

**FEASIBILITY, VIABILITY AND ACCEPTABILITY OF AN OVERNIGHT AIR
NETWORK CHAIN-LINKING SIX (6) SOUTHERN AFRICAN COUNTRIES;
BOTSWANA, SOUTH AFRICA, MOZAMBIQUE, ZIMBABWE, ZAMBIA AND
MALAWI.**

By

Jimmy O Dube

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**Graduate School of Business, Faculty of Management
University of KWAZULU-NATAL.**

Supervisor: Dr. D. Laxton

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CONFIDENTIALITY CLAUSE

02 FEBRUARY 2005

TO WHOM IT MAY CONCERN

RE: CONFIDENTIALITY CLAUSE

Due to the strategic importance of this research it would be appreciated if the contents remain confidential and not be circulated for a period of five years.

Sincerely

J. O. Dube

116013

DECLARATION

This research has not been previously accepted for any degree and is not currently submitted in candidature for any degree.

Signed..........

Date...07 February 2005.....

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I am greatly indebted to my Creator who gave me the life, the strength and the willpower to endure many hours of hard work throughout my MBA study.

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ABSTRACT

This study seeks to assess the viability, acceptability and feasibility of an overnight air courier network linking Zimbabwe, Zambia, Botswana, Malawi, Mozambique and South Africa.

The positivist research approach was adopted in this study. A questionnaire was sent to each the regulatory bodies in the six countries under study. 40 questionnaires were also administered to respondents from air courier companies. Judgement sampling was used for questionnaire administration to regulatory bodies because of the reduced cost and time involved in this method. For courier air service providers, the researcher used simple random sampling because it ensures that the perceptions and views of everyone are represented.

Study results show that most of the nations under consideration belong to sub-regional, regional and international groupings. Most nations would want to grant fifth freedom rights, but on a conditional basis. Also, the states advocate for liberalisation of air traffic because it results in improved service quality and courier companies do not offer money-back refunds if service guarantees are not met. Though courier companies do not offer overnight air courier services, they say such services are critical to their operation. Courier companies are dogged by inaccessibility of the market.

Some of the major recommendations are that states should liberalise market access and other ancillary services such as ground handling. Specific provisions such as open route exchanges, multiple designation and the practice of 5th freedom should be implemented. The development of a regional aircraft maintenance centre should be explored as soon as possible. Furthermore, all the states should commit themselves to implementing the sub-regional safety projects. Countries should implement agreements they make as economic and political blocs because this leads to a shift away from restrictive bi-lateral air service agreements in favour of liberalised multi-lateral policies. A further study should be carried out to assess the impact of deregulation on service delivery in airline networks.

TABLE OF CONTENTS.

CONTENT	PAGE
CONFIDENTIALITY CLAUSE	i
DECLARATION	ii
ACKNOWLEDGEMENTS	iii
ABSTRACT	ix
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ACRONYMS	x
 CHAPTER 1	 1
INTRODUCTION	1
1.1 PREAMBLE	1
1.2 BACKGROUND TO THE RESEARCH	1
1.3 PROBLEM STATEMENT	6
1.4 OBJECTIVES OF THE STUDY	6
1.5 RESEARCH QUESTIONS	7
1.6 RESEARCH HYPOTHESES	7
1.7 MOTIVATION FOR THE STUDY	8
1.8 VALUE OF THE PROJECT	8
1.9 ASSUMPTIONS OF THE STUDY	9
1.10 SCOPE OF THE STUDY	9
1.11 LIMITATIONS OF THE STUDY	10
1.12 DEFINITION OF TERMS	10
1.13 DISSERTATION OUTLINE	10
 CHAPTER 2	 12
STRATEGIC MANAGEMENT AND MARKET LIBERALISATION	12
2.1 INTRODUCTION	12

2.2 STRATEGIC MANAGEMENT	12
2.3 PEST ANALYSIS	16
2.4 PORTER'S DIAMOND	17
2.5 PORTER'S 'FIVE FORCES' MODEL ANALYSIS	19
2.6 AIR NETWORK DESIGNS	24
2.7 PRINCIPLES FOR THE LIBERALISATION OF AIR CARGO TRANSPORT	27
2.8 UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA	30
2.9 BENEFITS OF LIBERALISATION	36
2.10 CHAPTER CONCLUSION	38
 CHAPTER 3	 39
RESEARCH METHODOLOGY	39
3.1 INTRODUCTION	39
3.2 RESEARCH DESIGN AND JUSTIFICATION	39
3.3 POPULATION	40
3.4 SAMPLING METHODS	40
3.5 SAMPLE SELECTION	43
3.6 DEVELOPMENT OF RESEARCH INSTRUMENTS	44
3.7 RESEARCH INSTRUMENTS	45
3.8 TYPES OF DATA	46
3.9 DATA PROCESSING, ANALYSIS AND PRESENTATION	47
3.10 CHAPTER CONCLUSION	47
 CHAPTER 4	 48
RESEARCH FINDINGS AND DISCUSSION OF RESULTS	48
4.1 INTRODUCTION	48
4.2 RESPONSE RATE	48
4.3 RESEARCH FINDINGS FROM REGULATORY AUTHORITIES	48
4.3.1 Job position of respondent	49
4.3.2 Length of time in the organization	49
4.3.3 Membership of International Groupings	50
4.3.4 African Economic Community membership	50
4.3.5 Sub-regional membership	51

4.3.6 Dedicated express/courier air services	51
4.3.7 Air express/courier industry	52
4.3.8 Importance of fifth freedom rights	52
4.3.9 Granting of fifth freedom rights	53
4.3.10 Aviation safety standards	54
4.3.11 Market access	55
4.3.12 Ground handling	55
4.3.13 Barriers to liberalisation	56
4.3.14 Benefits of liberalisation	56
4.3.15 Recommendations	57
4.4 FINDINGS FROM AIR COURIER COMPANIES	58
4.4.1 Job position of respondent	58
4.4.2 Length of time in the organization	58
4.4.3 Principles of strategic planning	59
4.4.4 Implementation of strategic planning	60
4.4.5 Benefits of strategic planning	60
4.4.6 Strategic planning vis-à-vis financial performance	61
4.4.7 Environmental influences	62
4.4.8 Overnight Courier Services	63
4.4.9 Destinations of courier	63
4.4.10 Courier distribution	64
4.4.11 Time definitive deliveries	64
4.4.12 Service requirements	65
4.4.13 Airline competition and courier delivery service	66
4.4.14 Meeting courier market needs	66
4.4.15 Average transit time	67
4.4.16 Target transit times	67
4.4.17 Recommendations	68
CHAPTER 5	70
CONCLUSION AND RECOMMENDATIONS	70
5.1 INTRODUCTION	70

5.2 CONCLUSIONS	70
5.3 RECOMMENDATIONS OF THE STUDY	71
5.4 AREA OF FURTHER RESEARCH	72
REFERENCES	73
APPENDICES	78

LIST OF TABLES

Table	Page
2.1 A PEST analysis of environmental influences	16
4.1 Position of respondent	49
4.2 Sub-regional membership	51
4.3 Companies that offer dedicated express/courier air services	51
4.4 Granting of fifth freedom rights	53
4.5 Barriers to liberalization	56
4.6 Benefits of liberalization	56
4.7 Recommendations	57
4.8 Position of respondent	58
4.9 Benefits of strategic planning	60
4.10 Environmental influences	62
4.11 Destinations of courier	63
4.12 Courier distribution	64
4.13 Service requirements	65
4.14 Ratings of service from commercial airlines	66
4.15 Target transit times	67
4.16 Recommendations from courier companies	68

LIST OF FIGURES

Figure	Page
2.1 The Strategic Management Process	13
2.2 The determinants of national advantage (Porter's diamond)	17
2.3 Five forces analysis	19
2.4 Hub-and-Spoke networks	24
2.5 Illustration The Linear (Triangular) Network	25
4.1 Respondents' work experience	49
4.2 Membership of ICAO	50
4.3 Membership of African Economic Community	50
4.4 Entering the air express/courier industry	52
4.5 Importance of fifth freedom right in ensuring sustainability and expansion of intra-African network	53
4.6 Aviation safety standards	54
4.7 Market access	55
4.8 Ground handling liberalisation	55
4.9 Length of time in the organisation	58
4.10 Principles of strategic planning	59
4.11 Implementation of strategic planning	60
4.12 Does strategic planning improve financial performance?	61
4.13 Overnight courier services	63
4.14 Time definitive services	64
4.15 Airline competition vis-avis courier delivery service	66
4.16 Average transit times for shipment deliveries	67

LIST OF ACRONYMS

ASEAN	- Association of South Asian Nations
BASAs	- Bi-lateral Air Service Agreements
COMESA	- Common Market for East and Central Africa
ECOWAS	- Economic Community Of West African States
EU	- European Union
GNP	- Gross National Product
ICAO	- International Civil Aviation Organization
NAFTA	- North American Free Trade Area
PEST	- Political, Economic, Social and Technological
SADC	- Southern African Development Community
SPSS	- Statistical Package for Social Sciences
WCA	- West and Central Africa

CHAPTER 1

INTRODUCTION

1.1 PREAMBLE

The rapid pace of globalization has opened country borders to global competition (Brueckner and Spiller, 1991). Business competition is no longer just national, but global. The world is fast moving towards market economies where national barriers to international trade are falling, except perhaps in the case of Africa, where liberalisation is more of global pressure than voluntary.

While the air Courier Express is well developed in the United States and Europe with big integrators like Federal Express (FedEx) operating air networks with aircraft as large as Boeing 747s dedicated to moving Express freight, there is very little of similar networks to talk about in Africa. Air Courier distribution in Africa largely depends on commercial passenger airlines whose networks are shaped by politically driven government-to-government bi-lateral and rarely multi-lateral agreements (Berechman and Shy, 1998).

1.2 BACKGROUND TO THE RESEARCH

To understand the question of feasibility, viability and acceptability in the context of this study, it is important to give an overview and background to the formulation, application and evolution of the regulatory framework that governs international air transportation of commercial traffic (passengers and cargo).

1.2.1 The Convention on International Civil Aviation

“Traditionally, an airline needs the approval of the governments of the various countries involved before it can fly in or out of a country, or even across another country without landing” (www.people.hofstra.edu, 17 February 2004). Flights over, to and from other

countries are regulated through a policy framework that was the outcome of the Convention on International Civil Aviation, otherwise known as the Chicago Convention of 1944.

Recognizing the sovereignty of an individual state over its airspace, the Convention agreed that bi-lateral and multi-lateral agreements between and among states, be the basis for allowing the operation of air transport services between any two or more countries.

1.2.2 Freedoms of the Air -Traffic Rights

Originally, there were only five freedoms that regulated air transportation of traffic and formed part of air service agreements as set under the Chicago Convention of 1944. Four more were added later, to make a current total of 9 Freedom Rights (OECD, 2000):

First Freedom (the transit freedom): The right to fly over/across another country without landing.

Second Freedom: The right to land in another country (for purposes other than carrying traffic passengers, cargo or mail) for technical reasons such refuelling and maintenance. The above two rights are accepted and agreed multi-laterally by many countries.

Third Freedom: The right for an aircraft to carry traffic direct from its home country (A) another country (B).

Fourth Freedom: The right to carry traffic from another country (B) to its home country (A).

The third and forth freedoms stand as the basis for airline commercial services that provide the right to load and unload traffic in another country.

Fifth Freedom: (the Beyond right): The right to carry traffic from home country (A) to another intermediate, second country (B) and then fly to a third country (C), with the right to drop off and pick up traffic from intermediate country (B) to (C).

Sixth Freedom (not originally part of the 1944 convention) gives the right to carry traffic between two countries (B) and (C) through an airport in the home country (A). This Freedom has been very popular with the “Hub and Spoke” network designs such as the DHL network that transfers traffic to and from regional destinations via its Johannesburg Hub.

Seventh Freedom: The right to operate and carry traffic between two countries (B) and (C) outside the home country (A).

Eighth Freedom: Gives the right to carry traffic from a home country (A) to and from a second country (B) where there is more than one stop in the second country, whereby traffic can be loaded and unloaded between the two stops in country (B).

Ninth Freedom: Gives the right of a home country airline to carry traffic within another country (B) without the flight necessarily originating and destined for the home country.

1.2.3 Policy and regulatory influence on international air network designs

Airlines have more freedom, within their national borders, to design their air networks, as they desire than they have across country borders. Cross border networks naturally follow the pattern of bi-lateral and/or multi-lateral government-to-government agreements, to and from those countries with which their home governments have signed air service agreements.

In cases where governments have adopted market-driven policies, either unilaterally or as sub-regional blocs of countries, there has been a marked shift away from restrictive bi-lateral to multi-lateral and open skies air service agreements (Schipper et al, 1998). The general economic policy of a country or region in relation to privatization and trade liberalisation seems to determine whether or not a country embraces multi-lateral and open skies policies. The trend in many parts of the world has been towards liberalization and opening up air transport markets.

1.2.4 Liberalization of Traffic Rights

Globalization and the integration of countries into economic and political blocs such as the European Union (EU), North American Free Trade Area (NAFTA), the Association of South Asian Nations (ASEAN), Southern African Development Community (SADC) has led to a shift away from restrictive Bi-lateral Air Service Agreements (BASAs) in favour of

liberalised multi-lateral and in some cases, 'open skies' policy of regulating air transportation (Panzar, 1979).

While progress has been made towards liberalization in certain world economic blocs, the case is not the same with others who still hold on to the traditional bi-lateral agreements. At international level, most countries which are contracting states to the International Civil Aviation Organization (ICAO), an arm of the United Nations that was formed under Article 43 of the 1944 Chicago Convention, embrace the policy of liberalising market access and traffic rights. While some economic blocs, such as the European Union, have adopted a multi-lateral policy framework and liberalised their intra and inter-regional air transport markets, others, especially in Africa, still hold on to the bilateral regulatory framework in which individual States decide the pace and areas to be liberalised despite embracing a multi-lateral approach to liberalisation in principle.

1.2.5 Liberalization process in Africa (regional level)

African countries subscribe to and are party to, international policy formulating bodies like the International Civil Aviation Organization, which was a product of the Chicago Convention on International Civil Aviation of December 1944. As such, the global trend towards economic integration, liberalization and market accessibility has not bypassed Africa.

The "Yamoussoukro Declaration" of 1988, was the outcome of a forum of African ministers responsible for civil aviation that was convened under the auspices of the Economic Commission for Africa. The Declaration set the stage for policy changes towards liberalization and market access for air transport in Africa. The meeting, held in Yamoussoukro, Cote d'Ivoire, adopted a broad policy of "gradual elimination of the need to exchange traffic rights leading, *inter alia*, to the setting up of joint multinational airlines and the adoption of a common policy for the grant of traffic rights to carriers from outside Africa" (www. astlaw.com, 4 March 2004).

The “Yamoussoukro Declaration” was followed in 1994 by what was called the ‘Mauritius Decision’ and thereafter, in 1999, by the ‘Yamoussoukro Decision’. While the Yamoussoukro Declaration established the broad policy guidelines for liberalization and market access, the Mauritius Decision narrowed the guidelines by establishing guidelines on the granting of traffic rights and the liberalization of non-scheduled and cargo air services in Africa as a whole. The liberalization was to be incremental and on a (African) sub-regional basis initially.

The 1999 “Yamoussoukro Decision”, under the auspices of the United Nations Economic Commission for Africa, was a further step towards intra-African air transport liberalization. The framework of the decision provided for “a continent-wide aviation agreement to liberalize African skies with the aim of full liberalization by 2002”. The ‘Yamoussoukro Decision’ was endorsed by the Assembly of Heads of State and Government of the African Economic Community in July 2000. It provided for the removal of all restrictions on traffic rights including the fifth freedom rights, complete liberalization of air cargo movements on scheduled and non-scheduled services as well as the establishment of a monitoring body to oversee the implementation process (www.uneca.org, 17 March 2004).

1.2.6 Liberalization in African (sub-regional level) – Policy implementation

According to Morrison and Winston (1986), the “Yamoussoukro Declaration” and related meetings following it, agreed that intra-sub regional liberalization be the starting point for the continent’s process of liberalizing air transport and market accessibility. This was rightfully so, since air transport could not be isolated from economic development in general. Pursuant to the new African aviation policy position, several sub-regional groupings got the process in motion by signing agreements in which they undertook to liberalize intra-sub regional air transport systems and open up market access to regional airlines.

Among many sub-regional groupings were the following: West and Central Africa (WCA), The Economic Community Of West African States (ECOWAS), The Banjul Accord, The Common Market for East and Central Africa (COMESA) and the Southern Africa

Development Community (SADC) sub-region. The Heads of State or Governments of SADC signed the Protocol on Transport, Communications and Meteorology in Maseru, Lesotho in August 1996 in line with the Yamoussoukro Declaration (Morrison and Winston, 1995).

1.3 PROBLEM STATEMENT

There is no overnight courier service network that chain-links six (6) SADC countries of Botswana, South Africa, Mozambique, Zimbabwe, Zambia and Malawi. This is costly to both courier service providers and their clientele in general. The regulations and non liberalisation that exist in this region do not support such an overnight courier air service network. The regulations result in non flexibility of the whole courier network in the SADC region. Customers would be attracted by such a service but without the liberalization of air spaces, this remains a pipe dream. Business opportunities that may exist in the air courier industry within the region would be difficult to profitably exploit in the absence of a liberalized air cargo movements.

1.4 OBJECTIVES OF THE STUDY

The objectives of the study are:

- (i) To assess the degree to which Botswana, South Africa, Mozambique, Zimbabwe, Zambia and Malawi have commitment to and compliance with the International, regional and sub-regional policies of unconditional granting of air cargo traffic rights.
- (ii) To assess the degree to which the use of commercial passenger flights meets the requirement for overnight deliveries of Express Courier within the named SADC countries.
- (iii) To assess the willingness and acceptance of the industry to support and share a neutral and dedicated air Express Courier network.
- (iv) To assess the feasibility of operating a network that is free of from the tradition of restrictive bi-lateral agreements.
- (v) To develop understanding of growth opportunities in the air express industry that may be created by the liberalisation of air transport market access.
- (vi) To determine the barriers as well as the benefits of liberalisation.

1.5 RESEARCH QUESTIONS

- (i) Would the idea of an overnight air network chain-linking 6 Southern African countries be an acceptable proposal by the customers?
- (ii) How will the issues of bi-lateral air service agreements be addressed in order to operate a cross-national network service?
- (iii) If the demand for the network is found to be there, the operational and financial screening is feasible, would the courier forwarding entities agree to share this entity?
- (iv) To what extent does the use of commercial passenger flights meet the requirement for overnight deliveries of Express Courier within the named SADC countries?
- (v) Is the industry willing to support and share a neutral and dedicated air Express Courier network?
- (vii) What are some of the growth opportunities in the air express industry that may be created by the liberalisation of air transport market access?

1.6 RESEARCH HYPOTHESES

It is hypothesised that:

Null Hypothesis 1: The grant of traffic rights on the basis of bi-lateral agreements restricts the growth of the air cargo industry.

Alternate Hypothesis 1: The grant of traffic rights on the basis of bi-lateral agreements does not affect the growth of the air cargo industry.

Null Hypothesis 2: It is feasible to operate a viable overnight air courier service chain-linking 6 countries in Southern Africa.

Alternate Hypothesis 2: It is not feasible to operate a viable overnight air courier service chain-linking 6 countries in Southern Africa.

1.7 MOTIVATION FOR THE STUDY

There is general shortage of literature in this area of study especially relating to developing countries. This study seeks to provide a starting point with regard to the area. This study will also help in filling the literature gap that may exist in this area of study. On the other hand, the knowledge accumulated during the researcher's MBA study of International Business Management and International Trade and Economics in particular, was a great motivation to the study. The MBA programme study helped the researcher to realize possible business opportunities in the an air Courier express industry within the SADC region that may be available as a result of international trade and economic policy changes towards economic integration and trade liberalization. Of particular interest to this study has been the liberalization of the restrictive bi-lateral air traffic rights, especially the fifth freedom traffic rights.

1.8 VALUE OF THE PROJECT

The study is valuable to any would-be entrant in the air courier industry by providing an insight into the degree to which policy changes have been made to accommodate air transport market access within the named SADC countries. At the industry and business level, the study may reveal as acceptable, the concept of Courier forwarders sharing capacity on an independent air network. With the flight schedules specifically designed to meet the needs of the Courier market, the study may help the industry to improve its overnight and time-definitive delivery offerings within the sub-region. That way, the industry may improve its competitiveness sub-regionally, regionally (Africa) and internationally.

The network could be very useful for distribution of international traffic within the sub-region. Instead of using one hub, international traffic could be fed in and out of the network from any of the interlinking nodes. Among many envisaged benefits of such a network would be the following;

- a wider option of international connections,
- reduction in international transit times,
- minimum transit delays as a result of sorting shipments in a single hub,
- minimum handling and damage to shipments.

The study may be valuable to many industry stakeholders, such as primary customers (shippers) who usually demand reliable products at the lowest possible prices, the academic community and industry in general.

1.9 ASSUMPTIONS OF THE STUDY

The study makes the following assumptions:

- (i) The study will receive maximum cooperation from respondents in all the six countries, that is, Zimbabwe, Zambia, Malawi, South Africa, Botswana and Mozambique.
- (ii) The researcher will be able to conduct interviews and gather data during regular business visits to the countries mentioned above.
- (iii) All categories of air carriers should be allowed to make use of the full range of traffic rights and have the same opportunities for unimpeded route design and network operations.

1.10 SCOPE OF THE STUDY

The study will assess the viability, acceptability and feasibility of an Express Courier air network chain linking Lilongwe (Malawi), Lusaka (Zambia), Harare (Zimbabwe), Maputo (Mozambique), Johannesburg (South Africa) and Gaborone (Botswana). The geographical area covered by the study consists of six neighbouring countries, namely: Zimbabwe, Zambia, South Africa, Malawi, Mozambique and Botswana. The respondents of the study are courier forwarders, namely: DHL, FEDEX, Sky-Net, UPS, TNT and Post Offices in the above mentioned countries.

1.11 LIMITATIONS OF THE STUDY

The geographical area under study is big and could be a barrier in terms of time, travel costs and information gathering associated with the study.

1.12 DEFINITION OF TERMS

Acceptability means the willingness of the courier forwarders to support the network under study.

Designation relates to the number of airlines per country, to be designated to operate into either country's territory.

Feasibility means an enabling regulatory environment within the countries under study, that would permit the operation of the proposed air network.

Integrators are courier companies which operate their own aircraft, for example, DHL, UPS and FedEx.

Traffic refers to passengers and/or cargo.

Traffic rights offer 'freedom' or permission for a designated airline of either country to carry traffic to, from and through another country, subject to conditions set in the agreement.

Viability means profitability as determined by comparing the network cost of operating a Cessna Caravan 208 aircraft with the average possible revenue obtained from moving courier weights in the network.

1.13 DISSERTATION OUTLINE

This study is divided into five chapters as follows:

Chapter One (Introduction) provides the foundation of the study through the background of the problem, objectives of the study and value of the study.

Chapter Two (Literature Review) presents a review of the literature on feasibility, viability and acceptability of an Express Courier network chain-linking many countries with special emphasis on liberalisation of traffic rights.

Chapter Three (Research Methodology) presents the methodology used in conducting the study. This includes the research design, population of the study, sampling and research instruments. The justification of the methodology is also contained in this chapter.

Chapter Four (Research Findings and Discussion) provides a summary of the study findings and the accompanying discussion of the research findings.

Chapter Five (Conclusions and Recommendations) provides the conclusions and recommendations of the research. The chapter also presents the area of further research.

CHAPTER 2

STRATEGIC MANAGEMENT AND MARKET LIBERALISATION

2.1 INTRODUCTION

This chapter discusses literature on the feasibility, viability and acceptability of an overnight air courier network. Concepts such as strategic management and market liberalization are also discussed.

2.2 STRATEGIC MANAGEMENT

2.2.1 The Importance of Strategic Planning

Rosenberg and Schewe (1985) contend that strategic management is involved in many of the decisions that managers make. Most of the significant current business events involve strategic management. One survey of business owners found that 69% had strategic plans and among those owners, 89% responded that they found their plans to be effective (Hiam, 1993). They stated that strategic planning gave them specific goals and provided their staffs with a unified vision. Other studies of the effectiveness of strategic planning and management found that, generally speaking, companies with formal strategic management systems had higher financial returns (Rosenberg and Schewe, 1985).

2.2.2 The Strategic Management Process

The strategic management process, as illustrated in Figure 2.1, is an eight step process that encompasses strategic planning, implementation and evaluation. The study will examine in detail the various steps in the strategic management process.

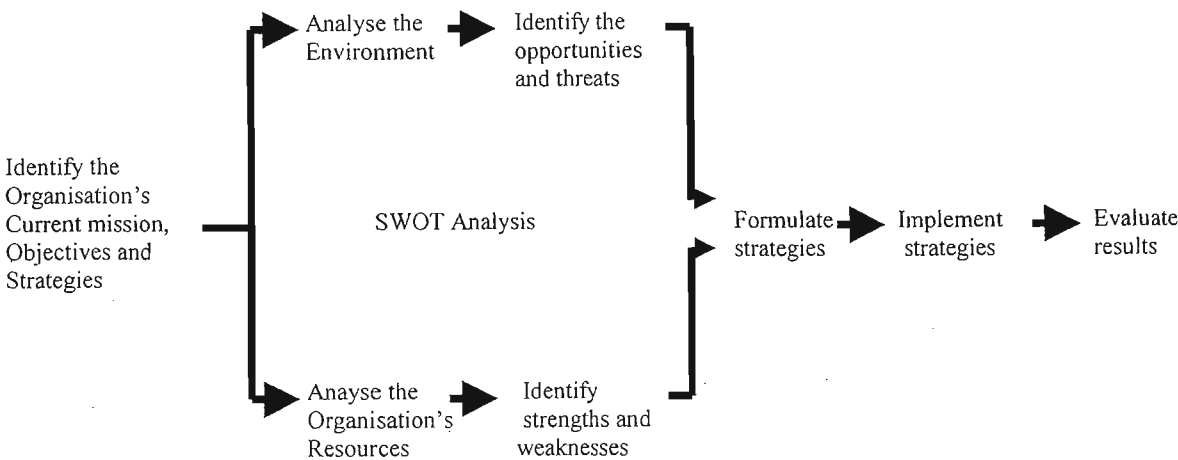


Figure 2.1 The Strategic Management Process

Source: Robbins and Coulter (1996)

2.2.2.1 Identifying the Organisation's Current Mission, Objectives and Strategies

Hiam (1993) emphasises that every organisation needs a mission that defines its purpose and answers the question: What is its reason for being in business? Defining the organisation's mission statement forces management to identify the scope of its products or services carefully. According to Wright at al (1994), the typical components of a mission statement are: customer market, product and service, geographic domain, technology, concern for survival, philosophy, self-concept and concern for public image. It is also important for management to identify objectives and strategies currently being used.

2.2.2.2 Analysing the External Environment

The external environment is a primary constraint on a manager's actions (Pare, 1994). Thus, analysing the environment is a crucial step in the strategy process. This is because an organisation's environment, to a large extent, defines management's available options. A

successful strategy is one that aligns well with the environment. Every organisation needs to analyse the environment. The organisation needs to know, for instance, what the competition is doing, what pending legislation might affect the organisation and what the labour supply is like in locations where it operates (Murray, 1988).

2.2.2.3 Identifying opportunities and threats

After analysing the environment, the organisation needs to assess what it has learned in terms of opportunities that the organisation can exploit and threats it faces (Porter, 1980). Opportunities are positive external environmental factors while threats are negative. However, the same environment can present opportunities to one organisation and pose threats to others in the same industry because of their different management of resources.

2.2.2.4 Analysing the Organisation's Resources

The inside of an organisation is no less important than the outside. The skills and abilities of an organisation's employees, innovativeness in the organisation, cash flow, customer perceptions and quality of products or services are very important (Hill, 1988). Thus, every organisation, no matter how large or powerful, is constrained in some way by the skills and resources that are available.

2.2.2.5 Identifying Strengths and Weaknesses

Hiam (1993) asserts that an organisation's culture, strengths and drawbacks constitute a crucial part of strategic management that is often overlooked. Strong and weak cultures have different effects on strategy and the content of a culture has a major effect on the chosen strategy. On one hand, in a strong culture, all employees have a clear understanding of what the organisation is about. A strong culture can act as a significant barrier to acceptance of change in the organisation's strategies (Kotter and Heskett, 1992). Cultures differ in the degree to which they encourage risk taking, exploit innovation and reward performance.

Organisational culture can also promote or hinder an organisation's strategic actions. A study by Grant (1993) shows that firms with "strategically appropriate cultures" outperform

others with less appropriate cultures. A strategically appropriate culture is one that supports the firm's chosen strategy.

2.2.2.6 Formulating strategies

Strategies need to be established for the corporate, business and functional levels. The formulation of these strategies aid the decision making process. Management needs to develop and evaluate strategic alternatives and then select strategies that are compatible at each level and that allow the organisation to best capitalize on its strengths and environmental opportunities (Jackson and Dutton, 1988). The set of strategies adopted should give the organisation a competitive advantage.

2.2.2.7 Implementing strategies

The next to last step in the strategic management process is implementation. According to Stodghill (1994), a strategy is only as good as its implementation. No matter how effectively a company has planned its strategies, it cannot succeed if the strategies are not implemented properly. Successful strategies require a properly matched organisational structure.

2.2.2.8 Evaluating results

The final step in the strategic management process is evaluating results. The question to ask is, how effective have our strategies been? What adjustments, if any, are necessary? New strategic actions should be developed after assessing the results of the previous strategies and determining the changes needed (Scholz, 1987).

2.3 PEST ANALYSIS

It is useful to consider what environmental influences have been particularly important in the past and the extent to which there are changes occurring which may make any of these more or less significant in the future for the organisation and its competitors. Table 2.1 below provides a summary of some of the questions to ask about key forces at work in the macro economic environment. It is sometimes known as a PEST analysis, indicating the importance of political, economic, social and technological influences on organizations (Thompson and Strickland, 1999).

Table 2.1: A PEST analysis of environmental influences

Political/legal <ul style="list-style-type: none">• Monopolies legislation• Environmental protection laws• Taxation policy• Foreign trade regulations• Employment law• Government stability	Economic factors <ul style="list-style-type: none">• Business cycles• Gross National Product (GNP) trends• Interest rates• Money supply• Inflation• Unemployment• Disposable income• Energy availability and cost
Socio-cultural factors <ul style="list-style-type: none">• Population demographics• Income distribution• Social mobility• Lifestyle changes• Attitudes to work and leisure• Consumerism• Levels of education	Technological <ul style="list-style-type: none">• Government spending on research• Government and industry focus of technological effort• New discoveries/development• Speed of technology transfer• Rate of obsolescence

Source: Thompson and Strickland (1999)

The headings in Table 2.1 can be used as a checklist to consider and prompt analysis of the different influences. However, although a great deal of information can be generated in this way, it will be of limited value if it remains a listing of influences, however detailed. It is therefore important, that the sort of models discussed in the rest of the chapter are used to inform and guide analysis. Green (1988) notes that it is useful to begin by considering two important questions:

1. What environmental factors are affecting the organisation?
2. Which of these are the most important at the present time? In the next few years

According to Murray (1988), PEST analysis may also help examine the differential impact of external influences on organisations, either historically or in terms of future impact. This approach builds on the identification of key drivers and asks to what extent such influences will affect different organisations or industries differently.

2.4 PORTER'S DIAMOND

Porter (1980) argues that there are inherent reasons why some nations are more competitive than others and why some industries within nations are more competitive than others. The framework he uses for this has become known as 'Porter's diamond' (Figure 2.2).

Lyles et al (1993) suggest that the national home base of an organisation plays an important role in shaping the extent to which it is likely to achieve advantage on a global scale. This home provides basic factors upon which organisations are able to build and extend to provide such advantage.

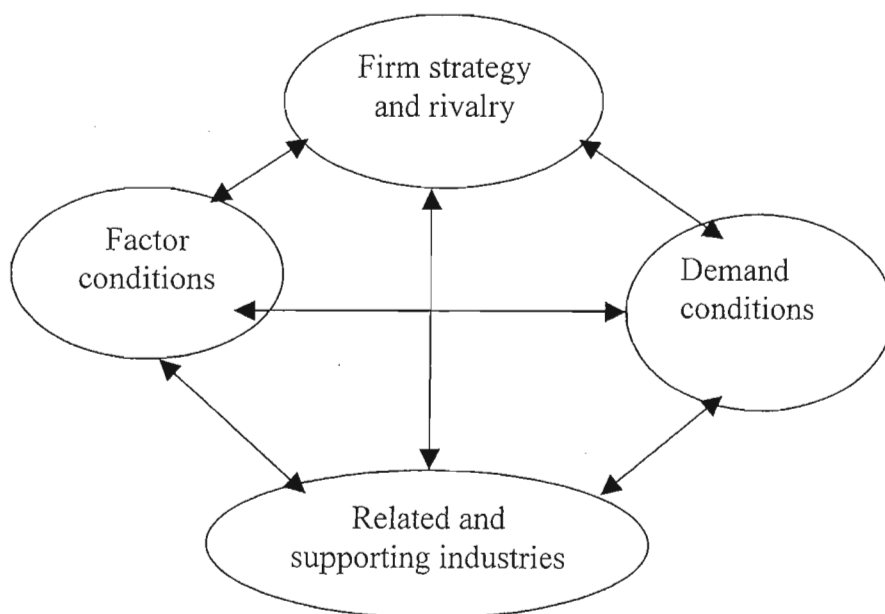


Figure 2.2 The determinants of national advantage (Porter's diamond)

Source: Porter (1980)

The context of characteristics of firm strategy, structure and rivalry in different countries also helps explain bases of advantage. In Germany, the propensity for systematic, often hierarchical processes of management has been particularly successful in providing reliability and technical excellence in engineering industries (Jacob, 1995). Further, domestic rivalry and the search for competitive advantages within a nation can help provide organisations with bases for achieving such advantage on a more global basis. Japanese electrical and automobile industries are good examples of this. Especially important is the extent of domestic rivalry within a nation. Porter argues that one of the main reasons for success in Japan is the extent of domestic rivalry within many of its industries. Germany is successful in the chemical industry, in part because of the competition between its domestic chemicals companies.

According to Thompson and Strickland (1999), Porter's diamond has been used in various ways. At a national level, it has been employed by governments to consider the policies that they should follow to encourage the competitive advantage of their industry. Since Porter's arguments are, in essence, that domestic characteristics of competition should yield advantages on a wider basis, the implication is that competition should be encouraged at home, rather than industries being protected from overseas competition. However, governments can also act to foster such advantage by, for example, ensuring high expectations of product performance, safety or environmental standards or encouraging vertical cooperation between suppliers and buyers on a domestic level, which could lead to innovation (Venkatraman and Prescott, 1990).

Organisations have also used Porter's diamond as a way of trying to identify the extent to which they can build on home-based advantages to establish competitive advantage in relation to others on a global front. For example, British Steel and British Telecom in the UK might argue that their experience of privatisation before similar businesses in other countries might provide a basis for their achieving advantage in global competition.

2.5 THE COMPETITIVE ENVIRONMENT: PORTER'S 'FIVE FORCES' MODEL ANALYSIS

It is necessary to identify if there are factors in the environment which influence the capability of an organisation to position itself to such advantage (Thompson and Strickland, 1999).

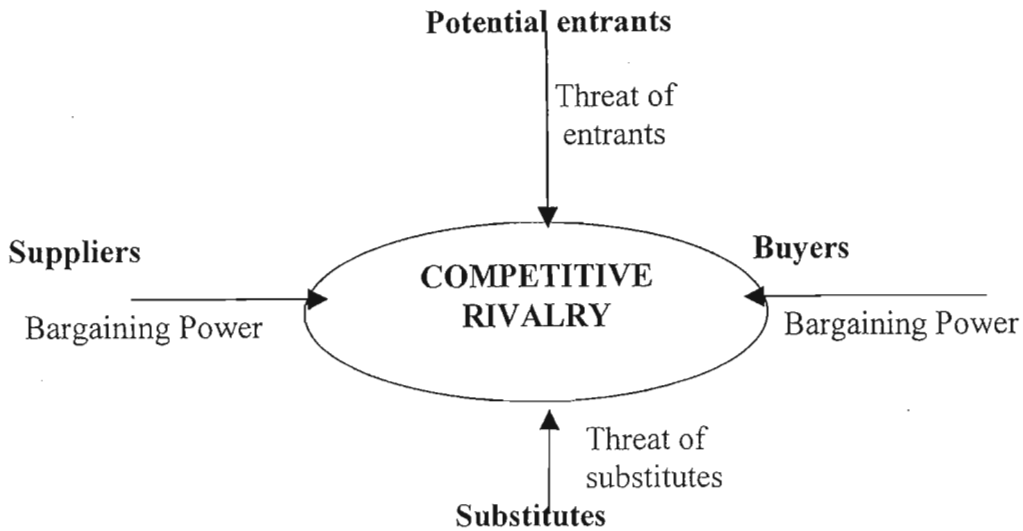


Figure 2.3 Five forces analysis

Source: Porter (1980)

2.5.1 The threat of entry

Threat of entry to an industry will depend on the extent to which there are barriers to which there are barriers to entry, which most typically are as follows:

2.5.1.1 Economies of scale

In some industries, economies of scale are extremely important, for example, in the production of electrical components, in distribution or in sales and marketing (Murray, 1988).

2.5.1.2 The capital requirement of entry

Murray (1988) observes that the capital cost of entry will vary according to technology and scale. The cost of setting up a retail clothing business with leased premises and stock from

wholesalers is minimal when compared with the cost of, for example, entering capital-intensive industries such as chemicals, power or mining.

2.5.1.3 Access to distribution channels

For decades, brewing companies in Germany, the UK and France, have invested in the financing of bars and pubs, which has guaranteed the distribution of their products and made it difficult for competitors to break into their markets.

2.5.1.4 Cost advantages independent of size

Largely, these are to do with early entries into the market and the experience so gained. It is difficult for a competitor to break into a market if there is an established operator who knows that market well, has good relationships with the key buyers and suppliers and knows how to overcome market and operating problems (Segev, 1989). However, the increasing globalization of markets is facilitating market entry to one part of the world from another. A company may have gained experience and built a reputation in its home market which it can transfer to another.

2.5.1.5 Expected retaliation

If a competitor considering entering a market believes that the retaliation of an existing firm will be so great as to prevent entry or mean that entry would be too costly, this is also a barrier (Dess and Davis, 1986). For instance, entering the breakfast cereal market to compete with Kellogg's would be unwise unless very careful attention was paid to a strategy that avoids retaliation.

2.5.1.6 Legislation or government action

Legal restraints on competition vary from patent protection, to regulation to control markets, through to direct government action. In 1995, the US government threatened the Japanese government with trade sanctions because, it argued, the Japanese government promoted restrictions to the access of foreign competition (Timmons, 1990). Of course,

managers in already protected environments might face pressures of competition for the first time if governments remove such protection.

2.5.2 The power of buyers and sellers

The next two forces can be considered together because they are linked. All organisations have to obtain resources and provide services, this is what has become as the supply value system of an organisation. Moreover, the relationship of buyers and sellers can have similar effects in constraining the strategic freedom of an organisation and in influencing the margins of that organisation.

Buyer power is likely to be high when there is a concentration of buyers, particularly if the volume purchases of these buyers are high. This is the case, for instance, in grocery retailing in France and the UK, where just a few retailers dominate the market.

This power will be further increased when for instance (Hill, 1988):

- The supplying industry comprises a large number of small operators.
- There are alternative sources of supply,
- The component or material cost is a high percentage of total cost,
- The cost of switching supplier is low or involves little risk.
- There is a threat of backward integration by the buyer if satisfactory prices or quality from suppliers cannot be obtained.

According to Rajagoplan et al (1993), supplier power is likely to be high when:

- There is a concentration of suppliers rather than a fragmented source of supply.
- The 'switching costs' from one supplier to another are high,
- If the brand of a supplier is powerful.
- There is the possibility of the supplier integrating forward if it does not obtain the prices and hence the margins, it seeks.
- The supplier's customers are highly fragmented, so their bargaining power is low.

2.5.3 The threat of substitutes

According to Porter (1980), the threat of substitution may take different forms:

- There could be product-for-product substitution, the fax for the postal service and then e-mail for the fax are examples.
- There may be substitution of need by a new product or service rendering an existing product or service superfluous.
- Generic substitution occurs where products or services compete for need, for example, furniture manufacturers and retailers compete for available household expenditure with suppliers of televisions, videos and holidays.
- Doing without can also be thought of as a substitute, certainly for the tobacco industry this is so.
- The availability of substitutes can place a ceiling on prices for a company's products or make inroads into the market and so reduce its attractiveness.

2.5.4 Competitive rivalry

Organisations need to be concerned with the extent of direct rivalry between themselves and competitors (Thompson and Strickland, 1999). What is it based upon? Is it likely to increase or decrease in intensity? How can it be influenced?

In strategic terms, the most competitive conditions will be those in which entry is likely, substitutes threaten and buyers or suppliers exercise control, previously defined forces are relevant here. However, Thompson and Strickland (1999) argue that there are likely to be other forces which affect competitive rivalry:

- The extent to which competitors are in balance: where competitors are of roughly equal size, there is the danger of intense competition as one competitor attempts to gain dominance over another.
- Market growth affects rivalry. The idea of the life cycle suggests that conditions in markets, primarily between growth stages and maturity, are important, not least in terms of competitive behaviour.
- The existence or developmental of global customers may increase competition among suppliers as they try to win their business on a global scale.

- High fixed costs in an industry, perhaps through high capital intensity or high costs of storage are likely to result in competitors cutting prices to obtain the turnover required. This can result in price wars and very low margin operations.
- If the extra capacity is in large increments, the competitor making such an addition is likely to create at least short-term overcapacity and increased competition.
- Again, differentiation is important. In a commodity market, where products or services are not differentiated, there is little to stop customers switching between competitors.
- If the acquisition of weaker companies by stronger companies results in the provision of funds to improve the competitive standing of such firms, their ability to compete more effectively may be enhanced.
- When there are high exit barriers to an industry, there is again likely to be the persistence of excess capacity and consequently increased competition.

2.5.5 Competition and collaboration

Much of the discussion so far has emphasised the notion of competition and the competitive nature of an industry or market. However, this section begins by explaining that organisations need to seek a basis for achieving advantage and this may not always be achieved through direct competition. It is possible that collaboration between organisations may be a more sensible route to achieving advantage, that organisations may seek to compete in some markets and collaborate in others or in other markets be competing and collaborating simultaneously (Rhyne, 1986).

Collaboration between potential competitors or between buyers and sellers is likely to be advantageous when the combined costs of buying and transactions (such as negotiating and contracting) are less through collaboration than the internal cost that would be incurred by the organisation operating alone (Marline et al, 1994). When the collaboration allows the organisation to concentrate on its own core competencies and avoid peripheral and wasteful activities.

2.6 AIR NETWORK DESIGNS

The International Air Cargo Association (TIACA) research article on ‘Hub-and-Spoke’ Networks (undated) highlights the link between network designs and the existing regulatory policies. The article cites the American Airline Deregulation Act of 1978, signed into law on October 24. The law freed airlines in the United States to develop their own networks (Zhang, 1996). Deregulation opens opportunities for incumbent airlines to merge and take advantage of more attractive routes while competition from new entrants forces airlines to look for more cost effective network designs (www.tiaca.org, 24 April, 2004).

2.6.1 Hub-and-Spoke Network Designs

Pioneered by FedEx, the ‘Hub-and-Spoke’ network design is one of the networks that emerged after deregulation in the US as airlines began to develop hub-and-spoke networks by acquiring other incumbents following the experiences of FedEx (Berechman et al, 1994).

Airlines, like Lufthansa have hailed this type of network as being crucial to cargo development, while Berechman and Shy (1998) contend that a hub network is the only means for a freighter operation to fill its aircraft and establishing a global network at the same time.

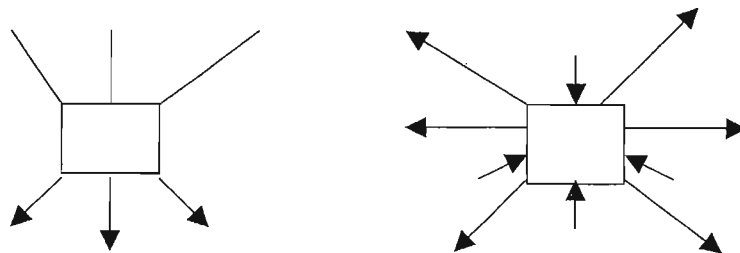


Figure 2.4: Hub-and-Spoke networks

Source: www.tiaca.org, 24 April 2004

The praises and benefits of the ‘Hub-and-Spoke’ network do not seem to be shared by all the industry players and analysts on the subject. It may be recalled from Dora Kay’s article: “Its Time to Set Air Cargo Free”, already cited above, that cargo generally moves in one

direction only. This movement characteristic of cargo creates imbalanced freighter routes. Dora contends that the answer to the imbalanced movement dilemma is “to allow more triangular or round-the-world routings, something that liberalization would permit”. The triangular routing design recommendation seems to depart from and to some extent, does not support the unqualified benefits in favour of ‘hub and spoke’ routings cited above (www.tiaca.org, 19 March 2004).

The ‘Hub-and-Spoke’ network works well under market conditions where there is some balanced freight movements and less so where there is freight movements are imbalanced.

2.6.2 Linear Network.

The TIACA article on “Hub-and-Spoke networks” identifies two other networks types as “Linear” and “Grid” (Bittlingmayer, 1990). In a Linear network, traffic is carried from origin to destination on non-stop or via intermediate stop basis. This kind of network requires the liberalization of Fifth Freedom Traffic Right in particular. In the illustration of the network under study, below, the flight would originate from either Lilongwe (Malawi) or Gaborone (Botswana) and pick and drop Courier in the intermediate stop countries and thus avoid creating and using one of the nodes as a Hub.

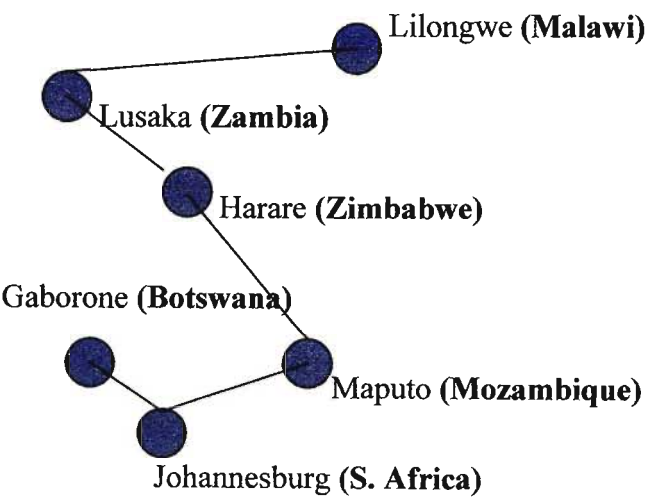


Figure 2.5 Illustration: The Linear (Triangular) Network

2.6.3 The Grid Network

The Grid network on the other hand is identified as characterised by its short-and-medium-haul flights in mainly domestic markets (Brueckner et al, 1992). This network is recommended for domestic operations and will not be given any detailed attention in relation to this study.

2.6.4 Other Works on Network Designs

Brueckner and Spiller (1991) argue that advances in the theory of solving network design and network loading problems have focused on strengthening the linear programming relaxation and improving the tractability of formulation and agree that the massive scale of network design problems and the inherent difficulty of constraints specific to Express Shipment Service Network Designs render these advances ineffective.

Arguments for and against any particular network design need to consider the many decision variables before prescribing any type of network. For example, a Hub-and-Spoke design may be ideal in the USA, where Express freight origins and destinations may be reasonably balanced and less so in cases where the network spans across countries with uneven capabilities of being originators or destinations of Express cargo (Berechman et al, 1994).

2.7 PRINCIPLES FOR THE LIBERALISATION OF AIR CARGO TRANSPORTATION

2.7.1 ESSENTIAL PRINCIPLES FOR THE LIBERALISATION OF AIR CARGO SERVICES

The OECD, following its report on regulatory reform in air transport services generally (OECD, 2000), is currently exploring the possibility of liberalising the provision of air cargo services in particular. Work in this direction has progressed through a detailed report on “Regulatory Reform in International Air Cargo Transportation”, made available in early 1999, and a workshop on the subject which was held at the OECD’s Paris Headquarters on July 5-6, 1999.

The workshop concluded that the air cargo transportation industry is becoming more and more an integral part of the transportation chain and is now more akin to logistical services driven by the needs of shippers and cargo owners (Brueckner and Spiller, 1994). Participants concluded that it is important that the sector shall be able to meet these needs. Furthermore, it was recognised that the different categories of air cargo providers (combined and all cargo carriers; integrated /express carriers, freight forwarders and any other indirect provider of air cargo transportation) in the logistical chain do not always operate according to the same regulatory regime for the various parts of their operations while competing in the same markets (Brueckner, 2001). Any regulatory reform in the sector should therefore take into account the need to establish a regime, which enables, if possible, all categories of air cargo service providers to respond adequately to the needs of the market.

This report suggests practical ways and means to promote liberalisation in the air cargo transport sector. Two suggestions were proposed: a Protocol to existing air service agreements liberalising certain cargo specific issues and a draft Multilateral Agreement liberalising not only cargo specific issues but also aeropolitical ones related to cargo operations (OECD, 2000).

According to Douglas and Miller (1974), air service providers are still highly restricted in their ability to develop the supply of services on the basis of technological and commercial considerations. In line with the findings of the workshop as regards existing restrictions and in the interest of facilitating further consideration of air cargo liberalisation, it was determined that principles for the liberalisation of air cargo services, together with options for governments on how to implement such principles, should be developed as a useful next step.

2.7.1.1 Liberalisation of market access

Currently, the air transport aspect of air cargo services is predominantly governed by bilateral aviation agreements prevailing in all countries limiting air carriers ability to

respond to market developments and to exploit the market potential by basing their operations on service demand at a global level. They cannot plan international route structures and develop services in full competition with each other (OECD, 2000).

2.7.1.2 Air Traffic Rights

From a strictly economic viewpoint, all categories of air carriers should be allowed to make use of the full range of traffic rights and have the same opportunities for unimpeded route design and network operations (Hendricks et al, 1995). A level playing field for all categories of cargo service providers should be created that allows them to respond adequately to the needs of the market. The ultimate goal is the removal of all remaining barriers so that air carriers are able to carry out transportation operations on the basis of commercial considerations alone.

Commercial operations should become more economically viable if all-cargo service providers could exercise 5th and 7th freedom traffic rights (carry freight between two countries on a route with origin/destination in its home country; carry freight between two countries by an airline of a third country on a route with no connection with its home country) (Morrison and Winston, 1986). For 5th freedom rights to be of practical value it is imperative that potential “beyond” countries also adopt liberal policies with mirroring 5th freedom traffic rights. By granting 7th freedom traffic rights, traffic possibilities between third countries could be improved, thus optimising carriers’ networks.

By ultimately allowing cabotage operations (to carry freight within a country by an airline of another country on a route with origin/destination in its home country), the market access for carriers from abroad will be improved and will provide opportunities for better network building.

Morrison and Winston (1986) assert that the ultimate goal is the removal of all remaining barriers to all-cargo air carriers’ ability to serve markets on the basis of commercial considerations alone. Through gradually granting the full range of traffic rights, air cargo operations can be expected to become more competitively supplied, freely networked, and more cost-efficient.

Co-operation often serves as a substitute for mergers, acquisitions and cross-shareholdership as these traditional forms of co-operation are restricted by the ownership and control regulations of air service agreements (Morrison and Winston, 1995). By jointly undertaking certain commercial activities, air carriers aim to rationalise their operations and achieve network efficiencies by expanding their market coverage. The issue of co-operative arrangements is not only relevant to cargo operations and combination services but equally to passenger air services.

2.7.1.4 Right of Establishment

Traditional bilateral air service agreements require that the air carriers designated by a contracting party be substantially owned and effectively controlled by nationals of that contracting party (Schipper et al, 1998). This is done to safeguard essential safety requirements in order to avoid the emergence of substandard air carriers. Such requirements impede the flow of inward investment to contracting states and thus inhibit the development of the air cargo industries. For international air cargo services to become more efficient, restrictions on inward investment should be eliminated, and air carriers should be able to determine their ownership and control structures freely, based on capital and strategic business needs (Berechman et al, 1994).

2.7.1.5 Operational Flexibility and Pricing Freedom

All cargo operators and, where consistent with existing bilateral air service agreements, combination carriers should enjoy full operational flexibility in order to exploit business opportunities and to enhance competition among air transportation providers (Douglas and Miller, 1974).

Leaving pricing to be set by the marketplace without any governmental intervention would certainly be the ideal economic solution; in fact air cargo service providers are already free to set cargo prices in many countries so that the real world is ahead of the current traffic laws. However, given the long history of direct and indirect governmental involvement in

pricing for air transportation a widespread agreement to such a provision may prove very difficult (Pels et al, 2000). If considered necessary, interventions by contracting parties should be limited to a bare minimum and should concern solely the transparent and non-discriminatory application of national competition law (Panzar, 1979).

2.7.1.6 Liberalisation of Ancillary Services

Apart from market access issues, air cargo service providers are hampered by the regulatory environment applied to ancillary services; that is, services considerably influencing the efficiency of seamless services offered by air cargo service providers (Park, 1997). Ancillary services cover, for example, intermodal transportation, groundhandling, forwarding and warehousing as well as other issues related to air cargo business. From the regulatory point of view, the full range or selected ancillary services can be raised in conjunction with market access issues or can be dealt with on a stand-alone basis.

As a consequence, the bilateral regulatory system as practised by African countries remained a bottleneck in the overall development of the air transport network in Africa (Morrison and Winston, 1986). The quantity and quality of air services have not improved. In practical terms, the system has not served the interests of the consumer nor that of the airlines or helped strengthen the operations of most African airlines in particular for a continent of more than 53 independent states. It has restrained the potential for growth. The current weakness of some African airlines is perhaps the result of this overtly protectionist policy.

2.8 UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA.

The current economic regulation of intra-African air transport is based primarily on a complex regime of protectionist bilateral air service agreements. Decisions on market access and related issues are made by states in their exercise of sovereignty over their air space (Schipper et al, 1998).

As a consequence, the bilateral regulatory system as practised by African countries remained a bottleneck in the overall development of the air transport network in Africa

(Morrison and Winston, 1995). The quantity and quality of air services have not improved. In practical terms, the system has not served the interests of the consumer nor that of the airlines or helped strengthen the operations of most African airlines in particular for a continent of more than 53 independent states. It has restrained the potential for growth. The current weakness of some African airlines is perhaps the result of this overtly protectionist policy.

2.8.1 Liberalization process in Africa

The need for a continental consensus and solutions were discussed at length under the auspices of ECA by African ministers responsible for civil aviation which led to the adoption in October 1988, of Yamoussoukro Declaration on a new African civil aviation policy which came with a big bang heralding a new era for African air transport, full of bold ideas to revamp the African airline industry (Worsford and Allen, 1998). Although ambitious, it included comprehensive proposals for a general framework for air transport reform in Africa and the unification of the fragmented African air transport market. A supplementary step was taken in Mauritius in 1994 which established guidelines on the granting of traffic rights and the liberalisation of non-schedule and cargo air services. The Mauritius arrangement advocated liberalization on an incremental and sub-regional basis.

A further important step forward in the move towards intra-African air transport liberalisation was taken in November 1999 at a conference of African Ministers responsible for Civil Aviation held under the auspices of the United Nations Economic Commission for Africa in Yamoussoukro, Côte d'Ivoire.

After intensive discussions, the Ministers adopted a Decision relating to the Implementation of the Yamoussoukro Declaration concerning the Liberalization of Access to Air Transport Markets in Africa. The Decision was subsequently endorsed by the Assembly of Heads of State and Government of the African Economic Community in July 2000 under Article 10 of the Abuja Treaty.

In terms of Article 10 of the Treaty, the Decision entered into force on 12 August 2000 among 44 African countries who have ratified the Abuja treaty. The framework provides for a continent-wide aviation agreement to liberalise the African skies with the aim of reaching full liberalisation by the year 2002. It removes all restrictions on traffic rights including the fifth freedom, capacity between city pairs, non-regulation of tariffs by government, multiple designation, complete liberalisation of cargo and non-scheduled air services and a monitoring body is established to oversee the implementation process.

2.8.2 Sub-regional arrangements

Among the positive impacts of the 1988 Yamoussoukro Declaration is the pressure it has exerted on the African sub-regions for the implementation of liberalisation. As a result, a number of sub-regional consultations and arrangements for the economic regulation of African air transport at the wider sub-regional level or among states with a community of interest have been or are being developed. Some of these initiatives are presented below in chronological order.

2.8.2.1 The Banjul Accord

The Banjul Accord for an accelerated implementation of the Declaration among six African States (Cape Verde, Ghana, Guinea Bissau, Sierra Leone, Nigeria and the Gambia) was concluded in April 1997. It covers a wide range of co-operation relating to airline operations, infrastructure, traffic rights, aviation safety and security.

2.8.2.2 Arab Council on Civil Aviation

The Arab Council on Aviation, which is a specialised agency of the Arab League, reached agreement to liberalise intra-Arab air services over a period of five years gradually ending restrictions on 3rd, 4th and 5th freedom traffic rights for carriers of its member states. This plan was adopted by the Arab Ministers responsible for civil aviation in November 1998. The plan will achieve total liberalisation by the year 2005.

2.8.2.3 COMESA

The 21 states from the Common Market for Eastern and Southern Africa (COMESA) reached agreement in May 1999 to phase-in liberalisation of scheduled and non-scheduled air services within the sub-region. The first phase which ended in October 2000 allowed free movement of intra-COMESA air cargo and non-scheduled passenger services between any city pair with no capacity restrictions and multiple airline designation. Full liberalisation was targeted for October 2000.

2.8.3 Liberal bilateral agreements

At the bilateral level, a number of African countries have signed or amended bilateral agreements to introduce a more open and liberalised regime: lifting restriction on traffic rights, capacity, frequency, tariffs, designation and so and so on (Morrison and Winston, 1986).

In parallel, a number of African countries have signed or initialled open skies agreement with the United States (Morocco, Nigeria, Ghana, Senegal, Tanzania, Namibia, Burkina Faso, Gambia, Benin). Other countries are reported to be negotiating with the United States (Ethiopia, Kenya and so on).

2.8.4 The Outstanding Issues

There are still a number of outstanding issues for effective implementation of liberalisation process. Some of the most important are summarised below:

2.8.4.1 Commitment and Internalisation

The lack of commitment from the parties concerned was a major impediment in the past. Zhang and Wei (1993) suggests that, to change this attitude and soft-peddling of the liberalisation process an aggressive sensitization and awareness campaign was recommended in order build a broad consensus among all stakeholders at the national, sub-regional and continental level (governments, airlines, consumers and so on).

2.8.4.2 Barriers to liberalisation

Brueckner and Spiller (1991) argue that barriers to liberalisation that still exist must be removed, in particular the absence of a level playing field for effective implementation of the liberalisation process - visa restrictions, work permits, government travel, exchange control, and so on.

2.8.4.3 Competition Policies and institutions

Panzar (1979) emphasises that the institutional capacity of states to be able to manage the implementation of the liberalisation process has to be strengthened. A vast majority African countries do not regulate competition or have institutional expertise to effectively regulate competition.

2.8.4.4 Interest of Consumers

The interests of consumers (the passenger and the shipper of cargo) are usually lost in the dialogue on aviation policy in Africa (Bittlingmayer, 1990.). This disparate and unorganised group had very little impact in the past on the development of African aviation policy. The rationale for liberalisation is for greater competition which will promote efficiency, better services and offer competitive prices. The interests of the consumer is important and Africa must guard against developments which clearly are against the interests of the consumer

2.8.4.5 Skilled Manpower

Currently, many civil aviation and airport authorities do not have the appropriate skilled manpower due to lack of financial resources and the fact that qualified people are due or have gone on retirement.

2.8.4.6 Infrastructure, Safety and Security

The anticipated increase in traffic that could result from liberalisation has to be accompanied by upgrading of the infrastructure and improvement of safety (Brueckner,

and Spiller, 1991). Without a matching improvement in these areas, any gain from liberalisation will have little or no impact.

The issue of aviation safety and security was considered important by the Yamoussoukro Decision which made it one of the criteria of eligibility of an air carrier to operate air services (Brueckner, 2001). A State has the right to refuse authorization if it is not satisfied that the airline meets internationally recognized standards and recommended practices or the state does not effectively exercise its safety oversight responsibilities. The complexities of addressing and monitoring safety standards dictate that aviation safety must become a matter of sub-regional co-operation and partnership. The need for harmonising air safety regulatory frameworks are of paramount importance if Africa is to take into account an industry which, by essence, is transnational. Co-operation in accident investigation is an area in which Africa can forge ahead.

2.8.4.7 Establishing and Strengthening Follow-up Mechanism

An effective follow-up machinery with a clear mandate and financial resources to manage the liberalisation process should be established, strengthened and empowered at the sub-regional and continental level (Douglas, and Miller, 1974). These bodies will provide a common framework for the oversight of the liberalisation process and co-ordination of the activities related to air transport liberalization.

2.8.4.8 Co-ordination and harmonization

One of the important tasks or issues for African air transport liberalisation is the question of how to manage the various sub-regional initiatives in a manner that would avoid duplication of efforts. A major priority of those responsible for the liberalisation process is to achieve synergy among these groupings.

2.8.4.9 Amendment of Bilateral Agreements

The African bilateral air service agreements have tended to focus on individual routes or small sets of routes, thus leading to difficulties in arriving at a high level of efficiency over

intra-African networks of air services (Caves et al, 1984). A number of bilateral agreements are still restrictive. These impediments prevent carriers from planning their route networks purely on the basis of commercial considerations.

2.9 BENEFITS OF LIBERALISATION

While the benefits of liberalisation are not perhaps different from those in other parts of the world with respect to Africa the benefits of regional liberalisation will have the added economic importance of strengthening the African market and ultimately enhancing the participation of African airlines in international air transport and integration of the continent. These potential benefits derive from:

2.9.1 Efficiency

The efficiency of air transport would be enhanced by allowing more open markets for its supply. Freer markets in air transport would also allow sectors that make use of its services to become more efficient (Hendricks et al, 1995).

2.9.2 Increased frequency

Liberalisation enables the offer of wider ranges of destinations and more frequent services, thus improving the African network.

2.9.3 Stimulation of Traffic

Liberalisation tends to encourage in most cases traffic developments (Nero and Black, 1998). This is what happened with countries that have adopted liberalisation.

2.9.4 Improvement of Service Quality

Liberalisation offers significant benefits to the consumer. It can serve to increase the range of options and choices available to the travelling public and also improves the standards and quality of services (Oum et al, 1995).

2.9.5 Enhancement of Competitive Position

Liberalisation may also improve the competitive position of African airlines by positioning them to be more competitive. Liberalisation has the potential to enable them to create new services and increase efficiency for the benefit of the travelling.

2.9.6 Tariffs and cost

As a result of freer market and reduction of cost more competitive fares will be offered to the consumer. Already there are some indications that where a more liberal approach has been adopted, fares have gone down by more than 30% in Eastern Africa as well as between East and Western Africa (Park, 1997.).

2.9.7 Benefits to Governments/Private Sector

The expected increase in traffic will result in increased revenue to the governments since more airlines will be operating, thus optimizing the utilization of the facilities. Such incremental revenue could be ploughed back to further improve infrastructure and aviation safety and security (Nero and Black, 1998).

2.9.8 Cost of Liberalisation

Wojahn (2001) contends that liberalisation would probably have an adverse effect on those airlines that have not been able to improve their overall competitiveness through higher standard of services, better frequency, better yield management and competitive fares.

2.9.9 Encouragement of Tourist Traffic

Liberalisation has the potential to encourage the development of tourist and cargo traffic. This encouragement will come through better access of the country, opening new markets as more airlines will be operating that offer more competitive pricing, creating the opportunity to attract more business into the country (Zhang and Wei, 1993).

2.10 CHAPTER CONCLUSION

This chapter has discussed liberalisation of air networks, strategic management principles and the benefits of liberalisation. Analysis and discussion of results will be based on the literature.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter presents the research design, sources of primary and secondary data, data collection instruments, the type of data gathered and the techniques used in analysing data.

3.2 RESEARCH DESIGN AND JUSTIFICATION

The research design constitutes the blueprint for the collection, measurement, and analysis of data. It aids the scientist in the allocation of his limited resources by posing crucial choices: Is the blueprint to include experiments, interviews, observation, and the analysis of records, simulation or some combination of these?" (Holstein and Gubrium 1995). There are two approaches to research, which are positivism and phenomenology (Saunders et al, 1997). These approaches are also known as quantitative and qualitative respectively.

The greater part of this study focuses on the quantitative type as discussed in this section. In such research, the relies on measuring variables and comparing groups on those variables, or examining the strength of the relationship between two or more variables (Groves et al, 1988). The belief here is that objectivity in the data collection process is paramount. Whoever was repeating this study or using the same instruments and methods should get approximately the same numbers.

However, another branch of research uses more qualitative approaches. These approaches employ more subjective and frequently use interviews, focus groups, or single case designs (Holstein and Gubrium 1995). However, these approaches lack objective measurement (Tanur, 1992). Even though they are subjective, these methods are becoming more widely used these days as analysis methods improve and people search for better ways of gathering data about a problem.

This study adopts the quantitative approach because it enables a researcher to take more informed decisions about research design, educates the researcher on the different research traditions, enables one to adopt a research design to cater for the customers and assists in choosing the appropriate approach that will work for a given research (Saunders et al, 1997).

3.3 POPULATION

The population is the group of interest to the researcher. Fraenkel and Wallen, (1996) explain that it is upon this group that the researcher would generalize the results of the study. The population includes all individuals whom the researcher is interested in obtaining information and making inferences on. The population can be in two categories, the target and the study populations (Fraenkel and Wallen, 1996). The target population is the actual population to which the researcher would really like to generalise. However, this population is rarely available. Therefore, the population to which researcher is able to generalise is the study (Saunders et al, 1997).

Defining the population is important because it helps the researcher in selecting a sample for study (Labovitz and Hagedorn, 1976). The population for this study is composed of air transport policy/regulatory bodies in each of the 6 countries under study and all the air courier companies also situated in the 6 countries under study.

3.4 SAMPLING METHODS

According to Ferber (1974), a sample is a small part of anything designed to show the style, quality and nature of the whole. The purpose of a sample is to approximate the measurement of the whole population well enough, within acceptable limits.

There are two ways of coming up with a sample. Saunders et al (1997) report that random (probability) sampling ensures that the probability of each case being selected from the

population is known and is usually equal for all cases. On the other hand, non-random (non-probability) sampling is such that the probability of each case being selected from the total population is unknown and cannot answer questions that require statistical inferences about the population's characteristics.

Luck and Rubin (1987) assert that in non-random sampling, the assessment of reliability is not possible regardless of how careful the researcher is in selecting elements of the sample. There is no guarantee that the samples represent the population being studied (Leedy, 1992). Thus, this study did not make use of non-random sampling.

3.4.1 NON-PROBABILITY (RANDOM) SAMPLING

Below are non-random sampling methods.

3.4.1.1 Quota sampling

Tanur (1992) asserts that in this method, sampling is done until a specific number of units (quotas) for various sub-populations have been selected. Quota sampling can be considered preferable to other forms of non-probability sampling because it forces the inclusion of members of different sub-populations.

3.4.1.2 Judgemental Sampling

This approach is used when a sample is taken based on certain judgements about the overall population. The underlying assumption is that the investigator will select units that are characteristic of the population. Judgement sampling is subject to the researcher's biases and is perhaps even more biased than haphazard sampling (Tanur, 1992). One advantage of judgement sampling is the reduced cost and time involved in acquiring the sample.

3.4.1.3 Convenience Sampling

Convenience sampling is sometimes referred to as haphazard or accidental sampling. It is not normally representative of the target population because sample units are only selected if they can be accessed easily and conveniently (Converse and Presser, 1986). The obvious

advantage is that the method is easy to use, but that advantage is greatly offset by the presence of bias. Although useful applications of the technique are limited, it can deliver accurate results when the population is homogeneous (Sudman et al, 1996).

3.4.2 PROBABILITY (RANDOM) SAMPLING

In probability sampling, the sample represents the population. Normally the choice of components for the sample is by randomization (Leedy, 1992). Summarised below are the random selection methods:

3.4.2.1 Simple Random Sampling

This method ensures that each item in the entire population has an equal chance of being included in the sample (Wegner, 1993). This method is used when it is assumed that the population is relatively homogeneous with respect to the random variable under study.

3.4.2.2 Systematic Sampling

Elements are selected from the population at a uniform interval that is measured in time, order or space (Holstein, and Gubrium, 1995). Sampling begins by randomly selecting the first observation. Thereafter, subsequent observations are selected at a uniform interval relative to the first observation.

3.4.2.3 Stratified Sampling

Wegner (1993) states that stratified sampling divides the population into segments or strata. Each stratum has relatively homogenous elements. Either a specific number of elements are selected at random from each stratum that corresponds to the proportion of that stratum in the population. Stratification can be worthless unless the population can be classified into strata that are homogenous in the state being investigated.

3.4.2.4 Cluster Sampling

According to Groves et al (1988), the population is divided into clusters, where each cluster is similar in profile to every other cluster. Clusters are then randomly selected for sampling.

The sampling units within these randomly selected clusters may then be randomly selected to provide a representative sample from the population. According to Keogh (1999), cluster sampling tends to be used when the population is large and spread out over a geographical area. In such cases, smaller regions or clusters can more easily be sampled.

3.5 SAMPLE SELECTION

In this study, the respondents are representatives of air transport policy/regulatory authorities and also, representatives of courier companies. A questionnaire was sent to each the regulatory bodies in the six countries under study. 40 questionnaires were administered to respondents from air courier companies.

Questionnaires for regulatory bodies were sent to the respondents using judgemental sampling. The researcher identified one representative of the regulatory body and administered questionnaires to them. Thus, six questionnaires were sent to respondents.

Judgement sampling was used for questionnaire administration to regulatory bodies because of the reduced cost and time involved in this method.

For courier air service providers, the researcher used simple random sampling to select 36 companies from those registered with air courier regulatory bodies. The researcher then distributed six questionnaires to each of S.Africa, Malawi, Botswana, Zimbabwe, Mozambique and Zambia. The respondents were classified into two strata: postal entities and air express/courier forwarders. Respondents were randomly distributed from each stratum.

Stratified sampling technique was adopted for air courier service providers because it ensures that the perceptions and views of the major service providers, that is air express/courier companies and postal companies, are represented in the study. The two types of service providers (air courier and postal) made up the two strata for the stratified sampling method.

3.6 DEVELOPMENT OF RESEARCH INSTRUMENTS

In developing the research instruments, the validity, reliability and objectivity of the information obtained from the instruments were considered. Labovitz and Hagedorn (1976) define validity as the ability of an instrument to measure what it is supposed to measure. However, Fraenkel and Wallen (1996) instead argue that a more accurate definition of validity revolves around the “defensibility of the inferences researchers make from the data collected through the use of an instrument”. Accordingly, they argue that validity of the instruments must always be considered within the context inferences, the researcher makes regarding particular areas or topics. In other words, the researcher needs instruments that will permit him to draw warranted, or valid, conclusions about the characteristics (perceptions, attitudes, and so on) of the individuals under study.

The second consideration is reliability. Fraenkel and Wallen (1996) define a reliable instrument as one that gives consistent results. The consistency gives the researcher confidence that the results actually represent what he/she intended to study. Reliable instruments obtain similar responses when administered to different respondents.

Fraenkel and Wallen (1996) report that the issue of objectivity refers to the absence of subjective judgements. It is important in research to try to eliminate subjectivity from the judgements made concerning the subjects under study. Unfortunately, objectivity is never probably attained completely. In addressing these key issues about research instruments, the questionnaire and interview schedules were pre-tested before administering them at full to the sample. This was to reveal ambiguities, poorly worded questions, those that were too long, as well as those with unclear choices and also to indicate whether the instructions to the respondents were clear (Fowler, 1984). The questionnaire was pre-tested with one regulatory authority and three courier companies.

When preparing research instruments, attention should be paid to the length and clarity of the questions (Fowler, 1984). Both close-ended and open-ended questions were used in the questionnaire. The close-ended questions allowed the research to cover a wide range of

areas regarding organisational culture. Respondents preferred close-ended questions to open-ended questions since they are simple to answer (Fraenkel and Wallen, 1996). However, close-ended questions are harder to construct, have limited breath of responses and require more questions to cover the research topic than the open-ended type (Labovitz and Hagedorn, 1976).

Open-ended questions were included to allow respondents to express their views independently. The advantages of these questions were that they allowed more freedom of response, were easier to construct and permitted follow-up by the interviewer. However, the disadvantages were that the responses tended to be inconsistent in length and content across respondents, which made them susceptible to misinterpretation and were more difficult to process (Fowler, 1984). Validity was the key issue and that was the reason the pre-testing of the instruments was conducted.

3.7 RESEARCH INSTRUMENTS

Questionnaires were used as methods of collecting data. This method was expected to capture the desired information.

3.7.1 QUESTIONNAIRES

The questionnaire was used as a data collection instrument because of its applicability to the survey research design (Labovitz and Hagedorn, 1976). The major advantage of using the questionnaire, according to Fraenkel and Wallen (1996), is that it can be administered to large numbers of people at the same time. Moreover, this method proved to be cost effective and convenient in collecting data. However, the questionnaire has a very low response rate since people have an anti-questionnaire phobia and more often than not, the researcher will not be available to provide clarity in those areas that will not be clear to respondents.

3.7.2 INTERVIEWS

According to Fraenkel and Wallen (1996), the advantages of using the interview technique approach are that the respondents can expand on areas of interest and uses non-verbal cues such as facial expression to emphasise their responses. However, no interviews were conducted in this study. The main disadvantage of the interview technique is that it is time consuming (Fraenkel and Wallen, 1996).

3.8 TYPES OF DATA

3.8.1 Primary data

According to Irwin (1999), primary data is collected specifically for a project. Primary data is expensive to collect, but it is important, as it is possible to formulate structured and unstructured questions that focus on the study topic. In this study, primary data was obtained from questionnaires. The information is crucial to the research project as it specifically addresses issues of interest to the study area (Duncan and Duncan, 1994).

3.8.2 Secondary data

Secondary data are data gathered and recorded by someone else prior to (and for purpose other than) the current project (Wegner, 1993). The secondary data included the use of information from the the air transport regulatory bodies and DHL policy documents. Zikmund (1991) suggests that secondary data has the following advantages: data is already available, data is highly accessible and less expensive to obtain. However, secondary data has the following disadvantages: data may not be relevant to the current study, data may be outdated and inappropriate for the current purpose, accuracy of the data cannot be determined because the source may be unknown, one may not be able to correct for errors in the data and bias and collation errors may arise.

3.9 DATA PROCESSING, ANALYSIS AND PRESENTATION

To prepare for data entry, questionnaires were given unique codes for all responses from respondents and a data entry template was designed in Excel. The data was entered using the same package. After entry, the data was cleaned to remove inconsistent responses by running frequency tables in the Statistical Package for Social Sciences (SPSS) version 11. The data was then analysed using SPSS version 11. In data analysis and interpretation, statistical principles like frequencies, percentages and mean were mainly used. Tables, graphs and charts were used in presentation of research findings which are laid out in chapter four.

3.10 CHAPTER CONCLUSION

This chapter has discussed the research methodology adopted by the study and the associated reasons. The chapter also reviewed concepts such as the research methodology, population of the study, sampling, research instruments and data processing, analysis and presentation.

CHAPTER 4

RESEARCH FINDINGS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

This chapter presents the research findings and discussion of results. The information will lead the researcher to develop a balanced judgment of the significance of the research findings. These research findings will form the basis on which the research hypothesis is either confirmed or refuted.

4.2 RESPONSE RATE

The researcher sent six questionnaires to regulatory bodies. Of the six questionnaires sent out, four were returned with a response rate of 66.7%. Of the 40 questionnaires sent to courier companies, 29 were successfully completed and returned which represents a response rate of 72.5%. The average response is 71.7%.

4.3 RESEARCH FINDINGS FROM AIR TRAFFIC REGULATORY AUTHORITIES

This section presents research findings from the air traffic regulatory authorities of Zimbabwe, Zambia, South Africa, Mozambique, Malawi and Botswana.

4.3.1 Job position of respondent

Study results on the job position of respondents are summarised in Table 4.1 below.

Table 4.1: Position of respondent

Position	% of Respondents
Director	39
Senior Manager	25
Middle Line Manager	22
Supervisor	14

Most of the respondents occupy the position of director (39%), senior manager (25%), middle line manager (22%) and supervisor (14%). This implies that the majority of respondents are top administrators, thus they are most probably well versed on issues that affect the air courier industry.

4.3.2 Length of time in the organization

The length of time respondents have been with their organisations are shown in Figure 4.1 below.

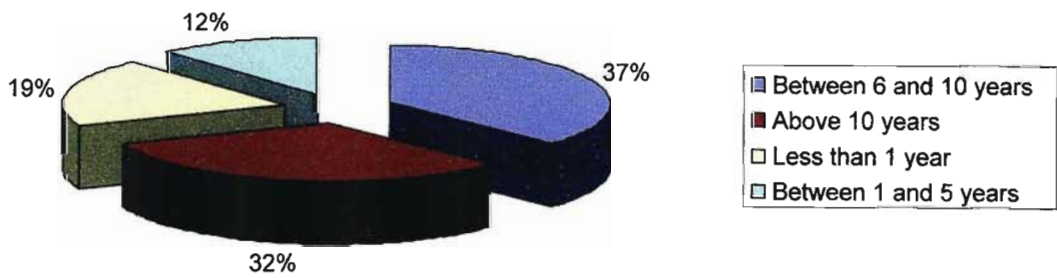


Figure 4.1 Respondents' work experience

Research results show that the majority (37%) of respondents have between 6 and 10 years experience while the rest have above 10 years (32%), less than 1 year (19%) and between 1 and 5 years (12%). Thus, most of the respondents have enough experience to give information on the viability, acceptability and feasibility of an overnight air networks chain linking six countries.

4.3.3 Membership of International Groupings

Research results on whether respondents are members of the International Civil Aviation Organisation are shown in Figure 4.2 below.

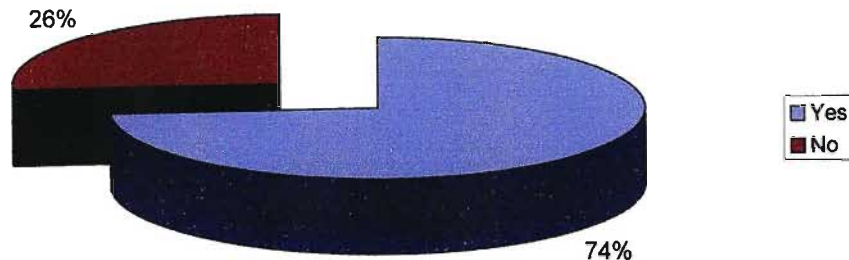


Figure 4.2 Membership of ICAO

The study results reveal that most of the respondents (74%) belong to the International Civil Aviation Organisation (ICAO) while the rest do not (26%). This implies that the majority of nations belong to international groupings, making it easy to design and adopt multilateral pacts. Rhyne (1986) contends that collaboration may be a more sensible route to achieving competitive advantage.

4.3.4 African Economic Community membership

Figure 4.3 below shows study results on whether respondents are members of the African Economic Community.

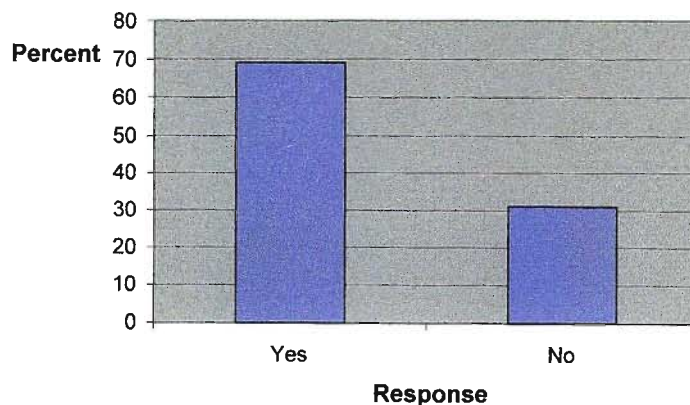


Figure 4.3 Membership of African Economic Community

Most (69%) of the respondents are members of the African Economic Community while the rest (31%) are not. Thus, the majority of respondents belong to regional groupings. This also means that it might be easy to establish a network chain-linking countries which belong to the same regional grouping.

4.3.5 Sub-regional membership

Responses on countries’ membership of SADC and COMESA are summarised in Table 4.2 below.

Table 4.2: Sub-regional membership

Sub-regional body	% of Respondents
SADC	85
COMESA	76

The majority of respondents (85%) belong to SADC while the rest (76%) belong to COMESA. This means that most of the respondents are part of sub-regional groupings, which facilitates setting up a network that chain links countries in the same sub-regional grouping.

4.3.6 Dedicated express/courier air services

Study results on airlines that operate dedicated express/courier air services linking respondents with other SADC countries are shown in Table 4.3 below.

Table 4.3: Companies that offer dedicated express/courier air services

Company	% of Respondents
DHL	76
FEDEX	63
COMAV	54
Westair Aviation	51



According to respondents, the following companies offer dedicated courier air services: DHL (76%), FEDEX (63%), COMAV (54%) and Westair Aviation (51%). This implies that DHL is the best known company that offers courier air services.

4.3.7 Air express/courier industry

Figure 4.4 below shows responses on whether respondents support the entrance of more airlines into the air express/courier industry.

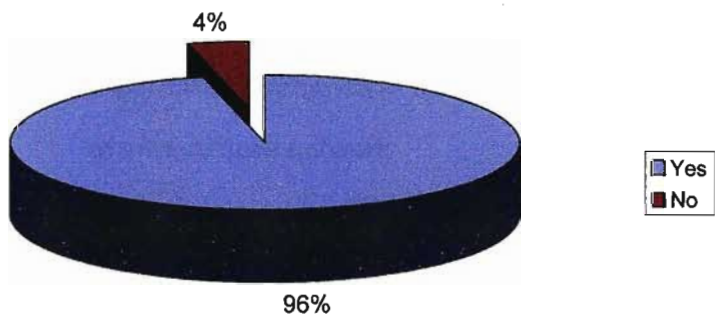


Figure 4.4 Entering the air express/courier industry

Most of the respondents (96%) support the entrance of more airlines while the rest (4%) do not. Thus, the majority of respondents are comfortable with the entrance of more airlines into the air courier industry. Thompson and Strickland (1999) report that organisations need to be concerned with the extent of direct rivalry between themselves and competitors.

4.3.8 Importance of fifth freedom rights

Research results on whether granting of fifth freedom rights is crucial in ensuring the sustainability and expansion of the intra-African network are shown below.

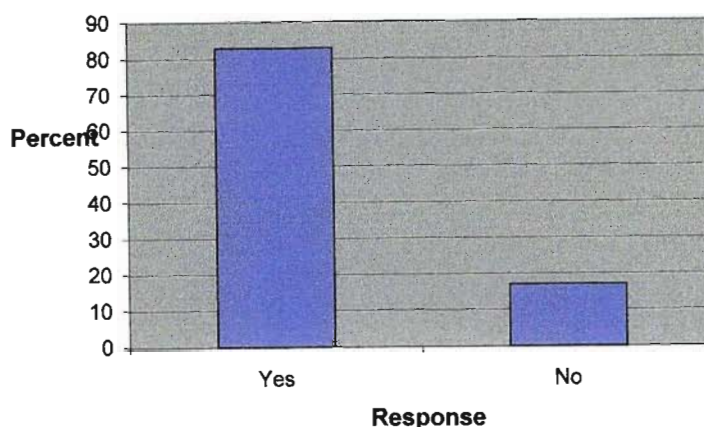


Figure 4.5 Importance of fifth freedom right in ensuring sustainability and expansion of intra-African network

The majority of respondents (83%) believe the fifth freedom rights are crucial while the rest (17%) do not. This implies that most respondents value the granting of the fifth freedom rights. Holloway (1997) observes that a linear network requires the liberalization of Fifth Freedom Traffic Right in particular.

4.3.9 Granting of fifth freedom rights

According to the majority of the respondents (98%), they will grant fifth freedom traffic rights to support the development of the air express industry within the SADC region on certain conditions. The conditions cited are shown in Table 4.4 below.

Table 4.4: Granting of fifth freedom rights

Condition	% of Respondents
Through agreement of the concerned parties	87
Only if there is reciprocity on granting of the traffic rights	82
Only where the sectors are not served by other commercial carriers	75
Only if the concerned parties receive benefits from the agreement	64

According to respondents, the fifth freedom traffic rights may be granted upon satisfaction of the following conditions: through agreement of the concerned parties (87%), if there is reciprocity on granting of the traffic rights (82%), if the sectors are not served by other commercial carriers (75%) and if the concerned parties receive benefits from the agreement (64%). Thus, respondents are willing to grant the traffic rights on condition that concerned parties agree.

4.3.10 Aviation safety standards

Figure 4.6 below shows responses on whether their aviation safety standards have improved.

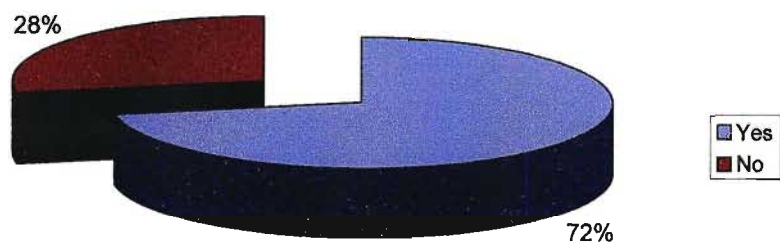


Figure 4.6 Aviation safety standards

The majority of respondents (72%) believe that aviation safety standards have improved while the rest (28%) feel significant effort is still needed. Thus, aviation safety standards have improved. Brueckner and Spiller (1991) report that the issue of aviation safety and security was considered important by the Yamoussoukro Decision which made it one of the criteria of eligibility of an air carrier to operate air services.

4.3.11 Market access

Study results on market accessible to respondents are summarised in Figure 4.7 below.

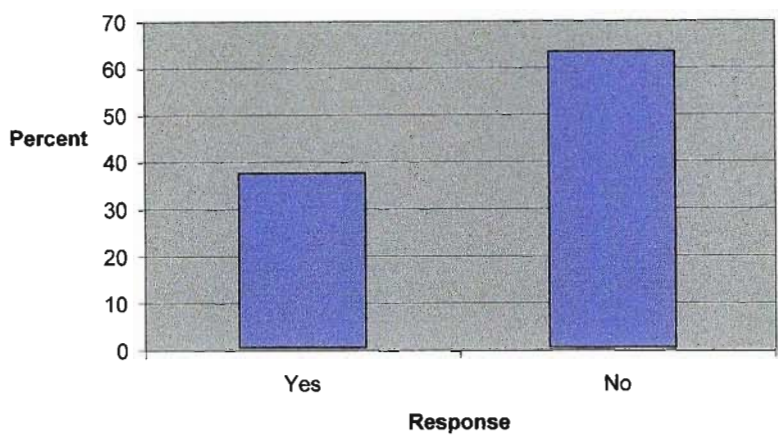


Figure 4.7 Market access

The majority of the respondents (63%) express market access difficulties while the rest do not. This implies that the courier services market is relatively inaccessible to service providers. These results are consistent with the argument by OECD (2000) that due to restricted market access, courier companies cannot plan international route structures and develop services in full competition with each other.

4.3.12 Ground handling

Research results (as shown in Figure 4.8 below) reveal that the majority of respondents (62%) have not liberalized ground handling while the rest did (38%). Thus, ground handling is unliberalised. This result is similar to the observation by Park (1997) that air cargo service providers are hampered by the regulatory environment applied to ancillary services such as ground handling.

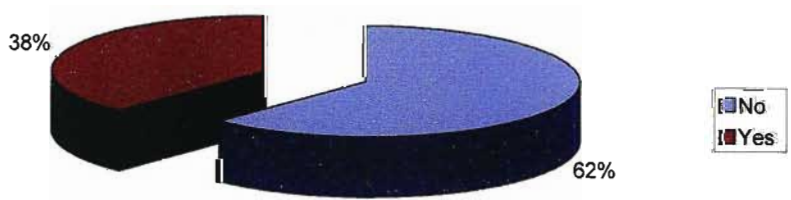


Figure 4.8 Ground handling liberalisation

4.3.13 Barriers to liberalization.

Research results on the barriers to liberalisation are summarised in Table 4.5 below.

Table 4.5: Barriers to liberalisation

Barrier	% of Respondents
Lack of appropriate infrastructure, safety and security mechanisms	85
Absence of level playing field for implementation of the process	83
Managing the various sub-regional initiatives in an efficient manner	77
Institutional capacity of states	68
Limited financial resources to manage the process	54
Lack of skilled manpower	52

According to respondents, the liberalisation process is hindered by lack of infrastructure, safety and security (85%), absence of level playing field for implementation of the process (83%), difficulty of managing the various sub-regional initiatives in an efficient manner. (77%), institutional capacity of states (68%), inadequate financial resources to manage the process (54%) and lack of skilled manpower (52%). This means that safety, security and infrastructure are the major concerns for the liberalisation process. Brueckner and Spiller (1991) argue that barriers to liberalisation that still exist must be removed. Berechman et al (1994) also observe that the anticipated increase in traffic that could result from liberalisation has to be accompanied by upgrading of the infrastructure and improvement of safety.

4.3.14 Benefits of liberalisation

Table 4.6 below shows responses on the benefits of liberalisation.

Table 4.6: Benefits of liberalisation

Benefit	% of Respondents
Service quality improves	87
Efficiency of air transport will be enhanced	84
Frequency of flights will increase	76
Stimulation of traffic	73
More competitive fares to the consumer	65
Increased revenue to the government	59
Encourages tourist traffic	51

The study results show that liberalisation has the following perceived benefits: service quality improves (87%), efficiency of air transport will be enhanced (84%), frequency of flights will increase (76%), stimulation of traffic (73%), more competitive fares to the consumer (65%), increased revenue to the government (59%) and encourages tourist traffic (51%). Thus, liberalisation results in improved service quality and efficient air transport. Hendricks, Piccione and Tan (1995) observe that freer markets in air transport allow sectors that make use of its services to become more efficient.

4.3.15 Recommendations

Table 4.7 below shows responses on what should be done to improve courier service in the SADC region.

Table 4.7: Recommendations

Recommendation	% of Respondents
Revise old bilateral agreements and also remove restrictive provisions in the agreements	84
Liberalisation of market access and ground handling	81
States must ensure cost based pricing of services and prevent cross-subsidisation of revenue from handling activities to other cost centres	76
Explore the development of a regional aircraft maintenance centre	67
Civil aviation administrations should exercise effective monitoring of handling companies based on appropriate performance standards	55

Respondents give the following recommendations: revise old bilateral agreements and also remove restrictive provisions in those agreements (84%), liberalisation of market access and ground handling (81%), states must ensure cost based pricing of services and prevent cross-subsidisation of revenue from handling activities to other cost centres (76%), explore the development of a regional aircraft maintenance centre (67%) and civil aviation administrations should exercise effective monitoring of handling companies based on appropriate performance standards (55%). Thus, old bilateral agreements should be revised and market access and ground handling should be liberalised. Morris and Wiston (1986) report that the bilateral regulatory system as practised by African countries remained a bottleneck in the overall development of the region’s air transport network. Brueckner and

Spiller (1991) argue that barriers to liberalisation that still exist must be removed, in particular the absence of a level playing field for effective implementation of the liberalisation process

4.4 RESEARCH FINDINGS FROM AIR COURIER COMPANIES

4.4.1 Job position of respondent

Study results on the job position of respondents are summarised in Table 4.8 below.

Table 4.8: Position of respondent

Position	% of Respondents
Director	33
Senior Manager	28
Middle Line Manager	22
Supervisor	17

Most of the respondents occupy the position of director (33%), senior manager (28%), middle line manager (22%) and supervisor (17%). This implies that the majority of respondents are directors, thus they had a lot of information on how their organisations work and the major issues that affect them.

4.4.2 Length of time in the organization

The length of time respondents have been with their organisations are shown in Figure below.

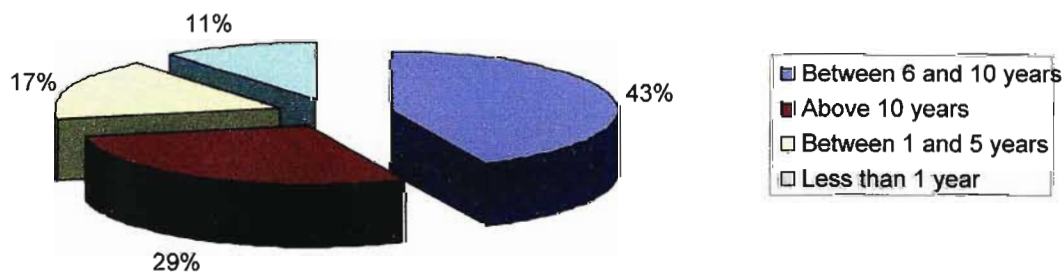


Figure 4.9 Length of time in the organisation

The majority of respondents (43%) have served their organisations for between 6 and 10 years (43%), above 10 years (29%), between 1 and 5 years (17%) and less than 1 year (11%). This implies that most of the respondents have enough experience to provide valuable information on the design of a viable, feasible and acceptable network.

4.4.3 Principles of strategic planning

Study results on whether respondents are aware of the basic principles of strategic planning are shown in Figure 4.10 below.

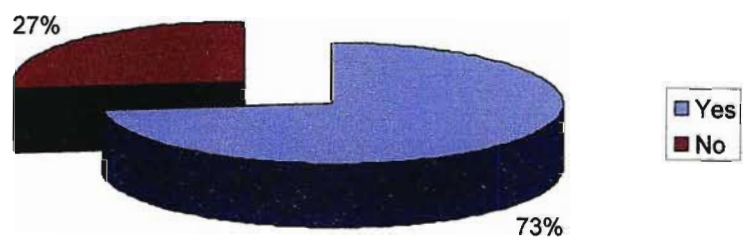


Figure 4.10 Principles of strategic planning

Most of the respondents (73%) say they are aware of the basic principles of strategic planning while the rest (27%) are not. This implies that respondents may know the principles of strategic planning. Jackson and Dutton (1988) emphasise the importance of strategic planning in the decision making process.

4.4.4 Implementation of strategic planning

Research results on whether courier companies implement strategic planning are shown in Figure 4.11 below.

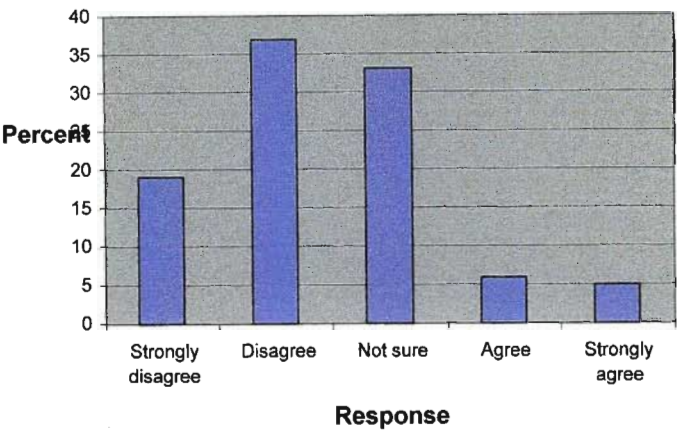


Figure 4.11 Implementation of strategic planning

The majority of respondents disagree that strategic planning is implemented at their companies (37%), then not sure (33%), strongly disagree (19%), agree (6%) and strongly agree (5%). This means that the majority of air courier companies have not adopted strategic planning. Stodghill (1994) has observed that a strategy is only as good as its implementation.

4.4.5 Benefits of strategic planning

Table 4.9 below shows responses on the benefits of strategic planning.

Table 4.9: Benefits of strategic planning

Benefit	% of Respondents
Improved coordination of effort towards predetermined objectives	84
The identification of a need to redefine the nature of the business	81
It identifies change and allows for consequential action	77
Enables managers to have a clearer understanding of the business	73
An indication of problems before they happen	68
A change of interests and attitudes of managers	52

According to respondents, the benefits of strategic planning are: improved coordination of effort towards predetermined objectives (84%), identification of a need to redefine the nature of the business (81%), it identifies change and allows for consequential action (77%), enables managers to have a clearer understanding of the business (73%), an indication of problems before they happen (68%) and changes interests and attitudes of managers (52%). Thus, strategic planning improves coordination of effort towards predetermined objectives and identifies the need to redefine the nature of the business. Jackson and Dutton (1988) argue that strategic planning allows an organisation to best capitalize on its strengths and environmental opportunities and also gives the organisation a competitive advantage.

4.4.6 Strategic planning vis-à-vis financial performance

Responses on whether strategic planning improves financial performance of a company are summarised in Figure 4.12 below.

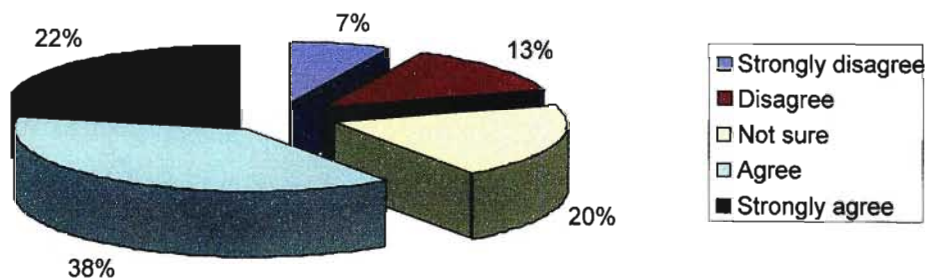


Figure 4.12 Does strategic planning improve financial performance?

Most of the respondents (38%) agree, then strongly agree (22%), not sure (20%), disagree (13%) and strongly disagree (7%) that strategic planning improves financial performance. This means that adoption of strategic planning improves financial performance of a company. Rosenberg and Schewe (1985) reports that companies with strategic management systems had higher financial returns.

4.4.7 Environmental influences

Research results on the environmental factors affect courier companies are summarised in Table 4.10 below.

Table 4.10: Environmental factors

Influence	% of Respondents
Foreign trade regulations	89
Government stability	85
Money supply	81
Disposable income	78
Government and industry focus of technological effort	74
Speed of technology transfer	67
Income distribution	63
Lifestyle changes	56

Research results reveal that the following factors affect courier companies: foreign trade regulations (89%), government stability (85%), money supply (81%), disposable income (78%), government and industry focus of technological effort (74%), speed of technology transfer (67%), income distribution (63%) and lifestyle changes (56%). This implies that courier companies are affected by foreign trade regulations and government stability. Green (1988) notes that it is useful to consider the environmental factors that affect the organisation. In this vein, Porter (1980) observes that government influence might give some nations and some industries a competitive advantage over others.

4.4.8 Overnight Courier Services

Study results on whether service providers offer overnight air courier services are shown in Figure 4.13 below.

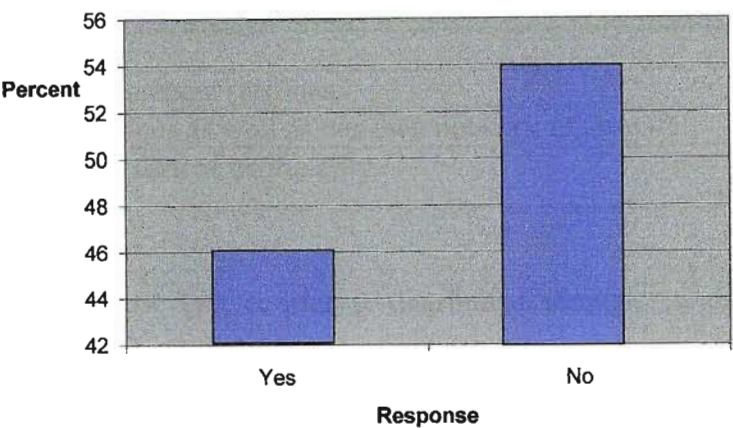


Figure 4.13 Overnight courier services

Most of the companies (46%) do not offer overnight air courier services while the rest (46%) do. Thus, the majority of courier companies do not offer overnight air courier services. This result explains the need for an air courier network chain linking many countries.

4.4.9 Destinations of courier

Responses on the destinations of courier are summarised in Table 4.11 below.

Table 4.11: Destinations of courier

Destination	% of Respondents
All the named SADC countries	58
Some named SADC countries	42

Research results reveal that most of the respondents (58%) deliver courier to all the named SADC countries while others (42%) service some named SADC countries (Zimbabwe, Zambia, Malawi, Mozambique, South Africa and Botswana). This implies that the majority of respondents deliver courier to all SADC countries. These results show the importance of an overnight air courier network chain linking all the SADC countries, taking into consideration the distances involved.

4.4.10 Courier distribution

Table 4.12 below shows results on how courier is distributed.

Table 4.12: Courier distribution

Method	% of Respondents
Commercial (passenger) airlines	95
Commercial airlines as well as our own network of aircraft	54
Our own air network of traffic only	51

Study results show that courier is distributed through commercial (passenger) airlines (95%), commercial airlines as well as our own network of aircraft (54%) and using own air network of traffic only (51%). This means that the majority of courier companies rely on commercial airlines to transport their cargo, whose main business is transporting passengers, not cargo. These results suggest the need for dedicated air courier networks.

4.4.11 Time definitive deliveries

Research results (as shown in Figure 4.14 below) shows that most respondents (88%) currently do not offer time-definitive deliveries within the named SADC countries. Thus, no money-back refunds are offered if service guarantees are not met. Bittlingmayer (1990) observes that the interests of consumers (the passenger and the shipper of cargo) are usually lost in the dialogue on aviation policy in Africa.

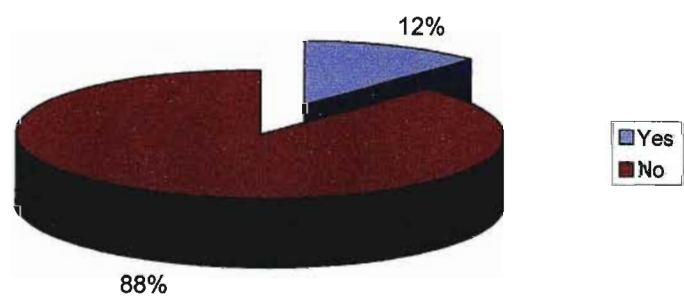


Figure 4.14 Time definitive services

4.4.12 Service requirements

Ratings of the service areas respondents think airlines should provide are shown in Table 4.13 below.

Table 4.13: Service requirements

Service	Mean Rank
Daily flights (evening departures/early morning arrivals)	5.00
More capacity, not necessarily daily flights	3.25
A flight service dedicated to moving Express courier	3.00
Daily flights to the named countries at any time of the day	2.75

Note: 5 – Most critical, ..., 1 – least critical

Respondents require the following in order to meet their service requirements: daily flights (evening departures/early morning arrivals) (5.00), more capacity, not necessarily daily flights (3.25), a flight service dedicated to moving Express courier (3.00) and daily flights to the named countries at any time of the day (2.75). Thus, daily overnight flights are critical to air courier companies. Bittlingmayer (1990) argues that the interests of the consumer is important and Africa must guard against developments which clearly are against the interests of the consumer.

4.4.13 Airline competition and courier delivery service

Study results on whether more airline competition improves the courier delivery service in the SADC region are shown in Figure 4.15 below.

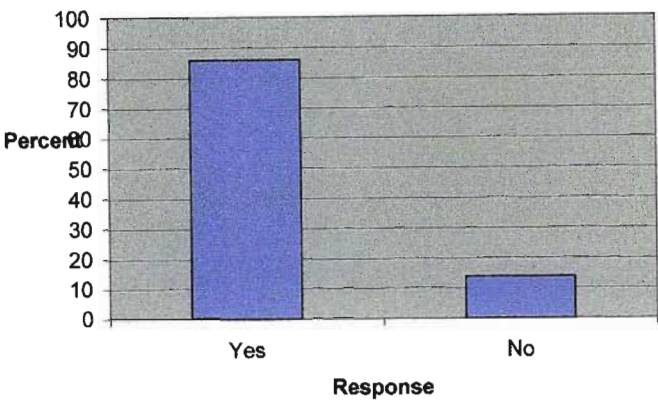


Figure 4.15 Airline competition vis-avis courier delivery service

The majority of respondents (86%) believe that more airline competition will improve courier delivery in the SADC region while others (14%) do not. This implies that an increase in the number of service providers improves delivery. The website (www.tiaca.org) asserts that competition from new entrants forces airlines to look for more cost effective and customer friendly network designs.

4.4.14 Meeting courier market needs

Table 4.14 below shows respondents’ ratings of service from commercial airlines with regards to meeting market needs of moving courier in the region.

Table 4.14: Ratings of service from commercial airlines

Service attribute	Mean rank
Reliability	2.75
Rates offered	2.25
Evening departures	2.25
Capacity available	2.00
Morning arrivals	1.75
Flights routes	1.50

Note: 1 – poor, 2 – fair, 3 – best

The following ratings were given by respondents: reliability (2.75), rates offered (2.25), evening departures (2.25), capacity available (2.00), morning arrivals (1.75) and flights routes (1.50). This means that commercial airlines are reliable and offer viable rates. Nevertheless, courier companies need services that are dedicated to them only.

4.4.15 Average transit time

Respondents’ average transit times are summarised in Figure 4.16 below.

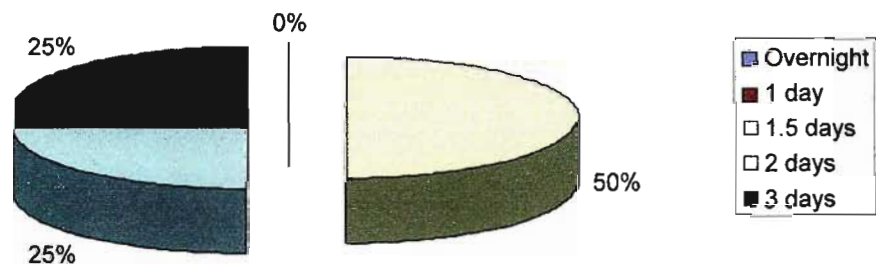


Figure 4.16 Average transit times for shipment deliveries

Study results show that the average transit times for shipment deliveries are 1.5 days (50%), 2 days (25%), 3 days (25%), 1 day (0%) and overnight (0%). This implies that the average transit time for most respondents is 1.5 days.

4.4.16 Target transit times

Responses on the target transit times are shown in Table 4.15 below.

Table 4.15: Target transit times

Time	% of Respondents
2 days	43
1.5 days	36
1 day	14
Overnight	7

According to respondents, the target transit times are: 2 days (43%), 1.5 days (36%), 1 day (14%) and overnight (7%). Thus, the majority of respondents target a transit time of 2 days, which is more than the average transit time of 1.5 days.

4.4.17 Recommendations

Table 4.16 below summarises recommendations made by courier companies.

Table 4.16: Recommendations from courier companies

Recommendation	% of Respondents
Specific provisions such as open route exchanges, multiple designation, capacity freedom, fare freedom, complete third and fourth freedom rights, and the practice of 5th freedom should be implemented	87
Development of rules on flexible use of airspace	85
The interests of consumers (the passenger and the shipper of cargo) should be considered in the dialogue on aviation policy in Africa	81
The private sector and the government should develop partnerships in the expansion and rehabilitation of airport infrastructure and navigation equipment.	74
Rules on airspace design (route and sector design) should be developed	71
Rules on air traffic flow management should be developed	68
Overnight air courier companies should be established	63
Organization of national workshops to familiarize their nationals with the liberalization process concept and to build capacity	56
Civil aviation and airport authorities should be qualified and experienced	50

The study makes the following recommendations: specific provisions such as open route exchanges, multiple designation, capacity freedom, fare freedom, complete third and fourth freedom rights, and the practice of 5th freedom should be implemented (87%), development of rules on flexible use of airspace (85%), the interests of consumers (the passenger and the shipper of cargo) should be considered in the dialogue on aviation policy in Africa (81%), the private sector and the government should develop partnerships in the expansion and rehabilitation of airport infrastructure and navigation equipment (74%), rules on airspace design (route and sector design) should be developed (71%), rules on air traffic flow management should be developed (68%), overnight air courier companies should be established (63%), organization of national workshops to familiarize their nationals with the liberalization process concept and to build capacity (56%) and civil

aviation and airport authorities should be qualified and experienced (50%). Thus, specific provisions such as open route exchanges, multiple designation, capacity freedom, fare freedom, complete third and fourth freedom rights, and the practice of fifth freedom should be implemented. Rules on flexible use of airspace should be developed and the interests of consumers should be considered in the dialogue on aviation policy in Africa. Article 10 of the Abuja Treaty, entered into on 12 August 2000 provides for a continent-wide aviation agreement to liberalise the African skies with the aim of reaching full liberalisation by the year 2002. It removes all restrictions on traffic rights including the fifth freedom, non-regulation of tariffs by government, multiple designation, complete liberalisation of cargo and non-scheduled air services and a monitoring body to oversee the implementation process.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter draws conclusions based on the analysis around the research findings. Recommendations based on the study findings follow.

5.2 CONCLUSIONS

The following conclusions have been drawn from the research findings.

5.2.1 ECONOMIC GROUPINGS

The majority of nations belong to international groupings, making it easy to design and adopt multilateral pacts. In particular, the major groupings are the International Civil Aviation Organisation, African Economic Community, SADC and COMESA.

5.2.2 LIBERALISATION

Most of the respondents value the granting of the fifth freedom rights, but, on condition that the concerned parties agree to do so. The courier services market is relatively inaccessible to the majority of service providers. Moreover, ground handling is still restricted in most countries. The major factors that hinder liberalisation are lack of infrastructure, safety and security, absence of level playing field for implementation of the process and the difficulty of managing the various sub-regional initiatives in an efficient manner. Liberalisation has the following perceived benefits: service quality improves, efficiency of air transport will be enhanced and frequency of flights will increase.

5.2.3 STRATEGIC PLANNING

Air courier companies say they know the basic principles of strategic planning. Strategic planning improves coordination of effort towards predetermined objectives, identifies the

need to redefine the nature of the business and it also improves the financial performance of a company. Despite the abovementioned benefits, the majority of courier companies have not adopted strategic planning. The major factors that affect the operation of courier companies are foreign trade regulations and government stability.

5.2.4 COURIER DISTRIBUTION

Most of the courier transported by air express companies is destined for SADC countries. The major means of transport are commercial airlines, whose main business is transporting passengers, not cargo. However, the commercial airlines employed by courier companies are reliable and offer viable rates.

5.2.5 SERVICE DELIVERY

Courier companies do not offer money-back refunds if service guarantees are not met. Though courier companies do not offer overnight air courier services, such services are critical to their operation. The average transit time for most respondents is 2 days against a target transit time of 1.5 days. This shows a shortfall of 0.5 days. Respondents think that an increase in the number of service providers will correspond with an improvement in service delivery.

5.3 RECOMMENDATIONS OF THE STUDY

The study makes the following recommendations:

5.3.1 LIBERALISATION

The study recommends that states should liberalise market access and other ancillary services such as ground handling. Specific provisions such as open route exchanges, multiple designation, capacity freedom, fare freedom, complete third and fourth freedom rights, and the practice of 5th freedom should be implemented. Moreover, old bilateral agreements should be revised and instead, multilateral agreements signed.

5.3.2 SERVICES PRICING

States should ensure cost based pricing of services and prevent cross-subsidisation of revenue from handling activities to other cost centres. This can be done through negotiations between revenue collectors and air traffic regulators.

5.3.3 HANDLING COMPANIES

Civil aviation administrations or competent authority should exercise effective monitoring of handling companies based on appropriate performance standards.

5.3.4 AIRCRAFT MAINTENANCE

The development of a regional aircraft maintenance centre should be explored as soon as possible.

5.3.5 AVIATION SAFETY STANDARDS

All states should commit themselves to implementing the sub-regional safety projects.

5.3.6 ECONOMIC AND POLITICAL BLOCKS

Countries should group into economic and political blocs such as the European Union (EU), the Association of South Asian Nations (ASEAN) and SADC because this leads to a shift away from restrictive bi-lateral air service agreements in favour of liberalised multi-lateral and in some cases, 'open skies' policy of regulating air transportation.

5.4 AREA OF FURTHER RESEARCH

It is recommended that a study be carried out assess the impact of deregulation on service delivery in airline networks.

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APPENDICES

QUESTIONNAIRE INTRODUCTORY LETTER

I am conducting a research study as part of my Masters in Business Administration programme with the Graduate School of Business at the University of Natal. The study wants to determine whether an overnight air courier network chain linking 6 Southern African countries is feasible, acceptable and viable.

Your assistance in providing information through this questionnaire will be greatly appreciated. It is hoped that the results of this research will be used by academics and other air courier companies. Your response will be treated as confidential and will not be used for purposes other than those intended for this research.

Your co-operation and contribution is greatly appreciated.

Yours faithfully

Jimmy Dube

QUESTIONNAIRE FOR AIR TRAFFIC REGULATORY AUTHORITIES

Liberalization of air cargo traffic rights: SADC sub-region.

Please answer all the sections of this questionnaire the best of your knowledge.

1. What is your position in the organization?

- (a) Director ☐
- (b) Senior Manager ☐
- (c) Middle Manager ☐
- (d) Supervisor ☐

2. How long have you been in this organization?

- (a) Less than 1 year ☐
- (b) 1 – 5 years ☐
- (c) 6 – 10 years ☐
- (d) Above 10 years ☐

3. Are you a member of the International Civil Aviation Organization (ICAO)

- (a) Yes ☐
- (b) No ☐

4. Are you a member of the African Economic Community membership

- (a) Yes ☐
- (b) No ☐

5. Which sub-regional group(s) do you belong to? (You may select more than one option)

- (a) SADC ☐
- (b) COMESA ☐
- (c) Other, specify _____

6. As a member of the above groupings, to what extent do you agree or disagree with the economic regulatory framework of air transport set by these organizations?

- (a) Strongly disagree []
- (b) Disagree []
- (c) Neutral []
- (d) Agree []
- (e) Strongly agree []

Explain your answer to the question above

7. To your knowledge, how many airlines operate dedicated Express/Courier air services linking your country with other SADC countries? Please write down their names below.

8. Would you support the entry of more airlines into the air express/Courier industry?

- (a) Yes []
- (b) No []

9. As a member of SADC, would you grant Fifth Freedom traffic rights to support the development of the air Express Industry within the SADC region?

- (a) Yes, unconditionally []
- (b) No, under no circumstances []
- (c) On certain conditions (List them)

10. What is your country’s stance on liberalisation of air traffic rights?

11. What are the benefits of liberalisation?

12. In your opinion, have aviation safety standards improved?

- (a) Yes []
- (b) No []

13. In your view, would you say the cargo market in your country accessible to all companies?

- (a) Yes []
- (b) No []

14. What do you think should be done to improve air transport, specifically in relation to the movement of cargo?

15. Any other comments

End of questionnaire

Thank you!!

QUESTIONNAIRE FOR COURIER COMPANIES

A SADC overnight air express/courier network

1. What is your position in the organization?

- (a) Director ☐
- (b) Senior Manager ☐
- (c) Middle Manager ☐
- (d) Supervisor ☐

2. How long have you been in this organization?

- (a) Less than 1 year ☐
- (b) 1 – 5 years ☐
- (c) 6 – 10 years ☐
- (d) Above 10 years ☐

3. Are you aware of the principles of strategic planning?

- (a) Yes ☐
- (b) No ☐

4. In your view, are the principles of strategic planning embraced in your organisation?

- (a) Yes ☐
- (b) No ☐

5. What are the benefits of strategic planning to your organisation?

6. In your opinion, how does strategic planning relate with the financial performance of an organisation?

- (a) It improves financial performance []
- (b) It has no effect on financial performance []
- (c) It decreases financial performance []

7. What external factors affect the performance of air courier companies?

8. Do you offer overnight air courier services?

- (a) Yes []
- (b) No []

9. Is it necessary to offer overnight air courier services in Southern African region?

- (a) Yes []
- (b) No []

10. What are the major destinations of air cargo that you transport?

11. Is your company a dedicated air courier service provider?

- (a) Yes []
- (b) No []

If 'No', how do you distribute/transport cargo?

12. Do you offer 'time definitive or money back' deliveries within the SADC region?

- (a) Yes []
- (b) No []

If 'No', explain your answer

13. Do you think more airline competition would improve courier delivery service within the SADC region?

- (a) Yes []
- (b) No []

Explain your answer to the above question

14. If your company uses commercial passenger flights to transport cargo, how do you think the flights best meet your market needs of moving courier in the region?

1 2 3

- | | | | | |
|-----|--------------------|--|-------------------------------------|--|
| (a) | Evening departures | <input type="checkbox"/> Too early | <input type="checkbox"/> Too late | <input type="checkbox"/> Alright |
| (b) | Morning arrivals | <input type="checkbox"/> Too early | <input type="checkbox"/> Too late | <input type="checkbox"/> Alright |
| (c) | Capacity available | <input type="checkbox"/> Too little | <input type="checkbox"/> Too much | <input type="checkbox"/> Alright |
| (d) | Rates offered | <input type="checkbox"/> Too high | <input type="checkbox"/> Too low | <input type="checkbox"/> Alright |
| (e) | Flights routes | <input type="checkbox"/> Too few | <input type="checkbox"/> Too many | <input type="checkbox"/> Enough |
| (f) | Reliability | <input type="checkbox"/> Very unreliable | <input type="checkbox"/> Unreliable | <input type="checkbox"/> Very reliable |

15. What is the average transit time for your shipment deliveries within the named SADC countries?

- (a) Overnight []
- (b) 1 day []
- (c) 1.5 days []
- (d) 2 days []
- (e) At least 3 days []

16. What is your target transit time within the SADC region? _____

17. In your view, what should be done to improve air courier network within the SADC region?

18. Any other comments?

End of the questionnaire

Thank you very much