

**THE IMPACT OF FLUCTUATING OIL PRICES ON AIR CARGO
INDUSTRY
A CASE STUDY OF DAS AIR CARGO**

BY

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of Bachelors degree in International Business Administration, of Kampala
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DECLARATION

This document presents part of the writer's study programme for the bachelors' degree in international business administration, while at the Kampala International University. The views therein are exclusively the author's:


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Cardyn Sylvia Cope

Cardyn Cope

17/10/06

This dissertation is submitted for examination with my approval as supervisor:



MR. MICHAEL RUTEGANDA
17/10/06

DEDICATION

This book is dedicated to my unborn child Shane Texas

And

In loving memory of

My father Allan and my mother Annmarie

ACKNOWLEDMENTS

I wish to acknowledge the contributions and support of all those who assisted me in various ways, during this research.

I wish to thank Captain Joe Roy, the founder and present day chairman of Das Air cargo, who inspite of his busy schedule, managed to fix some time for me whenever need be, and was never frustrated with my endless questions about the research.

Special indebtedness goes to my supervisor Mr. Michael Ruteganda, for his guidance, counsel and assistance throughout the research study.

I appreciate the contribution of all my course facilitators while at the institute.

ABSTRACT

The researcher noticed that while demand for global airfreight was increasing with continual globalization, many air cargo companies were being forced out due to the fluctuating oil prices.

Through interviews, questionnaires, personal observation and secondary data, the researcher found out that, the major problem encountered is ever increasing price of jet fuel, which accounts for 20-30% of the operational cost, continue to put pressure on profit margins of cargo airlines.

She also observed that the oil crises is most likely to be a permanent problem for the air cargo industry and not just a temporary one, and that it was time the industry came up with strategies to overcome this problem and improve on their operations and efficiency, in order to maximize profits.

This is evident because, while in the midst of the oil crises and its effect on air cargo industry, there are some companies that have managed to excel and take advantage of the equally increasing globalization. It is these optimistic companies that give the industry some ray of hope.

The researcher drew upon findings some recommendations which can be used to curb the situation.

TABLE OF CONTENTS

CONTENTS:

Declaration

Approval

Dedication

Acknowledgement

CHAPTER ONE INTRODUCTION

CONTENTS	PAGE
1.1 Background to the study	1
1.2 Statement of the problem	1
1.3 Theory	2
1.4 Review of the related literature	5
1.5 Significance of the study	6
1.6 Objectives of the study	6

CHAPTER TWO RESEARCH METHODOLOGY

2.1 Design	8
2.2 Environment	8
2.3 Subject	8
2.4 Instruments	8
2.5 Data collection Procedures	9
2.6 Data processing analysis	9
2.7 Anticipated limitations	9

CHAPTER THREE PRESENTATION AND CONCLUSION OF FINDINGS

3.1 Presentation of findings	13
3.2 Findings on general characteristics of respondents	13
3.3 Relationship between globalization,demand for air freight and profit margins in relation to fluctuating oil prices	14
3.4. Relationship between global Oil crisis and the performance and growth of Das Air Cargo	16

CHAPTER FOUR SUMMARY CONCLUSION AND RECOMMENDATIONS 18

4.1 Introduction	18
------------------------	----

4.2 Summary	18
4.3 Conclusion	19
4.4 Recommendation	20
CHAPTER FIVE DEFINITION OF TERMS AND ABBREVIATIONS	23
5.1 Introduction	23
5.2 Abbreviations	23
5.3 Terms	24
Bibliography	25
Appendices	27

CHAPTER ONE INTRODUCTION

1.1 Background to the study

2004 was an exceptionally good year for global air freight demand growth, which saw a 10.8% rise in air freight tonne-kilometers (FTKs) from 2003 levels, and certain major markets grew even faster. This came about from demand for exports and imports from Asia, United States and China, bringing about congestion in major ocean ports especially in western United States, Europe and other major importing countries, forcing manufacturers and retailers to send goods via air in order to avoid stock-outs.

However, this being an airlines business, even favourable demand conditions did not turn exceptional profits for many carriers. International Air Transport Association (IATA) estimates the global airlines lost \$4.8 billion in 2004 and only well run cargo airlines did well, for all carriers, dramatically higher fuel prices continued to put pressure on profit margins.

1.2 Statement of the problem

There is no doubt that even though continuing globalisation is the most important trend driving economic growth in the air freight industry, increased demand for cargo airline services does not necessarily mean increase in profit, as many people are focused on the stubbornly high prices of fuel as a threat to the economic growth. Skyrocketing fuel prices have already brought airlines to suspend flights and discontinue services. Some carriers like United Airlines, Delta and Northwest, have declared bankruptcy.

This observation confirms that cargo airlines really are affected by increasing oil prices, but then, if this is a problem faced by the cargo airline industry, and one that has persisted through the years, then why are some cargo airlines excelling in the midst of the fuel price threat, and others shaken? And if the increase of fuel prices increases the final price for cargo airline services, then airlines should be able to offset this with the increasing demand for cargo airlines services. However, this is not the case, profit margins continue

to thin down as fuel prices increase. This then confirms that air freighters are facing extreme competition, and only the strong ones are surviving.

It is against this background that i will take this study to find out the impact of fuel prices on Das Air Cargo, and how the company has managed to excel despite the fact that fuel prices are steadily increasing.

I will also find out whether the oil market is suffering a temporary disruption, or whether we are at the outset of a new era in which oil out put is nearing its peak and will no longer be sufficient to meet global demand. Are we in a midst of a spike or are we on the brink of a new plateau?

I will examine the market share of Das Air Cargo in the industry, she will examine the nature of both global and home demand conditions for Das Air Cargo services, the company's strategy, structure and who its rivals are. The researcher will also find out the access the company has on skilled labour and supporting infrastructure and will also find out its related and supporting industries.

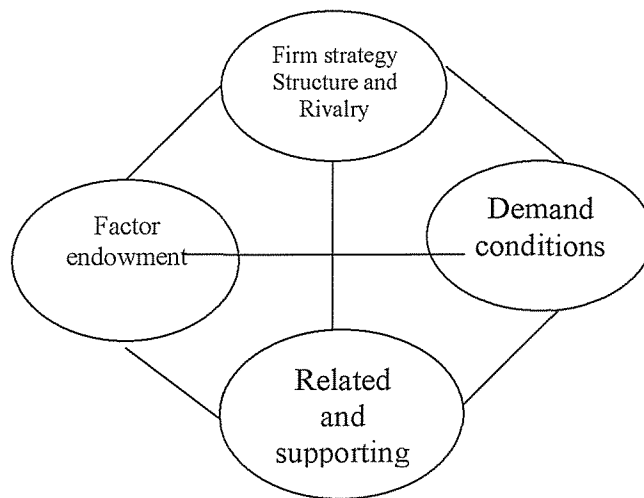
1.3 Theory

This study and its nature actually questions a company's ability to create a competitive advantage, and since cargo airlines industry is globally being threatened by increasing prices of jet fuel, we will look at other ways a company in that industry can create national competitive advantage.

Porter's diamond thesis

In 1990, Michael Porter of Harvard Business published the results of international research to determine why some nations succeeded and others failed in international competition. His book National Competitive Advantage brought about important contributions to the thinking about trade.

Porter's thesis is that four broad attributes shape the environment in which local firms compete, and these attributes promote or impede the creation of competitive advantage.



- Factor endowments:* A nation's position in the factors of production such as skilled labour or the infrastructure necessary to compete in a given industry. Here, Porter analyzes the characteristic of factors of production in some detail. He recognizes hierarchies among factors, distinguishing between basic factors, which include climate, natural resources, location, and demographics, and advanced factors that include communication infrastructure, sophisticated and skilled labour, research facilities and technological know-how. Advanced factors are the most significant for competitive advantage. This is because, unlike basic resources that are naturally endowed, they are a product of investment by individuals, companies and governments.

Basic factors provide an initial advantage that is reinforced and extended by investment in advanced factors. Disadvantages in basic factors can create pressure to investment in advanced factors. Japan is the most obvious example of this phenomenon, it is a country that lacks arable land and mineral deposits and yet has built a substantial endowment of advanced factors.
- Demand conditions:* The nature of home demand for the industry's product or service.

Porter's emphasises the role home demand plays in providing the impetus for upgrading competitive advantage. Characteristics of home demand if sophisticated will put pressure on local firms on innovation and quality, and this will enhance a nation's firm competitive advantage.

- *Relating and supporting industries*: The presence or absence in a nation of supplier industries and related industries that are internationally competitive. When related and supporting industries invest in advanced factors of production, the benefits are spilled over into the industry. This is true, as Michael Porter found observed that the most successful industries within a country tend to be grouped into clusters of related industries. For example, he observed that the German textile and apparel sector includes high quality cotton, wool, synthetic fibers, sewing machine needles, and a wide range of textile machinery.

- *Firm strategy, structure and rivalry*: The conditions in the nature of domestic rivalry.

He makes two points clear;

- I. Nations are characterised by different “management ideologies” which either help or break them in relation to building national competitive advantage. He observed that in the 1970s and 1980s, US firms with predominant people with finance backgrounds on top management teams, overemphasised on maximising short-term financial returns and ignored improving manufacturing processes and product design. This led to a relative loss of US competitiveness in the engineering-based industries. On the other hand, Japanese firms’ emphasis on manufacturing processes and product design has given Japan a national competitive advantage the motor vehicle industry.
- II. There is a strong connection between vigorous domestic rivalry and creation of persistence competitive advantage in an industry.

Porter speaks of these four attributes as constituting the *diamond*. He argues that firms are most likely to succeed in industries or industry segments where the diamond is most favourable. He also argues that the diamond is mutually reinforcing system and two additional variables can affect the national diamond in important ways, and these are *chance* and *government*. Chance events such as major innovations, create discontinuities that can reshape industry structure and provide the opportunity for one nation’s firms to supplant another’s. Government by its choice of policies can detract

from or improve national advantage. For example, regulation can alter home demand conditions, antitrust policies can influence the intensity of rivalry within an industry, and government investment in education can change factor endowment.

1.4 Review of the related literature

Introduction

This outlines the literature you have read to support your research. It shows the reader that you have read widely about your area of study and that you have considered other peoples' work in the similar area. In my case of "the impact of fluctuating oil prices on Cargo industry", I realise that air freight industry is already facing bigger challenges, and that rising fuel prices is "added salt to an injury". The review will cover

1. Rising fuel prices

This section will draw attention on the direct effect of increasing oil prices on Air Cargo Industry. It also brings about the question of whether the oil crises is just a temporary shake-up for the Air Cargo Industry, or the industry should brace itself for a whole new era of ever increasing prices of jet fuel.

The first five years of the 21st century have brought about a great deal of turmoil and instability to the global oil market. In November 2001, oil prices stood at under \$20 a barrel. By April 2006, they crossed the \$75 mark. Many reasons brought about the steep rise in oil prices among them growing demand in developing Asia, the collapse of major Russian oil company Yukos, lack of sufficient investment, terrorism and political instability in many oil producing countries, fear of military confrontation with Iran and increased hurricane activity in the US. This sudden rise in oil prices has already taken a toll on the global economy.

According to Institute for the Analysis of Global security- April 2006, Pessimists argue there's simply not enough oil to meet the booming demands coming from developing countries like China and India and still satisfy the voracious appetites of traditional consumers in the industrialized world. Such voices also come from within the petroleum industry. Venezuela's energy minister Refael Ramirez remarked in 2004 that "The history of cheap oil may have ended." Around the same time Chevron's CEO admitted that "the era of easy oil is over."

The Energy Information Administration of the U.S. Department of Energy came to the same conclusion. It is a sad realisation that OPEC oil producers are not likely to pump as much oil as projected to meet growing demand. Analysts such as Mathew Simmons, former energy advisor to President George Bush, predict oil prices of between \$200 and \$250 a barrel in the coming years. Optimists, on the other hand, point out that some experts have been predicting a scarcity of oil for nearly a century, and yet the oil keeps coming. They hold that the combination of today's high oil prices and improved extraction techniques means that the break-even point for exploiting harder to extract oil is getting closer. Saudi Arabian Oil Minister Ali al-Naimi and Exxon Mobil Corp. President Rex Tillerson say oil supplies will last for decades and significant decline in prices is projected.

2. Relationship between globalisation and global air freight demand

This section will emphasise on the relationship between globalisation and global air freight demand, and its contribution to the cargo airline industry. This is the point where the review will help to establish the gap in the existing literature and establish disagreements in it.

MergeGlobal's 2005 World Air Freight Forecast-Global air freight demand is a direct effect of globalisation. As I observe, global air freight demand in 2004 was exceptionally good, as certain major markets grew. One major demand factor was the United States, which posted extraordinary 4.4 percent growth in real gross domestic product and continued to run record-setting trade deficits. Another major drive was China, which continued its extraordinary export and import boom (in process driving up global prices of commodities as well as ocean shipping rates). Additional air freight growth came from congestion of ocean ports, especially in the western United States and also in Europe and other major importing countries that forced manufacturers and retailers to send goods via air in order to avoid stock-outs.

However, MergeGlobal observed that much as globalisation brought about exceptional favourable demand for airfreight, it did not exceptional profits for most carriers, owing to the dramatically higher fuel prices.

3. Home demand conditions for cargo airline services

This part of the study and literature review will show just how home demand for air freight has shaped the cargo airline industry in Uganda. It will look at Uganda's export growth, which is mainly agricultural and import growth.

Das Air C started operations in 1983 when the founder and present day Chairman of the company, Captain Joe Roy identified a need in the African cargo market for a dedicated ALL CARGO operator.

Services commenced in June 1983 with a single B707 flying between Europe and West African ports.

Major expansions in 1983 saw the carrier start services between Europe, Dubai and Entebbe and this triangular pattern still forms an important part of the company's operations today. Entebbe, where Das Air Cargo undertakes its own ground and cargo handling, is its major hub for business to East, Central and Southern Africa and also flights from Bangkok. Other hubs for Das Air Cargo are London Gatwick and Amsterdam, west Africa, Nairobi, Johannesburg and Dubai. Amongst the 100 or so airlines operating through Dubai, Das Air Cargo is currently the second largest Cargo Export Carrier and the fifth largest Cargo Import Carrier.

Das Air Cargo has taken a large portion of the total freight of Uganda's exports to Europe which include fresh roses and fish. As demand for these exports increase, so is the demand for Das Air Cargos services. However Captain Joe Roy was quick to note that much of their business comes from Europe and Asia, as most of Ugandas imports are shipped through Mombasa Port and Dar-es-salaam.

4. Management and operational ideologies in the Air Cargo Industry

The study will look at what Cargo Airline Companies are doing in terms of management, operations, and service design in order to stay competitive within the industry.

According to Captain Joe Roy, efforts to sort the problem of frustrating profit margins caused by high jet fuel prices is to cut on the labour costs by reducing the number of staff it has, and to increase fuel efficiency by getting rid of the old airplanes that consumed enormous amounts of jet fuel, and replacing them with newer air planes that are twice fuel efficient. Das Air Cargo is also spending a lot to train their employees in order to

improve on its service design, in order to gain competitive advantage. Also maintaining low overheads has helped improve its position in the industry.

Das Air Cargo has received several awards between 1998 and 2004, one of them being “BEST CARGO AIRLINE TO AFRICA” Presented by Air Cargo News, 2004, as voted by the Cargo Industry.

“ With high fuel prices continuing to take toll, slashing labour costs has become imperative for “legacy carriers”, analysts say-Japan Times, 31.05.05.

“Labour contracts (at the established carriers) lack flexibility” and they are finding it hard to carry out labour-cost reductions in confrontation with unions, said Yasuho Matsumoto, a credit analyst at the Paribas Securities (Japan) Ltd.-Japan Times, 31.05.05

Matsumoto also said that the recent merging of companies like Air France and KLM royal Dutch Airlines have prompted speculations that a wave of industry consolidation is just beginning. He said, merging their business allows carriers to streamline operations while giving customers more choices.-Japan Times, 31.05.05

5. Government and its choice of policies

As the Air Cargo Industry is faced with a new era of extremely high jet fuel prices, there is need for the governments to intervene and find ways to help reduce the impact on the Air Cargo Industry and help maintain healthy a competitive environment within the industry.

It is evident that the Ugandan government is trying its best to see that this industry survives global competition both directly and in directly, however the question is, how best is best.

Directly, jet fuel is not taxed in an effort to reduce the final cost of airfreight.

Indirectly, emphasis put to improve on agricultural exports bring about demand for airfreight. “ In an effort to reduce poverty among Ugandans rural poor, Uganda has given USD 86.6 million to the agriculture sector” - Procurement News (Budget News) Page 9, June 13-19,2005. However, Cargo airlines in Uganda continue to face the challenge of being pushed out of the industry by the more competitive companies world wide.

“British Airways has suspended cargo flights to Zambia due to high jet fuel costs”. The airline decision prompted the Zambian President Levy Mwanawasa to order energy

officials to look at ways of reducing jet fuel costs, which in Zambia are now 78 cents per litre or almost twice as much as neighbouring countries. - Reuters August 3, 2005.

The Zambian exports of cut flowers and fresh vegetables were left without a direct route to European markets.

6. International Air Transport Association, Civil Aviation Authority and International Civil Aviation Organisation.

These three bodies are responsible for quality control in air transport. I will look at their efforts to help the Air Cargo Industry in its jet fuel costs crises, and its contributions to the industry.

It is important to note that these bodies acknowledge the oil crises problem and are trying their best to find alternative measures for the industry. For example, encourage use of newer modes of airplane that are more fuel efficient, put in line ways to better manage air traffic and enhance the safety and security of global civil aviation.

Members of IATA gathered in Tokyo in May, 2005 for the first time in 48 years, to find ways to survive high fuel prices and severe price competition. IATA is an industry body grouping some 285 Airlines worldwide.

“The crisis in our industry continues. Our fuel bill this year (is expected to total) USD 83 billion...the extraordinary price of fuel is destroying our profitability” IATA Director General Giovanni Bisignani said to an audience of 600 people at a hotel.-Japan Times, May, 2005.

1.5 Significance of the study

The research study will help to highlight ways in which cargo airlines can sustain a competitive edge, inspite of increasing fuel prices.

- To enlighten future prospective investors on the strengths, weaknesses, opportunities and threats facing the air freight industry.
- To avail information to our local cargo airlines companies on areas within their administration that need improvement in order to compete fairly globally.
- It study can be used as a tool by the government to create favourable conditions for the existence of cargo airlines in Uganda.

- The study will be of use to international business administration scholars and future researchers who will be pursuing international financial management.

1.6 Objectives of the study:

General objective

To examine how Das Air Cargo is dealing with the frequently increasing fuel prices, the impact it has had on its growth and how the company has managed to compete well both locally and globally.

The specific objectives are:

1. To find out the effect of increasing fuel prices on Das Air Cargo. And how it is affecting its growth.
2. To find out factors contributing to Das Air cargo's growth.
3. To find out Das Air Cargo's main competitive advantage.
4. To find out Das Air cargo's main competitors and its main area of operation.

CHAPTER TWO

RESEARCH METHODOLOGY

2.1 Design

The research design will describe the methodology used in the conduct of the study. In this particular research study, the researcher will use the methods below to collect data.

- Observing
- Questionnaires
- Reading documents
- Interviewing

2.2 Environment

The research will be conducted in Entebbe airport, where Das Air Cargo's main office is located.

2.3 Subjects

The target population of the study shall be Employees of Das Air Cargo, and stratified random sampling technique shall be used to determine sampling that will represent the categories of employees. These shall be categorized as follows; Managers, Department Heads, Operation and Marketing.

The size of each category will be determined using a formula.

2.4 Instruments

The instruments the researcher will use are researcher-made and include;

- Interview schedule
- Questionnaire
- Observation schedule
- Library search

2.5 Data collection procedures

The study will employ both primary and secondary sources of data. Primary data will be obtained from the employees and administration of Das Air Cargo (Target group/organisation under study)

The secondary data will be obtained from literature got from the literature review process and other publications relating to the subject under study.

2.6 Data processing and analysis

Data processing will involve tabulation of data from the questionnaire responses and interview guides. It will involve simple statistical techniques like use of tables and pie charts. Editing of data to check the computerised responses for the purpose of detecting and eliminating errors and identifying vital information that would be essential in coding and tabulation will be done.

Coding system will be used to analyse the responses to determine whether it is in line with the study objective, realistic to the subject, exhaustive, and mutually exclusive.

Tabulation method, which will involve the use of simple statistical techniques like tables, percentages will be used to test the significance of the information from which to draw meaningful interpretation and conclusion. The data analysis will take the form of comparing the positive and negative responses and expressing them as a percentage of the sample population.

2.7 Anticipated limitations

The limitations to this project anticipated include;

- Difficulty in accessing information, especially financial statements.
- Difficulty of getting the respondents to have time with me due to their busy schedule.
- Limited funds and time to carry out the research.

CHAPTER THREE

PRESENTATION AND DISCUSSION OF FINDINGS

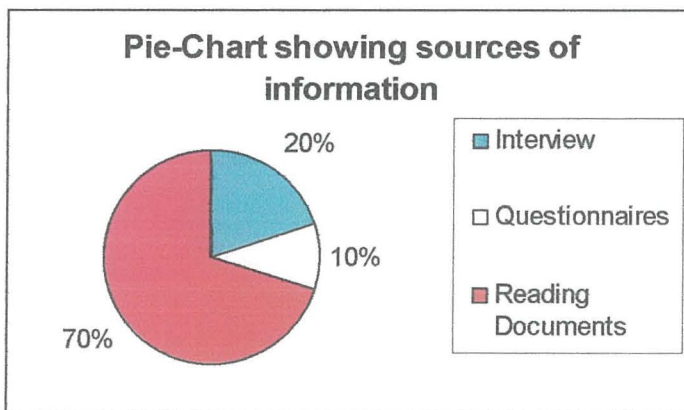
3.1 Presentation of the findings.

This chapter presents findings from the data gathered from respondents, documents and observation. The analysis and presentation is done according to the study objectives.

The method of data collection that was used was through;

- Interviews
- Questionnaires
- Reading documents
- Observing

The Pie-Chart below shows the percentage of findings from different sources of data used in the research study



3.2 Findings on general characteristics of respondents

The findings on the general characteristics of the respondents include the following;

- Categorization of respondents by level of position and department.
- Findings on the number of years in service.
- Findings on the general awareness of global oil crises and its effect on the Air Cargo Industry.

Out of 50 people selected randomly, and given questionnaires;

25	Were aware of the Oil crisis, and had heard of Das Air Cargo but had not used Das Air Cargo services before
05	Were totally Ignorant of the subject
15	Did not respond
05	Were Das Air customers and were aware of the oil crisis

The number of Das Air Cargo Staff Interviewed was 3

3.3 Relationship between globalisation, demand for air freight and profit margins in relation to fluctuating oil prices.

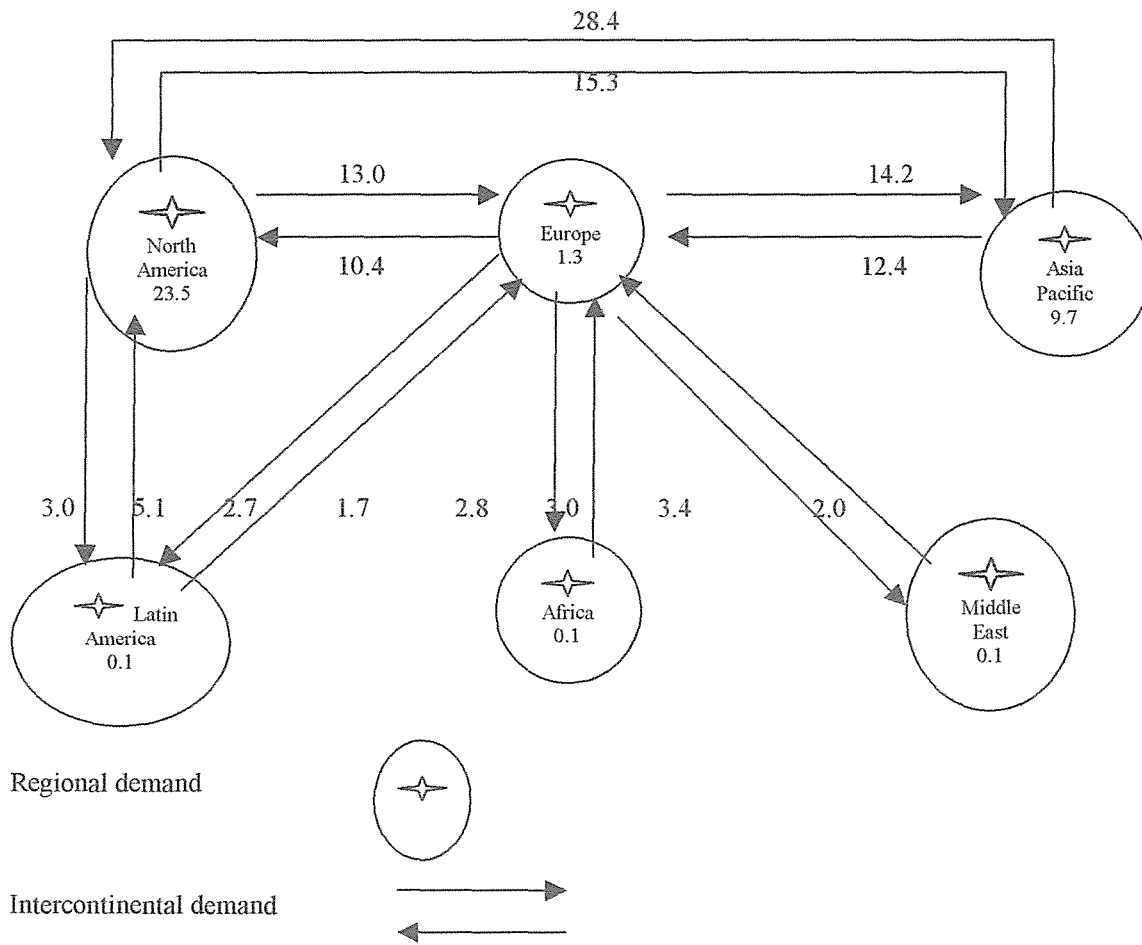
While new markets emerge, the world is increasingly becoming one large market, causing demand for imports and exports to increase. This in turn has increased congestion in major Sea Ports of the world, so that demand Air Cargo Carriers has tripled.

It is sad however, that oil production is no longer pumped in volumes it used to be. Analysts Goldman Sachs Group has predicted that levels of oil production will further reduce, so that scarcity of oil further hikes jet fuel prices. It is due to this factor that Air Cargo Industry, inspite of increased air freight demand, will suffer frustrating profit margins.

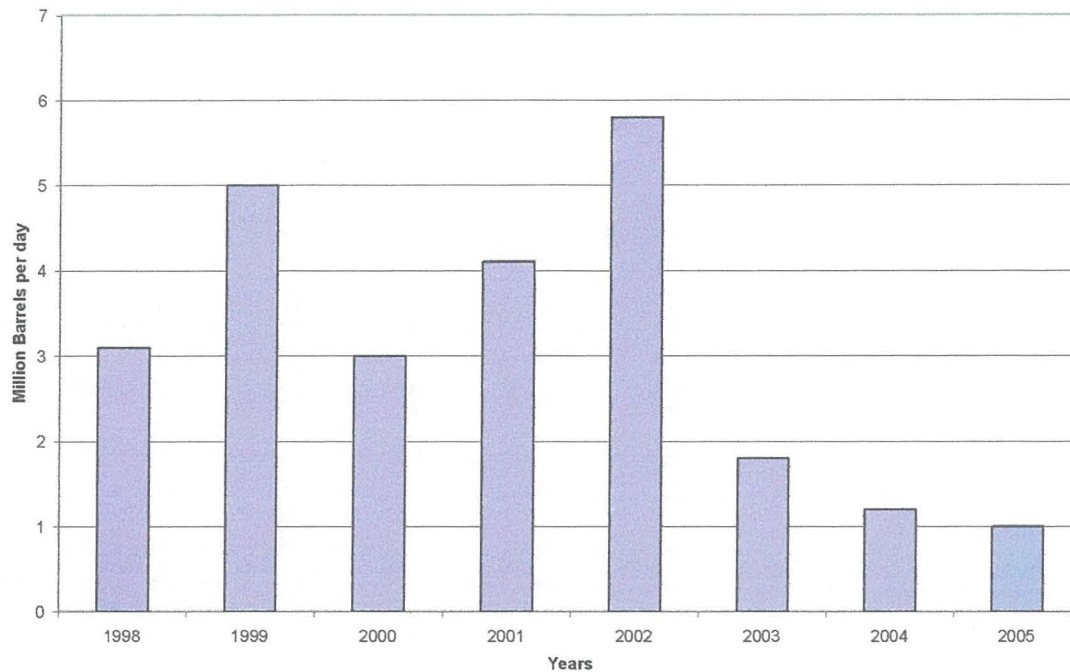
According to IATA, the air cargo industry in which fuel accounts for 20-30% of the operational cost, is poised to be the prime causality of the new era of expensive oil. Jet fuel prices have almost tripled in the past four years. As a result, the world's airlines and cargo carriers spent over \$100 billion on fuel in 2005, a 50% increase over 2004. Sky rocketing prices have already brought airlines to suspend flights and discount services. Some carriers like United Airlines, Delta and Northwest, have declared bankruptcy.

Primary Air Freight Flows and Major World Markets.

World Total: 158.6 Billion FTKs



Spare production capacity of Oil is declining



3.4 Relationship between global oil crises and the performance and growth of Das Air Cargo.

In 2004, while extraordinary demand for Air Freight was at equal levels with extraordinary increase in jet fuel price, many Air Freight companies were forced to increase fuel surcharge that in turn hiked Air Freight charges. Das Air was no exception. Some companies that did not do well, according to Institute for the Analysis of Global Security- April 2006, were forced to declare bankruptcy.

2004 is also the very year that Das Air Cargo scooped top industry awards. It was voted "Best Cargo Airlines to Africa 2004" and "Best all Freighter Airline 2004" by the readers of Air Cargo News.

In January, 2004, Das Air Cargo introduced new airfreight services to Baghdad and other points in Iraq via Dubai.

In April, 2004, they introduced yet another full freighter services between Accra and Europe, and in Libya in conjunction with Buraq Airlines to Tripoli and Benghazi via Dubai.

And in May that very year, Das Air Cargo announced commencement of direct air cargo services to Khartoum in the Sudan.

It is evident that while the oil crises continued to threaten the Air Cargo Industry, Das Air Cargo gracefully managed to excel and achieve recognition and even introduced new services to different parts of the world!

I found out that Das Air Cargo managed to survive the oil crises because they have maintained low overheads, tried to use fuel efficient air crafts and have also maintained a large share of the market in Uganda and the Middle East because of their good customer care that helped retain their loyal customers and attract new ones.

CHAPTER FOUR

SUMMARY CONCLUSION AND RECOMMENDATIONS

4.1 INTRODUCTION

This chapter presents a summary of major findings, conclusion and recommendations. The summary, conclusion and recommendations shall be presented in such a way that will be tending towards providing answers to the questions that were asked and areas of further research shall also be recommended

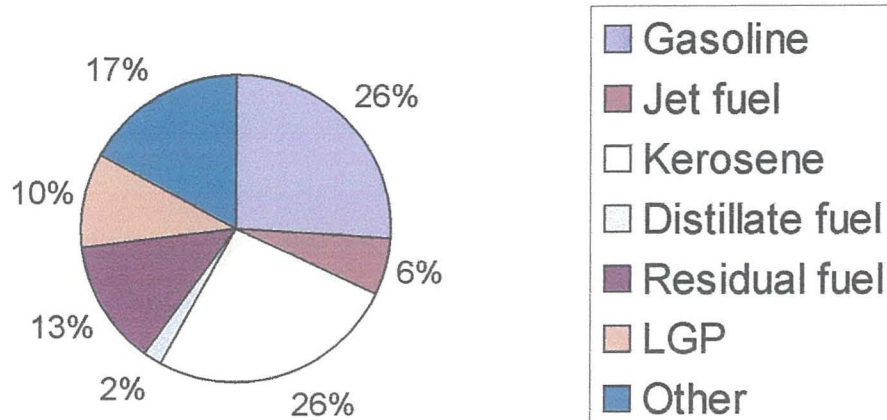
4.2 SUMMARY

The Air cargo industry is suffering intensively from ever fluctuating oil prices. Their profit margins continue to reduce and there is almost no hope for stable prices due to increasing demand for oil and hardly any spare production of oil to compensate the extra demand.

Much as improved operations and management of air cargo carriers enhances the competitive advantage of a company within an industry, the oil crises problem is far beyond that. It is time for the air cargo industry together with its stake holders and the world at large came up with ways to reduce fuel consumption by energy intensive industries.

World consumption of refined Petroleum products, 2004

Source: U.S. Department of Energy



4.3 CONCLUSION

While the airline industry is doing all it can to minimize costs by reducing its fuel consumption, it has very little influence on the overall demand and global oil prices. Air transportation accounts for only 6% of the world's demand for refined petroleum products. Even if the industry achieves 20% efficiency improvement in the coming decade, as many may hope it will, this will save the equivalent of 1 million barrels a day to the global market. This gain will be offset by an increase of 18 million barrels a day in global demand for oil which is currently projected for the same period of time. Being a marginal consumer with limited capability to affect global oil prices, the air transport industry should look beyond minimising its own fuel bill. The industry should seek ways to affect the market at large and help reduce oil prices. The sector where substantial oil savings can be achieved, in sufficient quantity to drive down oil prices, is **ground transportation**. This sector alone consumes over half the world's refined petroleum products. Therefore, in addition to all the internal measures the air transport has taken, it should also support from the outside policies aimed to increase supply and reduce demand for oil in the ground transportation sector. Unlike in the air, the ground

transportation sector can, give current technologies, relatively easily shift to using alternative fuels such as ethanol, methanol, bio diesel, electricity and natural gas.

4.4 RECOMMENDATIONS

Recommended options for airline industry:

✓ **Increase fuel efficiency**

New planes with Improved in aerodynamic designs and light weight materials have decreased the weight and drag of modern planes making them twice as fuel efficient as those built 50 years ago.

“Winglets”- curled up wing ends, which ensures 3-4% fuel savings, is another technology that has been installed by Companies like Southwest and Continental Airlines on their 737s. Though the instalment costs about \$700,00 per plane, high oil prices ensure fast return on investment.

Another technology is “repositioning the aft flap segments to increase wing chamber. This ensures 4%-plus fuel savings.

Fuel efficiency can also be improved through austerity measures on the ground such as taxiing on single engine, balancing the load, and plugging in the aircraft on the ground to auxiliary power units, to use electricity, rather than liquid fuel.

✓ **Improved air traffic management**

When airplanes fly the most direct routes and spend less time idling before takeoff and after landing, less jet fuel is used. The IATA is very optimistic claiming that “worldwide, airlines could reduce their consumption by up to 18% with optimised air traffic control”. Unfortunately, since airlines are dependent upon regulatory and air traffic authorities, they do not have total freedom to initiate self-help measures.

✓ **Shift to non-petroleum jet fuel**

Higher oil prices are gradually encouraging the development of some alternative energy resources as replacements for traditional petroleum products. Though many of these non-petroleum fuels carry a great deal of promise for the ground, it provides incentives for deployment of alternative fuels and the cars that can run on them. Japan is an example, it recently announced it will lower its oil dependence in the transportation sector from nearly 100% to 80% by 2030. The displaced 20% would be

filled in by non-petroleum fuel sources. This reduction alone is free the ground transport of 2 million barrels per day.

Potential solutions for the oil crisis

- **Conservation;** Industrialized nations have demonstrated remarkable ability to conserve and improve efficiency once prices spike. Between 1979 and 1985, in response to OPEC's oil embargo, US oil consumption fell 15%. Because 60% of the projected oil consumption will be in the transportation sector, the biggest efficiency gains can be achieved there, through public policy initiatives like gasoline taxes, fuel efficiency standards for cars and trucks and the introduction of austerity measures could dampen demand and push prices down. However, while conservation in the transport sector is desirable, one should not overstate its benefits. It takes a long time to replace the on road vehicle fleet, so even if fuel economy standards are imposed, it will take more than a decade for their effects to be fully felt as new vehicles displace old ones.
- **Enhance recovery technologies;** Extended reach drilling, advanced reservoir imaging and enhanced recovery techniques enable oil companies to find, reach and produce resources in ways not possible just a few years ago. Such technologies enable producers to tap into vast reserves of oil and gas beneath the sea and recover oil from declining fields. Enhanced recovery techniques offer prospects for producing as much as 60%. According to the U.S. department of energy.
- **Non convectional source;** for example from tar sands in Canada and the extra heavy oil deposits in Venezuela. In Canada, there is close to 180 billion barrels which could potentially be derived from Alberta's tar sands, making Canada second to Saudi Arabia oil reserves. Of this endowment, 20% are economically recoverable at current market conditions. There are also an estimated 800 billion barrels of oil contained in oil-shale deposits in Colorado, Utah and Wyoming. That is more than triple the proven oil reserves of Saudi Arabia.

- **Shift to alternatives;** This is through the use of gasoline, ethanol, alcohol fuel made from corn or sugar cane, bio diesel made from plant oil and hydrogen. Use of electricity as a transportation fuel is also recommended.

CHAPTER FIVE

DEFINITIONS OF TERMS AND ABBREVIATIONS

5.1 Introduction

This chapter defines terms and abbreviations used in the study, in an alphabetic arrangement.

5.2 Abbreviations:

- ◆ CAA- Civil Aviation Authority
- ◆ FTKs- Freight Ton-Kilometers
- ◆ IATA- International Air Transport Association
- ◆ OPEC-Organisation of Petroleum Exporting Countries

5.3 Terms:

- ◆ Airline Industry; A group of companies specializing in movement of people/cargo from one place to another by means of air
- ◆ Competitive advantage: An exclusive characteristic a company has that makes it stand out from its competitors within an industry.
- ◆ Competitors: Firms dealing in similar products/services that can easily be Substituted
- ◆ Demand conditions: These are factors that enhance the demand of a product/service.
- ◆ Economic growth: Increase in the volume of goods and services within an Economy, measured within a given period of time.
- ◆ Fluctuating: Uncertain increase or decrease in terms of size and volume of something
- ◆ Globalisation: The convergence of international boundaries to form one large market
- ◆ Impact: The final effect of a certain force on an object/individual/firm.

- ◆ Infrastructure: The term infrastructure includes buildings, workspaces, equipment, hardware and software, utilities and support services such as transportation and communication.

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INTERVIEW SCHEDULE FOR DAS AIR CARGO STAFF

POSITION: _____

DEPARTMENT: _____

1. How long have you been working with Das Air Cargo?

2. How many cargo planes does Das Air Cargo have?

3. Does Das Air Cargo own the aircrafts or charters them?

4. In what conditions are the aircrafts?

5. where is Das Air Cargos main area of operation?

6. How long has Das Air been in operation? And in how many countries?

7. How has Das Air been affected by the fluctuating oil prices, in terms of productivity, growth and profit margins?

8. Why is Das Air Cargo excelling in both the local and international scene, in the midst of an oil crisis?

9. What is Das Air Cargos' main competitive advantage?

10. Who are Das Air Cargo's main competitors?

11. What is Das Air Cargo doing to beat the oil crisis and its impact on the company?

12. Has Das Air Cargo adapted any new ways of operations and management in order to improve its service quality and efficiency so as to stay competitive within its industry, offset the negative effect of oil prices on its final charges?

QUESTIONNAIRE FOR THE GENERAL PUBLIC

You have been selected to participate in our study regarding "The Fluctuation of Oil Prices and its Impact on the Air Cargo Industry", with specific reference to Das Air Cargo.

Please spare us some few minutes of your precious time and answer the questions by ticking in the appropriate box.

The information sought is purely for academic purposes and will be treated with utmost confidentiality.

SEX:

AGE:

PROFESSION:

1. Have you ever heard of Das Air cargo?

<input type="checkbox"/>	YES
<input type="checkbox"/>	NO

If yes, from whom? _____

2. How many Cargo Airlines in Uganda do you know?

<input type="checkbox"/>	ONE
<input type="checkbox"/>	TWO
<input type="checkbox"/>	THREE
<input type="checkbox"/>	NONE

3. Have you ever used the services of a Cargo Airline?

<input type="checkbox"/>	YES
<input type="checkbox"/>	NO

If yes, which Cargo Airline

To which destination? _____

4. In case you needed to export your goods abroad, what means of transport would you opt for?

<input type="checkbox"/>	AIR
--------------------------	-----

☐ WATER

5. Reason?

☐ FASTER MEANS

☐ CHEAPER MEANS

☐ CHEAPER & RELIABLE

☐ FASTER AND CONVINIENT

6. Are you aware of the Global Oil Crisis?

☐ YES

☐ NO

If yes, will it affect your choice of means of cargo transport, from Air to Water?

☐ YES

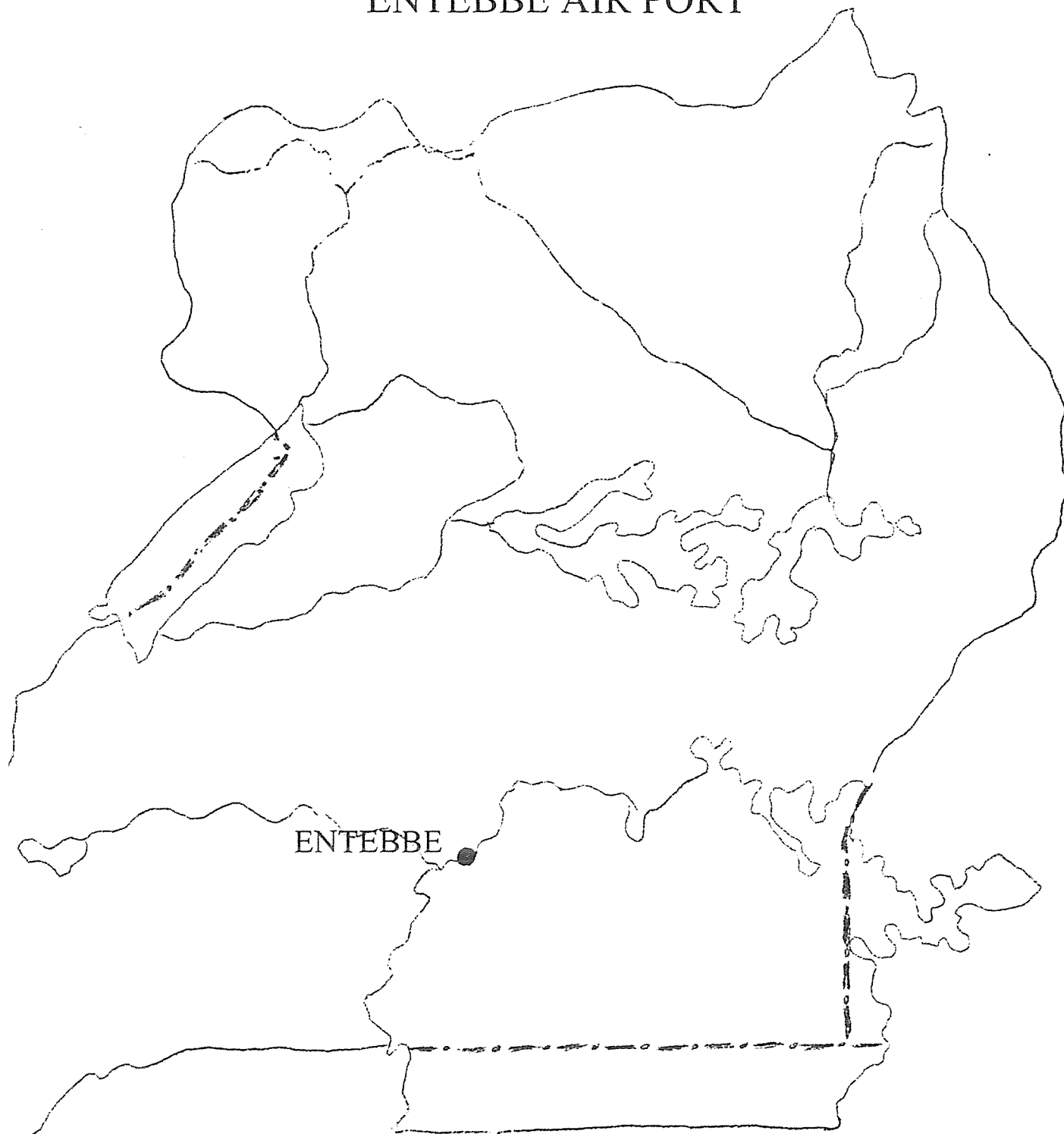
☐ NO

☐ NO OPINION

If yes, give reasons. _____

.....

AREA OF STUDY
DAS AIR CARGO HEAD OFFICE
ENTEBBE AIR PORT



School of Business and Management

24th January, 2006

HUMAN RESOURCE MANAGER
DAS AIR CARGO
ENTEBBE-UGANDA

Dear Sir/Madam

REF: CAROLYN SYLVIA COPE REG.NO: BIB/1730/21/EU

We are requesting for a field attachment place in your organization for our above referenced student who is persuing a Bachelor of International Business Administration Degree Programme

The curriculum of KIU requires students to undergo practical training with the objective of integrating the theories and practice. Field attachment is thus designed to meet the practical side of our training.

During the field attachment a student is assigned to undertake different activities pertaining to her course. The obligation for your organization to our student who is seeking to secure placement will be to assign her duties and offer supervision especially in this field.

It is our hope that your organization will participate in educating this student.

Yours Sincerely,



MR. OLAR RONALD
DEAN-SCHOOL OF BUSINESS AND MANAGEMENT.