FINANCIAL STRUCTURE AND FINANCIAL PERFORMANCE OF DOMESTIC COMMERCIAL AIRLINES IN KENYA

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF BUSINESS ADMINISTRATION (FINANCE), KENYATTA UNIVERSITY.

SEPTEMBER 2020

DECLARATION

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

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This research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

This research project is dedicated to my parents, Mr. and Mrs. Patrick Kasomba, who persistently prayed for me. I will not forget the family of my brothers and my only sister; Kamoni, Muimi and Kavata. My dedication also goes to my grandmother; one Mrs. Beatrice Ndambi Kamoni, who kept on wondering about the length of my studies wishing I married instead. Lastly and not least is my dream girlfriend CPA Faith Nduku and the children God will bless us with thereafter Marriage. I appreciate their support, sacrifice, understanding and encouragement when I was not there for them including engaging holidays, weekends and persistent overnight crash programs that saw the success of my project.

ACKNOWLEDGEMENT

The successful completion of this research project might not have been without the contribution of the following. The Almighty God for his Grace that was so sufficient during the time I was writing the project. My family and friends for their support they gave me throughout my academic period. Lastly, my supervisor (Dr. Job Omagwa) for his instructions while writing the project and for the support he accorded me whenever I would be stuck.

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ABBREVIATIONS AND ACRONYMS

IATA   : International Air Transport Association

SEO   : Seasoned Equity Offerings

KCAA   : Kenya Civil Aviation Authority

ROE   : Return on Equity

ROA   : Return on Asset

OPERATIONAL DEFINITION OF KEY TERMS

Debt Financing: This refers to how an airline finances its assets with long term capital and short term capital from lenders.

Financial Performance: The measure of how well an airline can use assets from its primary mode of business and generate revenues.

Financial Structure: The selected financial indicators that are of particular interest to an airline in determining the financial performance.

Firm Size: The value of assets an airline possesses or the amount and variety of services an airline can provide to the customers.

Lease Financing: An agreement that authorizes a lessor to hold the possession of the asset and the lessee enjoys the services of the asset over a stipulated period of time

Profit Margin: The percentage by which revenue from sales exceeds costs in a business.

Retained Earnings: The net income of the airline that is retained after a specific reporting period.

Return on Assets: Measures how efficient management is at using its assets to generate profit. Calculated by dividing a company's annual earnings before interest and tax by its total assets.

Share Financing: The process of raising capital through the sale of shares.

Value of assets: It is the total amount of tangible and intangible properties owned by a firm.

Value of debt: Amount of capital received from lenders.

Value of lease: It is the total cost paid to the lender for the services of using the borrowed item from the lender.

Value of share: It is the total amount of capital obtained from the sale of shares.

ABSTRACT

In Kenya, the air transport industry is estimated to have contributed about $1.9 billion to Kenya's GDP. 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 $80 million in 2018 compared to $71 million in 2017, leasing cost increased to $160 million in 2018 up from $141 million in 2017 and $133 million in 2016, debt financing hit a record high of $230 million in 2018 while retained earnings declined in the same period. Evidence elsewhere has linked financial structure to financial performance. However, there is little or no empirical evidence to establish such a relationship in the context of domestic airlines in Kenya. This formed the basis for this study. The general objective of the study was to assess the effect of financial structure on financial performance of domestic commercial airlines in Kenya. The specific objectives were to examine the effect of lease financing, share financing, debt financing and retained earnings on financial performance of domestic commercial airlines in Kenya. This was a quantitative study which adopted an explanatory research design. Data was analysed using Panel Data Regression analysis. Lease financing had a p-value of ($p=0.425>0.05$) and ($p=0.377>0.05$) indicating that it had an insignificant effect on the financial performance of domestic commercial airlines in Kenya thus the null hypothesis was accepted. However, share financing had a p-value of ($p=0.027<0.05$) and ($p=0.005<0.05$) indicating that it had significant effect on the financial performance of domestic commercial airlines in Kenya thus the null hypothesis was rejected. Also, debt financing had a p-value of ($p=0.042<0.05$) and ($p=0.035<0.001$) indicating that it had significant effect on the financial performance of domestic commercial airlines in Kenya thus the null hypothesis was rejected. Retained earnings had a p-value of ($p=0.000<0.05$) and ($p=0.000<0.05$) indicating that it had significant effect on the financial 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 recommends that since the retained earnings affects financial performance, the management of domestic commercial airlines in Kenya should adopt more use of retained earnings. The benefit of using retained earnings is that it is readily available and reduces additional expenses related to issuance of equity thus improving on net profit margin and Return on Assets of the airlines.

CHAPTER ONE

INTRODUCTION

1.1   Background of the Study

Globally, the aviation industry contributes 2.7 trillion dollars to the world's GDP which is 3.6% (World Bank, 2018). However, the aviation industry has witnessed turbulent trends in terms of financial performance caused by fluctuating fuel prices, inflation and general economic conditions (ICAO, 2018). It is evident that the traffic in aviation sector is growing faster than the infrastructure to support it. Therefore, it is prudent for the sector to have sufficient financial resources and utilize it efficiently to allow for necessary infrastructural investment (Reeves, 2014).

In 2018, the net profit margin for worldwide airlines was of 2.5 % (Dantas *et al.,* 2018). According to the International Air Transportation Association (IATA), some airlines worldwide have been able to record historic net profit margins since 2004. In the last fifteen years, 2004-2018, during the fifteen year period between 2004 and 2018, airlines worldwide have reported positive net profit margins in eight years. This was mainly attributed to the significant increase of passenger numbers from approximately 2.1 to 4.3 billion, translating to an increase of approximately 100% (Lainamngern & Sawmong, 2019). Although, the passenger increase was supposed to improve the airline businesses, many airlines have displayed poor financial performance.

Lease financing has turned out to be one of the main reasons for improvement in aviation in emerging economies of Asia and South America (Karabag, 2019). As a result of increase in the number of low-cost carriers (LCCs) joining the aviation industry, industrial production and

international trade has also improved (Malighetti *et al.*, 2016). This therefore explains why only 100 out of 3,980 planes were rented in 1980 and 7,390 out of 19,594 planes were rented in 2012, representing 37.7%. It is projected by 2022 that 50% of new aircrafts will be transacted through financial leasing (IATA, 2019).

Share financing, according to Bessler *et al.* (2011), consists of IPOs and Seasoned Equity Offerings (SEOs) offered by an airline as a way of acquiring funds by selling stock rather than acquiring debt. Unlike IPOs, SEOs are released by airlines that have advanced beyond IPO with important performance records and with stocks already in stock trading, whereas the IPO entails the first sale of stocks or equity in stock trading (Jiao *et al.,* 2017).Capital need by firms for investment in projects such as acquisitions of heavy machinery, research and development and availability of debt financing, available investment opportunities are some of the reasons why firms to utilize share financing (Schwarz, 2018).

Debt financing refers to funds that are borrowed and must be repaid, with or without interest. There are several sources of debt financing for businesses and these include; commercial finance companies, hire purchase, share capital, funds from credit unions, funds from friends, family finance and welfare groups (Nyanamba *et al.,* 2013; Langdon & Bonham, 2010), 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).

Retained earnings are as a result of net income of the airline that is retained after a specific reporting period (Aparicio, 2019). Although retained earnings are considered to be the most ideal financial source for small airlines businesses in most of the countries, some airlines show varied mix of high equity to debt ratio mainly because they aren't able to produce retained earnings

(Paulo, 2018). The results of Etiennot *et al.* (2017) held that retained earnings are used as sources to finance new projects in emerging airlines where they venture into new markets. The study further notes that Companies in the start-up era, however, when original investments have not yet matured or with investment projects significantly bigger than their present income, will not have sufficient economic resources from retained earnings and will be constrained in their development projects.

Johl *et al.* (2015) defines firm size as the total value of assets owned by a firm. Hou and Van Dijk (2018) Stressed that net profit margins are affected by the size of the company, making big firms less vulnerable to insolvency since it is more diverse than smaller firms. Therefore, low bankruptcy rates enable large firms to accumulate more debts. Larger businesses are able to lower the amount of market data asymmetries and easily acquire economic resources, which in turn contributes to a firm's economic performance (Poschke, 2018). It should be noted that large companies are diversified than small companies

The performance of the airline industry has been improving globally as a result of improvements in technology, increase in investments and increase in demand for air transport (Milan, 2013). As a result, the commercial airline Industry was one of the fastest increasing economic industries in the world. All industries around the globe seek to increase their revenue with the aim of improving their general performance (IATA, 2018). Airline performance is measured by Revenue per Kilometre (RPK), Freight per Kilometre (FTK), airline service quality, profitability among others (Malighetti *et al.*, 2016). The airline industry worldwide has experienced tough times in the aftermath of the global financial crisis. Achievement of financial efficiency may also be pertinent to warrant the success of airlines and to support their competitiveness to attract more

shareholders and clients. Hence, revenue inefficiencies could also have a strong influence on the financial viability of airlines.

According to Elbana (2010), financial structure is a financial mix model adopted for different firms constituting of equity and debt that define the firm's financial performance. Also, it is important to note that the financial structures varies for different firms depending on the nature of operations the firm and the operating environment. In order to attain sustain consistent financial performance, firms need to use optimal financial structures. Optimal financial structure refers to the level, which minimizes the cost of finance for the company and maximizes the financial performance of the firm (Vătavu, 2015).

1.1.1 Financial Structure

Financial structure is the mix of debt and equity used by a firm to finance its operations (Nassar, 2016). The financial mix has a direct impact on the value and risk of the firm (Hayes, 2018). Several studies have been done to define the financial structures for instance Muchiri *et al.* (2016) used leasing cost, share financing and retained earnings, Rono (2018) used debt financing, retained earnings and share financing. Although these studies have tried to define the key financial structures, none has combined the financial structures of lease financing, share financing, debt financing and retained earnings to determine financial performance of domestic commercial airlines.

Leasing is an agreement that authorizes a lessor to hold the possession of the asset and the lessee enjoys the services of the asset over a stipulated period of time (Aparicio & Kapelko, 2017). The lessee pays the lessor the rent for the specific property. The two primary components in the leasing price are ownership risk and the value of liquidation (Penrose, 2013). There are basically

two kinds of leases called operational and capital leases. Any form of leasing cost directly affects the company's financial performance an (Khazaaleh, 2017).

Because of volatile competition and the frequently changing nature of airline business, the demand for aircraft leasing has been on the rise (Malighetti *et al*., 2016). Competition and alter limit both airlines ' economic capacity and debt raising ability. Hence, most airlines have relied on leasing aircraft in latest years rather than purchasing them as a manner of doing business (Lainamngern & Sawmong, 2019). Leasing is an option to the enormous investment required when buying an aircraft. That's why there has been an increase in the number of leasing firms in the aviation sector which has been supported by the increased air passenger that require an increase in fleet sizes (IATA, 2019).

Managers often see share financing as an efficient manner to increase the size of the company and offer opportunity to expand the company beyond optimum size as their dividends and compensation depends on the firm size rather than the revenue (Poschke, 2018). Jiao *et al.* (2017) discovered that companies with more investment and development possibilities are opting for share funding in order to prevent debt linked to regular interest payments. Share funding adds value to shareholders by enhancing the company's capital structure (Schwarz, 2018).

According to Florou and Kosi (2015), debt financing takes many forms and has received varied definition. Debt financing is the manner in which a company is financed through the two ways of short term and long-term capital (Huang *et al.,* 2016). Muratila (2018) consider the debt financing of a firm as the mix or combination of its long and short-term sources of financing existing for continuous business operation and is the main factor that determines the way business is conducted. According to Brigham and Houston (2011) debt financing represents the ratio of external financing as a fraction of the firm's assets.

Retained earnings refers to the portion of trading earnings advanced as dividends but maintained by managers for the company's future development (Dinayak, 2014). Campbell (2012), claims that the primary reason for retained earnings is more to do with rising growth opportunities. Retained earnings are generally reported on the balance sheet under shareholders ' equity (Aparicio, 2019). The accumulated retained earnings, derived from summing the net income the balance brought forward from the previous year and subtracting any dividends paid to shareholders, are also related with periodically retained earnings (Paulo, 2018).

1.1.2   Financial Performance

Financial Performance is the firm's ability to utilize its investment and operational activities to achieve financial stability which are normally indicated by key financial indicators (Ghildyal & Chang, 2017). Notably, financial performance is the institution's ultimate objective (Haider *et al.,* 2015). All of its designed strategies and operations are intended to accomplish this great goal. This does not imply, though, that financial institutions like airlines have no other goals. Rosemary (2016) observed that, measuring financial performance involves use of ratios. The commonly utilized are profit margins and return on assets.

According to Shwarz (2018) higher earnings boost inner funding levels. Profitable companies accumulate inner reserves, allowing them to rely less on external resources. While lucrative companies may have better access to external financing, if fresh investments can be funded from accumulated reserves, the need for debt funding may be smaller. This finding is compatible with the theory of pecking order, which indicates that lucrative companies prefer inner funding to external funding (Muchinji *et al.,* 2016).

According to IATA report (2018), North American airlines are anticipated to produce the highest profit margin in 2019 with a net profit of $16.6 billion up from $14.7 billion in 2018, according to the IATA report (2018). It is anticipated that European carriers will report a net profit of $7.4 billion down slightly from $7.5 billion in 2018 in 2019. It is anticipated that Asia-Pacific airlines will report a net profit of $10.4 billion in 2019 up from $9.6 billion in 2018. It is anticipated that Middle Eastern airlines will report a net profit of $800 million in 2019 up from a weaker $600 million in 2018. Latin American carriers are anticipated to report a net profit of $700 million in 2019 up from $400 million in 2018. African airlines are anticipated to report a mildly enhanced net loss of $300 million in 2019 from the 2018 net loss of $400 million, making Africa the weakest region as it has been over the years. While Airlines are making profits globally, since 2010 the African airlines have jointly made no profit (AFRAA, 2019).

Liquidity is the capability of a company to avail funds to its client with ease. This is so critical that some studies carried out reveal that it has a strong and direct correlation to performance of firms (Garcia-Appendini & Montoriol-Garriga, 2013). Some firms have high proportion of illiquid assets making it difficult to meet the customers demand for cash and this causes panic among the clients which can lead to the firm being declared bankrupt (Khan *et al.,* 2016). Therefore, the airlines should have an adverse selection criterion, which ensures financial cost are kept at minimal level to boost the financial performance of the firm (Munyambonera, 2012).

Inadequate liquidity airlines could be less susceptible to future uncertainty, timely delay in refinancing, disruption of growth predictions and enhanced risk portfolio (Yesmine & Bhuiyah, 2015). To reduce liquidity risk, each airline needs to prepare a daily fund plan that guides the matching of cash inflows from investments and savings with cash outflows on a daily basis (Ngumo, Kioko & Shikumo, 2017). Firms with higher liquidity ratio should be better protected

from shocks to their cash withdrawal, indicating that they should be able to expand their investment and be less vulnerable to economic shocks (Sohail, 2016)

From the foregoing, it is clear that the airlines are facing a myriad of challenges including stiff competition, economic shocks, changes in technology, dynamic business environment among others. Therefore, it is critical for airline industry to be effective and efficient in their financial operations in order to cut down on their cost of operations, improve their profit margins and ROA. However, undertaking these financial measures requires a dedicated management and a committed workforce.

1.1.3 Firm size

The company's size determines its leverage (Johl *et al.,* 2015). Large companies are more diverse than small ones, with lower risk facing them. Additionally, big companies have low and well-known bankruptcy costs, making it easy to enter the stock market. The bigger company will have a comparatively low level of debt when companies have the same profitability (Poschke, 2018). The issue of in-formation asymmetry in large companies is not as serious, and the price of data is also smaller than in tiny companies. In addition, big companies prefer to use equity rather than debt capital (Hou & Van Dijk, 2018).

Large companies are more able to satisfy interest payments (Murfin & Njoroge, 2014). It is also discovered that such businesses enjoy a greater level of disclosure of data and have greater collateral values and lower risk of bankruptcy (Penrose, 2013). This generates more possibilities for big companies as compared to smaller companies to qualify for financial leverage. Large companies should have greater investment possibilities and therefore have greater money requirements than smaller companies (Dittmar, 2009).

As a company grows in size, its borrowing capacity rises, so its debt-equity ratio rises at the same time. The need for resources within the small business circuit may be restricted by the reality that their operating scales are also restricted. Banks and investors are scared to commit resources to small enterprise projects. Small businesses themselves may be unable to face the hazards of trouble and bankruptcy, as well as loss of property. The company's size is evaluated using the complete asset logarithm that is set assets plus current assets. Asset turnover is also an average sales metric divided by the company's total assets (Poschke, 2018).

1.1.4   Domestic commercial airlines in Kenya

Prescott (2011) indicated that in 1988 Kenya, with other African nations, signed Yamoussoukro's Declaration on a New African Air Transport Policy. This statement was designed to ensure airlines are integrated and regional control bodies set up. This would take place through initiatives on the growth of inter-state air infrastructure, exchange of air traffic freedoms so that every nation has open access and ongoing use of a fair and open system of reservations among multiple other means. The statement is to be enforced until today as it was not signed by other African States.

Kenya has Strong attempts have been created to modernize the aviation sector to satisfy the enhanced demand for global transport. Because Kenya and the rest of the world trade is opened up, traffic demand has risen significantly over the past decade. Other variables include tourism, horticulture and more affordable, simpler and quicker movement of individuals from one town to another. According to Irandu (2010), the significance of an effective national air transport network is an addition to the insufficient ground transport scheme in the sub-region.

Airlines operate paths within Kenya between airports of choice. This has provided a chance for airline operators to produce greater earnings. On the other side, more competition was subjected to common paths. As a result of enhanced competition in the aviation sector, at a moment when competition has placed downward pressure on ticket fares, airlines have become more worried with lowering their expenses. The airline industry has been converted into a more versatile sector Vasigh (2014). This often caused many distressed airlines to report economic problems, layouts and disrupted planned flights. Many well-known airlines required financial rescue, either receiving public financing or seeking consolidation or a partnership.

1.2   Statement of the Problem

In Kenya, the air transport industry is estimated to have contributed an amount of $1.9 billion to Kenya's GDP in 2018 (IATA, 2019). However, the airline sector contribution to the GDP has been fluctuating over the years that is in 2010 at 0.5%, the year 2013 at 0.4%, the year 2014 at 0.3%, the year 2017 at 0.4% and the year 2018 at 0.5% (KNBS, 2019). Furthermore, the growth in airline sector has been inconsistent such that in 2013 it declined by 0.3%, in 2014 and 2015 it declined further by 1.1% and 1.4% (GOK, 2018). However, there was successive growth in 2017 and 2018 where it witnessed a growth of 5.4% and 7.8% respectively (KNBS, 2019). 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 bn in 2017 and kshs 13.3 bn in 2016, debt financing hit a record high of kshs 23billion in 2018 (AFRAA, 2018). Evidence elsewhere has linked financial structure to financial performance. However, in the context of airlines in Kenya, little literature exists on this relationship. This is the motivation for the current study to fill this gap.

According to Aswani (2018) US airlines owing to powerful income development, cost efficiencies and capacity management, profitability enhanced considerably in 2006. It is estimated that industry-wide operating profit rose from $24.3 billion in 2015 to $25.4 billion in 2016, translating to an operating profit margin of 3.9 percent. Twelve U.S. airlines produced operating profit of more than $400 million compared to 10 in 2016, while only four U.S. airlines produced operating losses compared to nine year-round carriers 2015. This is in contrast to airlines in African carriers who are expected to report a $300 million net loss in 2019 which will be a slight improvement from the $400 million net loss in 2018, making Africa the weakest region. While worldwide Airlines are making profit, the Africa airlines collectively didn't make any profit since 2010 (AFRAA, 2019). Considering that American and European countries have well developed industries unlike here in Africa, including Kenya which is a developed country. Therefore, there is a contextual gap that exist when trying to link the financial structure to financial performance across continents.

Lesivan (2012) sought to investigate the effects of financial structure on financial performance of microfinance institutions in Jordan, Israel. The study found that short and long term debt financing have a substantial and negative effect on ROA. Dembele (2012) sought to investigate financial structure and financial performance for French SMEs for 11436 firms for the year 1999-2008. The research showed that SMEs lease more when young, leveraged, solvent and small and are highly vulnerable to bankruptcy. From the aforementioned studies there is context variation as they were done in the financial sector and in a developed country. Also, return on assets was used to measure financial performance. The gaps will be addressed as this study will be carried out in the airline industry in Kenya, a developing country. Also, profitability and return on assets will be used to measure financial performance.

With numerous studies having been conducted both in Kenya and beyond, not much has been done in terms of the relationship between the financial structure and financial performance of domestic commercial airlines in Kenya. Aspects like effects of lease financing, share financing, debt financing and retained earnings on financial performance are aspects that were addressed in this study to ensure that the problem at hand is addressed. Therefore, it was prudent to investigate the relationship between financial structure and financial performance of domestic commercial airlines in Kenya.

1.3   Objectives of the Study

This study was guided by general and specific objectives.

1.3.1   General Objective

The overall objective of this study was to assess the effect of financial structure on financial performance of domestic commercial airlines in Kenya.

1.3.2 Specific Objectives

The study addressed the following specific objectives

i.   To examine the effect of lease financing on financial performance of domestic commercial airlines in Kenya.

ii.   To determine the effect of share financing on financial performance of domestic commercial airlines in Kenya.

iii. To assess the effect of debt financing on financial performance of domestic commercial airlines in Kenya.

iv.   To establish the effect of retained earnings on financial performance of domestic commercial airlines in Kenya.

1.4   Research Hypotheses

The study tested the following null hypotheses:

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

H_{02}: Share financing does not significantly affect financial performance of domestic commercial airlines in Kenya.

H_{03}: Debt financing does not significantly affect financial performance of domestic commercial airlines in Kenya.

H_{04}: Retained earnings does not significantly affect financial performance of domestic commercial airlines in Kenya.

1.5   Significance of the Study

This study was of great importance to a number of stakeholders with interest in the airline sector in Kenya. The management of airlines are in a position to make better decisions concerning financial structure to fit characteristics that assure superior performance of their firms. To the regulator of the airlines, Kenya Civil Aviation Authority, the findings will help them craft policies that will enable proper regulation of the airline sector and retaining profitability in the process.

The government will also have information in crafting legislation to help boost the features and structure of commercial airlines to ensure its growth and survival. Government regulation

normally dictates the formation and structure which has great impact on the financial structure and performance of the commercial airlines. The study will also be important to researchers and scholars as it will add to the current literature on the subject related to influence of financial structure on financial performance. This may benefit future research scholars who may consider using this information for reference purposes. The study also exposed key knowledge gaps that may interest future researchers who may find interest in filling those gaps. They may also be able to critic studies and theories related to financial structure and performance.

1.6   Scope of the Study

This study investigated the relationship between financial structure and the financial performance of the airline industry from year 2012 to 2018. The study period was informed by the fact that Kenya airlines reported poor financial performance in the same period. The researcher focused on domestic commercial airlines because they play a vital role in contributing to the economy of Kenya either directly or indirectly. Specifically, the study focused on the effects of retained earnings, share financing, lease financing, debt financing and firm size on financial performance. The data source was secondary data from the Kenya Civil Aviation Authority (KCAA) and African Airlines Association (AFRAA) archives on airlines' financial statements.

1.7   Organization of the Study

The study was organized in five chapters. Chapter one was mainly the introduction and it addressed the background of the study, statement of the problem, the objectives of the study, research hypotheses, significance and scope of the study and organization of the study. Chapter two entailed various theories related to the study, empirical literature review, research gaps and conceptual

framework of the study. The third chapter presented the various methodology adopted in the study in order to test the null hypotheses in the first chapter. Chapter four presented the data analysis techniques that include descriptive statistics, correlation analysis and panel regression analysis whereas chapter five provided the summary of key findings, conclusions, recommendations and areas for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1   Introduction

This chapter presents the theoretical framework which discussed the relevant theories linked to the variables. Empirical review was discussed so as to identify relevant studies that may try to address financial performance and financial structure. The summary of literature and research gaps were reviewed so as to give insight to the gaps the research intends to fill. Also, the conceptual framework was used to demonstrate the linkages of the variables.

2.2   Theoretical Review

Theoretical framework shows the related concepts and theories that aims to show the link between financial structure and perf0ormance (Nyasimi, 2016). The study is based on theories namely; agency theory, pecking order theory and trade off theory.

2.2.1   Agency Theory

The agency theory originated form Jensen and Meckling (1976). The theory explains the relationship between the agents or managers and principals or stakeholders in a business. Differences between agency holders and shareholders and/or between executives and shareholders can occur and can result in reduced levels of investment. Lainamngern and Sawmong (2019) argue that the non-cancellable lease can be used to mitigate the problem of asset replacement since the non-cancellable lease requires the renter to use leased property over the duration of the lease agreement.

This theory further focuses on how the relevant principal and respective agent are related. Hence it notes that such relationship are brought forth when one or even more stakeholders hire other individuals otherwise with an aim of ensuring performance of particular obligations as per agreement hence giving birth to delegation of decision making authority to the said agents (Lawal *et al.,* 2014). On the other hand Aswani (2016) Arguing 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.

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. Paulo (2018) claims that the problem of underinvestment should be mitigated by non-cancellable long-term leases due to overhang of debt. In the case of short-term operating leases, however, the cost of agencies could also occur between a lessor and a leaser due to the division of property from the use of property (Nderu, 2013). As the tenants do not have the right to the residual value of the asset, they do not have an incentive to take good care of it. This probably explains why companies rent office facilities much more often than research and development facilities or facilities (Song, 2016).

Robicheaux *et al.* (2008) consider whether lease 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

leasing financing and share finance leads to the effective management of the company, which in turn adds to the financial performance of the airline companies.

2.2.2   Trade-Off Theory

Modigliani and Miller's second proposal (1963) launched the concept of trade. This theory brought about the concept of bankruptcy to occur and further indicated that debt funding (i.e. the tax benefit of loans) had an advantage and that debt financing costs (the bankruptcy cost of debt) had a price. Furthermore, the theorists asserted that the marginal benefit of additional debt increases reduced with the debt rising while marginal costs increased to focus on this trade-off when choosing how much debt or share to use for financing were selected. This theory clarified the share to debt ratios but it failed to clarify the industry distinctions.

The word tradeoff 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 the expenses that the company must consider before starting to use debt. According to Myres (2011), the principle of trading suggests the company will borrow on the point where the current value increase only compensates for the marginal value of extra debt of fiscal shields. The value of the company falls due to financial difficulties.

This theory was evaluated to anchor the debt funding independent variable. The theory of trade-off indicates that executives just prefer debt (Etiennot *et al.,* 2017). They balance debt costs and benefits to a proper 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). Airlines in Kenya can use trade off theory by using debt funding in their economic framework to take advantage of the interest tax shield (Calabrese, 2011).

2.2.3   Pecking -Order Theory

This theory is attributed to Myers (1984) and Myers and Majluf (1984). The theorists affirmed that businesses first opt to use their income to finance their investments due to information asymmetry. Companies issue debt first and share funding last, according to the theorist, when internal financing is not enough. The theory of pecking order indicates that companies have a specific capital preference order used to finance their companies. The preferences order represents the relative expenses of the different funding alternatives (Poschke, 2018).

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, the new equity providers expect higher returns on invested equity so that the firm is more costly to finance its new share than to use existing internal funds (Anthal, 2012). A comparable argument can be made between fresh debts holders and retained earnings. Furthermore, in relation to retained income, the greater the risk exposure associated with the data asymmetries for the different funding decisions, the higher the return on capital requested by each source (Vătavu, 2015). Therefore, the business will prefer debt to received income financing, short-term debt to the long-term debt and debt to share finance.

With sufficient slackness, businesses would be able to minimize the costs for data asymmetrical external financing. Studies indicate that most Chief Finance Officers enjoy economic flexibility,

particularly when the share of organizational property is greater (Nwaolisa & Chijindu, 2016). Most executives verify that if their inner funds are inadequate to finance their operations, debts are issued. Sometimes the failure of a firm to acquire debt-based funds impacts its decision to issue common stock (Florou & Kosi, 2015).

This theory was evaluated to anchor the Retained earnings autonomous variable. It describes why executives merely prefer external borrowing to inner resources (Penrose, 2013). An alternative explanation for predicting organisational leverage is the pecking order theory (Calabrese, 2011). In contrast to this 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). Investors consider equity (stock) issuance negatively, businesses prefer to finance capital from retained income, and then debt and new equity having only exhausted these options. (Song, 2017).

2.2.4 Stakeholder Theory

The stakeholder theory is attributed to Edward Freeman (1984). The theory strives to balance between stakeholder's interests and the social relationships between a company and the stakeholders. This is in contrast to the agency theory in a number of ways since management don't work for the stakeholders but they also foster good relationships between the firm and the organization. Stakeholders are the members who benefit or gain loss from the actions of a firm. The stakeholders consist of the community, employees, clients, shareholders, suppliers and creditors. The stakeholder theory affirms that organizations are obliged to carry out their decisions and incorporate the interest of the stakeholders. The firms should not only focus on the shareholders but every individual that the decisions would impact (Bonham & Langdon, 2010).

The stakeholder theory has the main weakness attributed to the consideration of non-human stakeholders such as animals and environmental factors. Considering these stakeholders may lead to conflict of other shareholder's interests who may be the key stakeholders thus bringing about bad relationship to the firm (Hope & Vyas, 2017). Thus, the human stakeholders are the ones who get to decide the interest of the non-human groups. However, the stakeholder theory emphasises on the need to engage all the stakeholders at all levels. Notably, most firms would rather be cost effective and disregard the interests of the stakeholders who may be deemed as be expensive (Kaplan, 2012).

According to Aparicio (2019) the main goal of companies is to make profit. Various strategies have been deployed by airlines to retain and expand its customer base and stakeholders so as to improve on profit margins. In the airline industry, as much as company seek to make profits customer experience and stakeholders interests has gained popularity in the last decade (Anthal, 2012). This has pushed airlines to consider the interest and feedback from the customer and shareholders as a key strategic asset (IATA, 2018). The profit-maximizing theory provides the criteria for identifying critical strategies that an airline may adopt. Thus, this theory was used in this study to explain the state of financial performance in the airline industry.

2.3   Empirical Review

The study reviewed several studies which are captured below.

2.3.1   Lease Financing and Financial Performance

Empirical studies on the impacts of leasing on a company's economic performance concentrated primarily on four elements including lease financing, debt replacement, agency costs, and retained earnings. Leasing is likely to outweigh the debt expenses of the organization. The

economic drivers and consequences of leasing on real estate assets in Spain were explored by Meziane (2007). During the era 1989-2002, he sampled 2,343 UK cited businesses, producing 17,862 pooled time series observations. The findings suggest growth firms are less likely to discover inexpensive borrowing in order to obtain their assets. Instead, to finance their development, they depend on leasing. There is contextual and conceptual gap as the study was done in a developed economy.

Vasantha (2012) investigated leasing and investment on the capital market in France. All S&P 100, S&P 400 and S&P 600 were gathered by using panel data. There were 7012 company-year observations on the information panel. The study concluded that lease financing influences financial performance. The gaps exists in the sense that the study did not target all the real estate firms it only target the standard and poor firms thus the industry-wide performance could not be derived.

Muhammad *et al.* (2012) studied the factors affecting Pakistan's leasing companies ' profitability. For the period 2006-2008, they evaluated a data pool of 28 leasing firms. Size, liquidity, leverage, age and net investment in lease finance were the factors used to determine profitability. The research used normal least square models (OLS) and logistic models (Logit) to estimate outcomes. The findings showed that size, net investment in lease finance and liquidity had a favorable connection with leasing companies' profitability, while leverage and age had an adverse connection with leasing companies' profitability. There exists contextual and conceptual gaps as retained earnings and debt financing were not covered.

Eric (2012) conducted a 1999-2008 survey on French SMEs for 11436 companies. Long-term debt, leasing, equity, economic charges, leasing, tax debt, short-term liabilities and company age were the factors used. The findings proposed that, when they are small and have a powerful

probability of bankruptcy, Small and Medium Enterprises use leasing to an even greater degree. There exists contextual and conceptual gaps as retained earnings and debt financing were not covered.

Salam (2013) sought to evaluate the casual relationship between company performance using Return On Asset (ROA) and Return On Equity (ROE) with various small and medium-sized enterprises with regard to lease financing and did not relate to it. The findings underlined the connection between lease funding and ROA and ROE were studied by 23 medium-sized businesses SMEs and 30 tiny businesses SMEs. The findings showed that in a linear relationship between lease finance and ROA and ROE, medium companies were statistically important positively correlated. With the tiny businesses, this was the same. There exists contextual and conceptual gaps as Net profit Margin was not covered.

Studies on leasing agricultural property in Kenya have been carried out. Letoluo (2003) explored the impact of farmland leasing in Narok on family living. He conducted a study with randomly chosen eighty respondents and interviewed ten informants. He discovered that farmland leasing enhanced income for farmers who subsequently moved from pastoralism to company. The research concludes that lease financing does not affect Kenya's listed firms ' economic performance. While the connection might be negative, the meaning tests failed at all acceptable significance levels. There is contextual gap as the study was conducted in agricultural sector.

2.3.2   Share Financing and Financial Performance

Shubita and Alsawalhah (2012) suggest that high-profit companies as their primary funding alternative rely strongly on share funding. They also proposed that there is a beneficial connection between debt to share funding and economic results. Velnampy and Niresh (2012)

indicated a positive relationship between capital structure and economic performance of banks but create a favorable connection between ROE and debt to share funding. This finding indicates extremely geared to the sampled banks. The beneficial connection between economic performance and complete debt was also disclosed in Abor's (2005) study.

The findings of Wilson *et al.* (2012) indicate that private equity financed undertakings perform better than matching samples of listed and private companies before and during the recent recession (higher asset yield, more interest cover, more gross margin). They also find that the rate of failure of purchased companies is higher than that of other companies, but this is not the case for deals created after 2003. Salam (2013) have claimed that the achievement of the business can be heavily related together with its assets. The use of U.S. commercial banks data and results is consistent with the concept of the agency, which reduces the internal equity expense of the company and increases company value by restricting or encouraging managers to do more in shareholder interests.

Chiang *et al.* (2002) discovered it to be negatively related with profit margins as heavy equipment is favorable to the assets. He also noted that the division between ownership and management of any company, usually leading to different objectives, raises questions about how much debt and share financing can be utilized.

2.3.3 Debt Financing and Financial Performance

Baimwera and Muriuki (2014) 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 companies being subjected to greater rates of bankruptcy-related danger (Muigai *et al.,*

2016). In their research on Firm Size's moderating impact on the relationship between the capital structure and the financial distress of non-financial companies listed in Kenya, the study discovered that financial risk brings about financial constraints in the companies involved. Furthermore, Muigai (2016) noted that any company's excessive use of debt to finance corporate activities generally results in a considerably adverse impact. Similarly, in support of the above assertions, other previous studies on the Asian continent have discovered parallel findings (Gupta, Srivastava, & Sharma, 2014).

Abor (2007) established a beneficial connection in South Africa between short-term debt and ROA. Similar findings were also discovered in their research on Brazilian businesses by Mesquita and Lara (2003). This research therefore hypothesizes that the connection between short-term debt and ROA and ROE (Return on Equity) is positive. However, the above studies are incompatible with Silva (2008), Ebaid (2009), and Shahjahanpour *et al.* (2010), who discovered that short-term debt and ROA have an adverse connection. A research by Abor (2005) discovered that short-term debt and total debt have a considerably beneficial ROE connection, whereas long-term debt has a considerably adverse ROE connection. It therefore means that an increase in long-term debt due to being more costly is associated with a reduction in economic performance. Ibrahim (2009) disclosed that the selection of capital structure is a general decision, having weak or no effect on the results of the company.

Lislevan (2012) sought to determine the impact of capital structure on the performance of microfinance organizations. Regression findings where asset returns were used as a financial performance measure only total asset and long-term asset debt have a substantial and negative effect on asset returns. These findings comply with the preceding research. In determining the return on share funding in Jordan's banking industry, Taani (2013) found long-term debt to be

insignificant. This implies that Jordan's banking industry does not necessarily transit deposits into improving return on share funding. The R^2 values showed there is a significant relationship between overall net profit, debt to share net interest margin financing and debt to overall assets and the net interest margin. But the remaining dependent variables have not been discovered to have any important effect.

As a consequence of Gleason *et al.* (2000), debt has a substantial adverse impact on financial performance. Thus, from the consequence, two consequences can be concluded. First, capital structure has an important impact on financial performance even in the presence of control variables. Second, the adverse coefficient shows that distributors generally use more debt than would be suitable in their capital structure. This overleveraging therefore has a negative impact on company efficiency. Ondiek (2010) found that listed companies ' capital structure is affected by asset tangibility, size and profitability. The findings indicate that listed companies ' capital structure can be explained by the theories of trade and pecking order.

2.3.4 Retained Earnings and Financial Performance

Timothy and Peter (2012) sought to evaluate the 2002-2010 connection between dividend payout and profitability in NSE listed companies. The researchers using regression analysis have created an important connection between the payment of dividends and the profitability of the company. The results also stated that a significant factor influencing return on investments was the payment of dividends. It is normal that executives prefer the company to maintain more to guarantee development as it is possible to take advantage of present prospective possibilities as perceived by management by using what has been provided back to the company. On the other

side, shareholders would prefer reduced retentions as they are affected by the dividends they receive, hence for them whenever there is a retention there is a sacrifice that is always created.

Dinayak, (2014) studied the impact of retained earnings on rising revenues ploughed back into the investment capital of the firm, a survey was conducted and stated that the primary concept that supports profit retention is the rapid growth rate experienced by this practice. It has been found that the recording of these retained earnings is conducted in the equity balance sheets of the shareholders Accumulated retention of revenues is determined either by adding net income or by subtracting net losses from the original retention. Ratios can also be used by an organization to convey retained earnings. These ratios are known as the plowback or retention ratio. This retention ratio can also be called an organization's retention rate (Orwel, 2010). In addition to any future transactions and also opportunities held by the company under account, they can be affected by the company's economic performance.

Kanwal (2012) found that Retention Ratio and Return on Share Financing have a substantial beneficial relationship with economic results and explain considerably the differences in Pakistan's chemical and pharmaceutical industry inventory prices. The main concept behind income retention, is that the more the business maintains the quicker it has opportunities for development. Retained earnings are typically reported on the balance sheet by shareholders (Kanwal, 2014). Khan and Zulfiqar (2012) assessed the impact on future profitability and inventory yields of retained income and developed a weak favorable connection between retained income and inventory performance in Pakistan.

2.3.5   Firm Size and Financial Performance

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), Namada *et al.* (2014) proposed that the connection has a strategic performance impact. A number of research 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 (Rajan & Zingales, 2005).

Niresh and Velnampy (2014) argue that the company's size is a main factor in determining how lucrative the company is as scale economies as described in the company's neo-classical perspective. 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. The company's size is all-important as it can provide a sustainable and competitive advantage in terms of profit and market access.

Ramasamy, Ong and Yeung (2015) indicate that the connection between the firm's financial performance and the company's size was ambiguous and therefore called for caution in considering the need for industry-specific account of this factor, while encouraging researchers to continue on a case-by-case basis of assessment and avoiding the inclination to generalize. For their portion, Oladele *et al.* (2013) asserted that the nature of the connection between company size and profitability is an important issue that can shed some light on the variables that increase earnings in companies.

Table 2.1: Empirical Review

Author	Objective	Findings	Research gaps	How the gaps were addressed
Mezaine (2007)	Financial drivers and the effects of real estate leasing in UK businesses	Companies that own property are likely to mature, i.e. value firms, while firms that rent their property tend to grow.	The study focused on the developed country where the industry is well developed unlike Kenya, a developing country.	The study targeted domestic firms in the airline industry in Kenya
Vasantha (2012)	Capital market frictions, leasing and investment in the Standard & Poor's firms in the real estate in US	Companies rented more with elevated data and those with low agency costs rented less. Furthermore, companies with important tax losses were unable to take complete benefit of the tax advantages of ownership of assets and therefore rented more	The study did target all the real estate firms it only target the standard and poor firms thus the industry-wide performance could not be derived.	This study sampled all the airlines that were operational since 2012 to get industry-wide performance
Eric (2012)	Debt financing and performance for French SMEs for 11436 firms for the year 1999-2008	SMEs use leasing to an even greater extent so that when they are young, leveraged, less solvent when they are small and have a strong chance of bankruptcy	Used cross-section data. The study was done in environment of stable macroeconomics, France.	Used panel data regression. Study was conducted in Kenya
Lislevan (2012)	Influence of Capital	Short and long term debt	Context variation it was done in the	Study was carried out in the airline

Author	Objective	Findings	Research gaps	How the gaps were addressed
	structure on microfinance institutions financial performance in Jordan, Israel.	financing have a major and negative effect on asset returns	financial sector. Only Return on Assets was used to measure financial performance	industry. Profitability and liquidity will be used to measure financial performance.
Timothy & Peter (2012)	Influence of dividend payout on profitability in listed firms at NSE between 2002 – 2010 in Australia	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 Australia and different industries	Study was carried out in the airline industry and focused in Kenya.

Source: Research Data, 2019

2.4   Summary of Literature and Research Gaps

From the indicated studies, the effect of financial structure on financial performance of Airlines industry in Kenya has not been sufficiently done as more studies have emphasized capital structure and financial performance and under such studies only long term sources of finance like share capital and debt finance have been considered at the expense of other long term sources like bonds and debentures besides other short term sources like overdrafts and short term finance which have not been taken into consideration. This study addressed this gap focusing on addressing how the adverse effect inappropriate financial structure can kill 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 spheres. From past studies on financial structures' influence on financial performance of domestic commercial airlines in Kenya debate is inconclusive. Conceptually, the relationship found in financial frameworks, profitability, the firm size and financial performance have been studied. There still remains unresolved issues; first, while some researchers reported that financial structure enhances a firm's performance (Tharmila & Arulvel, 2014) others found that capital structure affects both overall performance and profitability to the growth (Babatunde *et al.,* 2013). Thus there is need to establish if the components of the financial structures adopted by most firms locally affect the financial structure actually affects financial performance of domestic commercial airlines.

2.5   Conceptual Framework

A conceptual framework is an investigative tool with numerous distinctions and settings. It is used to make reasonable refinements and compose ideas (Macve, 2015). The conceptual framework is deduced from the agency theory, pecking order theory and trade off theory hence the independent variables are lease financing, share financing, Debt financing and retained earnings while the dependent variable is financial performance as indicated in figure 2.1.

Independent Variables   **Dependent Variable**
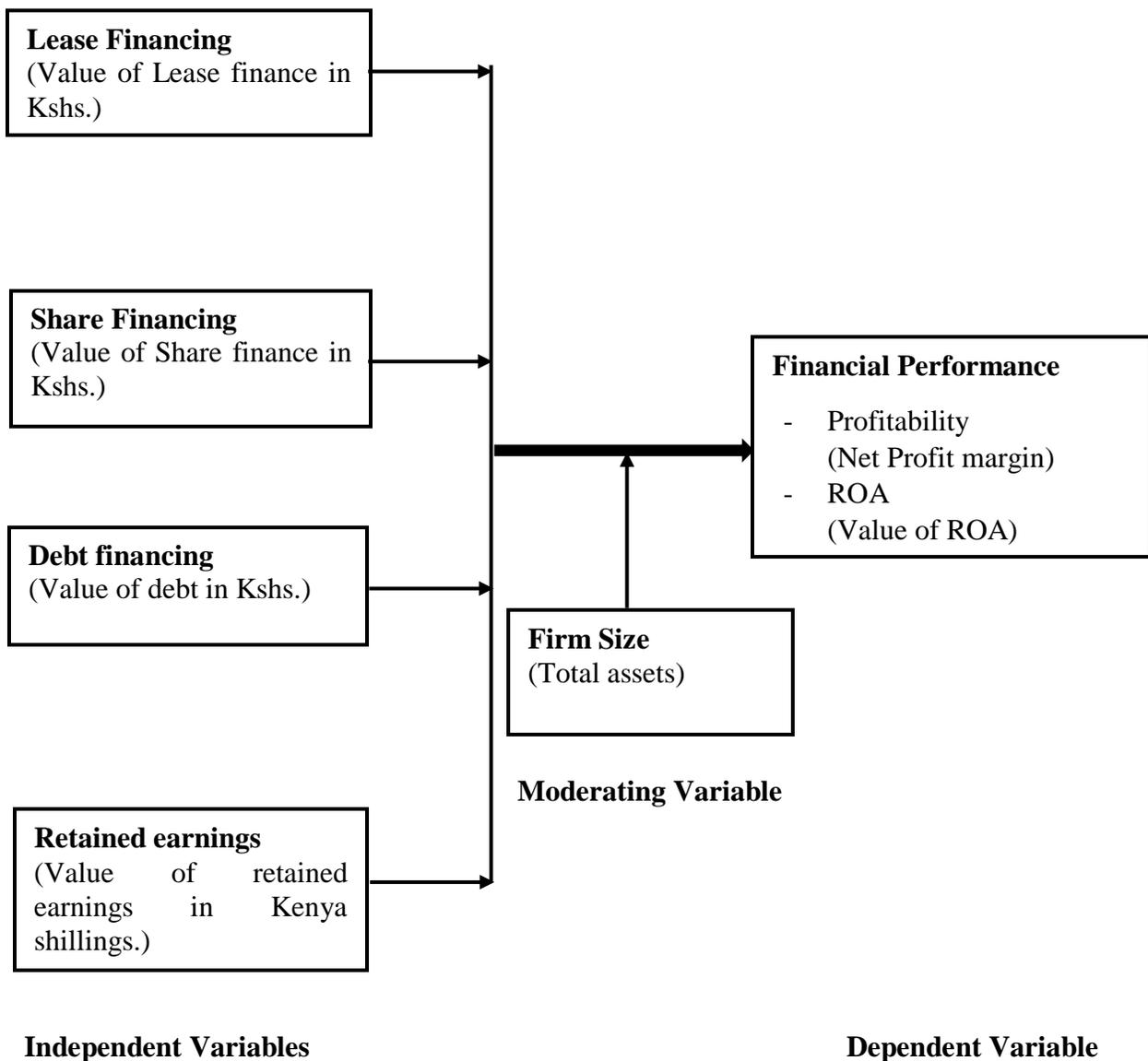
Fig. 2.1: Conceptual framework
Source: Researcher 2019

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter discussed the steps the researcher followed to attain the stated objectives. It also concerns with the type of the research design that was used. The population of the study used to offer information for the study was also covered. The chapter also outlined how the study went about in sampling the population to a manageable size. The researcher also reviewed methods used in collecting data from the identified population and how the collected data was analyzed and presented so as to draw inferences, make conclusions and recommendations. Also, the research philosophy was indicated.

3.2 Research Design

A research design is a framework that guides the investigator on the techniques to be used in information collection and analysis. Newing (2011) concluded that the word research design is used for both the general method mentioned above (study methodology) and the research design structure in particular. According to Lavrakas (2008), the design is used to undertake a research survey to examine particular testable research questions of concern.

The study was quantitative in nature and it employed an explanatory research design. This was because the study intended to provide an idea of the research variables' interactions. Explanatory study in terms of its probable causes was used to comprehend the phenomenon. This sort of study was used to assess the effect on current standards and assumptions that a particular change

would have. Explanatory study suggests that the study in question is designed to explain the phenomena studied rather than merely describe them (Maxwell & Mittapalli, 2008).

3.3 Target Population

Target population is the specific population about which information is desired (McDaniel, 2001). For this study, the target population was the 11 domestic commercial airlines in Kenya registered with the African Airlines Association (AFRAA) from the year 2012 to 2018. The study used the airlines since information on their company financial structure and financial performance was readily available as the airlines were regulated by the Kenya Civil Aviation Authority hence they were required to provide their annual reports and financial statements before the renewal of their air operation certificate.

3.4 Sampling Design

Sampling is the technique used by researchers to collect selective information on the characteristics of the target population (Kombo & Tromp, 2006). Thus, a sample design is a definite plan for obtaining a sample for a given population (Mugenda & Mugenda, 2003). The study used census as all the 11 domestic commercial airlines in Kenya firms which were actively registered over the years, 2012 to 2018 were targeted for the study thus there was no sampling technique required.

3.5 Data Collection Instrument

This study used secondary data since it able to examine variables over a specified period. The Secondary data was retrieved from the airlines websites, Kenya Civil Aviation Authority and African Airlines Association library. The study sourced secondary data on financial performance and firm attributes from the published official reports of the airlines which entailed the annual

financial reports and statistics. Secondary data relating to firm size was specifically obtained from the published annual reports to shareowners and the annual proxy statements to shareowners. The secondary data were collected using a document review guide or checklist that covered the period 2012 to 2018 and all the variables in the study so as to ensure all the important dimensions of interests were captured. The data collection instrument is indicated in appendix III.

3.6 Data Collection Procedure

A research authorization permit was first obtained from NACOSTI prior commencing the data collection process. The researcher also sought authorization from Kenya Civil Aviation Authority so as to access the data. The researcher registered online with the AFRAA websites so as to download annual reports and financial statements from year 2012-2018, for each of the airlines in Kenya. Thereafter, the researcher sourced secondary data on the dependent and independent variables from airlines' financial statements and annual reports that are available online. The study also used the annual reports downloaded from the firms' website. Each data collected was recorded in the secondary data collection sheet and template. Relevant data was collected in one month.

3.7 Data Analysis and Presentation

The study used descriptive statistics, correlation analysis and panel regression analysis to analyze the data. The data analysis was provided by stata software. The Excel software was used to calculate the appropriate ratios for each of the airlines over time after getting the information from the financial statements. The data was then formatted before being imported to stata from excel. Correlation analysis was in the form of Pearson's correlation coefficient. Pearson

correlation test was conducted to test level of significance between all independent variables and the dependent variable. The Pearson's correlation coefficient was used as a measure of linear correlation. The measure was symbolized by letter (r) and it varied between -1 and +1, where0 indicated no linear relationship while Coefficient of determination (R^2) measured the variation among the study variables. The closer the R^2 was to 1 the better the regression line to the actual data (Sekaran, 2000).

According to Badi (2005) panel data is a data set containing observations on multiple phenomena observed over multiple time periods. Panel regression analysis was beneficial in such a way that it facilitated dynamic analysis, increased the number of observations and provided the ability to model time and space as well as generalize across them (Pillal, 2017). Consequently, the regression model aided the study combine cross-sectional data on the airlines in Kenya (N) and the seven-year time period from 2012 to 2018 (T) so as to produce a dataset of N*T observations. For the purpose of testing the relationship between financial structure and financial performance, the study employed the panel regression model similar to the one used by Thao *et al.* (2014) so as to combine time series for several airlines. The hypothesis was tested at a significant level 5 % (p=0.05).

The regression equation 3.1 and 3.2 enabled the study to analyse repeated observations on fixed units. From the general regression model 3.1, the study used 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 aided this study in combining both cross-section data and time series data. General Model:

$$Y_{it} = \beta_0 + \beta_i X_{it} + \varepsilon_t \dotfill 3.1$$

$$ROA_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2\,it} + \beta_3 X_{3\,it} + \beta_4 X_{4\,it} + \varepsilon_t \dotfill 3.2$$

$$NPM_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2\ it} + \beta_3 X_{3\ it} + \beta_4 X_{4\ it} + \varepsilon_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.3$$

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

β_0 – Intercept

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

X_{1t} – Lease financing for airline i at time t.

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

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

X_{4t} – Retained earnings for airline i at time t.

B_1-β_4 – Co-efficients.

ε_t – Is the error term at time t.

Table 3.1: Operationalization and measurement

Variable	Measurement	Operationalization	Measurement scale	Hypothesis Direction
Lease financing	Value in KShs.	It is the total amount of leasing cost	Interval	Positive/Negative
Share financing	Value in KShs.	It is the total amount of share financing	Interval	Positive/Negative
Debt financing	Value in KShs.	Total amount of debt financing	Interval	Positive/Negative
Retained earnings	Value in KShs.	Total amount of retained earnings	Interval	Positive/Negative
Firm size	Total assets	Total amount of assets	Interval	Positive/Negative

	value in KShs.			
Profitability	Net profit margin and ROA	Net profit margin and ROA	Ratio/Interval	Positive/Negative

Source: Researcher (2019)

3.8 Diagnostic Tests

3.8.1   Testing for Multicollinearity

According to Kumari (2008), multicollinearity is called the existence of a linear connection between independent variables. Multicollinearity can cause big forecast errors and make it hard to evaluate the relative significance of the model's individual factors. This research opted for multicollinearity testing for both the Variance Inflation Factor (VIF) and Tolerance. A multicollinearity issue would be indicated by the tolerance statistics values below 0.10 (Oscar, 2007). The research also opted to verify multicollinearity for reciprocal tolerance also known as the Variance Inflation Factor (VIF). The variance inflation factor demonstrated how much multicollinearity inflated the variance of the coefficient estimate. Therefore, more than 10 (vif > 10) variance inflation factor showed multicollinearity problems (Oscar, 2007).

3.8.2   Testing for Normality

The hypothesis of the regression model affecting the validity of all variables was that residuals were normal (Oscar, 2007). This research used the Shapiro Wilk test to determine whether residuals acted normally, a non-graphical test for normality. The Shapiro Wilk test was used to test the null hypothesis of ordinary residual distribution (Oscar, 2007). If the p-value exceeded

0.05 (p>0.05), the study would not reject the null hypothesis (at 95 percent) and then it can be concluded that the residuals were normally distributed.

3.8.3   Testing for Heteroscedasticity

Heteroscedasticity relates to disturbances of regression whose observational variances are not continuous (Greene, 2008). Heteroscedasticity occurs in countless apps, resulting in inefficient assessment outcomes in both cross-section and time-series information (Baltagi, 2005). This research tested for heteroscedasticity using the Breusch-Pagan test. The null assumption was homoscedastic residuals. This meant the existence of heteroscedasticity if the F statistics highly rejected the null at least 90 percent or 95 percent of the meaning level. There are two methods to cope with the issue of heteroscedasticity, according to Stock and Watson (2009), one is the use of heteroscedasticity-robust normal mistakes, and the other is the use of the weighted least squares. The most preferred technique is the robust standard errors technique of heteroscedasticity, however. This research selected the normal heteroscedasticity-robust mistakes to address the heteroscedasticity issue if discovered to be present.

3.8.4 Testing for Autocorrelation

Time-series information often show auto-correlation or serial disturbance correlation over time (Green, 2008). Serial correlation is difficult with linear panel data models because its existence makes normal mistakes biased as well as making estimated coefficients of regression consistent but inefficient (Drukker, 2003; Baltagi, 2005). Therefore, the research used the Durbin-Watson Test to identify the existence of autocorrelation.

The statistic of Durbin-Watson is a first-order autocorrelation test between the mistake and its instant prior value (Brookes, 2008). The test helped to determine whether mistakes are associated

with each other in separate observations. In the Durbin-Watson test, the null hypothesis was that no serial correlation existed. If the d-statistic was more than 0.05, the study did not reject the null hypothesis (at both 95% and 90% meaning level) and concluded that the errors in different observations were not correlated with each other.

3.8.5 Testing for Stationarity

A unit root test is used to indicate establish whether a panel data is non-stationary or stationary. Thus, the Levin-Lin-Chu unit-root test was carried out to detect stationarity of panels. The null hypothesis in Levin-Lin-Chu unit-root test is that panels contain unit roots while the alternative hypothesis is panels are stationary.

3.8.6 Model Specification Test

In order to get the appropriate model between fixed effect and random effect model, the study tested the data using assumptions, that is, a fixed effect model would indicate that the variables that affect financial performance vary over time but have a fixed effect across the entities. The model assumed homogeneity of the estimates across the entities and the error term between the entities is equal to zero. A fixed model also assumes correlation between error term and the predictor variables. A random effect model would imply that the variation across entities is random. The error term between the entities is not equal to zero (Torres-Reyna, 2007).

A test was done to examine whether the data violates the assumption of the fixed effect model. A Hausman test was performed to determine the model to adopt. The test used a null hypothesis that the preferred model is the random effect model. A Chi-square statistic p-value of the Hausman test less than 0.05 would imply that the preferred model is not the random effect model. (Drukker, 2003).

3.9 Ethical Consideration

Ethics is a philosophy branch that deals with people's behavior and guides people's behavioral norms or standards and interactions with each other (Fouka & Mantzorou, 2011). The researcher took careful action to guarantee that the study adhered to norms of ethical studies. Prior to the information collection method, a study permit was obtained from the National Commission for Science, Technology and Innovation. The researcher registered online with AFRAA website through creating an online member registration account that allowed access to relevant data via downloads of the firms' information on firm size and financial statements.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATIONS AND FINDINGS

4.1   Introduction

This chapter provided a summary of the analysis of data collected by using data collection tool as stipulated in research methodology. The findings are captured to indicate the significance of the relationship between financial structure and financial performance of domestic airlines in Kenya. The results are presented in form of correlation analysis, descriptive statistics and inferential statistics. The findings are compared to the results of other studies and the key findings of this study are also indicated.

4.2   Descriptive Statistics

The section entails descriptive results of the study variables. The Descriptive statistics are tabulated in table 4.1 below.

Table 4.1: Descriptive statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
Lease financing (Log of lease finance)	77	9.2772	.22142	9.03	9.59
Share financing (Log of share finance)	77	10.2322	.39382	9.46	10.79
Debt financing (Log of debt financing)	77	10.6394	.49351	9.95	11.08
Retained earnings (Retention Ratio)	77	2.2000	5.09182	-3.90	9.70
Firm size (log of total assets)	77	11.2748	.11378	11.04	11.37
Net profit margin	77	-8.1571	7.77943	-18.80	2.10
Return on asset (ROA)	77	-4.9143	4.90321	-11.60	2.40

Source: Research Data, 2019

The results in table 4.1 above shows that mean of performance measured by net profit margin and ROA was very low indicating the average net profit margin and return of assets of domestic commercial airlines in Kenya from the year 2012 to 2018. This indicates that the airlines made significant losses over the seven year period as shown by the minimum of ROA and net profit margin which were -11.60 and -18.80 respectively. The standard deviation for ROA and net profit margin was very high indicating that the performance significantly varied across the stipulated period. The results concur with Salam (2013) who noted that a higher ROA indicates that the organization is more efficient in using its resources.

The overall mean of lease financing measured as log of total lease finances was 9.2772 while the minimum was 9.03 which was moderate compared to the other sources of finance indicating that the airlines sought an average amount of finances through lease agreements throughout the period. Furthermore, the standard deviation was very low indicating that lease financing varied minimally across the stipulated period. This is supported by Letoluo (2003) who concluded that lease financing is usually controlled by companies to avoid financial crunches. The overall mean of share financing measured as log of total share finances was 10.2322 whereas the maximum was 10.79 indicating that the airlines sought share financing more throughout the period. Also, the standard deviation was very low indicating that share financing varied minimally across the stipulated period.

The overall mean of debt financing measured as log of debt finances was 10.6394 while 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. The overall mean of retained earnings

measured as retention ratio was 2.20 whereas the minimum was -3.90 indicating that it was the least preferred source of finances by the airlines. This is attributed to the low net profit margins and ROA across the period which affects the retained earnings. This is supported by Dinayak (2014) who indicated that the retention ratio significantly varies across airlines since they operate in a turbulent industry.

The mean and minimum of firm size measured as log of total assets was very high indicating that the domestic commercial airlines are large firms. The standard deviation was 0.11378 which is very low indicating that firm size varied minimally across the stipulated period. This is supported by Elbanna (2010) who found out that firm size especially in large firms show higher levels of financial performance.

4.3   Correlation Analysis

Correlation analysis was done to calculate Karl Pearson Correlation Coefficient between dependent variables (ROA and net profit margin) and independent variables (lease financing, share financing, debt financing and retained earnings). Correlation analysis was performed at 95% confidence level. The results were summarized and presented in Table 4.2.

Table 4.2. Correlation Analysis

	Net profit margin	ROA	Lease financing	Share financing	Debt financing	Retained earnings
Net profit margin	1.000					
ROA	0.210 0.054	1.000				
Lease financing	0.759 0.001	0.779 0.002	1.000			
Share financing	0.697 0.010	0.717 0.012	0.211 0.076	1.000		
Debt financing	0.556 0.011	0.578 0.001	0.176 0.070	0.225 0.059	1.000	
Retained earnings	0.472 0.004	0.490 0.003	0.200 0.083	0.463 0.052	0.197 0.063	1.000

Source: Research Data, 2019

The results indicate in table 4.2 above shows that lease financing and financial performance (net profit margin and ROA) are positively and significantly related with (r= 0.759, p=0.001) and (r= 0.779, p=0.002) respectively. The results concur with Salam (2013) who concluded that there was a linear relationship between lease finance and ROA and net profit margin of domestic commercial airlines in Kenya. He further noted that the lease finances provide organizations with additional capital to add to its business so as to improve on its income. The results also indicate that share financing and financial performance (net profit margin and ROA) are positively and significantly related with (r= 0.697, p=0.010) and (r= 0.717, p=0.012) respectively. The results concur with Shubita and Alsawalhah (2012) who suggested that high-performing organizations rely on share finances as their primary source of funds. They also noted that there is a positive relationship between share financing and financial performance.

Correlation results indicated 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. The findings concur with Abor (2007) who established a significant relationship between short-term and long term debt and ROA and net profit margin. Lastly, the correlation results indicated that retained earnings and financial performance (net profit margin and ROA) are positively and significantly related with (r= 0.472, p=0.004) and (r= 0.498, p=0.003) respectively. This concurs with Kanwal (2012) who established that retained earnings as expressed by retention ratio and financial performance have a positive and significant relationship.

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
Lease financing	1.38	0.724638
Share financing	1.77	0.564972
Debt financing	1.21	0.826446
Retained earnings	1.86	0.537634

Firm size	1.32	0.757576
Net profit margin	1.37	0.729927
Return on asset (ROA)	1.55	0.645161
	Mean VIF= 1.49	

Table 4.5 indicates that the study used VIF to test for multicollinearity. Lease financing, Share financing, Debt financing, retained earnings, net profit margin and Return on asset was used in table 4.5. The results show that the average Variance Inflation Factors is 1.49 which does not exceed VIF value of 10 thus the variables doesn't show multicollinearity issues as indicated by Song (2016).

4.4.2 Normality Test

The Shapiro-Wilk test was constructed to check for normality so as to ensure that the residuals in the model behaved normal. The Shapiro-Wilk test was used to test the null hypothesis that the distribution of the residuals was normal. The results are presented by the table 4.4 below

Table 4.4: Shapiro-Wilk Test for Normality

Models	Obs.	Statistic	Df	Sig.
Net profit margin	**77**	0.964	77	0.827
ROA	**77**	0.969	77	0.882

Table 4.4 indicate the p-values of 0.827 and 0.882 for net profit margin and ROA regression models respectively. The p-values are greater than 0.05 indicating normality. Therefore, the

study failed to reject the null that residuals are normally distributed and concluded that the residuals behaved normally.

4.4.3 Heteroscedasticity Test

Heteroscedasticity occurs in countless variables, resulting in inefficient assessment outcomes in both cross-section and time-series information (Baltagi, 2005). This research tested for heteroscedasticity using the Breusch-Pagan test. The null assumption was homoscedastic residuals. This meant the existence of heteroscedasticity if the F statistics rejected the null 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 0.8501 for the model with net profit margin and 0.1085 for ROA thus, the null hypothesis was not rejected. Therefore, the data didn't suffer from heteroscedasticity as indicated 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 = 0.8501	Prob>chi2 = 0.1085

Source: Research Data, 2019

4.4.4 Autocorrelation Test

The Durbin-Watson test was carried out to detect the presence of autocorrelation. The null hypothesis in Durbin-Watson test is that there is no serial correlation. Table 4.6 below was used to present the results of the test.

Table 4.6: Durbin- Watson Test

Net profit margin	ROA
H_0: no serial autocorrelation	H_0: no serial autocorrelation
d-statistic (8, 77)= 0.7077235	d-statistic (8,77)=0.772301

Source: Research Data, 2019

The results in table 4.6 shows that the d-statistics of 0.7077235 and 0.772301 for net profit margin and ROA models respectively. The d-statistics value are greater than 0.05 thus there is no serial correlation.

4.4.5 Stationarity Test

The Levin-Lin-Chu unit-root test was carried out to detect stationarity of panels. The null hypothesis in Levin-Lin-Chu unit-root test is that panels contain unit roots while the alternative hypothesis is panels are stationary. Table 4.7 below was used to present the results of the tests.

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

Variable	Statistics	p-value
Net Profit Margin	t = -58.6692	$p < 0.05$
Return on Asset	t = -88.2566	$p < 0.05$
Lease financing	t = -9.3384	$p < 0.05$
Share financing	t = -4.6191	$p < 0.05$
Debt financing	t = -0.0039	$p = 0.4985$
Retention Ratio	t = -42.6966	$p < 0.05$
Firm size	t = -0.4136	$p = 0.3396$

Source: Research Data, 2019

The results in Table 4.7 show that net profit margin, return on asset, log of lease financing, log of share financing, and retention ratio have p-values less than 0.05. This means we reject the null hypothesis, thus panel data are stationary. However, log of debt financing and log of firm size have p-values of 0.4985 and 0.3396 respectively, which are greater than 0.05. This means that we do not reject the null hypothesis and therefore data from the two variables contain 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 (lease financing, share financing, debt financing and retained earnings). 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 (lease financing, share financing, debt financing and retained earnings). Table 4.9 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) lease financing, share financing, debt financing and retained earning
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

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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 (lease financing, share financing, debt financing and retained earnings). The results are indicated in table 4.12.

Table 4.12: Regression Coefficients

Model	Variables	Coef.	Std. error	t	P- value	95% confidence interval	
1a	Lease financing	-1.164	1.452	-.802	.425	-4.058	1.730
	Share financing	1.487	.660	2.253	.027	.170	2.803
	Debt financing	1.434	.692	2.072	.042	.056	2.813
	Retained earnings	1.525	.077	19.805	.000	1.371	1.680
	Constant	-15.576	4.276	-3.643	.001	-24.100	-7.052

Wald Chi2(4)=495.21
Prob>chi2 = 0.000

Model	Variables	Coef.	Std. error	t	P- value	95% confidence interval	
1b	Lease financing	1.247	1.403	.889	.377	-1.549	4.044
	Share financing	-1.827	.638	-2.864	.005	-3.099	-.555
	Debt financing	-1.439	.668	-2.154	.035	-2.771	-.107
	Retained earnings	.424	.075	5.653	.000	.274	.573
	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:

$NPM_{it} = -15.576 + 1.487X_{2\,it} + 1.434X_{3\,it} + 1.525X_{4\,it}$

$ROA_{it} = 18.031 - 1.827X_{2it} - 1.439X_{3\,it} + 0.424X_{4it}$

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

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

X_{1it} – Lease financing 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.

X_{4it} – Retained earnings for airline i at time t.

The results shown in Table 4.12 indicate that the independent variables of share financing, debt financing and retained earnings were found to be satisfactory variables in explaining financial performance (net profit margin and ROA) of domestic airlines in Kenya. The p-values of lease financing, share financing, debt financing and retained earnings were less than 5% hence they are statistically significant. However, lease financing was insignificantly related to financial performance since the p-values were above 5%. 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 in table 4.12 indicates that lease financing (Log of lease finance) and financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are insignificantly related (p=0.425) and (p=0.377) respectively. The findings concur with Kwame (2007) who found an insignificant relationship between lease financing and net profit margin. Also, Muthama *et al.* (2012) established that there is an insignificant relationship between lease financing and net profit margin of leasing companies in the Nairobi County.

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 (β=1.487, p=0.027) and (β=-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 (β=1.434, p=0.042) and (β=-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 in a considerably adverse impacts.

The results also shows that Retained earnings (retention ratio) and financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are positively and significantly related (β=1.525, p=0.000) and (β=0.424, p=0.000) respectively. This means that an increase by 1 unit in retained earnings 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. The results concur with that of Timothy and Peter (2012) who established that retained earnings positively and significantly affects financial performance of NSE listed companies. Also, Kanwal (2012) noted that retention ratio and Share financing positively influences ROA and net profit margin.

4.6   Hypotheses Testing

4.6.1   Lease Financing and financial performance

The first hypothesis to be tested was:

H_{01}: **Lease 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=0.425) and (p=0.377)

are greater than 0.05 hence, the null hypothesis was accepted. The hypothesis was to accept that lease financing does not have a significant effect on financial performance of domestic commercial airlines in Kenya. The findings concur with Kwame (2007) who found an insignificant relationship between lease financing and net profit margin. Also, Muthama *et al.* (2012) established that there is an insignificant relationship between lease financing and net profit margin of leasing companies in the Nairobi County.

4.6.2 Share Financing and Financial Performance.

The second hypothesis to be tested was:

***H*$_{02}$: 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.

4.6.3   Debt Financing and Financial Performance.

The third hypothesis to be tested was:

H_{03}: 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.

4.6.4   Retained Earnings and Financial Performance

The fourth hypothesis to be tested was:

H_{04}: Retained earnings 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=0.000) and (p=0.000) are less than 0.05 hence, the null hypothesis was rejected. The alternative hypothesis was to accept that retained earnings has a significant effect on financial performance of domestic commercial airlines in Kenya. The results concur with that of Timothy and Peter (2012) who established that retained earnings positively and significantly affects financial performance of NSE listed companies. Also, Kanwal (2012) noted that retention ratio and Share financing positively influences ROA and net profit margin.

The findings concur with Baimwera and Muriuki (2014) who concluded that debt financing positively and significantly related to financial performance of SACCOs in Kenya. The results also agree with Lesivan (2012) who established that long term debts positively affects net profit margin of firms. However, Muigai (2016) noted that debt financing negatively and significantly impacts companies as the excessive use of debt to finance corporate activities generally results in a considerably adverse impacts.

Table 4.13: Summary of hypothesis

No	Objective	Hypothesis	Rule	P-Value	Comment
1	To examine the effect of lease financing on financial performance of domestic commercial airlines in Kenya.	H_{01}: Lease financing does not significantly affect financial performance of domestic commercial airlines in Kenya	Reject H_{01} if p Value < 0.05	P>0.05	Lease financing does not significantly affect financial performance of domestic commercial airlines in Kenya
2	To determine the effect of share financing on financial performance of domestic commercial airlines in Kenya.	H_{02}: Share financing does not significantly affect financial performance of domestic commercial airlines in Kenya	Reject H_{02} if p Value < 0.05	P<0.05	Share financing has a significant effect on financial performance of domestic commercial airlines in Kenya
3	To assess the effect of debt financing on financial performance of domestic commercial airlines in Kenya.	H_{03}: Debt financing does not significantly affect financial performance of domestic commercial airlines in Kenya	Reject H_{03} if p Value < 0.05	P<0.05	Debt financing has a significant effect on financial performance of domestic commercial airlines in Kenya
4	To establish the effect of retained earnings on financial performance of domestic commercial airlines in Kenya.	H_{04}: Retained earnings does not significantly affect financial performance of domestic commercial airlines in Kenya	Reject H_{04} if p Value < 0.05	P<0.05	Retained earnings has a significant effect on financial performance of domestic commercial airlines in Kenya

Source: Research Data, 2019

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 conclusion 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 the effect of lease financing on financial performance of domestic commercial airlines in Kenya, to determine the effect of share financing on financial performance of domestic commercial airlines in Kenya, to assess the effect of debt financing on financial performance of domestic commercial airlines in Kenya and to establish the effect of retained earnings on financial performance of domestic commercial airlines in Kenya. The targeted population was 11 domestic commercial airlines in Kenya that were operational in 2012-2018.

The first objective of the study was to examine the effect of lease financing on financial performance of domestic commercial airlines in Kenya. The correlation results showed that that lease financing and financial performance (net profit margin and ROA) financial performance of domestic commercial airlines in Kenya are positively and significantly related. Regression of

coefficients results showed that lease financing and financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are insignificantly related. Thus, the study used the hypothesis that lease financing does not have a significant effect on financial performance of domestic commercial airlines in Kenya.

The second 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. Regression of coefficients results also showed that share financing and financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are significantly related. Thus, the study used the alternative hypothesis that share financing has a significant effect on financial performance of domestic commercial airlines in Kenya.

The third 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. 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. Thus, the study used the alternative hypothesis that debt financing has a significant effect on financial performance of domestic commercial airlines in Kenya.

The fourth objective of the study was to establish the effect of retained earnings on financial performance of domestic commercial airlines in Kenya. The correlation results showed that retained earnings and financial performance (net profit margin and ROA) are positively and significantly related. Regression of coefficients results also showed that retained earnings and

financial performance (net profit margin and ROA) of domestic commercial airlines in Kenya are positively and significantly related. Thus, the study used the alternative hypothesis that retained earnings has a significant effect on financial performance of domestic commercial airlines in Kenya.

5.3   Conclusion

The study concluded that lease financing does not have a significant effect on financial performance of domestic commercial airlines in Kenya. Therefore, financial performance of domestic commercial airlines is not influenced by lease financing. The study also concluded that share financing has a significant effect on financial performance of domestic commercial airlines in Kenya. 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 domestic commercial airlines in Kenya acquire debts so as increase its capital, maintain ownership and become risk averse thus attain higher net profit margin. Lastly, the study established that retained earnings has a significant effect on financial performance of domestic commercial airlines in Kenya. Retained earnings is used 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 that since the retained earnings affects financial performance, the management of domestic commercial airlines in Kenya should adopt more use of retained earnings. The benefit of using rretained earnings is that it is readily available and reduces additional expenses related to issuance of external equity gain thus improving on net profit margin and Return on Assets of the airlines.

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. The limitations were managed by making thorough clarifications and going through the data severally to minimize on the anticipated errors.

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 I: 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 II: DATA COLLECTION TOOL

Name of Airline:								
No	**Financial indicators**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
1	Lease financing (in Kshs.)							
2	Share financing (in Kshs.)							
3	Debt financing (in Kshs.)							
4	Retained earnings (in Kshs.)							
5	Firm size (in Kshs.)							
6	Profitability (%)							
7	Return on asset (in Kshs.)							

Source: Researcher (2019)