

1 CHAPTER ONE: INTRODUCTION

Kane (1996) states that the airline industry provides a transport service for passengers and freight for an agreed price over long distances. It possesses the advantage that it is a safe and time saving means of travel and is most times the only effective link between continents. This industry is characterized by the following challenging factors:

1. Service industry in which no actual goods are exchanged.
2. Highly capital-intensive industry that needs large sums of money to operate.
3. High cash flow since the value of expensive aircraft depreciates over time.
4. Labour intensive with labour contributing a high percentage of operating costs.
5. Thin profit margins of about 1 to 2 percent annually.
6. Seasonality in passenger demand, such that airline revenue fluctuates throughout the year.

1.1 Background

The New Partnership for Africa's Development (NEPAD, 2002) objective is a pledge by African leaders based on a common vision and a firm and shared conviction of a new relationship of partnership in Africa as a continent. Its objective is to give impetus to Africa's development by bridging existing gaps in priority routes in order to enable the continent to catch up with developed parts of the world (NEPAD, 2002). The field to be addressed in light of the above objective is the airline industry in Africa

Apart from the crucial characteristics of the airline industry stated above, the African aviation industry has been going through some significant changes. These were mainly brought about by the fact that historically airlines were being run by governments, but due to a lack of funding they have been privatized.

The chairman of the African Airline Association (AFRAA, 2000) states that the modernization of fleets has been forced on the airlines by the stricter noise and safety regulations and the need to improve Africa's air transport services and industry. After the September the 11th 2001 attack on the World Trade Center in New York, stricter aircraft security standards were enforced putting a strain on airlines especially in Africa. With all of the above financial and management problems, privatization of airlines and foreign alliances has been adopted for several African airlines but with only a few successes. There are few investors interested in airlines, which continually operate at a loss.



1.2 Problem statement

There are many problems facing the African airline industry including; privatization, stricter aviation regulations, lack of funding, etc. the problems that will be focused on in the study are highlighted from the issues below:

1. It costs the same amount of money to fly from Johannesburg, South Africa to Entebbe Uganda, as it does to fly to from Johannesburg to London Heathrow. Granted the airline industry has many factors that determine the cost of flying a route, depending on passenger demand, route distance, etc. For the purpose of accessibility within a continent with a vision to encourage trade and development within a continent, airfares within the same continent should not be so over-priced.
2. Some of the non-African airlines flying to destinations within the Africa continent have created hubs in Europe to build passenger volumes, increasing passenger-km. This has discouraged air traffic movement within the continent. For example for a long while direct routes to West Africa were minimal, and entailed hubbing either in North Africa or Europe, for connecting flights to African destinations.

From these issues, the following questions need to be addressed, to bridge the gap within countries in the African continent.

1. What is the basic minimum cost for providing an airline service on a given route? Can the airfares on the market equally representative of this basic operating cost, sector length and passenger demand?
2. Can the operating costs for a route be designed optimally, such that the basic service is provided, moving air passengers from their origin to destination, without compromising on the extra distances travelled?

1.3 Purpose for this study

In light of the above issues, the aim of this study will be to develop a model to calculate the cost of running an airline service, along a route in Africa. This model will be developed from existing cost information, in such a way that the operating costs of running this service along any given route can be calculated for the African region, as a way forward to integrate the continent.



1.4 Scope of study

The main objective of the study is to develop a cost model, while the specific activities include:

1. To review the literature to understand airline route costing and analyse cost structures.
2. To develop a model structure that will calculate the cost of flying a route.
3. To collect and modify relevant data, default values and component equations needed in the model.
4. To assess the model's ability to cost an air transport service.
5. To apply the model to cost different routes within the African region.

1.5 Limitations

From the data available, a route cost model based on passenger volumes will be obtained. Degrees of freedom i.e. the altitude of cruising allowed for specific countries, airport capacities, flight weekly frequencies as specified by authorities, time slots, environmental issues on noise and pollution, and the politics surrounding the airline business, will not be considered.

The airline service will be designed as a traditional passenger airline service -from its origin to destination. It is therefore not a specialized modern airline such as a low cost carrier or freight carrier.

1.6 Methodology

The methodology includes the following components:

1. Develop an understanding of costing an airline service, in terms of structure and relevant determinants.
2. Set up and develop a logical model structure, explaining the input, output and calculation components to cost the route service.
3. Collect and analyse data needed to develop the cost model and where information is lacking, assumptions will be made for parameters in the model.
4. Apply the parameters and relevant equations to calculate operating costs for a route.
5. Analyse the model in its ability to cost an airline service along a route and as a transport service.
6. Apply the model to the Africa situation, with the possibility of creating a network.



1.7 Organization of the report

This report consists of the following chapters:

1. Introduction

This chapter gives an overview of what is to be expected in the study, giving the background of the study, the problems to be addressed, specific objectives and the methodology to be followed.

2. Airline Route Costing

This chapter compiles all the available literature on the cost components and structure to be considered, when looking at operating costs of an airline service. The factors that affect the route operating costs are also discussed. The cost structure to be adopted in the model is finalized.

3. Model Structure

The structure of the model to be developed is generated and relevant equations compiled in a systematic structure to calculate the operating costs for a given route.

4. Data Collection and Analysis

Sources of data, component equations and default values relevant in calculating the operating costs of an airline, are compiled. Where data is lacking the assumptions made were justified.

5. Model Analysis

The model is then analysed in such a way that it can be used to calculate route-operating costs and be used to determine the type of service being served along a route.

6. Model Application

The results from the model are then used to gauge whether it can be applied to create an economically efficient transport service along the route.

7. Conclusions and Recommendations

The conclusions drawn from the study are compiled, giving inferences and recommendations compiled in the study.

