

CHAPTER 1

BACKGROUND TO THE STUDY

1.1 INTRODUCTION

International air transport has, until recently, been one of the most restrictive and highly regulated industries in the world. The Chicago Convention of 1944 laid the foundation that established the international bilateral air services agreements (BASAs) system, which presently continues to govern most of the world's trade in aviation (Button, 2009:59). In essence, BASAs or bilaterals are the building blocks of the bilateral framework that specify market access provisions. Typically, BASAs stipulate which airlines may operate between two countries, the routes they may serve, traffic rights, frequency and capacity (seats) limitations, and they often place controls over airline pricing. Given the restrictive nature of BASAs, their specific design determines the degree of liberalisation of air services between two countries (ICAO, 2004).

Over a number of decades the global aviation industry has moved from a highly regulated environment to a more progressive liberalisation by incrementally eliminating regulatory restrictions and entering into new liberal trading agreements (Department of Transport, 2008:1-3). The changes in the industry have been driven by numerous robust dynamics such as privatisation, regional integration, globalisation, consolidation as well as the deregulation and liberalisation taking place in the major air markets of the world. Examples of air transport policy changes include extensive deregulation in the United States and liberalisation in the European Union, leading to the establishment of the European Common Aviation Area and the EU-US "Open Skies", followed by multilateral intra-regional liberalisation in other regions such as South America, the Caribbean Community, the South-East Asian region, the Trans-Tasman market, the Middle East and Africa (Ssamula, 2008:1).

In the context of Africa, it has been more than a decade since the African leaders agreed to liberalise the intra-African aviation market through the Yamoussoukro Decision (YD), which entered into force in 2000 and became fully binding in 2002. It was acknowledged

that the restrictive and protectionist intra-African regulatory regime, primarily based on bilateral air services agreements, hampered the expansion and improvement of air transport on the Continent (Meshela, 2006:1). However, throughout the years after its inception, the full potential of the Decision has not yet been realised and to date its continent-wide implementation remains pending.

The South African civil aviation policy towards Africa is guided by its international civil aviation policy. From an aviation perspective the South African Government's actions have been directed at accelerating the implementation of the YD objectives with like-minded states and illustrating the importance afforded to the stimulation of trade and tourism on the Continent, by adopting a more liberal approach to the regulation of air transport (Department of Transport, 2008:1-3).

Since the last aviation policy review in South Africa in the early 1990s, the Government has identified new goals and priorities which have impacted on its civil aviation (Department of Transport, 2008:1-2). In particular, the five-year Airlift Strategy of 2006 was developed, to effectively structure regulatory measures in order to increase tourism growth for South Africa and to unblock obstacles through regulatory mechanisms as well as bilateral and multilateral air services negotiations. The Strategy aims to enhance the prospects of South Africa as a preferred air travel destination and to synchronise the basis for bilateral air services negotiations with other national priorities (International Air Services Council, 2008:iii). In addition, the Strategy supports the Millennium Development Goals to increase African connectivity and access through the accelerated implementation of the Decision and takes into account the continental integration initiatives such as those embodied in the African Union (AU) and the objectives of New Partnership for Africa's Development (NEPAD) (Department of Transport, 2008:1-2).

By the end of 2010, only 17 bilaterals had been revised between South Africa and its respective African counterparts, in line with the key elements of the Yamoussoukro Decision. The bilaterals were with: Benin, Botswana, Cameroon, Egypt, Ethiopia, Gabon, Gambia, Ghana, Kenya, Lesotho, Liberia, Libya, Rwanda, Senegal, Sierra Leone, Togo and Uganda (Sithole, 2012). The official documentation, pertaining to the intra-African bilaterals and Memoranda of Understanding (MOUs) are grouped into four main regions by the South African Department of Transport, namely, the SADC, West, East and North

African regions. Thus, the regional distribution of the 17 bilaterals between South Africa and the respective African counterparts is: nine (52.9%) bilaterals with the West African region, four (23.5%) with the East African region, two (11.8%) with the North African region and two (11.8%) with the SADC region.

The extent of the intra-African liberalisation or African “Open Skies” may, according to Mills and Swantner (2008:24), potentially exert a significant impact on regional and continental development as this implies greater flight frequencies and increased seat capacity, lower travel costs, a variety of offerings for consumers and more competition among airlines.

In South Africa, the deregulation of the country’s domestic aviation market in the early 1990s resulted in increased passenger volumes and a proliferation of low-cost airlines; thereby increasing airline competition and making air travel more affordable (Myburgh, Sheik, Fiandei & Hodge, 2006:8). Therefore, it is postulated that with air passenger transport liberalisation, similar effects may be experienced in Africa. **The impact of the South African aviation policy in Africa on air passenger traffic flows is the foundation of this study.**

1.2 PROBLEM STATEMENT

Numerous and diverse studies have focused on the progress of aviation liberalisation and its impact around the world, but little research has been conducted on the relationship between aviation policy and air passenger traffic flows in Africa. More specifically, to the knowledge of the researcher, no research has been conducted on the impact of South Africa’s aviation policy in Africa on air passenger traffic flows over any selected time period. This study bridges this gap in the research by selecting an 11 year time period to investigate the link between South Africa’s aviation policy and air traffic flows. The period selected is from 2000 to 2010 which coincides with two major events: the adoption of the YD in 2000 and the final year of the five-year liberalisation plan as set forth in the South African Airlift Strategy of 2006.

There is a scarcity of literature on the subject of the impact of aviation liberalisation in Africa in general and the impact of South Africa’s aviation policy on air passenger traffic flows in particular; this in itself requires that much more research is undertaken. Seven

relatively recent studies which have contributed to the area of the impact of aviation policy and liberalisation are those of InterVISTAS-ga² Consulting, Inc. (2006); Myburgh *et al.* (2006); Warnock-Smith and Morrell (2008); Piermartini and Rousova (2008) and (2009), respectively; InterVISTAS-EU Consulting, Inc. (2009) and finally Schlumberger (2010). Research by Myburgh *et al.* (2006) and Schlumberger (2010) particularly focuses on liberalisation in the African context. These studies are discussed briefly below.

Those studies that have provided an overview on aviation liberalisation have concentrated mainly on: the Single European Union Aviation Market, the status of the EU-US “Open Skies” treaty and its impact on transatlantic and European traffic, the status of the Australia and New Zealand “Open Skies” agreement, an overview of “Open Skies” in the developing regions such as the Association of South-East Asian Nations (ASEAN) and liberalisation attempts in Africa.

A number of studies have examined the benefits of air traffic growth which the US air transport industry has enjoyed from having liberal international air transport and the potential future gains from further liberalisation. Button and Taylor (2000:209-211) focused on the North Atlantic services as an important link between the two major trading blocks, that is, the European Union and the North American Free Trade Area, and concluded that due to the changes in aviation reforms as well as the growth in global economy, US traffic had grown from 93.4 million passengers in 1993 to 126.1 million in 1998. This growth was expected to continue at a 5.1% rate each year reaching 239.4 million in 2011.

A study by InterVISTAS-ga² Consulting, Inc. (2006) found that traffic growth, subsequent to the liberalisation of air services agreements between countries, averaged between 12 and 35%, significantly greater than during the years preceding aviation liberalisation. In a number of situations, the growth exceeded 50% and in some cases reached almost 100% of the pre-liberalisation rates. An examination of 190 countries and 2 000 bilateral air services agreements suggested that there were a number of countries that placed priority on protecting their flag carrier(s) rather than enhancing the overall welfare of the broader public interest (InterVISTAS-ga² Consulting, Inc., 2006:es-2). The majority of the European flag carriers, with the exception of BA and KLM, were initially sceptical of the consequences of an intra-European liberalisation (InterVISTAS-ga² Consulting, Inc.,

2006:36). The results also confirmed that artificial constraints posed by the bilaterals hampered the growth of air traffic (InterVISTAS-ga² Consulting, Inc., 2006:es-2).

Myburgh *et al.* (2006:8) also emphasised the impact that protectionism has had on tourism numbers in Mozambique. This country is a clear example of a conflict between the interests of tourism and those of the national airline, where the government continues to protect the airline by restricting competition on international routes. This, in fact, artificially reduces the number of tourists visiting Mozambique; therefore undermining the government's own tourism objectives. Their research concluded that air transport liberalisation would lead to a 37% increase in tourist arrivals as well as an increase of USD 5 million in tourist spending and would subsequently add USD 9 million to Mozambique's GDP.

In SADC, Myburgh *et al.* (2006) found that liberalised air services agreements had increased passenger volumes by 23% and that large once-off increases in capacity consequently improved passenger volumes by 12%. To date, SADC countries continue to artificially restrict international air travel by limiting the number of flights to their cities as well as the number of airlines that may fly to them. These restrictions make it more expensive to travel to the SADC region and to Africa, thereby reducing the number of tourists who visit the region and the Continent. The results of the research indicated that, based on price and volume analyses, should SADC pursue full air transport liberalisation more than 500 000 additional foreign tourists would arrive in the region by air every year. They would spend more than USD 500 million which would increase the SADC countries' GDP by ZAR 1.5 billion or 0.5%. The authors analysed the impact of liberalisation on passenger volumes from 1999 to 2004 on 16 routes between Johannesburg and other destinations within SADC (Myburgh *et al.*, 2006:33).

The Booz Allen Hamilton study (2007) estimated that around 72 000 jobs would be created across the EU and the US over a period of five years as a result of the "Open Skies" agreement, with a 1 to 2% boost to the cargo market and 26 million more passengers being carried. In economic terms this is translated into a gain of USD 160 to EUR 340 million per annum with fare reductions of 2 to 6% (Button, 2009:68).

Warnock-Smith and Morrell (2008) examined the relationship between air traffic or capacity growth and recent air policy reform pertaining to several Caribbean member states. The hypothesis was tested that changes to extra regional air policy could facilitate traffic growth that might result in substantial tourism growth for the region. A time-trend evaluation for three US-Caribbean markets indicated that the country-pairs which had not made efforts to further liberalise carrier designation rights between 1995 and 2003 saw less traffic growth than those that had done so. A non-linear air traffic model found that a unit increase in air policy liberalisation produced an annual log traffic growth of between 2.55 and 3.02% (Warnock-Smith & Morrell, 2008:82).

In their research, Piermartini and Rousova (2008) and (2009) estimated the impact of liberalising air transport services on air passenger flows for a sample of 184 countries and found robust evidence of a positive and significant relationship between the volumes of traffic and the degree of liberalisation of the aviation market. In particular, the authors concluded that increasing the degree of liberalisation from a 25th to 75th percentile effectively increased traffic by approximately 30%. They also analysed the role of the specific provisions and types of agreements in liberalising the aviation market and found that the removal of restrictions on the determination of prices and capacity, cabotage rights and the possibility for airlines other than the flag carrier of the foreign country to operate a service were the most traffic-enhancing provisions of BASAs.

The results of the research conducted by InterVISTAS-EU Consulting, Inc. (2009) projected that the liberalisation of market access would increase international Origin/Destination traffic to/from the UAE by 7.4 million annual passengers, which is equivalent to an increase of 27%. In addition, liberalising market access and ownership and control in combination was projected to increase Origin/Destination traffic by 48%, which is equivalent to an additional 13.3 million passengers.

The results and conclusions of the above studies clearly indicate the benefits of moving towards greater liberalisation in aviation policy as a result of the effects this has had on passenger traffic in various regions of the world.

Although some researchers have paid attention to the liberalisation of the African skies and its impact on commercial air traffic and tourism (Myburgh *et al.*, 2006; Mills &

Membreno, 2007; Mills & Swantner, 2008; Schlumberger, 2010), little is known about the relationship of the South African aviation policy in Africa and air passenger traffic flows. To date, significant resources in the tourism sector have been directed towards making South Africa and the Continent more affordable and attractive to existing and potential tourists. According to Myburgh *et al.* (2006:i), a highly restricted air services regime, which inhibits competition between airlines that operate across the region, is a serious constraint to increasing numbers of tourists. This in turn severely limits air traffic and raises its costs, thereby significantly lowering the competitiveness and growth potential of the region's economy.

Since the impact of the South African aviation policy in Africa on air passenger traffic flows has not yet been measured and furthermore owing to the benefits of liberalisation, it is necessary to evaluate the dynamics and impacts of prevailing restrictions on such flows in the African context. This is the primary purpose of this study: for specific reasons, which were explained at the beginning of this section, an 11 year time period from 2000 to 2010 has been selected to measure the impact of aviation policy on these flows.

The research problem can thus be formulated as follows: to determine and quantify the impact of the South African aviation policy in Africa, as reflected in the design of its bilateral air services agreements, on air passenger traffic flows over an 11 year time period.

From this research problem, the following hypotheses are formulated:

Null hypothesis

H₀: There is no relationship between South African aviation policy in Africa and the South African – intra-African air passenger traffic flows.

Alternative hypothesis

H₁: There is a relationship between South African aviation policy in Africa and the South African – intra-African air passenger traffic flows.

The same two hypotheses are tested for each of the four regions, namely, the SADC, East, West and North African regions.

Previous studies of InterVISTAS-ga² Consulting, Inc. (2006); Myburgh *et al.* (2006); Piermartini and Rousova (2008) and (2009), respectively; InterVISTAS-EU Consulting, Inc. (2009) and Grosso (2010) tested the impact of aviation policy and liberalisation on air passenger traffic flows without accounting for the impact of aviation policy and a number of significant factors, *inter alia*, the GDP, trade flows and population sizes, on such flows simultaneously over a period of time. This study bridges this gap by testing the simultaneous impact of aviation policy and a number of key factors, identified through secondary literature and qualitative research. Given that there are numerous factors influencing air passenger demand, it was important to select an approach that would allow for the testing of the interdependent and interlinked nature of the regulatory regime, key factors and air passenger traffic flows. Variations in these factors may imply that identical air policy changes could exert disparate effects on air passenger traffic flows.

1.3 RESEARCH OBJECTIVES

The overall purpose of this study is to determine the relationship between the South African aviation policy in Africa and air passenger traffic flows. Since aviation policy is not the only determinant of these flows, this relationship cannot be tested in isolation as was discussed in the preceding paragraph. In line with this, the following research objectives have been formulated:

- To examine liberalisation of air services in Africa, with particular reference to the Yamoussoukro Decision;
- To review developments in the South African aviation policy overall and also with particular reference to Africa;
- To identify factors that have influenced liberalisation of air services between South Africa and its African air bilateral partners over the selected time period;
- To test the simultaneous impact of the South African aviation policy in Africa and the key influencing factors on air passenger traffic flows between 2000 and 2010. In particular, to measure the overall impact of the South African aviation policy in

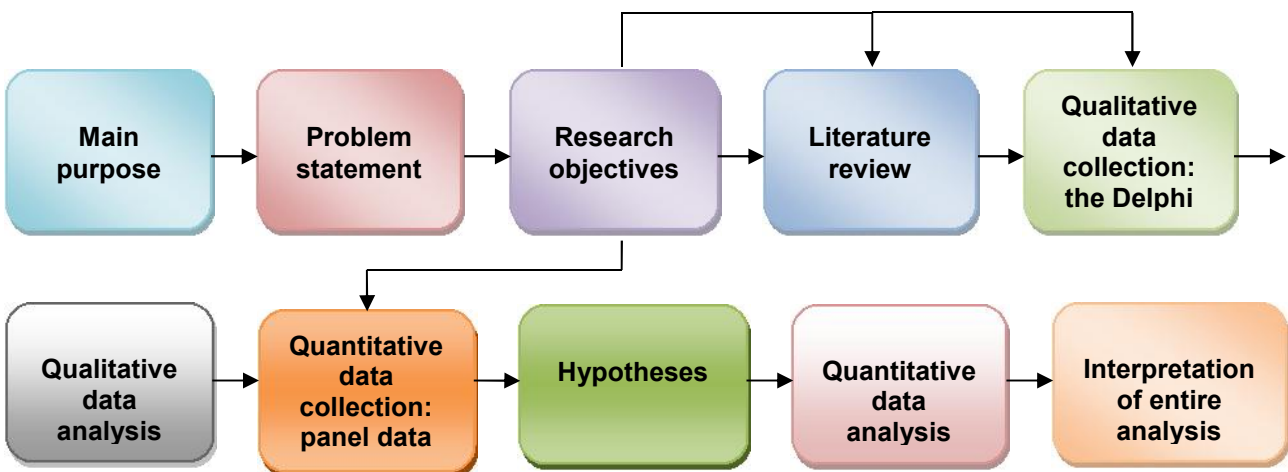
Africa and in each of the four regions as well as the impact of its individual provisions.

A brief overview of the research approach and methodology followed, in order to accomplish these research objectives and to test the hypotheses, is provided in the next section.

1.4 THE RESEARCH METHODOLOGY

A mixed research methodology is followed in this study, wherein both the qualitative and quantitative approaches are utilised. A graphical representation of the entire research approach is depicted in figure 1.1.

Figure 1.1: The research process roadmap



Objectives 1 and 2 are achieved through the literature review. Objective 3 is attained through qualitative and quantitative research with objective 4 being the focus of the quantitative study.

1.4.1 Qualitative methodology

The qualitative data collection and analysis employs a Delphi technique: the main objective is to confirm, based on experts' opinions, features of BASAs as well as factors not related to BASAs that are viewed by the experts as influencing air passenger traffic flows between country-pairs in the African context.

The experts referred to are those who are involved in the aviation industry and who comply with certain requirements which establish the nature of their expertise. The type of information required from the given experts, representing local and international academia as well as public and private sectors, could only be obtained by using qualitative research techniques, because in measuring the opinions and attitudes of the industry experts a spontaneous depth and richness of response is sought.

The respondents are asked to provide their comprehensive opinions on 1) all features of BASAs that they believe directly or indirectly affect air passenger traffic flows between two countries and 2) any other factors that they feel directly or indirectly have an influence on air passenger traffic flows between an arbitrary African country-pair.

A consensus of opinions is derived through the use of a content analysis technique; the results are consolidated and viewed against the factors derived from the literature survey in order to produce an exhaustive list of factors that may impact on air passenger traffic flows between two countries. These data form the foundation of the independent variables that are included in the empirical model. The findings of the Delphi analysis are also utilised as supporting evidence for the quantitative results.

The list of factors that is generated through the results of the Delphi analysis as well as those derived from the literature is plotted to create a conceptual framework for the relevant BASA and non-BASA factors viewed as having an impact on the said flows.

1.4.2 Quantitative methodology

The literature survey and qualitative analysis of expert opinions is followed by the quantitative data collection and analysis, where a fixed one-way panel regression technique is applied to a panel data set of 45 countries covering the selected time period from 2000 to 2010. The aim of the quantitative phase is to estimate and statistically quantify the impact of the liberalisation of air services on air passenger traffic flows in relation to the South African aviation policy in Africa and to identify which specific provisions of air services agreements result in the most significant impact.

The technique considers each country-pair as an independent entity, where its traffic is not affected by changes in other country-pairs. The observations within each panel are dependent, but independent from the other panels or African states. The Ordinary Least Squares method that was utilised in numerous cross-sectional studies (InterVISTAS-ga² Consulting, Inc., 2006; Piermartini & Rousova, 2008; InterVISTAS-EU Consulting, Inc., 2009; Piermartini & Rousova, 2009; Rousova, 2009; Grosso, 2010) to examine the relationship between dependent and independent variables for cross-sections could not be applied in this study due to the unique characteristics of the panel data. Data are termed “panel data” or “true longitudinal data” when the same units of analysis are studied over different points in time. In addition to capturing aggregate changes over time, panel data enable inferences to be drawn pertaining to changes in individual behaviour (Diamantopoulos & Schlegelmilch, 2004:7).

From an analysis point of view, it was important to select an approach which would cater for a change in dynamics over time and allow for the quantification of the restrictiveness or openness of the aviation policy through the design of BASAs. The design of the bilateral agreement is characterised by its main market access features, namely, *designation, grant of rights, tariffs, capacity, withholding/ownership, cooperative arrangements* and *statistics*, which are discussed more comprehensively in Chapter 2. Hence, a bilateral agreement reflects every aspect of the aviation policy of each member of the country-pair. In the case of aviation policy, through the design of the respective BASAs, changes over time are important as the amount of time needed for a market to respond to changes in the underlying regulatory approach could range from a few months to several decades (InterVISTAS-ga² Consulting, Inc., 2006:62). The panel data approach enables the incorporation of an explanatory variable to account for the number of years a particular bilateral air services agreement has been in place.

The quantitative results provide a comprehensive overview of the degree of liberalisation of BASAs, as measured by the four variants of the Air Liberalisation Index (ALI) weighting system between South Africa and 45 African countries at any point in time over the selected 11 year time period. In essence, the ALI is an informed index of the degree of liberalisation of air services for passenger traffic developed by the World Trade Organisation (WTO), whereby different provisions, pertaining to market access features of BASAs, are weighted on the basis of their importance in removing obstacles to trade in air

services, according to the judgements of experts in the sector. There are four variants of the ALI weighing system, namely standard (*STD*), fifth freedom traffic rights (*5th+*), withholding/ownership (*OWN+*) and multiple designation (*DES+*). The latter three were developed by the WTO to accommodate three specific geographic and economic situations that appear to be relatively frequent and that may influence the commercial importance of the different market access features of bilaterals. By categorising the different provisions in BASAs and assessing them within a scoring system, the ALI provides a simple quantification of the regulatory system in place. The value of the ALI ranges between zero for very restrictive agreements to 50 for very liberal ones (World Trade Organisation, 2006). This method of measuring the restrictiveness of regulation has been proved to be consistent with the results of other statistical methods such as factor and cluster analyses (Piermartini & Rousova, 2008).

The results are subsequently further broken down into the four regions mentioned. This regional categorisation is in line with the South African Department of Transport's approach to grouping the African BASAs and Memoranda of Understanding.

All the relevant BASAs and the MOUs that were signed between South Africa and the respective African countries over the selected time period of 11 years are analysed; thus serving as the population of the study. It is evident that the population for this study is small, represented only by the 45 African countries. As the data could be collected from the entire population, there was no need to draw a sample and a census was therefore considered feasible for this study (Cooper & Schindler, 2003:181). Panel data for the 11 year time period allowed for a maximum of 495 observations.

Four steps are followed in compiling the panel data set: 1) collection of BASAs and MOUs pertaining to those bilaterals that covered the time period of the research; 2) identification of variables to be included in the panel data set; 3) assignment of ALI points to each of the market access features; and 4) the collection of data pertaining to the remainder of the identified variables.

The Department of Statistics of the University of Pretoria assisted in the analysis of the data.

1.4.3 Empirical model

The empirical model, which represents the relationship between aviation policy, key influencing factors and air passenger traffic flows in the form of a panel data regression model, is constructed by combining variables that were identified from six main studies, namely: InterVISTAS-ga² Consulting, Inc. (2006), Piermartini and Rousova (2008) and (2009), Grosso (2008) and (2010), InterVISTAS-EU Consulting, Inc. (2009), and also by taking into account the Delphi factors that can statistically be tested through the model. The selection of variables is based on the availability of data over the selected time period as well as the purpose of the research; the main focus being the impact of aviation policy and its individual provisions. Where variables have been excluded, valid reasons have been provided: for example, the price is not included in the model as the database reflecting airfares is extremely expensive and fares were not available for most of the African states over the selected time period.

As mentioned earlier in the chapter, the impact of aviation policy on air passenger traffic flows, as measured by the ALI index, could not be tested in isolation as a number of independent variables or factors also play a role. In line with this, a panel regression model is constructed to test the simultaneous impact of aviation policy and identified factors on air passenger traffic flows in the five markets. In a subsequent step, a second panel regression model is constructed to determine the specific provisions or market access features of BASAs that exert a statistically significant impact on air passenger traffic flows in each of the respective markets, taking into account the simultaneous impact of the factors that were found to be significant in the initial regression analysis.

1.5 RESEARCH CONTRIBUTION

This study aims to make a significant contribution towards the limited academic literature available on the subject and to augment the body of knowledge available with particular reference to the South African – intra-African air transport market, by generating new information from the emerging results of both the qualitative and quantitative research. In particular, the study expands on existing research in this domain. Previous studies relied on a predominantly cross-sectional analysis of the impact of aviation policy and liberalisation on traffic flows. In this study panel data, comprising 45 panels, together with

the ALI weighting system are used to quantify the degree of restrictiveness or openness of the respective BASAs. This approach provides a detailed analysis of the level of liberalisation by looking at the overall South African – intra-African market as well as at each of the four regional markets. To the knowledge of the researcher no similar research methodology has previously been utilised and especially not over the same research time period in the African context.

In summary, the study contributes to the body of knowledge of secondary research and thus to the industry by:

- Providing a comprehensive overview of the developments of the South African aviation policy as a whole and with reference to Africa;
- Testing the impact of the aviation policy, as measured by the ALI, as well as of the individual provisions of the market access features of the ALI on air passenger traffic flows in the five markets statistically. This research should effectively fill the gap in the existing literature pertaining to the empirical evidence of air services liberalisation in the South African – African context by using a panel data technique instead of a cross-sectional approach;
- Generating an extensive list of factors that are viewed by the experts as exerting an impact on air passenger traffic flows to create a conceptual framework of factors;
- Providing a comprehensive summary of the current liberalisation situation in South Africa towards Africa: trends and developments, rationale and impediments;
- Expanding on the cross-sectional 2005 QUASAR database pertaining to the South African – intra-African bilaterals. This valuable information could be utilised by the decision makers, particularly at the Department of Transport, to see what progress has been achieved in terms of the liberalisation of air services agreements in line with the YD and the Airlift liberalisation targets;
- Evaluating BASAs among South Africa and 45 African countries to provide an overview of the degree of liberalisation at any point in time over the 11 year time

period and the types of agreements that are in place in the intra-African market as well as in each of the four regions;

- Providing possible new insights about how passenger traffic flows relate to the changes in aviation policy. These results could be used in further decision making.

This research is expected to generate a number of articles in internationally accredited journals.

1.6 LAYOUT OF THE STUDY

The chapters in this study are arranged as follows:

Chapter 1 provides an overview of the study, furnishes the background and motivation for the latter, addresses the research problem in terms of specific objectives, describes the research methodology and provides the main contributions of the study.

Chapter 2 is an overview of the significant regulation and deregulation developments in the global aviation industry over the last 90 years, the inception of which was marked by the signing of the Paris Convention in 1919. The chapter illustrates the gradual industry transformation over a number of decades, leading to the creation of “open skies” markets in several regions of the world.

Chapter 3 focuses on Africa’s liberalisation progress, highlighting the importance of the Yamoussoukro Decision and discusses the conditions and requirements for the implementation of the Decision on a regional basis, the progress achieved so far and hindrances impeding the progress of the complex intra-African liberalisation process. The chapter provides a summary overview of the various regional and sub-regional organisations and institutions that have been instrumental in moving the Yamoussoukro Decision forward.

Chapter 4 discusses the concepts of the civil aviation system and policy with particular reference to South Africa and considers the development of the South African civil aviation policy to date since the deregulation of the South African domestic air transport market in

1990. The chapter highlights the main aspects of the Airlift Strategy and the Airlift Implementation Plan which have been instrumental in driving air services liberalisation between South Africa and like-minded bilateral air counterparts. The relationship between South African aviation policy in Africa and air passenger traffic flows is also discussed to gain a clear understanding of the trends pertaining to air passenger traffic flows between South Africa and its bilateral air services counterparts in Africa, on an overall and a regional basis.

Chapter 5 considers the qualitative methodology employed and presents the Delphi results. In particular this chapter provides a comprehensive overview of the Delphi method, highlighting its main characteristics and areas of application, strengths and limitations as well as the steps involved. The choice of the qualitative research design for attaining the related research objectives is fully explained and motivated. Data collection and analysis are explained in detail.

Chapter 6 discusses the quantitative methodology utilised, which consists of a one-way fixed panel regression as well as the empirical model used to attain the relevant research objectives. The use and application of the Air Liberalisation Index, developed by the WTO Secretariat, are explained in relation to the South African aviation policy in Africa. The empirical panel regression model and the selected variables accounting for the respective data availability and limitations are comprehensively discussed. The alternative hypothesis is further refined by sub-hypotheses.

In Chapter 7 the results of the empirical research linked to the hypotheses formulated in Chapter 6 are presented.

Finally, in Chapter 8 the conclusions drawn from the study are considered, explaining how the aim of the study has been achieved. Its limitations as well as the recommendations and directions for further research are also described.