporate Finance Institute. (n.d.). *Liquidity*. <https://corporatefinanceinstitute.com/resources/knowledge/finance/liquidity/>
29. Corporate Finance Institute. (n.d.). *Net Profit Margin*. <https://corporatefinanceinstitute.com/resources/knowledge/finance/net-profit-margin-formula/>
30. Corporate Finance Institute. (n.d.). *Return on Assets & ROA Formula*. <https://corporatefinanceinstitute.com/resources/knowledge/finance/return-on-assets-roa-formula/>
31. Coursera. (2021, December 16). *What is Data Analysis?*. <https://www.coursera.org/articles/what-is-data-analysis-with-examples>
32. Dadrasmoghadam, A., & Akbari, S. (2015). Relationship Between Financial Ratios in the Stock Prices of Agriculture-related Companies Accepted on the Stock Exchange for Iran. *Research Journal of Fisheries and Hydrobiology*, 10 (9), 586 – 591. Retrieved from <http://www.aensiweb.com/old/jasa/rjfh/2015/May/586-591.pdf>
33. Debitoor. (n.d.). *Debt Ratio – What is the Debt Ratio?*. <https://debitoor.com/dictionary/debt-ratio>

34. DiscoverPhDs. (2020, October 9). *What is a Research Instrument?*.
<https://www.discoverphds.com/blog/research-instrument>
35. Dobija, D., & Klimcza, K. M. (2010). Development of Accounting in Poland: Market Efficiency and the Value Relevance of Reported Earnings. *International Journal of Accounting*, 45 (3), 356 – 374.
<https://doi.org/10.1016/j.intacc.2010.06.010>
36. Džikevičius, A., & Šaranda, S. (2011). Can Financial Ratios Help to Forecast Stock Prices?. *Journal of Security and Sustainability Issues*, 1 (2), 147 – 157.
[https://doi.org/10.9770/jssi.2011.1.2\(7\)](https://doi.org/10.9770/jssi.2011.1.2(7))
37. eFinance Management. (n.d.). *Efficiency Ratios*.
<https://efinancemanagement.com/financial-analysis/efficiency-ratios>
38. Fairfield, P. M., & Yohn, T. L. (2001). Using Asset Turnover and Profit Margin to Forecast Changes in Profitability. *Review of Accounting Studies*, 6, 371 - 385.
<http://dx.doi.org/10.1023/A:1012430513430>
39. Fama, E. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *Journal of Finance*, 25, 383 – 417.
40. Farnsworth, B. (2019, June 11). *Qualitative vs Quantitative Research – What is the Difference?*. IMotions. <https://imotions.com/blog/qualitative-vs-quantitative-research/>
41. FreshBooks. (n.d.). *What are Profitability Ratios? Definition, Types and Importance*. <https://www.freshbooks.com/hub/projects-management/profitability-ratios>
42. Gangadhar, V. (1982). Cement Industry-some aspects of profitability. *The Management Accountant*.
43. Greene, W. H., & Segal, D. (2004). Profitability and Efficiency in the U.S. Life Insurance Industry. *Journal of Productivity Analysis*, 21, 229 – 247.
44. Grimsley, S. (n.d.). *What is Profitability? – Definition and Analysis*. Study.com. <https://study.com/academy/lesson/what-is-profitability-definition-analysis-quiz.html>
45. Hall, M. and L. Weiss (1967). Firm Size and Profitability. *The Review of Economics and Statistics*, 49 (3), 319 – 331.
46. Hartill, R. (2021, November 9). *What is Financial Performance?*. The Balance. <https://www.thebalance.com/financial-performance-5193413>

47. Hayes, A. (2021, September 24). *Correlation*. Investopedia.
<https://www.investopedia.com/terms/c/correlation.asp>
48. Helfert, E. A. (2001). *Financial Analysis: Tools and Techniques: A Guide for Managers*. Boston: McGraw-Hill.
49. iEduNote. (n.d.). *How to Measure Management Performance and Effectiveness*.
<https://www.iedunote.com/measure-management-effectiveness-performance>
50. IGI Global. (n.d.). *What is Financial Performance?*. <https://www.igi-global.com/dictionary/financial-performance/11115>
51. Indeed. (n.d.). *What's the Definition of Liquidity Ratio?*.
<https://www.indeed.com/recruitment/c/info/liquidity-ratio>
52. Ivo, M. S., & Anyanwaokoro, M. (2019). Relating Financial Leverage to Corporate Performance: A Case of Cement Manufacturing Firms in Nigeria. *South Asian Journal of Social Studies and Economics*, 3 (4), 1 – 14.
53. Kariyawasam, A. H. N. (2019). Analysing the Impact of Financial Ratios on a Company's Financial Performance. *International Journal of Management Excellence*, 13 (1), 1898 – 1903.
54. Kaumbuthu, A. J. (2011). The Relationship Between Capital Structure and Financial Performance: A Study of Firms Listed Under Industrial and Allied Sector at the NSE. *MBA Dissertation, University of Nairobi*.
<http://erepository.uonbi.ac.ke>
55. Kenton, W. (2021, May 7). *Efficiency Ratio Definition*. Investopedia.
<https://www.investopedia.com/terms/e/efficiencyratio.asp>
56. Khatab, H., Masood, M., Zaman, K., Saleem, S., & Saeed, B. (2011). Corporate Governance and Firm Performance: A Case Study of Karachi Stock Market. *International Journal of Trade, Economics and Finance*, 2 (1), 39 – 43.
57. Kibet, L. (2021, November 13). *Current Ratio*. Personal Finance.
<https://www.businessinsider.com/current-ratio>
58. Lesakova, L. (2007, June 1-2). *Uses and Limitations of Profitability Ratio Analysis in Managerial Practice* [Paper presentation]. 5th International Conference on Management, Enterprise and Benchmarking, Budapest, Hungary.
https://kgk.uni-obuda.hu/sites/default/files/24_Lesakova.pdf
59. Liesz, T. J., & Maranville, S. J. (2011). Ratio Analysis Featuring the Dupont Method: An Overlooked Topic in the Finance Module of Small Business

- Management and Entrepreneurship Courses. *Small Business Institute Journal*, 1 (1), 17 – 34.
60. Madushanka, K. H. I., & Jathurika, M. (2018). The Impact of Liquidity Ratios on Profitability (with special reference to listed manufacturing companies in Sri Lanka). *International Research Journal of Advanced Engineering and Science*, 3 (4), 157 – 167.
61. McCombes, S. (2021, June 7). *Research Design – A Step-by-Step Guide with Examples*. Scribbr. <https://www.scribbr.com/methodology/research-design/>
62. McLeod, S. (2018). *Questionnaire: Definition, Examples, Design and Types*. *Simply Psychology*.
<https://www.simplypsychology.org/questionnaires.html#:~:text=A%20questionnaire%20is%20a%20research,a%20kind%20of%20written%20interview.&text=Often%20a%20questionnaire%20uses%20both%20open%20and%20closed%20questions%20to%20collect%20data.>
63. Mohammed, N. F., Puat, S. A., Amirrudin, M. S., & Hashim, A. (2020). Leverage, Liquidity and Profitability Ratios: Accountability of Malaysian Listed Oil and Gas Firms. *Humanities and Social Sciences Reviews*, 8 (2), 941 – 947.
<https://doi.org/10.18510/hssr.2020.82104>
64. Mukhopadhyay, S. (n.d.). *What is the Cash Ratio?*. Wall Street Mojo.
[\(https://www.wallstreetmojo.com/cash-ratio/](https://www.wallstreetmojo.com/cash-ratio/)
65. My Accounting Course. (n.d.). *Equity Ratio*.
<https://www.myaccountingcourse.com/financial-ratios/equity-ratio>
66. Nadeem, M., Ahmad, R., Ahmed, A., Ahmad, N., Batool, S.R., & Khalil-Ur-Rehman. (2015). The Effect of Leverage on Financial Health of the Firms: A Study from Cement Industry of Pakistan. *Industrial Engineering Letters*, 5 (5), 123 – 126.
67. Naz, F., Ijaz, F. & Naqvi, F. (2016). Financial Performance of Firms: Evidence from Pakistan Cement Industry. *Journal of Teaching and Education*, 5 (1), 81 – 94.
68. Nguyen, G. X., & Swanson, P. E. (2009). Firm Characteristics, Relative Efficiency and Equity Returns. *Journal of Financial and Quantitative Analysis*, 44 (1), 213 – 236. <http://dx.doi.org/10.1017/S0022109009090012>

69. Noor, A., & Lodhi, S. (2015). Impact of Liquidity Ratio on Profitability: An Empirical Study of Automobile Sector in Karachi. *International Journal of Scientific and Research Publications*, 5 (11), 639 – 646.
70. Padake, V., & Soni, R. (2015). Measurement of Efficiency of Top 12 Banks in India Using DuPont Analysis. *IUP Journal of Bank Management*, 14 (4), 59 – 68.
71. QuestionPro. (n.d.). *Data Collection: Definition, Methods, Example and Design*. <https://www.questionpro.com/blog/data-collection/>
72. Rehman, M. Z., Khan, M. N., & Khokhar, I. (2015). Investigating Liquidity-profitability Relationship: Evidence from Companies Listed in Saudi Stock Exchange (Tadawul). *Journal of Applied Finance and Banking*, 5 (3), 159 – 173.
73. Ross, S., Westerfield, R., & Jordan, B. (2010). *Fundamental of Corporate Finance* (9th ed.). McGraw-Hill, New York.
74. Santosuosso, P. (2014). Do Efficiency Ratios Help Investors to Explore Firm Performances? Evidence from Italian Listed Firms. *International Business Research*, 7 (12), 111 -119.
75. Shahimi, W. R. M. A., Hanafi, A. H. A. and Yusof, N. A. M. (2021). The Impact of COVID-19 on the Financial Performance of PN17 and GN3 Status Firms: Does It Add Salt Into The Wound?. *Advanced International Journal of Banking, Accounting and Finance*, 3 (7), 47 – 58
76. The Economic Times. (n.d.). *Definition of Return on Equity*. <https://economictimes.indiatimes.com/definition/return-on-equity>
77. Toppr. (n.d.). *What is Efficiency Management?*. <https://www.toppr.com/ask/question/what-is-meant-by-efficiency-in-management/>
78. Trochim, W.M.K. (2005) *Research Methods: The Concise Knowledge Base*. Atomic Dog.
79. Verma, E. (2021, November 17). *Financial Performance: Understanding The Concepts and Its Areas*. SimpliLearn. <https://www.simplilearn.com/financial-performance-rar21-article>
80. Vimrova, H. (2015). Financial Analysis Tools from Traditional Indicators through Contemporary Instruments to Complex Performance Measurement and Management Systems in the Czech Business Practice. *Procedia Economics and Finance*, 25, 166 – 175.

81. Vineeth. (2022, January 5). *Ratio Analysis*. ClearTax.
<https://cleartax.in/g/terms/ratio-analysis>
82. Yoon, E., & Jang, S. (2005). The Effect of Financial Leverage on Profitability and Risk of Restaurant Firms. *Journal of Hospitality Financial Management*, 13 (1).
83. Zamboni, J. (2018, April 23). *What is the Meaning of Sample Size?*. Sciencing.
<https://sciencing.com/meaning-sample-size-5988804.html>

© GSJ