

# Determinants of Profitability of Airlines in the Aviation Industry in Kenya

Enos Bernabas Anene Jomo<sup>\*</sup>, Margaret Oloko<sup>\*\*</sup>, George Orwa<sup>\*\*\*</sup>

<sup>\*</sup> PhD student- Kenyatta University of Agriculture and Technology, Kenya

<sup>\*\*</sup> Jomo Kenyatta University of Agriculture and Technology, Kenya

<sup>\*\*\*</sup> Jomo Kenyatta University of Agriculture and Technology, Kenya

**Abstract-** The objective of the study was to establish determinants for the profitability margins at Kenya Airlines in the aviation industry. The study objective of the study was to establish the extent of which management structure had on the airlines profit. The Kenya airlines over period of time from the year 2007 have experienced low profitability margins causing shareholders loss on their wealth, it further resulted to low pricing and devaluing of the Kenya Airlines wealth capital accumulation and the losses resulted to retrenchment of workers/employees and low GDP growth contribution. The target population were all the airlines in Kenya, thus a census study was conducted from 273 managers from the top, middle and functional levels were sampled through the use of questionnaires. Several sampling techniques were used that is the non-probability design through the use of both purposive and convenience and probability. The study used the descriptive research design, and data was collected through the use of questionnaires (structured and unstructured) to collect both primary data and secondary data be used. The data was analyzed and presented through use of descriptive analysis, probit regression, content analysis and the SPSS version 20 was used to analyse the content of the study. The study found that all the variables of the study had a positive impact on the profitability of airlines in the aviation industry in Kenya and thus they were statistically significant according to the findings of the study. In conclusion the study recommended several actions that need to be considered for the airline to return to paths of profitability. That is; there is need for airlines to implement prices that are inexpensive to passengers, the management structure effect on performance should be implemented appropriately because their decisions have effect on profitability.

**Index Terms-** Kenya Aviation, Profitability, Management Structure

## I. INTRODUCTION

The airline industry has lost \$42 billion over the past five years. All of this is accounted for by US airlines. On average over the past five years airlines in the rest of the world have broken even (Pearce, 2005) however, globally airline profitability improved significantly in the year 2006 from airlines strong revenue growth, cost efficiencies and capacity management. Industry-wide operating profit is estimated to have increased from \$4.3 billion in 2005 to \$13.0 billion in 2006 translating to a 2.9% operating profit margin. The US airlines

had the strongest improvement in operating profitability. Twelve US airlines made operating profits of more than \$100 million (compared to 5 in the year 2005), while only four US airlines made operating losses (compared to 9 airlines in the year 2005). Nevertheless, local currency profits also increased at several European and Asia-Pacific network airlines, which remain among the highest profit generators (IATA, 2007).

Despite the clear value being created for customers, the airline industry has found it difficult to make an adequate level of profits. It is also the case that network airline profitability has been lowest on the more mature N. American and European regions. However, none have managed to generate a ROIC sufficient to meet the minimum expectations of the investors. Airlines from all regions and business models, over the last full business cycle, generated average ROICs below their Weighted Average Cost of Capital (WACCs). There has been only a minor improvement in returns for investors in airlines over this past business cycle. During the period 2004- 2011 returns on invested capital in the worldwide airline industry averaged 4.1%. This compares with an average of 3.82% during 1996-2004. (IATA, 2011).

## II. STATEMENT OF THE PROBLEM

Although aviation contributes 1.1 % in Kenya GDP which is ksh 24.8 billion, where by the airlines services provides Ksh 13.0 billion, (Oxford Economics, 2011), the airlines sectorial growth rate and its contribution to growth rate has been fluctuating that is the year 2005 at 5.2%, year 2006 at 9.0%, the year 2007 at 7.2%, the year 2008 at 0.1% the year 2009 at 4.0% , the year 2010 at 6.9%, the year 2011 at 5.4%, the year 2012 at 3.3% and the year 2013 at 3.6%, (Delloite, 2011& ROK, 2014). The contribution of GDP by sector for instance the Kenya airlines in transport sector dropped from 11.6% in 2008 to 10.4% in 2012, (Odero & Reeves, 2014). Although most of the research has been done on Kenya airways that is Mulei (2011) focused on corporate governance, Mwikya (2013) studied on time service delivery at kenya airways, kweyu (2010) looked at corporate culture, Irungu (2012) focused on information technology as a result none of this studies took an in-depth analysis on the factors that contribute to profitability margins of Kenya airlines as an industry hence the purpose of this study to fill the gap.

### III. GENERAL OBJECTIVE

To establish the strategic determinants of profitability of airlines in the aviation industry sector in Kenya.

#### Specific Objectives

The specific objective of this study was to establish the extent to which management structure determines profitability of Kenyan airlines in the aviation industry.

### IV. RESEARCH METHODOLOGY

This study used both the census and descriptive mode of study as evident in the research conducted by Nderu, (2013), on Influence of Survival Strategies on the Organizational Performance of Kenya Airways and Irene, (2012), on the Influence of Information and Communication Technology on Performance of Aviation Industry - A Case Of Kenya Airways Ltd. A population is termed either as finite if it consists of a fixed number of elements such that it is possible to enumerate it in its totality and it is represented by the symbol N, or a population is termed as infinite if theoretically it is impossible to observe all the elements (Kothari, 2004). The population of the study was all the local airline companies in the aviation industry in Kenya (Maina, 2014) which employs 6000 employees who directly work in the Kenya aviation Industry (Oxford Economics, 2011). The study used the stratified sampling technique this is the process whereby sample is constrained to include elements from each of the segment (Cooper & Schindler, 2006). The study employed the use of questionnaires; this is because they provide confidentiality, and an avenue through which information can be collected from a large sample and from diverse regions (Kombo & Tromp, 2006). The research used both the primary source of data by carrying out interviews and questionnaires to respondents to solicit for information, also secondary source of data was used that is from electronically stored information from Kenya airlines websites, financial statements, information from the International Air Travel Association (IATA), Kenya Civil Aviation authority, Kenya's Parliamentary Senatorial Enquiry Report and information from journals. The use of secondary source of data is

that it is available more cheaply, the existing data is readily available in a convenient way and form, hence saves on time because of the availability of pre-processed data (Kombo & Tromp, 2006).

### V. RESULTS AND DISCUSSIONS

The statistical Probit on table below analysis outputs for the above variables. The P-Values all show that there is no significant relationship between management and the airlines profitability. Management ownership has a P-Value of 0.864, .048 for management profits, 0.165 for management's effects to profits, and .0950 for managements drive for profits. All this is at 95% Confidence interval, and 0.05 alpha. Since the significance values are above alpha, then there are no significant relationships between the management factors and the various airlines profitability levels. The findings of the study concur with the research by Benny and Jen-Hung (2012) in the examination of the determinants of profitability in the U.S. domestic airline industry, the study considered operations strategy, productivity, and service measures, as variables while focusing the attention on the effects of the 9/11 attack. The study concluded that operations strategy measures are important factors in explaining profitability. More so, with regard to productivity measures, the study found that Loading Factor has a positive and a significant coefficient in predicting profitability. The board's composition also plays a greater role in the performance of an organization. Supervisory role performed by non executive directors helps the company to be efficiently managed and they result to higher governance scores thus a higher market value of a firm's value in the market (Chen, 2008; Black, Hasung, & Woochan, 2006). Firms with weaker governance structures face more agency problems and managers of those firms get more private benefits due to weak governance structure (Core *et al*, 1999). Good governance and administration practices are important in reducing risk for investors, attracting investment capital and improving the performance of companies (Velnampy & Pratheepkanth, 2012), besides it provides a better access to financing and lower cost of capital.

**Profits on Management Structure Probit Variance Explained**

Parameter Estimates		Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
Parameter	Lower Bound					Upper Bound	
PROBIT <sup>a</sup>	Management ownership	.034	.197	.171	.864	-.352	.420
	Management profits	.373	.189	1.979	.048	.004	.743
	Management affects_profit	-.403	.291	-1.388	.165	-.973	.166
	Management drive_profit	-.010	.157	-.063	.950	-.317	.297
Intercept <sup>b</sup>	10	.025	.234	.108	.914	-.208	.259
	30	-.099	.217	-.456	.648	-.316	.118
	50	.435	.232	1.874	.061	.203	.667
	70	.211	.266	.793	.428	-.055	.477

a. PROBIT model: PROBIT(p) = Intercept + BX (Covariates X are transformed using the base 2.718)

logarithm.)

b. Corresponds to the grouping variable If yes.

## VI. CONCLUSION

The first objective was to determine whether management structure had an effect on the Profitability of Kenyan airlines in the aviation industry. The majority of airlines operating in Kenya are private individual, private partnership and public owned. These airlines have constituted boards to manage their operations in the flight industry. The management according to the respondents, their actions and decisions do affect the airline profitability margins. This is because they determine the pricing mechanism which in turn affects profits. The study showed that the pricing mechanism and tools used in determining the airlines prices rates and tickets are eschewed to be expensive as compared to other international airlines that operate in Kenya. As a result these prices deter most passengers from using the airlines as a result they opt for other airline carriers. Apart from the management on the higher cadre, those on the lower management level usually do not have the benefit of making sound nor contribute to the major decisions yet majority of them are usually on the ground level and they know more about what issues need to be incorporated to the management to have sound performance of airlines. Most respondents agreed that airlines have visions but they have less impact on the profitability of airlines since these visions have not been ingrained in the day to day operational requirement of the work load at hand. Besides it was agreed that the visions do not have a bearing on the profitability of airlines. Thus effectiveness of leadership on a business is measured by how airlines are able to steer themselves to operate on the path of profitability. When this aspect is not visible it is therefore assumed that the leadership is not so robust in managing the variances that determine the airlines performance. The Probit regression and correlation results indicated that there was a positive and significant relationship between management structure and profitability of airlines in aviation industry in Kenya. The findings imply that management structure were statistically significant in explaining the profitability of airlines in aviation industry.

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## AUTHORS

**First Author** – Enos Bernabas Anene Jomo -PhD student- Kenyatta University of Agriculture and Technology, Kenya. Email: enosnn@yahoo.com .Correspondence Author  
**Second Author** – Margaret Oloko (PhD), Jomo Kenyatta University of Agriculture and Technology, Kenya  
**Third Author** – George Orwa(PhD)- Jomo Kenyatta University of Agriculture and Technology, Kenya