CAPTURING
THE
GAINS

economic and social upgrading
in global production networks

International airline groups in Africa

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Abstract

This paper contributes to the international research project 'Capturing the Gains: Economic and Social Upgrading in Global Production Networks and Trade'. Its main aim is to analyse the operations of international airlines in Africa and assess the influence of the international aviation industry on the development of tourism in selected African states. Simultaneously, through an exploration of the different ways in which international airline groups can foster the development of the tourism sector in Africa, the paper informs the general understanding of the influence of tourism on regional development. Although in general terms the paper focuses on the whole of Africa, more detailed issues are analysed on the basis of South Africa, Kenya and Uganda.

Keywords: International airline groups, the airline industry, global production networks, tourism, Africa, regional development

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Abbreviations

AA	American Airlines
ACSA	Airports Company South Africa
AEC	African Economic Community
ATAC	Air Transport Association of Canada
AU	African Union
BATA	British Air Transport Association
COMESA	Common Market for Eastern and Southern Africa
COTU	Central Organisation of Trade Unions
CPRC	Chronic Poverty Research Centre
CRS	Computer Reservation System
DFID	Department for International Development
EAC	East African Community
ESRC	Economic and Social Research Council
ETN	Euro Turbo News
EU	European Union
FSC	Full Service Carrier
GDP	Gross Domestic Product
GDS	Global Distribution System
GPN	Global Production Network
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IGAD	Intergovernmental Authority on Development
LCC	Low-Cost Carrier
NAFTA	North American Free Trade Association
NOTU	National Organization of Trade Unions
OAU	Organisation of African Unity
OTC	Online Travel Corporation
REC	Regional Economic Community
SAA	South African Airways
SADC	Southern African Development Community
SATAWU	South African Transport and Allied Workers Union
SCI	Sustainable Consumption Institute
UK	United Kingdom
UN	United Nations
US	United States
WWTE	Worldwide Travel Exchange

1. Introduction

Since the beginning of the deregulation and liberalization processes that in the 1980s and 1990s significantly reshaped the international aviation industry, the airline sector has received a considerable amount of attention from social scientists. This pertains especially to the area of management and business studies, where the literature on the airline industry is particularly rich. The main issues explored in the management/business studies literature are the processes of deregulation and liberalization (e.g. Button 2009; Chang et al. 2004); the emergence of international airline alliances and the implications of their development (e.g. Agusdinata and de Klein 2002; Bilotkach and Hüschelrath 2012; Brueckner and Pels 2005; Chen and Gayle 2007; Dennis 2005; Denton and Dennis 2000; Evans 2001; Fan et al. 2001; Gudmundsson and Lechner 2006; Hannegan and Mulvey 1995; Iatrou and Alamdari 2005; Morrish and Hamilton 2002; Oum and Park 1997; Oum et al. 2001; Park et al. 2001); and the competition between full service carriers (FSCs) and low-cost carriers (LCCs) (e.g. Gillen and Gados 2008; Hunter 2006; Morrell 2005; Pels 2008).

However, although relatively rich, the management and business studies literature does not address all the important processes associated with the aviation sector. Most importantly, it is almost entirely detached from the broader research on tourism undertaken by social scientists. The cooperation between airlines and other sub-sectors of tourism is one of the most notable research gaps. Exactly the same applies to the influence of international airline groups on the development of the tourism industry and, more generally, on economic development in host economies.

Quite surprisingly, despite the growing interest in the aviation industry among geographers (see e.g. Bowen 2010; Debbage 1994), the geographical literature has also so far had very little to say about the relations between the aviation sector and other sub-sectors of tourism and the impact of airlines on economic development in tourist destinations (some important exceptions include Page 2005 and Wheatcroft 1998). Although the influence of transport on development has always been of interest to economic and development geographers (e.g. Hilling 1996; Leinbach 1995; Simon 1996), geographical research in this area either has been not linked to existing studies on tourism or has been too general to sufficiently explore the role of the aviation industry in its own right. Nowhere are these gaps more evident than with regard to Africa (although exceptions include Pedersen 2001 and Otiso et al. 2011). Indeed, the existing geographical research on the aviation sector in Africa has mainly taken the form of national case studies focusing on the processes of deregulation and liberalization and the subsequent emergence of privately owned African airlines – see the examples given by Gale (1988), Griffiths (1989) and Pirie (1990; 1992; 2006) for South Africa, Akpoghomeh (1999) for Nigeria and Mutambirwa and Turton (2000) for Zimbabwe. Although very informative, they address the interrelations between the aviation sector and tourism to only a very limited degree.

This paper aims to address current research gaps and so create a basis for further, more in-depth research on the role of international airline groups in stimulating the development of tourism in Africa. It has been built from an extensive analysis of various documents, including airlines' websites, annual reports and other materials retrieved from these websites, academic literature, press articles and aviation industry reports. The analysis is grounded in the global production network (GPN) perspective (Coe 2012; Coe et al. 2008; Henderson et al. 2002; Hess and Yeung 2006), considered here as the most effective theoretical platform from which to address the research gaps and enhance the general understanding of the influence of airline groups on tourism

in Africa. The project's theoretical perspective has been described in more detail by Christian (2010) in the introductory tourism scoping paper.

The paper is structured as follows. In order to better understand the role of the aviation sector in fostering inbound tourism to Africa, Section 2 analyses the presence of international airline groups (and international airline alliances) on the African continent. Section 3 then focuses attention on the multi-scalar regulatory framework in which international airlines operate and enquires into the role of that framework in shaping the operations of international airlines in the three focal countries. Section 4 identifies different types of actors constituting the GPNs of airline groups. Special attention is given to African actors. Section 5 presents general conclusions and a summary of research findings.

2. Mapping the operations of international airline groups in Africa

The analysis focused on the ten largest airline groups in the world by percentage value share in 2010 (Table 1) and was carried out between October 2011 and April 2012. The groups were found to vary widely in terms of their origin, their internal structures, the geographical areas targeted by their routes and their strategic partnerships. Whereas some of them had a basic structure and comprised only a single flagship airline with its regional subsidiaries and/or franchisees, other groups had formed from the merger of two or more formerly independent flagship airlines, often originating from different states and comprising numerous subsidiaries and franchisees (Table 2). *Franchisees* in the aviation industry are those airlines that gain the right, in return for a fee, to assume the public face or brand of the parent company (i.e. the franchisor). In practice, franchisees are independently owned and managed airlines that operate under the parent company's brand. *Subsidiaries*, in turn, are those airlines that are wholly or partially owned and fully controlled by the parent company and that are most often operated under their own brand (Denton and Dennis 2000).

Table 1: Top ten airline groups by % value share, 2009-2010

Airline	Share 2009 (%)	Share 2010 (%)
United Continental Holdings Inc.	-	4.9
Deutsche Lufthansa AG	4.6	4.3
Air France-KLM Group SA	4.1	3.8
Delta Air Lines	3.6	3.7
AMR Corporation	3.4	3.6
JAL Group	2.6	2.4
All Nippon Airways (ANA) Group	2.2	2.3
Southwest Airlines Co.	1.9	2.0
US Airways Group Inc.	1.9	2.0
British Airways*	2.6	2.0

Notes: * Further to its merger with the Spanish-based group Iberia and the creation of International Airlines Group in 2011, British Airways is no longer a separate group but one of the two flagship airlines constituting the group. Although the table quotes data for British Airways only, the analysis accounted for the whole group.
Source: Euromonitor (2011).

Table 2: Summary of the analysed airline groups and their corporate structures as per October 2011

Airline group (headquarters)	Flagship airlines and their alliance affiliation	Regional and other brands and their operators (* alliance affiliates) (subsidiaries with shares in brackets, franchisees in italics)
United Continental Holdings Inc. (Chicago, Illinois, US)	**United Airlines (100%)** (Star Alliance)	**United Express*** (*Atlantic Southeast Airlines, Colgan Air, ExpressJet Airlines, GoJet Airlines, Mesa Airlines, Shuttle America, SkyWest Airlines, Trans States Airlines*)
	Continental Airlines (100%) (Star Alliance)	**Continental Connection*** (*Cape Air, Colgan Air, CommutAir, Gulfstream International Airlines*) **Continental Express*** (*Chautauqua Airlines, ExpressJet Airlines*)
Deutsche Lufthansa AG (Cologne, Germany)	**Lufthansa (100%)** (Star Alliance)	**Lufthansa Regional*** (Lufthansa CityLine (100%), Air Dolomiti (100%), Eurowings (100%), *Contact Air, Augsburg Airways*) **Germawings (100%)** **SunExpress (50%)**
	Austrian Airlines (100%) (Star Alliance)	**Tyrolean Airways (100%)*** **Lauda Air (100%)***
	British Midland International (100%) (Star Alliance)	**BMI Regional (100%)*** **BMI Baby (100%)**
	Swiss International Air Lines (100%) (Star Alliance)	**Swiss European Air Lines (100%)*** **Edelweiss Air (100%)** **Swiss Private Aviation (100%)**
	Brussels Airlines (45%) (Star Alliance)	n/a
Air France-KLM Group SA (Paris, France)	**Air France (100%)** (SkyTeam)	**Air France by Regional (100%)*** **Air France by BritAir*** (*Brit Air*) **Air France by CityJet (100%)*** **Transavia France (100%)**
	KLM Royal Dutch Airlines (100%) (SkyTeam)	**KLM Cityhopper (100%)*** **Transavia (100%)**
Delta Air Lines (Atlanta, Georgia, US)	**Delta Air Lines** (SkyTeam)	**Delta Connection*** (Comair (100%), *Atlantic Southeast Airlines, Chautauqua Airlines, Compass, Mesaba Airlines, Pinnacle Airlines, Shuttle America, SkyWest Airlines*) **Delta Shuttle*** (*Shuttle America*)
AMR Corporation (Fort Worth, Texas, US)	**American Airlines** (OneWorld)	**American Eagle*** (American Eagle Airlines (100%), Executive Airlines (100%)) **American Connection*** (*Chautauqua Airlines*)

Airline group (headquarters)	Flagship airlines and their alliance affiliation	Regional and other brands and their operators (* alliance affiliates) (subsidiaries with shares in brackets, franchisees in italics)
JAL Group (Tokyo, Japan)	**Japan Airlines** (OneWorld)	**J-Air (100%)*** **JAL Express (100%)*** **Japan Transocean Air (51%)*** **Japan Air Commuter (60%)** **Hokkaido Air System (51%)** **Ryukyu Air Commuter (73%)**
All Nippon Airways (ANA) Group (Tokyo, Japan)	**All Nippon Airways (ANA)** (Star Alliance)	**Air Nippon (100%)*** **ANA Wings (100%)*** **Air Japan (100%)***
Southwest Airlines Co. (Dallas, Texas, US)	**Southwest Airlines**	**AirTran Airways (100%)**
US Airways Group Inc. (Tempe, Arizona, US)	**US Airways** (Star Alliance)	**US Airways Express*** (Piedmont Airlines (100%), PSA Airlines (100%), *Air Wisconsin, Chautauqua Airlines, Colgan Air, Mesa Airlines, Mesaba Airlines, Republic Airlines, Trans States Airlines*) **US Airways Shuttle***
International Airlines Group (London, UK)	**British Airways (100%)** (OneWorld)	**BA CityFlyer (100%)*** **OpenSkies (100%)** **British Airways by Comair*** (*Comair Airways*) **British Airways by Sun-Air*** (*Sun-Air of Scandinavia*)
	Iberia (100%) (OneWorld)	**Iberia Regional*** (*Air Nostrum*) **Vueling (46%)**

Source: Own elaboration on the basis of the analysed airline groups' official websites (October 2011).

At the time of analysis, the ten airline groups comprised 17 lead airlines. Table 3 gives basic information on the groups and their flagship airlines. Flagship airlines of nine out of the ten groups were members of one of the three biggest international airline alliances – Star Alliance, SkyTeam or OneWorld. An *airline alliance* is

> 'an agreement between two or more air-carriers cooperating in a commercial relationship or jointly operating activities in various fields. Alliances provide opportunities for the allied airlines to extend their networks, increase passenger traffic and consequently improve profitability' (Hsu and Shih 2008: 123).

Alliances are horizontal forms of relationship and are not independent organizations (Evans 2001). The main reasons they are formed can be divided into external (the processes of deregulation and liberalization of state-owned airlines and the rise of global competition) and internal (risk sharing, searching for economies of scale and scope and looking for increased access to assets and resources). Alliances tend to be relatively unstable and fluid forms of cooperation (ibid.). Their operations are based on the idea of *codesharing*, which in its most basic form can be defined as an agreement between two or more airlines that allows for a flight operated by one carrier (i.e. the operating carrier) under its own code and associated flight number also to be marketed by other carriers (i.e. the marketing carriers) under their codes and flight numbers (Steer Davies Gleave et al. 2007).

A large proportion of subsidiaries and franchisees of the analysed airlines can be classed as *member affiliates* of the respective alliances. *Member affiliates* are those airlines that provide services in conjunction with individual members but that are not alliance members themselves (*www.oneworld.com*). Each of the flagship airlines was also found to have numerous non-alliance partners. Despite the competition between the three largest international alliances, some cross-alliance partnerships were also identified.

In geographical terms, the analysis of operations of international airlines in Africa addressed all 54 African countries, including the newly established state of South Sudan and the island countries in both the Indian and the Atlantic Oceans. It did not, however, address the African territories of European countries, or the territory of Western Sahara, which is currently occupied by Morocco and whose political status remains contested. As Table 4 shows, in October 2011 only five of the ten airline groups offered direct flights to Africa (three European and two from the US). Each of the 12 flagship airlines these five groups comprised (nine European and three US airlines) operated at least one direct African route. In total, the 12 airlines operated altogether 130 African routes, not including 54 routes operated by their subsidiaries and franchisees. The 54 subsidiary- and franchisee-operated routes included 13 routes offered by Comair Airways – a South African-based franchisee of British Airways that operated flights from Johannesburg and Cape Town to 11 other destinations in the region. While the nine European airlines operated as many as 123 African routes in total, the three US airlines operated only seven routes altogether. It was also only the European airlines whose subsidiaries and franchisees offered flights to Africa. Thus, it is easy to infer that the airline's interest in Africa and the number of African destinations the airline targets depend on its country of origin's proximity to the African continent. While the Japanese and American airlines analysed either are not interested in Africa at all or operate only carefully selected routes (usually to the most popular destinations), the routeways of the European airlines are generally well developed and largely differentiated. As Table 4 also illustrates, this significant disproportion between the European and non-European airlines is not even compensated by codeshare flights offered by non-European airlines.

Table 3: Ten biggest airline groups in the world and their flagship airlines

Airline group	Flagship airlines	Country of origin	Destinations served	Daily departures	Aircrafts	Employees	Passengers per year (millions)	Revenue (US$ millions)
United Continental Holdings Inc.	United Airlines	US	200	3,300	362	47,000	80.1	20,200
	Continental Airlines	US	262	2,423	600	42,210	67.0	15,200
Deutsche Lufthansa AG	Lufthansa	Germany	204	1,797	424	39,500	55.5	29,100
	Austrian Airlines	Austria	120	450	91	7,200	10.7	3,670
	British Midland International	UK	38	200	53	4,264	10.0	1,464
	Brussels Airlines	Belgium	70	265	51	3,300	5.5	1,490
	Swiss International Air Lines	Switzerland	74	374	85	7,383	13.8	4,890
Air France – KLM Group SA	Air France	France	183	1,500	380	60,000	50.0	-
	KLM (Royal Dutch Airlines)	Netherlands	130	600	144	32,000	22.5	-
Delta Air Lines Inc.	Delta Air Lines	US	356	5,775	728	80,000	160.0	-
AMR Corporation	American Airlines	US	276	3,400	914	78,250	105.2	22,170
JAL Group	Japan Airlines	Japan	76	700	250	46,287	39.7	16,379
All Nippon Airways (ANA) Group	ANA	Japan	76	1,054	228	32,578	39.9	13,200
Southwest Airlines Co.	Southwest Airlines	US	72	3,400	550	35,000	88.0	12,100
US Airways Group Inc.	US Airways	US	206	3,200	640	36,500	66.1	11,500
International Airlines Group	British Airways	UK	172	800	240	35,778	30.6	-
	Iberia	Spain	124	1,000	176	20,435	26.0	-

Source: Own elaboration on the basis of the analysed airlines' official websites (October 2011).

Table 4: African operations of the ten biggest airline groups

Airline group	Flagship airline-operated African routes	Subsidiary-/franchisee-operated African routes	Alliance partner-operated codeshare African routes	Other partner-operated codeshare African routes	African routes (total)
United Continental Holdings Inc.	2	0	2	0	**4**
Deutsche Lufthansa AG	51	11	4	8	**74**
Air France-KLM Group SA	45	26	0	1	**72**
Delta Air Lines	5	0	0	1	**6**
AMR Corporation	0	0	0	0	**0**
JAL Group	0	0	0	0	**0**
All Nippon Airways (ANA) Group	0	0	1	0	**1**
Southwest Airlines Co.	0	0	0	0	**0**
US Airways Group Inc.	0	0	0	0	**0**
International Airlines Group	27	17	0	1	**45**
Total:	**130**	**54**	**7**	**11**	**202**

Source: Own elaboration on the basis of the analysed airline groups' official websites (October 2011).

In 2011 the 184 direct African routes offered by the analysed airline groups linked the total of 19 hubs (13 in Europe, four in the US and two Comair hubs in South Africa) located in 17 cities (with two airports in Paris and two in London) with 68 African airports located in 67 cities (with two airports in Casablanca) in 42 African countries. The 12 African states to which the airlines did not fly were Cape Verde, Comoros, Djibouti, Eritrea, Guinea-Bissau, Lesotho, Malawi, São Tomé and Príncipe, Seychelles, South Sudan, Swaziland and Somalia. Table 5 summarizes the African operations of the analysed airlines in 2011.

Table 5: African operations of the ten biggest airline groups by airlines

Airline	Hubs	Routes	Destinations	Countries
United Airlines	1	1	1	1
Continental Airlines	1	1	1	1
Lufthansa	2	13	12	10
Austrian Airlines	1	3	3	1
Tyrolean Airways	1	1	1	1
Lauda Air	1	2	2	1
British Midland International	1	8	8	6
Brussels Airlines	1	20	20	18
Swiss International Air Lines	2	7	6	5
Edelweiss Air	1	8	8	5
Air France	1	31	31	27
Transavia France	4	18	9	3
KLM Royal Dutch Airlines	1	14	14	10
Transavia	1	8	8	3
Delta Air Lines	2	5	4	4
British Airways	2	17	15	13
Comair Airways	2	13	12	7
Iberia	1	10	10	8
Iberia Regional	1	3	3	1
Vueling	1	1	1	1
Total:	**19**	**184**	**67**	**42**

Source: Own elaboration on the basis of the analysed airlines' official websites (October 2011).

As Table 5 shows, in October 2011 the highest number of destinations was targeted by the European airlines – Air France (31), Brussels Airlines (20), British Airways (15), KLM (14) and Lufthansa (12). The same airlines also targeted the most countries, most notably 27 in the case of Air France and 18 in the case of Brussels Airlines. The notable share of subsidiary airlines such as Transavia and Transavia France that offered flights to Morocco, Tunisia and Egypt on behalf of KLM and Air France, respectively, as well as the aforementioned Comair Airways that operated 13 routes within Africa, should also be stressed. Among the most targeted destinations were the major cities such as Cape Town and Johannesburg (South Africa), Cairo (Egypt), Lagos (Nigeria) and Accra (Ghana), popular tourist destinations in Egypt and Tunisia and cities in Northern Africa whose popularity could be explained by their proximity to Europe and the hubs of the airlines included in the analysis.

Given that each of the 12 airlines that operated flights to Africa was also a member of one of the three international airline alliances, and that each of these alliances could be classed as complementary (i.e. created to link up the networks of its member airlines to feed traffic to each other; Park et al 2001), it could easily be assumed that, in terms of accessing Africa, the analysed airlines should largely benefit from their alliance affiliations. Meanwhile, apart from the African members whose hubs are located in Africa, and all of whose routes are therefore African, the highest number of African routes was operated by the European airlines. Thus, it can be inferred that it is the other alliance members (including the US airlines) that benefit from the African operations of the European airlines and that use these operations as connecting flights for their

own flights, not the other way round. Moreover, the role of the US airlines is even less significant than that of other alliance members – especially those from southern Europe (e.g. Spanair and TAP Portugal) and the Middle East (e.g. Royal Jordanian Airlines and Turkish Airlines). Table 6 summarizes the African operations of the alliance members not included in the analysis.

Table 6: African operations of alliance members not included in the analysis

Airline	Hubs	Routes	Destinations	Countries
Star Alliance				
Egyptair	6	89	75	47
LOT Polish Airlines	1	1	1	1
Singapore Airlines (SIA)	1	3	3	2
South African Airways	4	87	65	37
Spanair	4	10	6	5
TAP Portugal	1	12	12	10
Thai Airways International	1	1	1	1
Turkish Airlines	1	15	15	13
SkyTeam				
Aeroflot Russian Airlines	1	3	3	2
Air Europa (Spain)	2	5	4	4
Alitalia	1	7	7	7
Kenya Airways	1	55	55	46
Korean Air	1	1	1	1
Romanian Air Transport (TAROM)	1	1	1	1
One World				
Cathay Pacific Airways	1	1	1	1
Malev Hungarian Airlines	1	1	1	1
Qantas Airways (Australia)	1	1	1	1
Royal Jordanian Airlines	1	9	8 (9 airports)	5

Source: Own elaboration on the basis of the analysed airlines' official websites (October 2011).

The role of the three African member airlines (Egyptair and South African Airways from Star Alliance and Kenya Airway from SkyTeam) in bringing tourists to Africa deserves particular attention. Because of the fact that they normally offer a high number of connections not only between Africa and other continents but also within Africa, they are very valuable partners for all alliance members. Table 7 provides a summary of all routes and destinations offered by each of the three African alliance members.

Table 7: Destinations targeted by the African members of the three alliances

Destinations	Egyptair				South African Airways				Kenya Airways			
	Hubs	Routes	Destinations	Countries	Hubs	Routes	Destinations	Countries	Hubs	Routes	Destinations	Countries
Domestic destinations (including main hubs)	3	14	13	1	4	32	16	1	1	4	4	1
Africa	1	16	16	13	3	37	33	22	1	42	42	36
Europe	3	22	20	16	1	5	4	3	1	4	4	4
Middle East	5	29	19	11	2	2	2	2	1	2	2	2
North America	1	1	1	1	1	2	2	1	-	-	-	-
South America	-	-	-	-	1	2	2	2	-	-	-	-
Asia	1	7	7	5	1	5	5	5	1	4	4	3
Australia	-	-	-	-	1	2	2	1	-	-	-	-
Total:	**6**	**89**	**76**	**47**	**4**	**87**	**66**	**37**	**1**	**56**	**56**	**46**

Source: Own elaboration on the basis of the airlines' official websites (October 2011).

As Table 7 illustrates, the number of African destinations (including domestic destinations) targeted by each African member largely exceeded the number of African airports served by any non-African member of the three alliances. Thus, where the African airlines play the most important role in accessing Africa is in providing connections to other African destinations – especially those that are not targeted by the European members of the respective alliances. This included eight out of the 12 states to which none of the airlines flew. Moreover, it is worth noting that, for example, Egyptair operated as many as 22 routes between Africa and Europe, more than each of the nine European airlines apart from Air France. Although at first sight it may seem that, owing to the lack of African members, OneWorld is disadvantaged in terms of accessing Africa (especially secondary destinations in Africa), it is through Comair Airways (a franchisee of British Airways) that OneWorld members can access a larger number of African destinations.

In turn, where it does not make economic sense for a European airline to target a destination directly, or when the destination is also not served by any of its alliance partners, codeshare agreements with non-alliance African airlines are utilized. However, in 2011 only five out of the 12 airlines operating flights to Africa had codeshare agreements with non-alliance African partners. Moreover, the agreements were signed with only three airlines (Ethiopian Airlines, Royal Air Maroc, Air Seychelles) and covered only six routes to only three African destinations (Casablanca, Addis Ababa, Seychelles). This implies that many African airlines – for example RwandAir (Rwanda), Air Nigeria (Nigeria), Precision Air (Tanzania), TAAG Angola Airlines (Angola), Air Botswana (Botswana), Air Mozambique (Mozambique), Air Mauritius (Mauritius) and Air Madagascar (Madagascar) – that are not members of any airline alliance are largely excluded from the GPNs of the largest airlines in the world. The role of African non-alliance airlines in bringing European and North American tourists to Africa is therefore very minor. Exactly the same applies to other airlines from the three focal states – Uganda, Kenya and South Africa. While Kenya Airways and South African Airways play a pivotal role in stimulating tourist flows from outside Africa to their home countries, the other airlines from these three states play no direct role at all (Table 8). Apart from Bluebird Aviation, which was found to offer charter passenger flights to Amsterdam, London and Paris, in October 2011, none of the airlines offered flights to Europe or North America. The majority of them focused solely on their domestic markets. Also, none of them was found to have any partnerships with any of the airlines included in the analysis.

However, while the role of Ugandan, Kenyan and South African domestic airlines in bringing tourists from beyond the continent to their respective countries was found to be practically non-existent, many of these airlines offered flights to popular tourist destinations not directly targeted by the ten analysed airline groups. This applies mainly to airlines providing flights to popular safari villages and national parks such as Safarilink Aviation and Mombasa Air Safari in Kenya or Eagle Air in Uganda. Although some of them cooperate with international tour operators, none of them has an official partnership with any of the analysed airline groups. Thus, rather than playing a role in bringing tourists to Africa from other continents, they rely on the tourist traffic generated by other airlines and tourist companies.

Table 8: Airlines from the three focal countries that are not members of airline alliances

Country	Airlines operating scheduled (and charter) flights		Airlines operating only charter flights	
	Airline	Hub	Airline	Hub
Uganda	Air Uganda	Entebbe (EBB)	Uganda Air Cargo	Entebbe (EBB)
	Eagle Air Uganda	Entebbe (EBB)		
	Royal Daisy Airlines	Entebbe (EBB)		
Kenya	African Express	Nairobi (NBO)	748 Air Services	Nairobi (NBO)
	Airways	Nairobi (WIL)	Aircraft Leasing	Nairobi (WIL)
	Airkenya Express	Nairobi (NBO)	Services	Nairobi (WIL)
	East African Safari Air	Nairobi (NBO)	Bluebird Aviation	Nairobi (WIL)
	Fly 540	Nairobi (NBO)	CMC Aviation	
	JetLink Express	Nairobi (WIL)		
	Safarilink Aviation	Mombasa (MBA)		
	Mombasa Air Safari			
South Africa	1Time	Johannesburg (JNB)	ArQuarius Aviation	Johannesburg (HLA)
	Airlink	Johannesburg (JNB)	Allegiance Air	Johannesburg (HLA)
	Civair	Cape Town (CPT)	Egoli Air	Johannesburg (JNB)
	Federal Air	Johannesburg (JNB)	King Air Charter	Johannesburg (HLA)
	Interair South Africa	Johannesburg (JNB)	NAC Charter	Johannesburg (HLA)
	Kulula.com / Comair	Johannesburg (JNB)	Norse Air	Johannesburg (HLA)
	Mango	Johannesburg (JNB)	Solenta Aviation	Johannesburg (HLA)
	South African Express	Johannesburg (JNB)		
	Velvet Sky	Durban (DUR)		

Source: Own elaboration on the basis of the airlines' official websites (October 2011).

3. Governance regulations affecting the operations of airline groups in Africa

The current regulatory system for the international aviation sector has its roots in the Chicago Conference of 1944, which, instead of achieving its ambitious objective to develop liberal foundations under unrestricted development of international air transport up to the fifth air freedom (Dempsey and Gesell 2004; Schlumberger 2010), simply reaffirmed 'the principle of exclusive sovereignty over each nation's airspace' (Schlumberger 2010: 157) and led to the management of international air traffic being based on the complex system of bilateral agreements negotiated between individual pairs of countries and only pertaining to designated airlines (Dempsey and Gesell 2004; Schlumberger 2010). As Kayabwe (1999) put it, bilateral agreements were reciprocal in nature and included predetermination of capacity and double approval of tariffs and routes to be served, which, together with the persisting state ownership of airlines on the grounds of national security and pride, became the characteristics of the regulatory system in the post-war international air traffic (Debbage 1994; Goldstein 2001). Table 9 summarizes all commercial aviation rights known as freedoms of the air.

The first signs of relaxation appeared in 1978 when the US promulgated the Airline Deregulation Act that called for liberalizing and deregulating the US airline sector, thus aiming to create a more pro-competitive environment (Debbage 1994; Schlumberger 2010). In order to translate this policy to the international level, the US also signed more liberal, so-called 'open skies', bilateral agreements with 20 countries across the world. The agreements allowed carriers the freedom to set capacity and fares without governmental interference and to independently choose additional

Table 9: Freedoms of the air

Freedoms of the air	
First freedom of the air	The right or privilege, with respect to scheduled international air services, granted by one state to another state or states to fly across its territory without landing (also known as a first freedom right)
Second freedom of the air	The right or privilege, with respect to scheduled international air services, granted by one state to another state or states to land in its territory for non-traffic purposes (also known as a second freedom right)
Third freedom of the air	The right or privilege, with respect to scheduled international air services, granted by one state to another state to put down, in the territory of the first state, traffic coming from the home state of the carrier (also known as a third freedom right)
Fourth freedom of the air	The right or privilege, with respect to scheduled international air services, granted by one state to another state to take on, in the territory of the first state, traffic destined for the home state of the carrier (also known as a fourth freedom right)
Fifth freedom of the air	The right or privilege, with respect to scheduled international air services, granted by one state to another state to put down and to take on, in the territory of the first state, traffic coming from or destined to a third state (also known as a fifth freedom right)
Sixth freedom of the air	The right or privilege, with respect to scheduled international air services, of transporting, via the home state of the carrier, traffic moving between two other states (also known as a sixth freedom right). The so-called sixth freedom of the air, unlike the first five freedoms, is not incorporated as such into any widely recognized air service agreements such as the Five Freedoms Agreement
Seventh freedom of the air	The right or privilege, with respect to scheduled international air services, granted by one state to another state, of transporting traffic between the territory of the granting state and any third state with no requirement to include on such operation any point in the territory of the recipient state, that is, the service need not connect to or be an extension of any service to and/or from the home state of the carrier
Eighth freedom of the air	The right or privilege, with respect to scheduled international air services, of transporting cabotage [trade] traffic between two points in the territory of the granting state on a service that originates or terminates in the home country of the foreign carrier or (in connection with the so-called seventh freedom of the air) outside the territory of the granting state (also known as an eighth freedom right or consecutive cabotage)
Ninth freedom of the air	The right or privilege of transporting cabotage traffic of the granting state on a service performed entirely within the territory of the granting state (also known as a ninth freedom right or stand-alone cabotage)

Source: Schlumberger (2010: 4, Box 1.1).

routes between (and beyond) the two signatories (Debbage 1994). In the 1990s, the pattern was followed by the European Union (EU) (Schlumberger 2010; also Button 2009). However, according to the International Air Transport Association (IATA) (2007), as much as 83 percent of international air traffic is still conducted in a strictly regulated environment. This includes most of Africa.

During the colonial era, air services in many African territories were largely limited to routes linking colonies with their colonial powers. Following independence, the first national air carriers were created and the current regulatory environment in Africa started to take shape (Guttery 1998; Schlumberger 2010). However, although air transport was fully recognized as 'essential for the development of Inter-African trade and the improvement of the economic, social and cultural conditions of African peoples' (OAU 1973: 39), most of the newly created carriers continued to concentrate on the existing profitable international routes to their former colonial powers (Guttery 1998; Schlumberger 2010), thus neglecting other destinations, not to mention inter-African or domestic routes (Schlumberger 2010). In addition, the development of the aviation industry in Africa was dogged by many serious problems, ranging from poor management and corruption to low safety of airlines (Goldstein 2001). While liberalization and deregulation in Europe and the US progressed smoothly, the African air transport system was persistently restrictive. What is more, the African carriers lacked the necessary commercial focus to be competitive in the international arena (Schlumberger 2010). It was mainly for this reason that in the 1990s African governments

started thinking of a policy to support inter-African transport and to ensure the growth of African airlines. This need was addressed by the Yamoussoukro Decision – a multilateral agreement signed in 1999 by the majority of African countries that was to allow the exchange of up to fifth freedom rights between all signatories (Schlumberger 2010). In many countries, this gradual move towards liberalization was accompanied by the privatization of airlines (Goldstein 2001; Schlumberger 2010). However, despite the Yamoussoukro Decision, state ownership, designation of carriers and strict bilateral agreements still remain the norm in Africa (Goldstein 2001; Schlumberger 2010). The regulatory framework in the aviation sector in Africa is briefly analysed below through case studies of Kenya, Uganda and South Africa.

Kenya

Because of its location and attractiveness to tourists, both of which allow Nairobi to serve as an important hub for the whole region, the aviation sector has always been of high importance to Kenya. It is also for this reason that Kenya Airways – its national carrier – is now one of the strongest players in Africa and one of the few African airlines that is also successful in the international arena (Schlumberger 2010). Kenya Airways was established as a state-owned company in 1977 following the demise of East African Airways – a colonial structure created by the governments of Kenya, Uganda, Tanganyika and Zanzibar under the rule of the British Empire (see *www.kenyaairways.com*). In the late 1980s, the government decided to privatize the airline and, although it is still its major shareholder, the privatization of Kenya Airways has been one of the most successful deals in Africa so far (Goldstein 2001; Schlumberger 2010; Wheatcroft 1998).

The privatization of Kenya Airways was followed by liberalization of the local market. As a result, the number of domestic carriers doubled between 1997 and 2007 (Schlumberger 2010). By the same token, as one of the signatories of the Yamoussoukro Decision, Kenya quickly started embracing the principles of liberalization (Ministry of Transport 2009). This tendency was strengthened by the arrangements made by two Regional Economic Communities (RECs) of which Kenya is a member – the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA), both of which promote open markets between their members (Ministry of Transport 2009). Thus, with regard to the Kenyan and the African market, Kenya can be considered a relatively liberalized country (Schlumberger 2010). In contrast, the intercontinental aviation policy of Kenya is still very restrictive, and, although there were great expectations in the 1990s that the privatization of Kenya Airways would lead to relaxation of the intercontinental policy (Wheatcroft 1998), the government still opts for bilateral agreements that set predetermined tariffs, seat capacity and frequency of services on intercontinental routes (Ministry of Transport 2009; Wheatcroft 1998). As the transport policy of Kenya indicates, in order to protect Kenya's interests, air service agreements must be based on 'the principles of equal opportunity and reciprocity' (Ministry of Transport 2009: 122). Thus, although the government promotes multi-designation of airlines and is open to franchise agreements with foreign airlines, it considers 'coordination in the establishment of international fares and rates' necessary (Ministry of Transport 2009: 125). Only recently has the Ministry of Transport started negotiating open skies agreements on intercontinental routes. One such agreement has been signed with the US (US Department of State 2008). However, the situation with charter flights is vastly different: whereas international charter operations are banned at Nairobi airport, they are fully allowed at Mombasa airport (ETN 2008a; 2008b; Wheatcroft 1998), where they play a crucial role in bringing tourists to the area and potentially linking the Mombasa area to the GPNs of international airline groups.

Uganda

In contrast with Kenya, the government of Uganda is much more committed to open skies ideas (Schlumberger 2010). The liberal attitude of the Ugandan government can be traced back to the bankruptcy of Uganda's national carrier – Uganda Airlines – in 2001. Created in 1976 following the collapse of East African Airways, Uganda Airlines was set up as a designated state-owned airline operating on the basis of strict bilateral agreements (see Kayabwe 1999). When the airline went bankrupt, the government opened up the Ugandan market and started negotiating liberal bilateral agreements with no access, frequency or seat capacity restrictions (Schlumberger 2010). As Schlumberger (2010) observed, the government quickly recognized that Uganda did not have enough private capital to develop another airline that could compete successfully in the international market and therefore decided to allow the air transport market to be developed by the foreign private sector. Most importantly, this policy was applied both to the African market (just like Kenya, Uganda is a signatory of the Yamoussoukro Decision and a member of COMESA and EAC) and to all intercontinental routes (Schlumberger 2010).

This reorientation resulted in the continued growth of air services in Uganda (Schlumberger 2010), including the creation of a few new local carriers such as Air Uganda and the entry of multiple international airlines (Jones 2009; Kakembo 2012; Lanyero 2012). The 7.5 percent growth in passenger traffic in the first quarter of 2012 (in comparison with 3.2 percent on average in other African states) further attests to this (Kakembo 2012; Lanyero 2012). Moreover, the role of Entebbe airport as the main gateway to Uganda is growing so fast that, despite fears that the dominant position of Nairobi might effectively undermine the role of Entebbe in Eastern Africa (Kayabwe 1999), the airport can now fully compete with Nairobi for the position of the main hub in the region (see Jones 2009).

South Africa

Because of its size, economic strength and recent history, South Africa is a more specific case than Uganda or Kenya. Until 1994, when statutory apartheid was abolished, South Africa had been largely isolated from the rest of Africa in terms of air links. The political transition in the 1990s brought the withdrawal of bans on cross-border aviation between South Africa and its neighbours, as a result of which many international air links were gradually reinstated (Pirie 2006). Importantly, the political transition was accompanied by economic restructuring and privatization of state-owned enterprises, including South African airports and air traffic and navigation services (Prins and Lombard 1995). However, this did not include South African Airways (SAA) – the South African national carrier. Although SAA was commercialized, it remained fully state owned (Goldstein 2001, Schlumberger 2010; SAA 2011). The attempts to privatize the airline undertaken by the government in the 1990s had to be abandoned owing to the strong opposition of trade unions (Goldstein 2001). Nonetheless, SAA is still the strongest airline in the country and one of the strongest in Africa.

The economic restructuring went in parallel with liberalization of the local market. Although some private airlines existed before, they were restricted to low-density routes, and it was only after the dismantling of the SAA monopoly that they could enter the local market (Goldstein 2001). However, the general picture is far less optimistic when it comes to international and intercontinental routes. Despite the fact that the transition to democracy opened new trade and tourism opportunities and led to a large increase in tourist arrivals and the number of foreign airlines flying to South Africa (from 21 in 1990 to 59 in 1998: Goldstein 2001; Wheatcroft 1998), the country remained very protectionist (Department of Transport 1996). Although the air transport

policy adopted in the 1990s aimed to encourage competition in the market, it was simultaneously designed to safeguard national interests. In other words, although the policy was based on the principles of liberalization, it never went as far as open skies (Department of Transport 1996). Thus, South Africa allowed multi-designation of airlines and abolished tariff controls but maintained regulatory controls on capacities and frequencies (Department of Transport 1996; Goldstein 2001). It was only recently when, under the pressure of the US and the EU, the government started negotiating open skies agreements with other countries (Ensor and Baumann 2011; ETN 2008c).

There are therefore great hopes that this relaxation will lead to a withdrawal of restrictions on charter flights to South Africa that were implemented in the 1990s to protect the economic interests of SAA and to ensure that South Africa does not become a cheap tourist destination (Goldstein 2001; Wheatcroft 1998). Given that South Africa is one of the least committed countries to the Yamoussoukro Decision, its situation in the African market differs markedly from that of Kenya and Uganda. Driven by fear that SSA will wipe out competition in a liberalized Southern African air market, smaller members of the Southern African Development Community (SADC), to which South Africa belongs, are preventing SADC from progressing towards implementing the Yamoussoukro Decision (Schlumberger 2010). It is for this reason that the connections between South Africa and its neighbours are still based largely on strict bilateral agreements.

Synthesis

Finally, to conclude the discussion of the regulatory framework of air transport in Africa, it is essential to analyse what impact this framework has on the tourist traffic from Europe and the US to Africa and how it determines the influence of tourism on regional development in the African continent. Air transport is one of the major global industries (Schlumberger 2010). According to Oxford Economic Forecasting (2005), the aviation industry generates 5 million jobs worldwide, and its contribution to the global economy was estimated in 2004 to be in the order of US$275 billion. Moreover, the air transport industry has both indirect and induced effects. While the indirect effects pertain to the demand for products and services that the industry generates (e.g. fuel, food and beverages, construction services etc.), induced effects stem from the spending of direct and indirect employees (Schlumberger 2010). In 2004, the indirect impact of the aviation industry resulted in the creation of over 5.8 million jobs with a global contribution to gross domestic product (GDP) of US$375 billion, while the induced effect generated 2.7 million jobs and contributed US$175 billion to global GDP (Oxford Economic Forecasting 2005).

Most importantly, however, air transportation facilitates the development of a range of other sectors, most notably tourism (Schlumberger 2010). As Schlumberger (2010) observed, an increasing proportion of tourists are nowadays travelling to their destinations by air. In 2004, the money spent by tourists arriving by air generated 6.7 million direct jobs (0.67 million in Africa) and 5.7 indirect jobs (Oxford Economic Forecasting 2005). It is mainly for this reason that it is important for states that are considered attractive to international tourists to achieve the right balance between aviation and tourism policies (Wheatcroft 1998). Whereas aviation policies usually aim to protect the national airline, the objectives of tourism policies should be understood in terms of growth of national income, enhanced employment and gains in foreign exchange earnings, all of which logically depend on the volume of tourist traffic (Wheatcroft 1998). Meanwhile, protectionist policies (as defined above) are significantly limiting tourist traffic. Thus, as Wheatcroft (1998: 168) argued, 'the major policy issue for many countries is to ensure that the potential benefits of tourism growth are not inhibited by inadequacies of air services arising from protectionist aviation policies'.

There are numerous examples of research that demonstrate the negative impact of restrictive and protectionist policies on tourism. Aviation policies based on capacity and frequency restrictions often produce adverse economic effects for destination countries (Wheatcroft 1994; 1998). First, gross receipts from hotels and other tourism activities in countries that are popular tourist destinations often largely exceed the receipts generated by the national airline. Second, financial leakages, which in the case of national airlines originate from additional expenses such as landing charges, crew expenses and leasing charges, all of which are usually incurred in foreign currencies, are much higher than in the case of hotels – even up to 90 percent in developing states (Wheatcroft 1994; 1998). Similarly, research carried out by Intervistas (2006: ES-2) on five pairs of states with multiple destinations demonstrated that 'restrictive bilateral air service agreements between countries stifle air travel, tourism and business and, consequently, economic growth and job creation' (see also Booz Allen Hamilton 2007; Brattle Group 2002). Most importantly, the same has been shown with regard to Africa. Research conducted by Myburgh et al. (2006) on the SADC region – the least liberalized part of Africa – entirely reiterated the general findings described above. For instance, further to the liberalization of the Nairobi to Johannesburg route in 2000, passenger volumes increased 69 times (Myburgh et al. 2006). Wheatcroft (1998) reached similar conclusions in relation to Egypt.

Thus, as Schlumberger (2010: 168) noted, 'the liberalization of air services in Africa would, in general, have a major impact on the development of the air transport sector, leading to a significant economic impact on various other sectors'. Importantly, this includes tourism. Meanwhile, as the cases of Kenya and South Africa demonstrate, liberalization of air services in Africa, and especially in smaller and less developed countries, is still underway. Whereas Uganda has started reaping the benefits of the more liberalized policies, the tourist traffic to Kenya and South Africa suffers from numerous restrictions. Claiming to protect sovereignty, some African governments still oppose liberalization, not realizing that the economic costs of this largely surpass the political costs they might need to face if the national airline did not manage to compete in a liberalized environment and had to go out of business (Flouris 2003). It is for this reason that the strict bilateral agreements that are frequent in Africa largely restrict receipts from tourism, which, in the more attractive destinations, could contribute significantly to economic growth. Thus, given that 'the provision of an adequate system of air services is an essential requirement for the successful development of tourism', regulatory policies in the aviation industry should be fully adapted to the needs of tourism (Wheatcroft 1998: 177) if the latter is to foster economic growth in Africa.

Despite Schlumberger's (2010) and Wheatcroft's (1998) arguments, however, it is very risky to assume that liberalization of the aviation sector in Africa and the increase in tourist traffic it would bring would automatically foster economic growth. While liberalization and deregulation of the air transport industry is a necessary precondition for economic growth in African tourist destinations to take place, whether such development translates into economic gains for local communities is an entirely different thing. The level to which host communities capture the profits the increased tourism generates may depend in fact on many other factors. Among them are the level of control over the tourism industry in a given area possessed by foreign companies (i.e. hotels, airlines, tour operators) and the associated level of financial leakages; the quality of jobs created in order to serve the tourist traffic (i.e. full-time and permanent as opposed to casual, high-skilled as opposed to low-skilled, well-paid as opposed to low-paid, stable or unstable etc.); the taxation system in a given country; and, last but not least, the level of involvement of local suppliers in serving foreign tourists (including the breadth and strength of local linkages developed by foreign companies). As the aforementioned examples of Safarilink Aviation and Mombasa Air Safari show, there is huge potential for local companies to reap the benefits of the increased inbound tourism to Africa. On the

other hand, mainly in destinations served by charter flights, such as Mombasa, a significant proportion of gains is captured by international hotels that are preferred partners for international airlines and tour operators. Further research is therefore needed to evaluate the distribution of gains generated by increased tourism traffic before any further claims pertaining to the influence of the aviation industry and tourism in general on economic development in Africa can be made. The analysis of different actors constituting GPNs of international airline groups and different power relationships between them, which the following section offers, can serve as a useful starting point for further analyses.

4. Global production networks of international airline groups

As Section 2 discussed, international airline groups have very complex internal structures that often cross national boundaries and are largely diversified in terms of airline ownership, business models, domestic and international partnerships and geographical extent. However, apart from different categories of partner airlines (such as other flagship airlines in the same group, subsidiaries, franchisees, alliance partners, non-alliance partners or different regional airlines that are not bound by any formal agreement but still provide local extensions to services offered by lead airlines) and international airline alliances (which allow the allied airlines to extend their networks and gain access to new markets, various resources and assets: Evans 2001), GPNs of international airline groups comprise many more types of actors. The objective of this section is to identify these actors and briefly discuss their roles. In general, actors constituting the GPNs of airline groups can be divided into two categories – those that shape the regulatory framework and form the broader economic and political context in which airlines operate (national governments, multilateral organizations and air industry associations) and those that together with airlines directly (or indirectly) participate in the provision of tourist services. To synthesise the discussion, Table 10 provides a stylized example of an international airline group's GPN.

Multilateral organizations

By means of setting the rules on the basis of which the member states of a given organization commit to cooperate, multilateral organizations (and especially economic communities) play a crucial role in shaping the regulatory framework in which international airline groups operate. However, given that different organizations control different areas and differ in terms of their competences, the economic and political context in which international airlines operate is far from uniform in geographical terms. Africa can serve here as the best example.

Probably the most important multilateral organization in the international aviation industry is the International Civil Aviation Organization (ICAO) – an agency of the UN. The organization promotes 'the safe and orderly development of international civil aviation' and 'sets standards and regulations […] for aviation safety, security, efficiency and regularity, as well as for aviation environmental protection' (*www.icao.int*). Although its main objective is also to foster the creation of 'a favourable global regulatory environment for the sustainable development of international air transport' (*www.icao.int*), the global regulatory framework still consists of a number of territory-specific frameworks developed by various organizations, including the North American Free Trade Association (NAFTA) and the EU, each of which pursues a different degree of deregulation and liberalization.

The pivotal multilateral organization responsible for the regulatory framework in Africa is the African Economic Community (AEC) – now an agency of the African Union (AU). Its main objective is to promote the integration of African economies and to control and harmonize the activities of

existing regional economic blocs (Schlumberger 2010). Thus, the AEC serves as an umbrella organization for all RECs in Africa. It is also the AEC that is responsible for implementing the Yamoussoukro Decision. However, as Section 3 showed, the level to which each REC has implemented the Yamoussoukro Decision differs widely. Schlumberger (2010) provides a broader discussion of this. Whereas Kenya and Uganda belong to the Intergovernmental Authority on Development (IGAD), EAC and COMESA, South Africa belongs to SADC only.

National governments

As the rules of cooperation established by RECs apply only to their member states, and collective agreements between individual groups of countries are relatively rare (see e.g. Button 2009 for the agreement between the US and the EU), cooperation between states representing different economic blocs has to be negotiated separately. It is for this reason that, because of the lack of a multilateral agreement between, for example, the AU and the EU or NAFTA, the regulatory framework in which the routes linking Africa to Europe and the US are operated has the form of a vast number of different bilateral agreements negotiated individually by each pair of countries. The responsibility to sign such agreements and to agree their contents lies naturally on the shoulders of respective national governments. This also implies that the volume of tourist traffic between each pair of countries may reflect the diplomatic and economic relations between them.

The role of national authorities can also be critical in owning, or co-owning, national airlines and related infrastructure such as airports. If this is the case, their tendency to protect national airlines and thus to opt for protective bilateral agreements can be very strong. By 1991, almost all African carriers had been owned by the state (Schlumberger 2010). Currently, as many as 25 African states have fully or partially state-owned carriers. While 20 of them are relatively weak competitors in the market, the national airlines of Egypt (Egyptair), Morocco (Royal Air Maroc), Kenya (Kenya Airways), Ethiopia (Ethiopian Airlines) and South Africa (South African Airways) are the strongest carriers in Africa (Schlumberger 2010). Out of the three focal states, only Uganda does not currently have a state-owned airline.

Regarding airports and air navigation services, the situation in Africa is even more complex. In contrast with South Africa, where airports and air navigation services were privatized in the early 1990s (Goldstein 2001; Prins and Lombard 1995), air navigation services and airports in Kenya and Uganda are still in the hands of the government. Thus, in Uganda all airports are owned by the Civil Aviation Authority of Uganda – a state agency of the Ministry of Works and Transport. In Kenya, airports are owned and managed by the Kenyan Airport Authority, while navigation services are provided by the Kenyan Civil Aviation Authority – both having the status of state corporations overseen by the Ministry of Transport. Meanwhile, in South Africa, airports are owned by the Airports Company South Africa (ACSA), whereas air navigation services are provided by the Air Traffic and Navigation Services Company, both established by the state and privatized in the 1990s (see Goldstein 2001; Prins and Lombard 1995).

Air industry associations/trade groups

The role of air industry associations (or air industry trade groups) is to represent member airlines and lobby on their behalf, provide training and standardize air services. Air industry associations are usually organized at the national level, with notable examples including the British Air Transport Association (BATA) and the Air Transport Association of Canada (ATAC). Most importantly, however, the air transport industry is also represented at the international level. The IATA 'seeks to improve understanding of the industry among decision makers and increase awareness of the benefits that aviation brings to national and global economies' (*www.iata.org*). Its

main mission is to fight for the benefit of all parties involved, including passengers, airlines, governments and suppliers. The association comprises over 240 airlines from 118 countries, thus representing 84 percent of global air traffic. With the exception of Southwest Airlines, all the airlines analysed in the current paper are IATA members. The association also comprises 30 African airlines, including ALS and Kenya Airways from Kenya, and Airlink, Comair, Interair, South African Airways, South African Express Airways and Safair from South Africa. No Ugandan airline is a member of IATA (*www.iata.org*).

Trade unions

Traditionally, the aviation sector is highly unionized (Blyton et al. 2001; Hendricks et al. 1980). While under the conditions of strict state regulations the product of airlines was predictable and stable and the sector was characterized by the high level of job security and good terms of employment, both of which were consistently defended by strong trade unions (see Blyton et al. 2001; Windle 1991), the privatization, liberalization and deregulation processes that started in the 1980s and changed the environment from safe and ordered to much more competitive pushed airlines to adopt a more commercial orientation and seek higher profits and efficiency (Blyton et al. 1999). This restructuring has also inevitably redefined the role of trade unions (Blyton et al. 1999; 2001). As Gittell et al. (2004: 163) put it, 'the battles between labour and management in the first decade of deregulation are legendary and continue to leave a residual bitterness and mistrust throughout the industry'. Despite this, as numerous studies illustrate (see Blyton et al. 1999; Gittell et al. 2004; Hendricks et al. 1980; Wever 1989), trade unions remain important actors in the international aviation industry. Their role in negotiating the conditions of privatization and deregulation of the airline industry is especially important in the African context, where liberalization, deregulation and commercialization of the industry appear inevitable.

The aviation industry in Africa is also highly unionized. In Kenya, for example, air industry employees are defended by the Kenya Aviation and the Allied Workers Union, affiliated with the Central Organisation of Trade Unions (COTU). In Uganda, there is one trade union for all transport sectors apart from railways – the Amalgamated Transport and General Workers' Union, affiliated with the National Organization of Trade Unions (NOTU). Both COTU and NOTU are also members of the International Trade Union Confederation. Finally, in South Africa, the interests of aviation industry workers are defended by the South African Transport and Allied Workers Union (SATAWU). Affiliated with the Congress of South African Trade Unions, the union takes care of all transport industries in the country.

Although the role of trade unions differs between countries, in order to secure high levels of employment, trade unions in the aviation industry generally tend to oppose deregulation and liberalization of the sector. The South African unions that in the 1990s stopped the national government from privatizing SAA (Goldstein 2001) serve here as the best example. In this respect, in some countries the interests of trade unions are largely convergent with those of the national government. Therefore, aviation industry trade unions may often indirectly (and probably also unintentionally) restrict the development of tourism.

Airports and air navigation services

The role of airports and air navigation services in host countries revolves around organizing tourist flows coming by air in terms of safety, availability of gates, synchronizing connecting services to secondary destinations with intercontinental flights and providing supplementary services at the airport. In the African context, however, where the majority of international airports are owned by the state and where the selection of international airlines to be served is determined by bilateral

agreements, the influence of airports on how production networks of foreign airlines are organized and which airlines are included or excluded from these is very minor. If the regulatory framework in Africa were more liberalized, if African airports were privatized and more foreign carriers were given access, the influence of airports on the operations of foreign airlines would increase.

Suppliers

Given that, in order to provide air services, airlines need a large number of additional products and services, suppliers are very important actors in airlines' production networks. The most important products include fuel, food and beverages, cabin equipment and aircraft, the latter of which nowadays are typically leased from manufacturers rather than being purchased. In addition, airlines source various business services, including legal and financial services and call centres. As Schlumberger (2010) observes, the impact of airlines on the aviation sector's supply chain is the most important one the aviation sector has on economic growth. This usually pertains to both the airline's home country and the territories it targets. For economic reasons (cost, transport, just-in-time deliveries), airlines have a strong preference to use local suppliers in targeted countries, thus forging local linkages. As the requirements of airlines with regard to the quality of products they source are usually strict, they also often act as important instigators of qualitative changes.

Tour operators, travel agents and online booking engines

As described by Ioannides (1998), the competitive advantage of tour operators in the tourism industry originates from their role as coordinators packaging into single products the various elements serving the travel experience, including flights and accommodation, and selling them to customers (see also Britton 1991; Ioannides 1994; Middleton 1988; Urry 1990). For the same reason, tour operators are also important actors in airlines' GPNs. It was in the 1950s that airlines realized that tour operators could help them achieve 'higher passenger load factors by filling empty seats and providing these at significantly discounted fares in various combinations with other elements that make up a packaged inclusive tour' (Ioannides 1998: 141) and reduce their promotional expenditures (Sheldon 1986).

Crucially for developing countries that rely on tourism, tour operators have a very important influence on 'the geography of origin-destination tourist flows and, ultimately, the fortunes of individual destinations' (Ioannides 1998: 139). Unless the tour operator manages a subsidiary airline, the availability of good airline connections to a given destination is one of the critical factors determining whether the destination is to be included in the tour operator's portfolio (Ioannides 1998). In either case, however, the influence of tour operators on tourism in the destination may be hugely restricted by the bilateral agreement, which, as discussed above, may impose limitations on the volume of tourism traffic between the two countries.

Cooperation between airlines and tour operators also proves crucial when, instead of booking flights, hotels and other services separately, the client wants to book a packaged product and expects the airline to provide them with trip planning services on the basis of a chosen airfare. Traditionally, in order to control as many stages in the supply chain as possible, airlines also tend to offer their customers accommodation, car rental services, insurance services and other supplementary tourist services, all of which can be combined into a single packaged product. However, in contrast with the 1960s and 1970s (i.e. the era of vertical integration in the tourism sector; see Ioannides and Debbage 1998; Lafferty and van Fossen 2001; Littlejohn 2003; Poon 1993), when airlines owned their own hotel chains and often also other kinds of tourist services, trip planning services are now increasingly outsourced. These include independent tour operators such as Thomas Cook Deutschland, which cooperates with Lufthansa, and MLT Vacations, which

serves United Airlines and Delta Air Lines, or dedicated subsidiaries such as American Airlines Vacations and US Airways Vacations. As Table 10 illustrates, very few airlines offer such services directly. However, African holiday packages are rarely offered by the airlines analysed in this paper. If offered at all, they are frequently limited to the most popular holiday destinations, such as Morocco, Egypt, Kenya and Tanzania.

By the same token, to better serve clients who need supplementary services but are not interested in packaged holidays, many airlines cooperate with various third-party companies such as car rental companies (e.g. Avis, Hertz, Europcar) and different online hotel booking engines, which are often well-established hotel reservation systems offering airline customers their services via the airline's website (e.g. Booking.com, HRS, Expedia). In this respect, airlines have a strong tendency to cooperate with companies from the same country – for example the cooperation between the German-based Lufthansa and HRS and the Dutch-based KLM and Booking.com. Table 10 lists third-party companies providing hotel booking and car rental services to the 17 airlines.

Table 10: Firms providing hotel booking, car rental and trip planning services to the analysed airlines

Airline group	Airline	Hotel booking services	Car rental services	Trip planning services
United Continental Holdings Inc.	United Airlines	IAN.com (Expedia)	Hertz, Avis	MLT Vacations
	Continental Airlines	-	-	-
Deutsche Lufthansa AG	Lufthansa	HRS	Avis, Sixt	Thomas Cook Deutschland
	Austrian Airlines	HRS	Sixt	-
	British Midland International	IAN.com (Expedia)	Europcar	Worldwide Travel Exchange (WWTE)
	Swiss International Air Lines	Kuoni Connect, Myswitzerland.com	Avis, Europcar	-
	Brussels Airlines	Expedia	Avis	WWTE
Air France-KLM Group SA	Air France	Air France/iSeatz	Hertz	LM Travel Services (Travelocity) (available from UK only)
	KLM Royal Dutch Airlines	Booking.com	Avis	KLM Royal Dutch Airlines
Delta Air Lines	Delta Air Lines	Delta Airlines/Orbitz	Hertz	MLT Vacations
AMR Corporation	American Airlines	American Airlines	Hertz, Avis	American Airlines Vacations
JAL Group	Japan Airlines	Octopus Travel, Hotels.com, JAL Hotels, Rakuten Travel	-	-
All Nippon Airways (ANA) Group	All Nippon Airways (ANA)	-	-	-
Southwest Airlines Co.	Southwest Airlines	Southwest Airlines	Avis, Hertz, Alamo, Dollar, Thrifty, Budget	The Mark Travel Corporations
US Airways Group Inc.	US Airways	IAN.com (Expedia)	National Car Rentals, Alamo	US Airways Vacations
International Airlines Group	British Airways	British Airways	Avis	British Airways
	Iberia	Iberia/Online Travel Corporation (OTC)	Avis	-

Source: Own elaboration on the basis of the analysed airlines' official websites (April 2012).

Finally, it must be acknowledged that, while the cooperation between airlines, tour operators, hotel reservation engines and car rental firms is flourishing, the cooperation between airlines and travel agents who are employed to sell seats on behalf of airlines is currently undergoing fundamental changes. The need for cooperation with travel agents that derived from the initial inability of airlines

to distribute their services effectively on a larger scale is now less justified given the growth of direct channels of distribution such as the Internet (Alamdari 2002). The inevitable necessity to reduce distribution costs to more effectively compete with LCCs pushes FSCs to increasingly question the role played by travel agents (ibid.). However, whether this tendency should be expected to have any influence on the visitation to Africa would require more in-depth research on a large sample of airlines and travel agents.

Global distribution systems

Global distribution systems (GDSs) are dedicated companies that 'provide automated services to travel vendors such as hotels, airlines and car rental companies by building an inventory of products and rates that can be accessed and booked by any travel agent that subscribes to that particular GDS' (*www.flight-africa.com*). The origin of GDSs dates back to the 1960s when American Airlines introduced the first computer reservation system (CRS), called Sabre (Das 2002; Milne and Gill 1998; Venema 2011). Other US airlines followed quickly. While the first CRSs were internal 'in-house' reservation systems, operated by airlines themselves (Isler and D'Souza 2009; Milne and Gill 1998), in the 1970s, and especially after the 1978 US Airline Deregulation Act, they started evolving into multi-airline GDSs with multiple points of access (Chervenak 1992; Milne and Gill 1998; Venema 2011). This shift was driven by the emergence of multiple new carriers and the increase in the number of services and fares available to the public (Milne and Gill 1998). Moreover, airlines realized that travel agencies, if equipped with their own GDS terminals, could take over most of the distribution and marketing responsibilities, thus relieving airlines of the costs of providing these services directly (see Milne and Gill 1998). As a result, in the 1980s, airlines divested themselves of GDSs and passed them to independent operators (Isler and D'Souza 2009). Gradually, GDSs also embraced hotels, trains and ferries (Venema 2011). The popularity of GDSs grew, such that, by the early 1990s, 96 percent of all US travel agents were connected to at least one GDS (Milne and Gill 1998). Currently, there are four big GDSs – Sabre, Amadeus, Galileo and Worldspan (with the last two owned by the same company – Travelport) – and a number of smaller regionally orientated systems such as Abacus (Das 2002; Venema 2011; *www.flight-africa.com*). A total of 163,000 travel agencies are connected to at least one GDS, and approximately 550 airlines, 90,000 hotels and 30,000 car rental locations are now available through GDSs (Quinby 2009). In 2008, GDSs processed over 1.1 billion transactions (ibid.).

GDSs play a pivotal role in both corporate and leisure travel. According to Poon (1993: 12), the development of GDSs facilitated 'the production of new, flexible and high-quality travel and tourism services that are cost-competitive with mass, standardised and rigidly packaged options'. In addition, GDSs offer tourist firms better market exposure, foster their networking opportunities and, crucially, heighten the marketplace profile of destinations served by firms connected to GDSs (Milne and Gill 1998; Poon 1993). There are, however, numerous threats associated with the GDS technology. First, access to GDS may be too costly for smaller firms. Second, the development of GDS technology may cause a slowdown in employment growth or even lead to staff reductions. Third, the rigidity of GDS display may make it difficult for niche tourist firms to market their products as effectively as larger firms. Finally, GDSs limit the opportunities for destinations characterized by a high number of small locally owned firms, thus excluding them from the GPNs of international companies (see Milne and Gill 1998; Milne and Grekin 1992; Poon 1993). Nonetheless, little research has been conducted on the impact of GDSs on tourist destination development (Milne and Gill 1998).

Despite their advantages, the role of GDSs in the tourism industry is decreasing. As with travel agents (Alamdari 2002), the growth of direct channels of distribution allows airlines (and other

suppliers) to question the role of GDSs (Isler and d'Souza 2009; Milne and Gill 1998; Quinby 2009; Shaw and Williams 1994; Venema 2011; Walle 1996). This, naturally, leads to tensions between airlines and GDS operators who are forced to look for new ways of securing revenue. The tensions can be perfectly exemplified by the current conflict between American Airlines (AA) and various GDSs and online booking engines that major GDS operators own. As a reaction to AA's efforts to sell more tickets directly through the official website and to increasingly rely on direct connections with travel agents that bypass GDSs, first Travelport (the operator of Galileo and Worldspan), and then Sabre, increased AA's fees and declared that its flights would be displayed less prominently than those of its rivals (see Esterl 2011 and Ranson 2011 for details). As Esterl (2011) put it, there is risk for GDSs that other airlines will follow AA and terminate their agreements with third-party distribution companies to gain more control and enable higher profit margins. While it is unlikely that GDSs will completely disappear, they need to address the many shortcomings of the current GDS distribution if compared with the Internet (Isler and D'Souza 2009; see BCD Travel 2007 for a broader discussion of the current status of GDSs). However, extensive quantitative and qualitative research on a large sample of airlines and destinations would be needed to determine whether the current decreasing popularity of GDSs has any influence on inbound tourism to Africa and the role of tourism in fostering regional development in Africa.

5. Summary and conclusions

This paper has argued that, although the literature on the aviation sector is rich, it is largely detached from the research on tourism and its impact on economic growth. This detachment is clearly pronounced with regard to Africa. Thus, by means of analysing the operations of international airline groups in Africa and the regulatory framework in which they operate, and by identifying the different categories of actors constituting GPNs of airline groups, the main aim of this paper has been to lay the foundations for more nuanced research on the role of airline groups in stimulating the development of tourism in Africa.

The paper has focused on the ten largest airline groups in the world. In 2011, these groups comprised 17 flagship airlines and a number of subsidiaries and franchisees. Only five out of the ten groups and only 12 out of the 17 airlines were found to operate direct flights to Africa. It has been demonstrated that interest in Africa depends on the airline's country of origin's geographical proximity to Africa. Therefore, the African routeways of European airlines are more diversified than those of US and Japanese carriers. For example, in October 2011, the 12 airlines offering African flights operated as many as 130 direct African routes, and 123 of them were operated by European airlines. By the same token, it was only the European airlines whose subsidiaries and franchisees also flew to Africa.

Although 16 out of the 17 flagship airlines were found to be members of international airline alliances, the European airlines (e.g. Lufthansa, Brussels Airlines, Air France, KLM, British Airways) were the most important carriers operating flights to Africa in each alliance. Thus, it is the other member airlines that, in terms of accessing Africa, benefit from the operations of the European airlines, not the other way round. The exceptions are the African alliance members (Egyptair, South African Airways and Kenya Airways), all of which are valuable partners in terms of providing connecting flights to secondary destinations. Unfortunately, non-alliance African airlines are largely excluded from the GPNs of international airline groups and so play a very marginal role in stimulating tourism to Africa.

The regulatory framework in Africa in which international airline groups operate is far from uniform. Although several African states have embraced the principles of liberalization with regard to the African market and intra-African air transport, intercontinental routes are still often subject to strict protectionist policies. In order to protect their national carriers, many African governments continue to opt for restrictive regulations in terms of market access, seat capacity and frequency of services. Thus, air transport between Europe/the US and Africa is still based on the complex system of strict bilateral agreements negotiated separately by pairs of countries. Because such policies, by their nature, impose limitations on the volume of tourist traffic, they often have a detrimental influence on the development of tourism and thus also on regional growth in Africa. Only recently have some more liberal African governments started negotiating open skies bilateral agreements with selected European countries and the US. However, it should not be assumed that, if the liberalization and deregulation of air transportation in Africa progresses, the increased tourist traffic will automatically foster economic development in African tourist destinations.

International airline groups have complex internal structures that cross national boundaries. By the same token, their GPNs consist of many different actors and are multi-dimensional, multi-layered and multi-scalar in nature. Actors constituting production networks of airline groups can be divided into two main groups – those that set the regulatory framework and constitute the economic and political context in which airlines operate, and those that participate in the provision of air and tourist services. Whereas the first category includes multilateral organizations, national authorities, air industry associations and trade unions, the second group includes partner airlines and airline alliances, suppliers of products and services, tour operators and travel agents, online booking engines, GDSs, car hire companies and hotels. The most important actors contributing to the input-output structure of airline groups' GPNs are partner airlines whose role is to provide feeder flights to the flagship airline's hub and connecting flights to secondary destinations. The role of different actors responsible for the distribution of air services offered by airlines (tour operators, travel agents, online reservation systems and GDSs) is also often significant, although the role of GDSs and travel agents is increasingly questioned. Unfortunately, apart from suppliers of products and services, the level of reliance on African partners is in the case of European and US airlines very low. Therefore, apart from the most obvious areas of impact on regional growth (bringing tourists, creating jobs and forging local linkages), the influence of international airline groups on economic development in Africa remains limited. However, to assess the influence of each category of actors on visitor numbers and economic growth in Africa requires extensive research on a very large sample of airlines and destinations.

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