

**FINANCIAL STRUCTURE AND PERFORMANCE OF COMMERCIAL AIRLINES IN
KENYA**

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DECLARATION

This research proposal is my original work and has not been presented for a degree in any other University.

Signature



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ABBREVIATIONS AND ACRONYMS

IATA : International Air Transport Association

KCAA : Kenya Civil Aviation Authority

ROA : Return on Asset

ROE : Return on Equity

SEO : Seasoned Equity Offerings

ABSTRACT

In Kenya, the air transport industry is estimated to have contributed about \$1.9 billion to Kenya's GDP. The domestic commercial airlines performance has been inconsistent over the years. As much as there is fluctuating growth in domestic commercial airlines, the profitability of the airlines has been on the decline as it recorded a net loss of kshs 8 billion in 2018 compared to kshs 7.1 billion in 2017, leasing cost increased to Kshs. 16 billion in 2018 up from kshs. 14.1 billion in 2017 and kshs 13.3 billion in 2016, debt financing hit a record high of kshs 23 billion in 2018 while retained earnings declined in the same period. This is in contrast to the airlines in Europe and America which experienced increased profitability and reduced financial cost during the same period. Evidence elsewhere has linked financial structure to performance. However, there is little or no empirical evidence to establish such a relationship in the context of domestic airlines in Kenya. This formed the basis for this study. The general objective of the study was to assess the effect of financial structure on performance of domestic commercial airlines in Kenya. This was a quantitative study which adopted an explanatory research design. The sample was 11 domestic commercial airlines in Kenya firms listed at the African Airlines Association (AFRAA) which were actively registered over the years, 2012 to 2019. Data was analysed using Panel Data Regression analysis. Lease financing had a p-value of ($p=0.425>0.05$) and ($p=0.377>0.05$) indicating that it had an insignificant effect on the performance of domestic commercial airlines in Kenya thus the null hypothesis was accepted. However, share financing had a p-value of ($p=0.027<0.05$) and ($p=0.005<0.05$) indicating that it had significant effect on the performance of domestic commercial airlines in Kenya thus the null hypothesis was rejected. Also, debt financing had a p-value of ($p=0.042<0.05$) and ($p=0.035<0.001$) indicating that it had significant effect on the performance of domestic commercial airlines in Kenya thus the null hypothesis was rejected. Retained earnings had a p-value of ($p=0.000<0.05$) and ($p=0.000<0.05$) indicating that it had significant effect on the performance of domestic commercial airlines in Kenya thus the null hypothesis was rejected. The study found that lease financing, share financing, debt financing and retained earnings explained 86.6% and 65.9% of the variance in Net profit margin and ROA respectively of domestic commercial airlines. The study concluded that lease financing does not have a significant effect on performance of domestic commercial airlines in Kenya. The domestic commercial airlines in Kenya use lease agreements to acquire more aircrafts so as to avoid technological obsolescence, gain tax benefits and conserve its capital but it has become too costly that it hampers on performance. Further, the study concluded share financing is used by the domestic commercial airlines in Kenya so as to gain more capital and avoid debts thus improving on its financial performance. The study recommends the management of domestic commercial airlines in Kenya to adopt the use of lease finances, share financing, debt finance and retained earnings. The management should acquire aircrafts through lease finances so as to protect the airlines from technological obsolesce. They should also use the debt finances for investments only and not for the recurrent expenses so that they don't sink into more debts.

CHAPTER ONE

BACKGROUND OF THE STUDY

1.1 Introduction

Globalization has contributed heavily to the aviation industry. According to the World Bank, in 2018, the sector contributed 2.7 trillion dollars of the world's national income. However, with the spread of the Corona pandemic across the world, the aviation industry witnesses turbulent trends in terms of financial performance caused by external factors such as general economic conditions, inflation and fluctuating fuel prices (ICAO, 2020). Currently, the carrying capacity of airlines in the aviation sector is growing faster than the infrastructure available to support it. Consequently, it is prudent for airlines to have sufficient financial resources and utilize it efficiently to allow for necessary infrastructural investment (Reeves, 2014). The optimal combination of financial resources that increases the company's performance is known as the financial structure.

Various theories harbour the relationship between the financial performance of the aviation industry and financial structures; these include trade-off theory by Modgiliani and Miller (1963), Agency theory by Jensen and Meckling (1976) and the stakeholder theory by Myers and Majluf (1984). The trade-off theory proposes the need for a company to create a balance between debt and equity finance to enjoy the limited cost of bankruptcy and tax benefits that increase profitability (Modgiliani & Miller, 1963). Consequently, the stakeholder theory states that the organizational goals of a company should be in line with the stakeholder's interest to avoid conflicts. In contrast, the agency theory emphasizes on the relationship between the shareholders and the managers.

In 2018, the net profit margin for Kenyan airlines stood at 4.6 % of the Gross Domestic Product (GDP) (The Importance of Air Transport to Kenya, 2018). According to the International Air Transportation Association (IATA), most local airlines have been able to post historic revenue margins since 2004. In the past 16 years, 2004-2019, Kenyan airlines have posted positive returns in eight years. The increase in profits is due to a circumstantial rise in passenger numbers averagely by 8.75% annually from 2004 to 2019 (IATA, 2019). Although the increase in the number of passengers was supposed to boost airline businesses, many domestic airlines have displayed abysmal financial performance. Over time, aviation companies have had to choose the

optimal combination of financial resources that is effective in increasing profits and improves on the ever dynamic infrastructure in the industry.

1.1.1 Financial Structure

The financial structure is the selected economic indicators that are of particular interest to a firm in determining its going concern (Hayes, 2018). Financial indicators measure the effectiveness of how a company is in investing the capital acquired on assets and the assets ability to generate profits. Hence, investors use financial indicators to assess the return on funds that they have put into the company (Bollaert & Delanghe, 2015). Companies use financial indicators to measure, report and improve on performance. Common financial indicators include profitability and liquidity. Profitability involves the ability of a firm to convert funds raised either through equity or debt to profit. On the other hand, liquidity deals with the aptness of a firm to meet both its short term and long term debt obligations. According to Bessler *et al.* (2011), equity financing consists of Initial Public Offerings (IPOs) and Seasoned Equity Offerings (SEOs) sold by an airline as a means of acquiring capital to finance major projects while debt financing involves borrowing from financial institutions at a cost.

Because of a volatile environment, increased competition and the frequently changing nature of the airline business, the demand for financial funding by airlines has been on the rise (Malighetti *et al.*, 2016). Competition and the presence of alternative modes of transport limit both airline's economic capacity and debt raising ability. Hence, most airlines have relied on purchasing aircraft through share financing (Lainamngern & Sawmong, 2019). According to Bessler *et al.* (2011), share financing involves the selling of shares through IPOs and Seasoned Equity Offerings (SEOs), in exchange for ownership of voting rights in the airline firm. Unlike IPOs, SEOs are released by airlines that are already listed in the stock exchange and have magnificent performance records. In contrast, the IPO involves the preliminary offer of stocks or equity in the securities exchange (Jiao *et al.*, 2017).

According to Cole and Sokolyk (2018), debt financing is the ratio of external funding from financial institutions as a fraction of the firm's assets. Debt financing alludes to borrowed funds that must be reimbursed, with or without interest. There are numerous sources of debt financing for businesses and these include; welfare groups, commercial finance companies, funds from credit unions, family finance and hire purchase (Nyanamba *et al.*, 2013), supplier credit, leasing

arrangements (Tariq, 2013). Other sources include resource-based banks, exchange credit, hardware providers, Stock financier houses, government bonds, insurance agencies, securities and Small Business Lending Companies (SBLCs).

1.1.2 Performance

Performance is an abstract measure of a firm's resource utilization success from its normal business operation. Financial performance is the firm's ability to utilize its investment and operational activities to achieve financial stability, which is usually indicated by key financial indicators (Ghildyal & Chang, 2017). Notably, performance is the institution's ultimate objective (Galant & Cadez, 2017). Measuring performance constitutes using gearing and leverage ratios such as Equity, Return, and Return on Assets (Myskova & Hajek, 2017). Return on assets and profit margins are commonly the most used methods.

The performance of the airline industry has been improving as a result of technological advancement due to globalization, increase in foreign and domestic investments and increase in demand for air transport (Milan, 2015). Airline performance is measured by airline service quality, Profitability, Revenue Per Kilometre (RPK), Freight Per Kilometre (FTK) (Malighetti *et al.*, 2016). The airline industry all over the world has experienced turbulent times in the aftermath of the global financial crisis and currently with the declaration of international lockdown due to the COVID-19 pandemic. Hence, inept use of capital could have an impact on the going concern of airlines.

1.1.3 Financial Structure and Performance

An efficient financial structure is an important factor in increasing a firm's performance. Different firms have different financial structures strategically implemented to boost performance. Due to limited resources each firm tries to find the perfect balance between financial fundings such as share finance and debt finance that maximizes profits and as a result improve the performance. Financial structure show a model adopted by different firms on how to carry out capital projects (Supardi, 2018). Capital projects entail all the major financial activities that a firm plans to undertake and require a huge capital outlay. Hence, it is critical for a firm to ensure that the capital project is funded using the most efficient mode of finance. The financial activities include expansion of business, purchase of prime assets and investment in a new

product. Hence, a firm must make a decision on the best available mode of financing such as share financing or debt financing that will improve the performance.

Financial structure as an indicator of a firm's performance highlights itself in reduction of financing costs, cash flow reliability and profit maximization. Financial structuring is a utilitarian system that aims at ensuring efficiency in resource usage (Jeenas, 2018). To attain and sustain consistent performance, firms need to use optimal financial structures. An optimal financial structure refers to the resource utilization level, which minimizes the cost of finance for the company and maximizes the performance of the firm (Vätavu, 2015). Erasmus (2008) acknowledged that the financial structure decisions could either negatively or positively influence the value of the company by decreasing or increasing the expected earnings or the cost of capital or both. Consequently, the classical views show that there is allowance for a decrease in the value of a firm, or allowance for an increase in capital cost by a sensible mix of equity and debt.

A financial structure design allows firms to make major capital decisions by analyzing cash flows and modes of finances. In addition, a financial structure shows the different level of risks that different indicators possess and their effect on the performance of the firm. Past studies suggest that an optimal financial structure enhances management efficiency (Ivanova & Bikeeva, 2016; Lin & Ovis, 2016)

1.1.4 Domestic Commercial Airline in Kenya

In 1988, Kenya signed the Yamoussoukro Declaration which stipulates that the Kenyan airlines are at liberty to operate in any country in Africa (Prescott, 2011). The declaration was designed to make certain airlines are integrated and regional regulatory bodies set up. The implementation of the declaration was to create a free and fair market for African airlines by making each country to open its borders. The treaty created room for cooperation among African states to achieve a common goal of improving air transport infrastructure and encourage fair trade among airlines. However, the statement is yet to be implemented until today as it did not receive the blessing of other African States.

Over the years Kenya has made bold steps in trying to improve the infrastructure of the aviation industry and satisfy the increased demand for air transport. Since Kenya and the rest of the world trade are now a global village, air transport demand has increased significantly over the past

decade. Other factors contributing to the growth of airline industry in Kenya include agriculture, tourism, horticulture and a faster and reliable mode of transport to ferry individuals from one region to another. According to Irandu (2010), the magnitude of an effective national air carrier network is an alternative to the insufficient ground transport scheme in the Sub-Sahara region.

The design of a productive financial structure has been used by domestic airlines to minimize funding costs. Hence, the concept of capital structuring will help local airlines to invest in areas where they can maximize profit with minimal resources. In addition, the airline industry faces a lot of volatility in its operation ranging from unpredictable fuel prices and increase in airline rivalry due to entry of foreign airlines in the country caused by globalization (Juergensmeyer, 2014). As a result, airlines seek to gain a competitive advantage through factors they can control such as designing a financial structure that optimizes returns and minimizes costs leading to improvement in performance.

1.2 Research Problem

Globalization has brought about the concept of profit maximization over the past decade (Juergensmeyer, 2014). The concept has been attributed to increased business rivalry due to the emergence of business trends that have converted the global business environment into a global village. Based on the increased competition, companies are increasingly seeking ways to find the best equity-debt balance that improves on the firm's performance. Globalization has made firms to focus on diversifying production, expansion and asset replacement (Lichtenstein, 2012). Hence, to improve on performance firms have had to make capital budgeting decisions on how to finance these projects. Since firms may raise funds using share financing or debt financing, it is significant to assess how a business' performance is affected by financial structure. However, performing evaluations of this relationship has proven difficult as a result this study seeks to fill this gap.

In Kenya, the contribution to the GDP by the airline sector has been varying over the years for instance in the year 2014, the contribution was at 0.3%, the year 2017, the contribution increased to 0.4% and the year 2018 increased to 0.5% (KNBS, 2019). Notwithstanding that there are variations in the development of domestic commercial airlines, the profitability of the airlines has been plunging as airlines record a net loss of Kshs. 7.1 billion in 2017 compared to Kshs. 8 billion in 2018, with debt financing increasing to Kshs. 23billion in 2018 (AFRAA, 2018).

Numerous studies have related financial structure to performance. Nevertheless, in the context of domestic airlines, there is still insufficient literature on this relationship. The current study seeks to fill this gap.

Dombele (2012) reports on a study of the performance of companies in France in relationship to the choice of capital of these companies. Results of the research showed that there is no effect of the choice of capital on the performance of these companies. These conclusions are not in tandem with other studies for instance Hadlock and James (2012) and Ghosh, Nag and Sirmans (2015) showed that in the manufacturing industry in Malaysia and USA, capital structure positively correlates with performance respectively. The current study seeks to fill these gaps by identifying the relationship between the performance of domestic airlines and financial structure and the effects and outcome thereof.

Yousef (2010), on the other hand, concentrated on investigating the effects of financial structure on performance of micro-financing institutions in South Africa. The study records that obligations of short- and long-term debt have an adverse effect on ROA. Marech (2014) sought to assess the performance and financial structure of micro-financial institutions in Morocco. The research shows that micro-financial institutions borrow more when young, solvent and have good leverage ratios. Ebaidi (2009) in his study on the effect of capital structure on performance of micro financing institutions in Egypt concluded that there is positive relation capital structure and performance. From the above-mentioned studies there is context variation as they were conducted in the financial sector and in well developed countries. The gaps will be addressed as this study will be conducted in the airline industry in Kenya which is a developing country.

There are numerous studies on the influence of financial structure on performance of businesses in Kenya. Mwangi (2017) performed a research on the effect of macroeconomic variables on the performance of insurance companies in Kenya. The conclusion to this study was that the relationship is positive. The study however concentrated on macroeconomic variables, which shows a conceptual gap. As such, the current research will revolve around the financial structure. Moturi (2017) reports on the effect of capital structure on the performance of firms in the cement manufacturing industries in Kenya pertaining to capital structure. Again, results of the study show a positive relationship. However, there exists a contextual gap, since contrary to this study,

Moturi focused on the cement industry. The current study will seek to address whether the same relationship exists in the domestic airline industry.

With numerous studies having been conducted both in Kenya and beyond, not much has been done as regards Kenyan commercial airlines and the connection between structure and performance. Financial features like the influence of debt and share financing on the performance of domestic commercial airlines are aspects that must be addressed in this study to ensure that the problem at hand is addressed. Therefore, ongoing research aims to identify the gaps discussed by addressing the following research question: what is the effect of financial structure on the performance of airlines?

1.3 General Objective

The general objective is to determine the effect of financial structure on performance of domestic commercial airlines in Kenya.

1.3.1 Specific Objectives

The study seeks to address the following specific objectives

- i. To assess the effect of share financing on the performance of domestic, commercial airlines in Kenya.
- ii. To determine the effect of debt financing on the performance of domestic, commercial airlines in Kenya.

1.4 Value of the Study

The research will have a great impact on the domestic airline management team as they will get a great comprehension of the impact of their management practices during financial structuring. It will also be vital because it will provide significant information on how financial management practices are put in place and also offer recommendations on how to improve the performance of airline companies. Furthermore, the study may assist the management of airlines to address the challenges experienced in the implementation of financial programs and shortcomings related to performance and act as a guide on improving its activities to overcome the challenges.

The research will also be of great significance to the Kenyan Government by giving insight into the implementation of policies that are aimed at achieving better results in the airline sector. The study will also aid the Government with developing policies and laws that are pivotal in making

the aviation sector attractive to investors both foreign and domestic. The government may also get an insight into the financial management practises in place and create responses that are in line with these policies. They may hence get direction from this study in outlining fitting strategies that can encompass financial management practices that may be unique to different airlines.

The findings will also be of great importance to scholars in future research. It will increase the body of knowledge by expounding on the financial structure impact on the financial performance of Kenyan airlines. Additionally, the study will further offer a theoretical review to financial structuring to researchers. This will enable them to understand the financial structure of a domestic airline.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter presents theories harbouring the study. It reviews past studies on financial structure and performance. Besides, the conceptual model will be used to demonstrate the linkage between the variables.

2.2 Theoretical Review

The trade-off theory, agency theory and pecking order theory anchor this study by laying down a theoretical point of reference to understand the relationship between financial structure and performance.

2.2.1 Trade-off Theory

The trade-off originated from Modigliani and Miller's (1963) in their second proposal. This theory highlights the concept of interest tax shield that occurs when a firm uses debt as its main form of capital and further indicated that debt funding (i.e. the tax benefit of loans) had a positive impact on the net profit of a firm. Furthermore, the theorists noted that the marginal benefit derived from additional debt increases proportionately with an increase in the level of debt. The trade-off theory offered an understanding on the share to debt ratios but it did not take into account the industry distinctions.

The word trade-off is derived from the opportunity cost choice that has to be taken between funding through debts that have so many adverse impacts on the business against the related significance that can include the ease with which it can be accessed (Nwaolisa & Chijindu, 2016). The theory emphasizes on the importance of a firm assessing the cost and benefits of the different modes of financing i.e share financing and debt financing. The trade-off theory outlines the costs associated with debts and insists that the cost of acquiring the debt should not exceed the benefits derived from it. According to Myres (2011), the principle of trading suggests the company will borrow to the point where the current value increase only compensates for the marginal value of extra debt of fiscal shields. After this point the value of the company falls due to financial difficulties that will arise when a firm tries to settle its obligations.

This theory majorly focuses on the benefits of balancing the use of share and debt financing in the financial structure to obtain the optimum combination that increases profits. However, the trade-off theory stipulates that executives have a preference for debt funding as compared to share financing (Etiennot et al, 2017). Financial managers balance debt costs and benefits to an optimum leverage level, interest on debt is tax deductible (thus reduction of corporate tax liability) and interest expenditure on debt, thereby decreasing the efficient debt-to-equity price (Hou & Van Dijk, 2018).

2.2.2 Pecking -Order Theory

The Pecking-Order theory was first established by Myers and Majluf (1984), it affirms that businesses have a preference to wholly fund a project with internal sources such as retained earnings. The relative cost of financing differs from the selection of financing given the presence of data asymmetries between the business and potential financiers (Berk & DeMarzo 2007). When the fund provider is the company's retained income which has more information than new equity shareholders, stakeholders expect higher returns on invested equity so that the firm making it more costly to finance the firm through floating new share than to use existing internal funds (Anthal, 2012).

The pecking order theory anchors around the share financing variable. It describes why executives are faced with a dilemma concerning choosing between share financing and debt financing (Penrose, 2013). In contrast to the pecking order theory, enhanced profitability is anticipated to lead to a decrease in leverage, as a more lucrative company is better prepared to finance capital requirements with inner economic resources (Nderu, 2013).

2.2.3 Agency Theory

Introduced by Jensen & Meckling in (1976), the theory argues that the primary theoretical explanation for the connection between property and profitability. Conflicts between the stakeholders and shareholders and/or between managers and shareholders can occur especially when making capital budgeting decisions such as asset replacement or purchase. This theory also focuses on the relationship between the agents also known as the manager and the Principal also known as the shareholder.

Shareholders may underinvest in risky debt in the capital structure of the business by abandoning investments because the project's benefit for present owners of the debt and the present debt

charge makes the company's spending on external capital markets too costly. On the other hand, Aswani (2016) argues that the economic structure of a firm is affected by the expenses of the organization concerned, these may include but are not restricted to both debt and funding of shares

Robicheaux et al. (2008) considers whether debt funding used to monitor debt expenses for the agency is being used to substitute or supplement corporate management, managerial incentive compensation used to manage the costs of share finance for the agency. They identify rental complements and incentive compensation, suggesting that businesses are simultaneously trying to control both debt agency expenses and domestic share financing. This theory implies that debt financing and share financing are effective and efficient modes of raising capital for companies, which in turn will increase revenues for airline companies.

2.3 Determinants of Performance

The performance of a firm is determined by the size, profitability and efficiency.

2.3.1 Firm Size

Studies on the connection between the firm's size and financial performance are inconclusive (Elbanna, 2010). Having conducted a survey on the cotton industry in the Kenyan Export Processing Zone (EPZ), a number of researchers have suggested a beneficial connection between a debt and a company size. Fama & French, (2002) stressed that when the company size is large, sophisticated loans are likely to increase compared to smaller companies, as larger companies have no loan collateral. According to their research, Akinyomi and Olagunju (2013) indicate that a big company is likely to perform better if well managed, concluding that company size is a critical element in terms of performance. This implies greater earnings, as described in the context of big manufacturing companies

2.3.2 Profitability

Profitability alludes to cash that a company can create with the asset it bears. The main goal of any business organization is profit maximization (Niresh and Velnapy, 2014). Profitability involves the ability to make profits through business activities (Muya and Gathogo, 2016). The major reward for entrepreneurship as a factor of production is profits. Hence, profit is the ultimate motivator for business operators. In addition, profits are used as a measurement of a

firm performance and represents the extra income charged above the purchase price of goods and services.

2.3.3 Efficiency

Efficiency is the rate at which a business produces revenue from its assets. Management efficiency in allocating resources is a major aspect that establishes a firm's performance. The different ratios are used to measure financial efficiency, they include earnings growth rate, loan growth rate and total asset growth rate. The management performance is customarily addressed qualitatively through prepossessed evaluation of administration structure, workforce superiority and regulatory rules. However, a number of financial ratios operate as substitute for organizational performance.

2.4 Empirical Review

Several studies have been advanced on the effect of share financing on the performance of a company. Cristian *et al.* (2017) in his study about the effect of financial structure on performance of shipping companies in Kenya. The study population was composed of 42 shipping firms in Kenya as registered by the KSAA, 2015 and used census survey. Data evaluation and analysis was done using descriptive statistics with the main analysis aid being frequencies, mean and correlation and multivariate linear regression. The study found that shipping firms with a stable financial structure were more likely to perform better than firms with an imbalanced structure. This was because a stable financial structure eased the way firms operated and the risk of being insolvent or bankrupt is greatly reduced. However, the study major limitation was that it was restricted to the shipping industry thus the significance of how the financial structure affects the performance of airlines was not exhibited.

Karani (2017) sought to analyze the effect of financial structure on the financial performance of companies in the petroleum industries in Kenya. Karani utilized Return On Equity (ROE) and Return On Asset (ROA) as measures of performance in relation to financial structure. The analysis underlines the relationship between debt financing and ROA and ROE between 23 listed companies and 30 medium enterprise businesses. Consequently, the findings show that there is a linear relationship between debt financing and ROA and ROE. Hence, the analysis highlights that the correlation between debt financing and ROA and ROE for startup companies is positive.

Khalil (2018) conducted a study on capital structure in the airline industry in United Arab Emirates (UAE). In addition, Nassar (2018) sought to investigate the effect of capital structure on the performance of industries in Turkey. The studies aimed at establishing the impact of capital structure on the performance of a firms. The studies used descriptive statistics as a tool for data analysis, with the primary tools being the ANOVA analysis and the factor analysis. As a result, the studies showed that the capital structure composition affected the performance of a firm and also made the company to become more vigilant in establishing a conducive internal and external environment. The main limitation of the study is that it was done in developed countries, where the sources of capital are readily available compared to Kenya which is a developing country.

Sibelekwana (2018) on his study about the effect of debt financing on the performance of agricultural SMEs in South Africa, noted that wherever debt is expanded, the companies involved are subjected to elevated liquidity risks owing to the reality that inability to service loans may result in the firms being subjected to greater rates or bankruptcy-related danger. The study used debt financing capability as a dichotomous variable. The study found that debt capability has a positive correlation with performance. However the study limitation was that it was done with a bias in the small and medium enterprise industry creating the need to determine whether the same relationship holds true in the airline industry.

Siddik *et al.* (2018) sought to analyze impact of capital structuring practices on the performance of banks firms in Bangladesh, Indonesia. The study selected a target population of all the large banking companies in terms of assets in Bangladesh. The study used stratified random sampling research technique to establish the sample size. The study's main limitation was the use of homogeneous large banking firms. The study found that different firms practiced different capital structuring techniques to maximize on performance. However, the study focused more on the banking industry thus creating the need for further studies in the airline industry.

From the aforementioned studies financial structure positively correlates with the firm performance in the shipping industry, production firms and start-up companies. Nonetheless, the same correlation does not exist in the e-commerce industry. As a result of these findings on the effect of financial structure on performance, the study seeks to analyze how financial structure affects performance in the domestic airline industry.

2.5 Conceptual Model

A Conceptual model exhibits a figurative representation of the study. The model is obtained from the pecking order theory, the agency theory and trade off theory. From the theories the independent variables are share financing and debt financing on the other hand the dependent variable is performance, as indicated in figure 2.1.

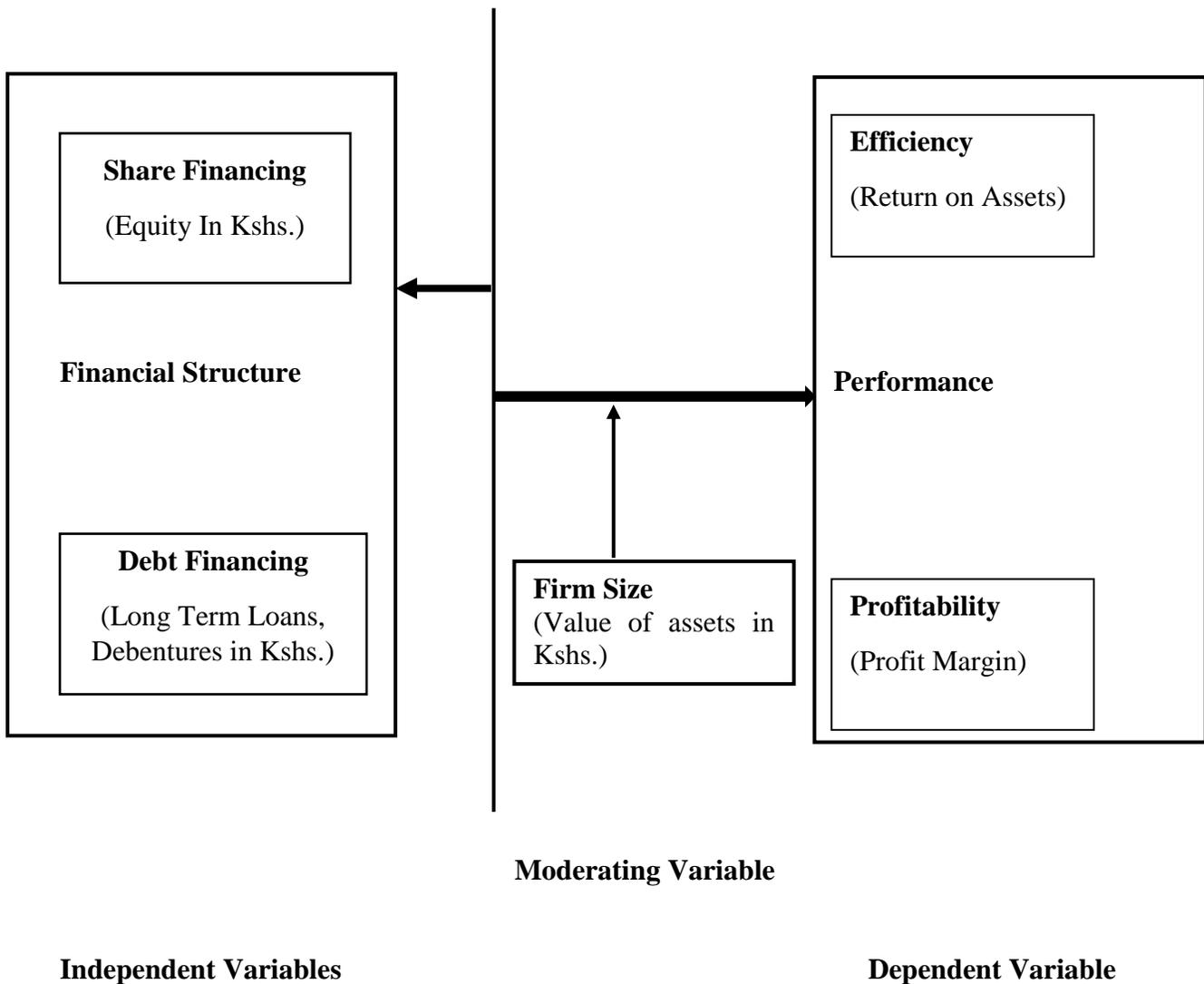


Fig. 2.1: Conceptual model

Table 2.1: Summary of Literature Review and Gaps

Author	Objective	Findings	Research gaps	How gaps were addressed
Cristian <i>et al.</i> (2017)	effect of financial structure on performance of shipping companies in Kenya	Firms use debt financing and it has a major positive correlation to performance. Also small firms affinity to debt is less since they are young, unleveraged, less solvent	Concept variation it was done in the shipping industry.	Study is carried out in the shipping industry and Uses panel data regression.
Karani (2017)	effect of financial structure on the financial performance of companies in the petroleum industries in Kenya	Share financing has a major and positive effect on asset returns	Context variation it was done in the financial sector. Only ROA is used to measure performance	Study is carried out in the airline industry. Profitability and liquidity will be used to measure financial performance.
Khalil (2018)	a study on capital structure in the airline industry in United Arab Emirates (UAE)2002	Significant relationship between dividends payment and firm profitability. Also, dividends payment was a major factor that influenced return on assets	Context variation it was done in United Arab Emirates and different industries	Study will be carried out in the airline industry and will focus in Kenya.

Source: Research Data, 2020

From the indicated studies, only long term sources of finance have been considered at the expense of other short term sources like overdrafts and short term bonds. This study will address

this gap focusing on addressing how the adverse effect of inappropriate financial structure can reduce the financial performance of airlines and ultimately lead to financial distress and failure of the firms.

However, there exists knowledge gaps that this study sought to address. These gaps also include conceptual, contextual and methodological aspects. As a result, there is need to establish if the components of the financial structures adopted by local airlines affects their performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter discusses the steps the researcher followed to attain the stated objectives. The chapter also focuses on the research design. It also describes the target population that will provide information about the study. The researcher reviews and describes how data collection occurred. Data analysis and presentation allows the researcher to draw inferences, make conclusions and recommendations.

3.2 Research Design

The study will use explanatory research design, since it is quantitative in nature. The research design guides the investigator on the techniques required in information collection and analysis. This is because the study provides an idea of the research variables' interactions. The research design assesses the effect of changes in the independent variables on the dependent variable. Since the population under study is small, the whole population will be used in the study.

3.3 Target Population

For this study, the target population are 11 domestic commercial airlines in Kenya. The airlines are listed at the African Airlines Association (AFRAA) as at 31st December 2019. The study uses the listed airlines data since the firms are required to readily provide information to stakeholders by the Kenya Civil Aviation Authority. Since the population is small in size, the study did not conduct a sampling exercise but focuses on all the 11 airlines.

3.4 Data Collection

The researcher collected data from secondary sources. Secondary data collection involves obtaining data from public published materials. The public published materials include financial reports, company memorandum and data sources from the stock exchange. The secondary data enables the analysis of both quantitative and qualitative data. The data obtained assists in calculating the total assets, total long term debt, dividend paid and number of shareholder. From the annual reports the researcher determined the airline dividend pay-out policy, gearing ratio and the equity statement of the company over the years. Some of the annual reports to be used are downloaded from the firms' website. The researcher recorded each data collected in the

secondary data collection sheet and template. The study collected financial data from 2014 to 2019.

3.5 Diagnostic Tests

The diagnostic tests done include; test for multicollinearity, test for normality, test for heteroscedasticity and the test for model specification. The study uses three analytical models in order to validate the data under analysis and prevent blind spots as the methods countercheck each other. The test for multicollinearity measures the existence of a linear connection between independent variables. While the test for normality, the use of the Shapiro Wilk test determines whether residuals acted normally. Heteroscedasticity relates to disturbances of regression whose observational variances are not continuous (Greene, 2008). Besides, to get the appropriate model between fixed effect and random effect model the researcher used the model specification test.

3.6 Data Analysis and Presentation

After Data collection, the data was formatted before being imported to stata from excel. Correlation analysis is in the form of pearson's correlation coefficient. Pearson correlation test was performed to test for the level of significance between all independent variables and the dependent variable. The study used the Pearson's correlation coefficient as a measure of linear correlation. The letter (r) was used to symbolize the coefficient and its value varies between -1 and +1, where 0 indicates no linear relationship while the Coefficient of determination (R^2) measures the variation among the study variables. The closer the R^2 is to 1 the better the regression line to the actual data (Sekaran, 2000).

The regression equation 3.1 and 3.2 enables the study to analyze repeated observations on fixed units. From the general regression model 3.1, the study uses two Panel regression analysis for Net profit margin and ROA. Similar to the regression model 3.1, the regression model 3.2 and 3.3 aids this study in combining both cross-section data and time series data. General Model:

$$Y_{nt} = \beta_0 + \beta_n X_{nt} + \epsilon_t \dots \dots \dots 3.1$$

$$ROA_{nt} = \beta_0 + \beta_1 X_{1nt} + \beta_2 X_{2nt} + \epsilon_t \dots \dots \dots 3.2$$

$$NPM_{nt} = \beta_0 + \beta_1 X_{1nt} + \beta_2 X_{2nt} + \epsilon_t \dots \dots \dots 3.3$$

Where: Y – Performance measured by ROA and profitability for airline i time period t.

β_0 – Intercept

P_{it} – Net Profit Margin for airline n at time t.

X_{1t} – Share financing for airline n at time t..

X_{2t} – Debt financing for airline n at time t.

B_1 - β_4 – Co-efficient.

ϵ_t – Is the error term at time t.

Table 3.1: Operationalization and measurement

Variable	Measurement	Operationalization	Measurement scale	Hypothesis Direction
Share financing	Independent variable	It is the total amount of share financing	Total value of share financing	Positive
Debt financing	Independent variable	Total amount of debt financing	Total value of debt financing	Positive
Firm size	Moderating variable	Total amount of assets	Total value of assets	Positive
Profitability	Dependent variable	Net profit margin	Net profit margin	Positive
Efficiency	Dependent Variable	Change in net income over total asset value	Return on Assets	Positive

Source: Researcher (2019)

3.7 Inferential statistics

The data collection used inferential statistics. The above data in Table 3.1 infers a positive relation between share financing and debt financing in the performance of a firm. The study used regression to ascertain the relationship between the independent variable and dependent variables.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATIONS AND FINDINGS

4.1 Introduction

In this chapter the researcher presents a summary of the findings of data collected. In addition, the study collected data on equity, asset base, debt, current assets, net income and liabilities of all operational domestic commercial airlines in the past seven years that is from 2013 to 2019. The researcher obtained data from the Kenya Civil Aviation Authority and published annual reports of the airline companies. The findings are relayed in the subsequent sections.

4.2 Descriptive Statistics

This section shows descriptive results relating to the study variables. The researcher utilized the average and standard deviation to determine if there is a relationship between financial structure and financial performance. The Descriptive statistics findings are highlighted in table 4.1 below.

Table 4.1: Descriptive statistics android dior dna

Variable	N(obs)	Min	Max	Average	Std.Dev
Share component	56	9.95	11.12	11.322	0.1079
Debt component	56	9.46	12.08	10.693	0.1108
Firm size (Total assets)	56	10.52	12.97	11.04	0.1137
Net profit margin	56	-17.1751	2.45	9.80	0.210
Return on asset (ROA)	56	-5.0153	3.10	-1.60	0.240

Source: Research Data, 2020

The results in table 4.1 above shows the airline performance measured by net profit margin and ROA was very low. From table 4.1 there is a below par performance posted by companies in the

commercial airline industry in Kenya as indicated by the industrial average net profit margin. This shows that during the seven years the airlines accrued significant losses as indicated by an ROA minimum of -5.5103 and a minimum net profit margin of -17.1751. In addition during the period, the standard deviation for the net profit margin and the ROA was very high stipulating that the performance of the airlines varied significantly. The results are in line with Salam (2013) who observed that a higher ROA signifies that the firm is efficient in utilising its capital.

The cumulative mean of share financing determined as a log of total share finances was 11.322 while the maximum was 11.12 pointing that commercial airlines preferred to finance major companies operations using equity throughout the seven year period. Moreover, the standard deviation was quite low highlighting that share financing varied minimally across the stipulated period. The cumulative mean of debt financing determined as a log of debt finances was 10.693 whereas the maximum was 11.08 indicating that it was the most sought source of financing throughout the period by the domestic commercial airlines in Kenya. This indicates that it is the most preferred source of finance by the airlines. The standard deviation was very low indicating that debt financing varied minimally across the stipulated period.

From table 4.1 the minimum of firm size and the mean determined as log of total assets was 10.52 and 11.04. The study found that the figures were quite high thus indicating that the firms in the domestic commercial airlines industry are quite large firms as witnessed by the huge asset base. The std deviation was 0.1137 which is low hence, indicating that the size of total assets held by commercial airline varied minimally across the period under study. This is highlighted by Elbanna (2010) who observed that the large firms show a higher level of financial performance.

4.3 Correlation Analysis

Correlation analysis was performed to determine the Karl Pearson Correlation Coefficient between the dependent variables (ROA and net profit margin) and independent variables (share financing and debt financing). The study used a 95% level of significance to perform the correlation analysis. The findings were summarized as shown in Table 4.2 below.

Table 4.2. Correlation Analysis

	Net profit margin	ROA	Share financing	Debt financing
Net profit margin	1.000			
ROA	0.120 0.045	1.000		
Share financing	0.796 0.010	0.757 0.021	1.000	
Debt financing	0.656 0.013	0.878 0.009	0.428 0.054	1.000

The results indicate in table 4.2 above indicate that debt financing and financial performance (Return in assets and net profit margin) are positively and significantly related with ($r= 0.878$, $p=0.009$) and ($r= 0.656$, $p=0.013$) respectively. The results are in line with Shubita and Alsawalhah (2012) who hinted that organizations that have a high performance rate rely on equity funding as their main source of finance. They also added that share financing and financial performance are positively correlated.

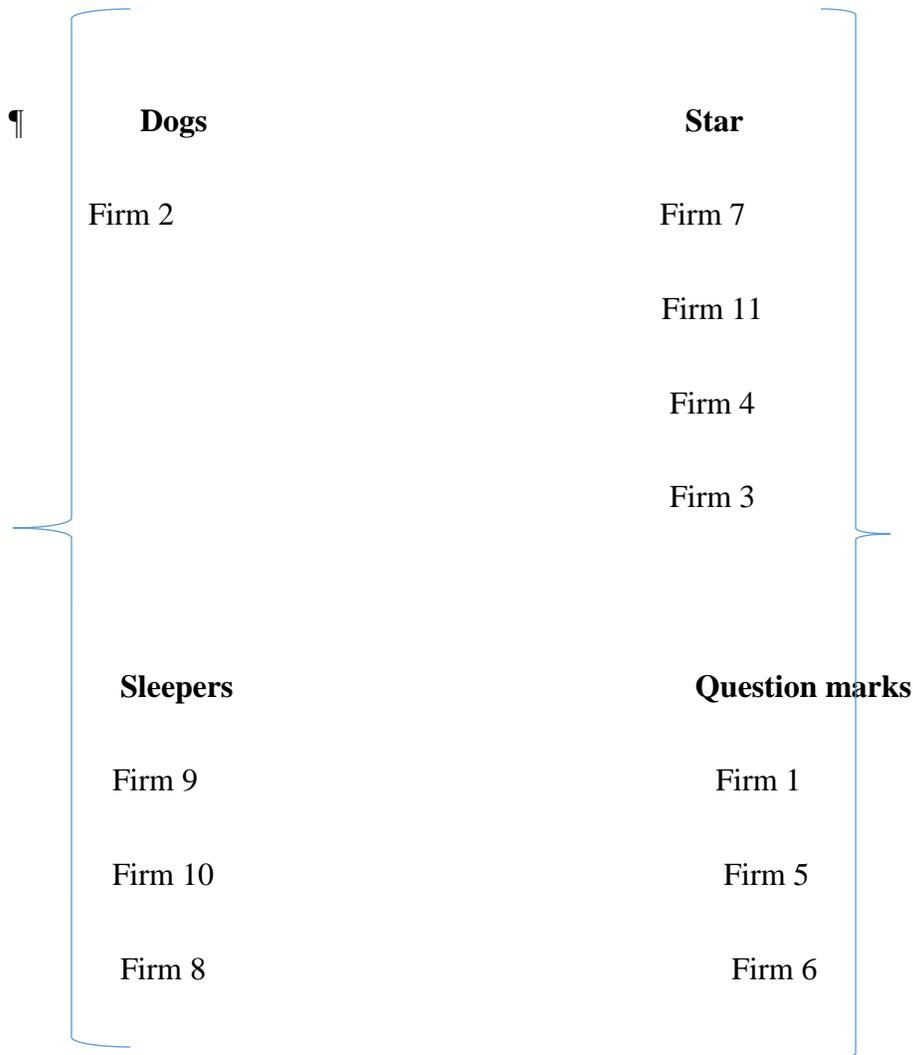
Correlation results established that share financing and financial performance (Return on assets and net profit margin) are positively and significantly related with (0.757 , $p=0.02$) and ($r= 0.796$, $p=0.010$) respectively. The findings are in support of Abor (2007) who determined a significant relationship between short-term and long term debt and ROA and net profit margin.

4.3.1 Profitability and efficiency matrix

The study created a profitability – efficiency matrix that provides information on the level of profitability and efficiency that an airline lies. The matrix divides the elements in four quadrants namely, sleepers, stars, dogs and question marks. The sleeper quadrant represents firms that are profitable but less efficient hence can still increase on profitability by being more efficient and effective. The star quadrant represents airlines that are both profitable and efficient in their operation making them the market leaders. The dogs quadrant represent airlines that are highly efficient but record low profitability, while the question mark quadrant highlights airlines that are struggling because they are both inefficient and unprofitable. The table below shows the efficiency and profitability measure of each airline in Kenya.

Table 4.3 Efficiency – Profitability Measure

AIRLINE	EFFICIENCY	Return On Assets
Firm 1	0.401	- 442
Firm 2	0.516	- 28
Firm 3	0.618	35
Firm 4	0.428	- 567
Firm 5	0.345	- 45
Firm 6	0.496	- 10
Firm 7	0.674	97
Firm 8	0.528	10
Firm 9	0.288	12
Firm 10	0.345	6
Firm 11	0.546	28



4.4 Diagnostic tests

Before undertaking panel regression analysis, diagnostic tests was undertaken to prevent unauthentic results. The tests that were undertaken in this case were the normality, multicollinearity, auto-correlation and heteroscedasticity test.

4.4.1 Multicollinearity Test

Table 4.3 below shows the results for multicollinearity test using VIF.

Table 4.3: Multicollinearity test results

Variable	VIF	1/VIF
Log of share financing	1.89	0.5291
Log of debt financing	1.42	0.7042
Firm size	1.56	0.6410
Net profit margin	1.27	0.7874
Return on asset (ROA)	1.45	0.6896
Mean VIF= 1.518		

Source: Research Data, 2019

Table 4.3 shows that the researcher used VIF to determine the multicollinearity of test results. The log of Return on Assets, Net profit margin, firm size, log of debt financing and log of share financing were used as indicated in table 4.3 below. From the results, the mean Variance Inflation Factors is 1.518 since the value does not exceed 10 it indicates that the variables do not show multicollinearity as highlighted by Song (2016).

4.4.2 Normality Test

The Shapiro-Wilk test was used to test for normality so as to ascertain that the residuals in the data have a normal distribution. The study used Shapiro-Wilk test to test the null hypothesis and find out if there was a normal distribution of residuals. The findings are highlighted in table 4.4 below

Table 4.4: Shapiro-Wilk Test for Normality

Models	Obs.	Statistic	Df	Sig.
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Net profit margin	56	0.894	56	0.856
ROA	56	0.974	56	0.892

Source: Research Data, 2019

Table 4.4 shows the p-values of 0.892 and 0.856 for return on assets and net profit margin regression models respectively. The values are higher than 0.05 indicating that there is normal distribution of residual. Therefore, the null hypothesis was rejected since the residuals behaved normally.

4.4.3 Heteroscedasticity Test

Heteroscedasticity happens in incalculable observation, bringing about inefficient assessment of results in both cross-section and time-series data (Baltagi, 2015). The study constructed the heteroscedasticity observation using the Breusch-Pagan test. The null hypothesis was homoscedastic residuals. This meant that there was a presence of heteroscedasticity if the F statistics highly rejected the null hypothesis which is at least 90 percent or 95 percent of the meaning level. If the p-value is greater than 0.05, it displays constant variance. The reported value was 0.1097 for Return on assets and 0.8506 for the model with net profit margin thus, the study failed to reject the null hypothesis. As a result, there was no occurrence of heteroscedasticity in the data as shown in Table 4.5 below.

Table 4.5. Breusch-Pagan Test for Heteroscedasticity

Net profit margin	Return on Asset
chi2 (1) = 0.04	chi2 (1) = 2.59
Prob>chi2 = 0.8506	Prob>chi2 = 0.1097

Source: Research Data, 2019

4.4.4 Autocorrelation Test

The Durbin-Watson test was used to test for the presence of autocorrelation. The study used the Durbin-Watson test to test the null hypothesis that there exists no serial correlation. Table 4.6 below highlights the findings of the test.

Table 4.6: Durbin- Watson Test

Return On Assets	Net Profit Margin
H ₀ : no serial autocorrelation	H ₀ : no serial autocorrelation
d-statistic (8, 56)= 0.8017	d-statistic (8,77)=0.7923

Source: Research Data, 2019

The findings in table 4.6 indicate that the d-statistics of return on assets was 0.8017 and that of Net Profit Margin was 0.7923. The values are higher than 0.05 indicating that there exists no autocorrelation.

4.4.5 Stationarity Test

The Levin-Lin-Chu unit-root test was used out to test the stationarity of panels. The study used the Levin-Lin-Chu unit-root test to test the alternative hypothesis that panels are whereas the null hypothesis is panels contain unit roots. Table 4.7 below presents the findings of the tests.

Table 4.7: Levin-Lin-Chu unit-root test

Variables	Statistics	p-value
Net Profit Margin	t = -58.6692	p < 0.05
Return on Asset	t = -88.2566	p < 0.05
Share financing	t = -4.6191	p <0.05

Debt financing	t = -0.0039	p = 0.4985
Firm size	t = -0.4136	p = 0.3396

Source: Research Data, 2019

The results in Table 4.7 show the share financing, return on assets and net profit margin having p-values that are lower than 0.05. As a result, we reject the null hypothesis indicating that the panel data are stationery. However, the firm size and the log of debt financing all have p-values greater than 0.05 indicating that we fail to reject the null hypothesis. As a result, the data from the firm size and debt financing contains unit roots.

4.4.6 Model Specification Test

The hausman test was carried out to detect the presence of random effects. The null hypothesis of the hausman test is that random effects are independent of explanatory variables and the alternative hypothesis is that the null hypothesis is not true. Table 4.8 below was used to present the results of the tests.

Table 4.8: Hausman test

Hausman test

chi2 (11) = 2.81
 Prob>chi2 = 0.9930

Source: Research Data, 2019

The results in Table 4.7 shows that the p-value of the hausman test is 0.9930, hence do not reject the null hypothesis that random effects are independent of the explanatory variables because p-value is greater than 0.05. Therefore, the random effect estimator is used to analyse the regression model.

4.5 Regression Analysis

The study used the General Least Square (GLS) regression model since the specified regression model is the random effect estimator as indicated by the hausman test. The regression model was used to show the relationship between the dependent variables of net profit margin and ROA and the independent variables (share financing and debt financing). The findings were presented in subsequent tables.

4.5.1 Model Summary

The regression model summary was used to indicate the R and R square values between the dependent variables of net profit margin and ROA and the independent variables (share financing and debt financing). Table 4.9 below captures relationship between the independent variable (financial structure) and dependent variable (net profit margin).

Table 4.9: Regression Model Summary

Model	R	R square	Adjusted R square	Std. Error	Sig
1a	0.934	0.873	0.866	1.9652219	0.000
a. Predictors: (Constant) lease financing, share financing, debt financing and retained earning					
b. Dependent Variable: Net profit margin					
Model	R	R square	Adjusted R square	Std. Error	Sig
1b	0.823	0.677	0.659	1.898866	0.001
a. Predictors: (Constant) share financing and debt financing					
b. Dependent Variable: ROA					

Source: Research Data, 2019

The coefficient of determination (R^2) and correlation coefficient (r) shows the degree of relationship between financial structure and net profit margin. The R value of (0.934) indicates a strong and positive relationship between financial structure and net profit margin. The adjusted

R^2 indicates that 86.6% of changes in financial performance are explained by net profit margin of the domestic airlines in Kenya. The R value of (0.823) indicates a strong and positive relationship between financial structure and ROA. The adjusted R^2 indicates that 65.9% of changes in ROA are explained by financial structure of the domestic airlines in Kenya.

4.5.2 Analysis of Variance (ANOVA)

Analysis of Variance (ANOVA) was used to find out whether the variation in the financial structure would explain the variance in financial performance. The following tables presents the results for net profit margin and ROA.

Table 4.10: ANOVA Results for Net Profit Margin Regression Model

	Model	Sum of Square	df	Mean square	F	Sig
1a	Regression	1912.560	4	478.140	123.803	.000
	Residual	278.071	72	3.862		
	Total	2190.631	76			

Model 1a= The dependent variable is net profit margin

Source: Research Data, 2019

In view of the results in table 4.10 above, the model overall is a good fit ($p=0.000$). Hence, financial structure explains financial performance of domestic airlines in Kenya.

Table 4.11: ANOVA Results for ROA Model

	Model	Sum of Square	Df	Mean square	F	Sig
1b	Regression	544.327	4	136.082	37.741	.000
	Residual	259.610	72	3.606		

Total 803.937 76

Model 1b= The dependent variable is ROA

Source: Research Data, 2019

In view of the results in table 4.11 above, the model overall is a good fit (p=0.000). Hence, financial structure explains financial performance of domestic airlines in Kenya.

4.5.3 Regression Coefficients

The regression coefficient was used to indicate the coefficient values between the dependent variables of net profit margin and ROA and the independent variables (share financing and debt financing). The results are indicated in table 4.12.

Table 4.12: Regression Coefficients

Model	Variables	Coef.	Std. error	t	P- value	95% confidence interval	
	Share financing	1.487	.660	2.253	.027	.170	2.803
	Debt financing	1.434	.692	2.072	.042	.056	2.813
	Constant	-15.576	4.276	-3.643	.001	-24.100	-7.052
Wald Chi2(4)=495.21 Prob>chi2 = 0.000							
	Share financing	-1.827	.638	-2.864	.005	-3.099	-.555
	Debt financing	-1.439	.668	-2.154	.035	-2.771	-.107
	Constant	18.031	4.132	4.364	.000	9.795	26.267
Wald Chi2(4)=150.96 Prob>chi2 = 0.000							

Model 1a= The dependent variable is net profit margin

Model 1b= The dependent variable is ROA

Source: Research Data, 2019

From the results in table, the models are shown below:

$$\text{NPM}_{it} = -15.576 + 1.487X_{2it} + 1.434X_{3it}$$

$$\text{ROA}_{it} = 18.031 - 1.827X_{2it} - 1.439X_{3it}$$

Where: NPM_{it} – Net profit margin for airline i at time t .

ROA_{it} – Return on Asset for airline i at time t .

X_{2it} – Share financing for airline i at time t .

X_{3it} – Debt financing for airline i at time t .

The results shown in Table 4.12 indicate that the independent variables of share financing and debt financing were found to be satisfactory variables in explaining financial performance (net profit margin and ROA) of domestic airlines in Kenya. The p -values of share financing and debt financing were less than 5% hence they are statistically significant. Results concur with Salam (2013) who focused on debt financing and share financing on net profit margin and ROA of 30 SMEs from 2008 to 2012 and concluded that share and debt financing is significantly related with net profit margin and ROA.

The results also shows that share financing (Log of share finance) and financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are positively and significantly related ($\beta=1.487$, $p=0.027$) and ($\beta=-1.827$, $p=0.005$) respectively. This means that an increase by 1 unit in share financing would lead to a subsequent increase in net profit margin by 1.487 units and a decrease in ROA of domestic commercial airlines in Kenya by 1.827 units. The findings concur with Shubita and Alsawalhah (2012) who concluded that share financing is

significantly related with financial performance. Also the results, Velnampy and Niresh (2012) established a significant relationship between share financing and financial performance of SMEs specifically ROA. However, Chiang *et al.* (2002) established that share financing negatively impacts net profit margin of firms as the shareholders interest have to be catered for at the expense of the company.

The results also shows that debt financing (Log of debt financing) and financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are significantly related ($\beta=1.434$, $p=0.042$) and ($\beta=-1.439$, $p=0.035$) respectively. This means that an increase by 1 unit in debt financing would lead to a subsequent increase in net profit margin by 1.434 units and a decrease of 1.439 units in ROA of domestic commercial airlines in Kenya. The findings concur with Baimwera and Muriuki (2014) who concluded that debt financing is significantly related to financial performance of SACCOs in Kenya. The results also agree with Lesivan (2012) who established that long term debts affects net profit margin of firms. Also, Muigai (2016) noted that debt financing negatively and significantly impacts financial performance of companies as the excessive use of debt to finance corporate activities generally results into a considerably adverse impacts.

4.6 Interpretation and Discussion of Findings

The first hypothesis to be tested was:

H_{01} : Share financing does not significantly affect financial performance of domestic commercial airlines in Kenya.

The hypothesis was tested by using panel regression analysis and determined using p-value. The criterion for rejecting null hypothesis is to reject the null hypothesis if the p-value is less than

0.05. The results for panel regression analysis show that the p-values ($p=0.027$) and ($p=0.005$) are less than 0.05 hence, the null hypothesis was rejected. The alternative hypothesis was to accept that share financing has a significant effect on financial performance of domestic commercial airlines in Kenya. The findings concur with Shubita and Alsawalhah (2012) who concluded that share financing is significantly related with financial performance. Also the results, Velnampy and Niresh (2012) established a significant relationship between share financing and financial performance of SMEs specifically ROA. However, Chiang *et al.* (2002) established that share financing negatively impacts net profit margin of firms as the shareholders interest have to be catered for at the expense of the company.

The second hypothesis to be tested was:

H₀₂: Debt financing does not significantly affect financial performance of domestic commercial airlines in Kenya

The hypothesis was tested by using panel regression analysis and determined using p-value. The criterion for rejecting null hypothesis is to reject the null hypothesis if the p-value is less than 0.05. The results for panel regression analysis show that the p-values ($p=0.042$) and ($p=0.035$) are less than 0.05 hence, the null hypothesis was rejected. The alternative hypothesis was to accept that debt financing has a significant effect on financial performance of domestic commercial airlines in Kenya. The findings concur with Baimwera and Muriuki (2014) who concluded that debt financing is significantly related to financial performance of SACCOs in Kenya. The results also agree with Lesivan (2012) who established that long term debts affects net profit margin of firms. Also, Muigai (2016) noted that debt financing negatively and significantly impacts financial performance of companies as the excessive use of debt to finance corporate activities generally results in a considerably adverse impacts.

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Table 4.13: Summary of hypothesis

No	Objective	Hypothesis	Rule	P-Value	Comment
1	To determine the effect of share financing on financial performance of domestic commercial airlines in Kenya.	H_{01} : Share financing does not significantly affect financial performance of domestic commercial airlines in Kenya	Reject H_{01} if p Value < 0.05	P<0.05	Share financing has a significant effect on financial performance of domestic commercial airlines in Kenya
2	To assess the effect of debt financing on financial performance of domestic commercial airlines in Kenya.	H_{02} : Debt financing does not significantly affect financial performance of domestic commercial airlines in Kenya	Reject H_{02} if p Value < 0.05	P<0.05	Debt financing has a significant effect on financial performance of domestic commercial airlines in Kenya

The study found out that the average financial performance determined by Return on Assets and net profit margin was very low which interpretes to the financial losses that the Kenyan domestic commercial airlines made over the years 2013 to 2019. Moreover, there was a significant loss in the 7 years period indicated by the minimum of net profit margin which stood at -17.1751.

While, the cumulative average of both the debt and share financing determined using logarithm was high suggesting that firms sourced for additional capital either through acquiring debts or selling equity. Notably, the cumulative average and the maximum of the log of debt financing stood at 10.693 and 12.08 which was the highest thus indicating that most firm had a preference for raising funds using debt capital.

Furthermore, the correlation results appropriate that debt and share financing are positively correlated with financial performance (Return on Assets and Net profit margin). The ANOVA results for Return on Assets and net profit margin found that 65.9% and 86.6% of changes in Return on Asset and net profit margin respectively are attributed to the financial structure of the commercial domestic airlines operating in Kenya.

The regression coefficients show that changes in the financial performance (dependent variable- net profit and Return on Assets) of domestic airlines in Kenya can be explained by the independent variables that is share financing and debt financing. Thus, an increase by 1 unit in debt financing would cause a subsequent change in Return on Assets by -1.827 units and a change in net profit margin by 1.487. Moreover, an increase by 1 unit in share financing would cause a subsequent change in Return on Assets by -1.827 units and a change in net profit margin by 1.487.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter summarizes the findings of the study. The objectives and hypotheses of the study were used as units of analysis. Data was interpreted and the results of the findings were correlated with the empirical and theoretical literature available. Conclusions are also drawn which relate to the objectives in this study. Also, the recommendations are then derived from the conclusions and discussion of findings. The chapter also contains suggested areas for further studies.

5.2 Summary

The overall objective of this study was to evaluate the effect of financial structure on financial performance of domestic commercial airlines in Kenya. The study sought to examine to determine the effect of share financing on financial performance of domestic commercial airlines in Kenya and to assess the effect of debt financing on financial performance of domestic commercial airlines in Kenya. The targeted population was 11 domestic commercial airlines in Kenya that were operational in 2012-2019.

The first objective of the study was to determine the effect of share financing on financial performance of domestic commercial airlines in Kenya. The correlation results showed that share financing and financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are significantly related with ($r= 0.697$, $p=0.010$) and ($r= 0.717$, $p=0.012$) respectively. Therefore, an increase to the share financing would cause financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya to move in the same direction.

Regression of coefficients results showed that share financing and financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are significantly related ($\beta=1.487$, $p=0.027$) and ($\beta=-1.827$, $p=0.005$) respectively. This means that an increase by 1 unit in share financing would lead to a subsequent change in net profit margin and ROA of domestic commercial airlines in Kenya by 1.487 and -1.827 units respectively. The study used the alternative hypothesis that share financing has a significant effect on financial performance of domestic commercial airlines in Kenya.

The second objective of the study was to assess the effect of debt financing on financial performance of domestic commercial airlines in Kenya. The correlation results showed that debt financing and financial performance (net profit margin and ROA) are positively and significantly related with ($r= 0.556$, $p=0.011$) and ($r= 0.578$, $p=0.001$) respectively. Therefore, an increase to the debt financing would cause financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya to move in the same direction.

Regression of coefficients results showed that debt financing and financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are positively and significantly related ($\beta=1.434$, $p=0.042$) and ($\beta=-1.439$, $p=0.035$) respectively. This means that an increase by 1 unit in debt financing would lead to a subsequent change in net profit margin and ROA of domestic commercial airlines in Kenya by 1.434 and -1.439 units respectively. The study used the alternative hypothesis that debt financing has a significant effect on financial performance of domestic commercial airlines in Kenya.

5.3 Conclusions

The study concluded that share financing has a significant effect on financial performance of domestic commercial airlines in Kenya. This study also indicated that an increase by 1 unit in

share financing would lead to a subsequent change in net profit margin and ROA of domestic commercial airlines in Kenya by 1.487 and -1.827 units respectively. Therefore, share financing is used by the domestic commercial airlines in Kenya so as to gain more capital and avoid debts thus improving on its financial performance.

The study concluded that debt financing has a significant effect on financial performance of domestic commercial airlines in Kenya. The study also indicated that an increase by 1 unit in debt financing would lead to a subsequent change in net profit margin and ROA of domestic commercial airlines in Kenya by 1.434 and -1.439 units respectively. The domestic commercial airlines in Kenya acquire debts so as increase its capital, maintain ownership and become risk averse thus attain higher net profit margin.

Further, the study established that combination of debt and equity financing in the capital structure have a significant effect on financial performance of domestic commercial airlines in Kenya. This means that an increase by 1 unit in either debt or capital in the capital structure would lead to a subsequent increase in net profit margin and ROA of domestic commercial airlines in Kenya by 1.525 and 0.424 units respectively. Debt financing is the mostly preferred by the domestic commercial airlines in Kenya since it is readily available and reduces additional expenses related to issuance of external equity gain thus improving on its financial performance.

5.4 Policy Recommendations

The study recommends that since share financing affects financial performance, the management of domestic commercial airlines in Kenya should adopt more use of debt financing. They should also use the debt finances for investments only and not for the recurrent expenses so as to get sufficient income to enable them pay the debts in time. The study also recommends the management of domestic commercial airlines in Kenya to adopt more use of share financing.

Thus, the management should brand their products so as to get more investors on board. This will improve on their ROA.

The study also recommends the regulator, Kenya Civil Aviation Authority and Kenya Airports Authority, to put in place economic regulations and policies that will guide the management of airlines in Kenya. This will enable the airlines to achieve more profitability and identify the right sources of finances to use. The study also recommends the Government of Kenya to improve on the existing policies so as to promote the ease of doing business so as to reduce bureaucracy for the domestic commercial airlines in accessing share and debt finances.

5.5 Limitations of the study

The study encountered some limitations which were worth noting. Some errors might have gone undetected. These limitation were managed by making thorough clarifications and going through the data severally to minimize on the anticipated errors.

Resource funding was a major constraint as well. The procedures followed at Registrar of Companies on file perusal require a fee payment in order to view the annual reports of the companies. Thus, with a huge population of 96 annual reports this consumed most of the researchs resources since it was costly and also come of the companies had missing annual reports. Hence, there is need to consider the purpose of requesting such reports in order to reduce the costs for students who seek to work on their research but lack enough research resources to meet the hefty fees charged to conduct the research.

In addition, the data collection process was quite involving since all the resource information was in hard copy. Hence, most of the research time was consumed while keying in the data into the data processing soft ware to conduct the analysis. Thus, there is need for digitization of the

source data to allow researchers and other stake holders to easily access the data and the digitization process also minimizes the chances of losing most of the data by wear and tear since it offers a more cheap and efficient way of data storage.

The study integrated only two important variables of finance which are share financing and debt financing. However, there are a variety of other sources of finance that have an important effect on financial performance and are not included in this framework, such as retained earnings, leases and preferred stock option. In addition, this study only investigated firms in Kenya which offers a narrow perspective since Kenya is still a developing country and the correlation relationship between share and equity finance may not hold in developed countries that have an easy access to sources of capital and other a variety of alternative investment options.

5.6 Areas for further research

It is expected that the findings of this study will contribute to the existing body of knowledge and also form the basis for future researches. The following are the areas recommended for further research under this study. First, the current study examined the finance structure and its influence on financial performance with the Kenya's domestic commercial airlines as the case study. It is recommended that future studies should seek to establish whether the same financial structure practices components of lease financing, share financing, debt financing and retained earnings are applicable to other organizations within Kenya and beyond.

Secondly, as alluded in the first area of future research, the scope of this study focused on four components. There is need to carry out further studies to ascertain the influence on financial performance of other components that are not covered under the current scope of study. Moreover, the scope of the study was limited to a period of 7 years that is, 2012 to 2018. Further studies should be conducted to focus on a wider span of more than 7 year period for more

reliable and conclusive findings. Lastly, the study indicated that lease financing does not significantly affect financial performance of domestic commercial airlines in Kenya. Thus, further studies should be conducted to establish if this is the case for different period.

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APPENDICES

APPENDIX III: LIST OF OPERATIONAL DOMESTIC COMMERCIAL AIRLINES

No.	Airlines
1	748 Air Services
2	ALS Limited
3	Astral Aviation Limited
4	Bluebird Aviation Limited
5	Dac Aviation (Ea) Limited
6	East African Safari Air Express Limited
7	Fly540 Air services Ltd
8	Fly-SAX Aviation Ltd
9	Kenya Airways Limited
10	Safarilink Aviation Limited
11	Skyward Express Limited

Source: Kenya Civil Aviation Authority (2019)

APPENDIX IV: DATA COLLECTION TOOL

Name of Airline:									
No	Financial indicators	2012	2013	2014	2015	2016	2017	2018	2019
1	Share financing (in Kshs.)								
2	Debt financing (in Kshs.)								
4	Firm size (in Kshs.)								
5	Profitability (%)								
6	Net Profit over Total asset (in Kshs.)								

Source: Researcher (2019)