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E-tourism at a glance..... Madagascar

1. Madagascar

Introduction

International travellers have always been attracted to Madagascar by its wealth of natural resources (fauna, flora, geomorphology, climate) and cultural resources. Tourism in Madagascar has been constantly growing over the last twenty years with an annual increase of 11.4%. Madagascar is increasingly positioning itself as a prime eco-tourism destination. This strategic move, made by the government and private operators at the end of the 90s, has led, on the one hand, to a re-organization of the tourist product and a re-definition of related promotional activities and, on the other, to the rapid development of an eco-tourism customer base from new generating markets such as Japan, Australia and North America.

In the field of information and communications technologies (ICTs), Madagascar is currently showing a keen interest, with in particular a firm willingness on the part of the government to draw up an ambitious national policy with the goal of integrating the country in the global information society by 2010. It is in this context that we are investigating the future of e-tourism in Madagascar and, in particular, the probability of a destination management system for Madagascar being set up.

Characteristics of the destination

Madagascar, the 4th largest island in the world with a surface area of 587,014 km², has a worldwide reputation for the quality and diversity of its natural wealth of flora and fauna, of which the rate of endemism is on average 80%. The country also enjoys great geomorphologic diversity such as the Tsingy de Bemaraha in the north, a UNESCO World Heritage site, or the Isalo Massif in the south. Madagascar has a tropical climate with many microclimates (humid, temperate and dry).

Madagascar currently has 14.8 million inhabitants from 13 different ethnic groups; 77% of the population live in rural areas and most of the urban population live in Antananarivo, the capital, which had 2.5 million inhabitants in 2003. Madagascar has two official languages: Malagasy (Malagasy) and French.

Tourism in Madagascar

Tourism in Madagascar started booming with the advent of the first charter flights (in 1997) and the opening of direct routes by air to Asia (in 2002). There has undeniably been sustained growth in international tourists travelling to Madagascar; with just under 23,000 visitors in 1982 compared with 170,208 in 2002, that is over 600% growth in 20 years.

Tourism is a relatively young sector but it quickly took hold as an essential area for Madagascar's development by, for instance, becoming the main hard currency generator, overtaking other export products (coffee, vanilla and fish) with tourist revenue (from international tourists) estimated at over \$66 US million in 2002. That same year tourism directly and indirectly created 15,000 jobs.

However, despite this encouraging picture, Madagascar is still far from reaching its full potential in terms of developing the tourism sector and attracting international visitors (estimated at 450,000 tourists a year according to Ministry of Tourism forecasts).

The government has embarked upon a broad-ranging, aggressive programme of restructuring and classifying the tourist supply while promoting foreign investment in this sector, in order to increase and improve the infrastructure for tourism and for access to the country - a prerequisite for developing the tourism industry.

Thanks to the government's commitment as well as other favourable factors such as the development of regional tourism (in the Indian Ocean) through an increase in the number of specialist carriers, opening up to South-East Asia with direct flights between Antananarivo and Bangkok, or even the country's strategic positioning as an ecotourism destination, it is very likely that Madagascar will achieve its goal of 500,000 foreign visitors a year by 2007.

ICT Situation in Madagascar

The e-tourism initiative in Madagascar is very closely linked to the development of the telecommunications and ICT (information and communication technologies) industry. The following information allows us to take stock of the current prevailing situation in this industry in Madagascar.

Table 1 – Description of ICTs in Madagascar

Particulars/explanation	Observations
Number of fixed telephone lines (home and business)	60,000
Number of mobile telephone lines	240,000
Internet users	ratio of 4.3 for every 1,000 inhabitants (2003) – roughly 70,000 users
Number of Internet subscribers (2001)	15,000 of which 80% are businesses or professionals (CIA sources estimate the number of subscribers in 2003 as 70,500)
Internet Service Providers (ISPs)	9 private companies : Data Telecom – Service – Simicro – Créapro – Vitel – Blanche Birger – Blueline – Alias Internet Accès –Sinergic- Compro (joint ownership : domestic and foreign)
Telephone companies – Fixed lines	TELMA – privatised in 2003 with 68% of shares bought by the Distacom Holdings consortium (a Hong-Kong multinational) – 34% of the share bought by the State and 34% bought by France Câble Radio (FCR). Owner of communication infrastructure, telephone lines, exchanges, manager of Internet access infrastructure, etc.
Mobile telephone companies	3 companies – Madacom, Orange and Intercel – majority foreign ownership
Internet Access Providers (IAP)	3 players of which 2 are private companies – DTS (56K connection), GULFSAT (satellite connection) and the LELAND Project (USAID)
Subscription cost – Fixed line	Roughly 65\$ US /year – international call rates: 0.95\$ US/min to 1.89\$ US / min (full hour) – For the mobile telephone companies the prices are generally 25 to 35% cheaper
Subscription cost - Internet (28 to 64kBps)	Between 353\$ US/year (5 hours/month package) and 3 038\$ US/year (60 hours/month package)

For general information, on 26th November 2004, the minimum salary in Madagascar was 51.68\$ US/month (620.17\$ US/year).

ICT development in Madagascar faces several challenges, namely:

- the costs of access and using ICTs are still very high, even for business and professional users - having an Internet connection is still considered a privilege;
- there is no cooperation between the telephone companies to the detriment of customer service and connection quality;
- little public-private partnership in the telecommunications sector;
- infrastructure which does not yet allow effective and good quality national coverage in terms of telecommunications and Internet services;
- the high installation cost and the need to train the local workforce risk slowing down the installation of the high-speed, unifying network (or 'backbone').

Nevertheless, the following favourable elements should speed up the integration and adoption of ICTs:

- growing national awareness of the increasing importance of ICTs in the economy and society as a whole;
- a national policy which supports the development and setting up of ICTs in Madagascar in terms of regulations and financing (Public Investment Programmes);
- the continuing deregulation and privatisation of the telecommunications sectors;
- the creation of a 'national backbone' network with a coverage rate of at least 80% in the main towns of the 6 provinces (due to be completed by the end of 2005);
- the forthcoming arrival of fibre optics in Madagascar (2008) through the SAT3-WASC-SAFE project (France Telecom, Fibres Optique Atlantis, South Africa Far East and other regional shareholders) allowing the country to enjoy a high speed Internet connection.

Taking stock of the adoption of ICTs and e-commerce in the Tourism sector

Despite the absence of in-depth studies on the adoption of ICTs and e-commerce in Madagascar's tourism sector, after interviews with several (public and private) stakeholders in autumn 2004 as well as consulting the available information, the following points have emerged:

- tourism actors started adopting ICTs towards the end of the 1990s which coincided with the increase in the number of Internet Service Providers;
- in 2003, the number of Internet subscribers was roughly 60,000 (300% growth on 2001) with 83% of Internet users in the capital Antananarivo and only 17% in the country's other 5 provinces;
- 80% of Internet users are private traders and of these 35% are involved in activities directly linked to tourism;
- 90% of tourism actors use the Internet for e-mail, searching for information and promoting their business image and the services/products they offer;

- the large majority of tourism actors (86%) have IT tools but their use is not directly linked to using ICTs but rather for office administration (91%).

The actors, especially private traders (travel agencies, hotels, tour operators, tourism plants, etc.) are aware that the integration and use of ICTs in the tourism industry is an essential condition for its development as well as developing access to the country and tourism infrastructure.

The opportunities the tourism sector presents to reduce the digital divide and North-South imbalance

Globalisation goes hand in hand with an extension and increasing concentration of networks. The Internet, the network of networks, will carry these information flows and a new development vector.

The Madagascan authorities, aware of the stakes linked to ICTs for Madagascar's development and with the aim of achieving the goals set out in the Strategy Document for Reducing Poverty (*Document de stratégie pour réduction de la pauvreté*, DRSP), have drawn up an ambitious national policy which aims in the long term to:

- use ICTs as a driving force for development in all socio-economic sectors;
- ensure that Madagascar plays a leading role in creating a unifying international fibre optic network in Eastern Africa;
- make this new infrastructure an opportunity for Madagascar to cover the ICT services of the Indian Ocean and Eastern Africa region, in favour of national and regional economic growth;
- use the national digital network to contribute to rapid development, benefiting all Madagascar's provinces.

However, it is noticeable that tourism is an area which has not yet been dealt with explicitly within the framework of a national policy. There are nevertheless genuine opportunities for the tourism sector, particularly for promotion (a global showcase for the destination, international exposure at a low cost for the tourism product of local tourism actors, etc.) and distribution (direct sales, on-line sales, booking and availability in real time, etc.).

The profound changes in tourism supply and demand

By orientating tourism in Madagascar towards "green" tourism and by positioning Madagascar as an ecotourism destination, the country has to adapt its tourism range to the new target clientele, a global market valued at \$10 billion US and spending in the region of \$12 billion US in developing countries. For Madagascar, it is a strategic turnaround compared with earlier strategies which focused on a general-interest market (orientated towards developing mass tourism) motivated by the concern of getting the destination known.

The characteristics of the tourist clientele which favour "green" tourism and more particularly eco-tourism are the following:

- average age of about 39, highly educated (2/3 have been to university), high income (more than \$45,000 US), generally travelling as a couple;
- average stay of 8 to 14 days with the main reason for the trip being to observe nature and local fauna, highly aware of environmental conservation issues;
- mainly looking for multi-activity packages and prepared to spend more on a holiday (for general information, average tourist spending per stay is \$450-\$800 US);
- the main sources of information are word of mouth (54%), **Internet (35%)**, tourist information centres, and international tourist and travel guides (11%).

To reach this clientele more effectively Madagascar therefore needs to develop promotional and awareness-raising activities using ICTs, especially in the first stage of approaching the customer (information, raising awareness, promotion).

As concerns the Madagascan tourist product, the changes are particularly visible in the adoption of ICTs by private operators for their international promotional and awareness-raising activities.

In terms of Internet presence, 35% of tourist actors have a web site and are present in the main on-line directories as well as in specialist content portals. We are also witnessing a certain harmonization of content of the tourism products offered on-line due to a fast imitation phenomenon. More than 90% of interaction between tourism actors and international customers now occurs via e-mail. Furthermore, the development of Internet sites with enriched visual content (dynamic visual elements, interactive content, photo galleries, etc.) has become very important for tourism actors since the cost/benefit ratio is more attractive in the medium term, compared with traditional advertising and promotional media and methods (taking part in fairs, leaflets, advertisements, television commercials, advertorials, etc.)

Adapting ICTs and Internet to new consumer behaviour patterns and as a new strategic tool, allowing destination countries to achieve autonomy

Taking into account that domestic tourism demand remains modest, Madagascar is therefore heavily dependent on international generating markets. For that reason, the country must face up to the new consumer behaviour patterns regarding their use of ICTs. Table 2 gives a (non-exhaustive) description of the expectations and needs of the clientele as well as the current prevailing situation in Madagascar.

Table 2 – The needs and expectations of the international clientele and the current situation in Madagascar

Expectations and needs	Current situation
Easy and user-friendly on-line access to information about the destination	Haphazard access to sites especially those hosted by Madagascar-based a server Little good quality listing on the common search engines (Google, Yahoo! Altavista, Lycos, MSN, etc.)
Good quality information (relevant, credible and up-to-date content) and in real time (dynamic content) on-line and the possibility to receive personalized content or to download documents	Limited/restricted: limited pass-band, lack of reliable information and shortage of qualified staff to manage the content management (programming and continuous input of information)
Preference for specialist portals and on-line content integrators (one-stop information centre)	Non-existent: Absence of an initiative to bring together private operators, high cost of integrating the content of Madagascan tourism product, requires the government's support and financial backers

Checking availability (accommodation), creation of made-to-measure packages on-line	Non-existent: high cost of putting in place such a system, shortage of qualified staff for the technical implementation and existing technical and network platform not adapted
Access to a catalogue of tourism products and the possibility to make bookings on-line in real time	Rarely available: reticence of private operators to advertise their products due to a quick imitation phenomenon, average connection quality making on-line booking risky, high cost of putting such a system in place and shortage of qualified staff for the technical implementation
Finally, to be able to buy tourism products on-line	Non-existent: shortage of qualified staff for technical implementation, and technology and network platform not adapted, requires the support of the government, financial institutions and backers, requires the development of partnerships and agreements with external service providers specialising in on-line transactions

It can be observed that the main obstacles for meeting customers' new needs and expectations are the inadequacy of telecommunications and technological infrastructure, the shortage of local qualified staff to make this technically feasible and above all the lack of initiatives for public-private partnership to develop the necessary ICT tools for developing Madagascar tourism.

The integration and effective adoption of ICTs by tourism actors will allow the country, in the long run, to achieve some autonomy, particularly in being able to reach the target customer more directly and easily, ensuring quality control and the relevance of the information conveyed.

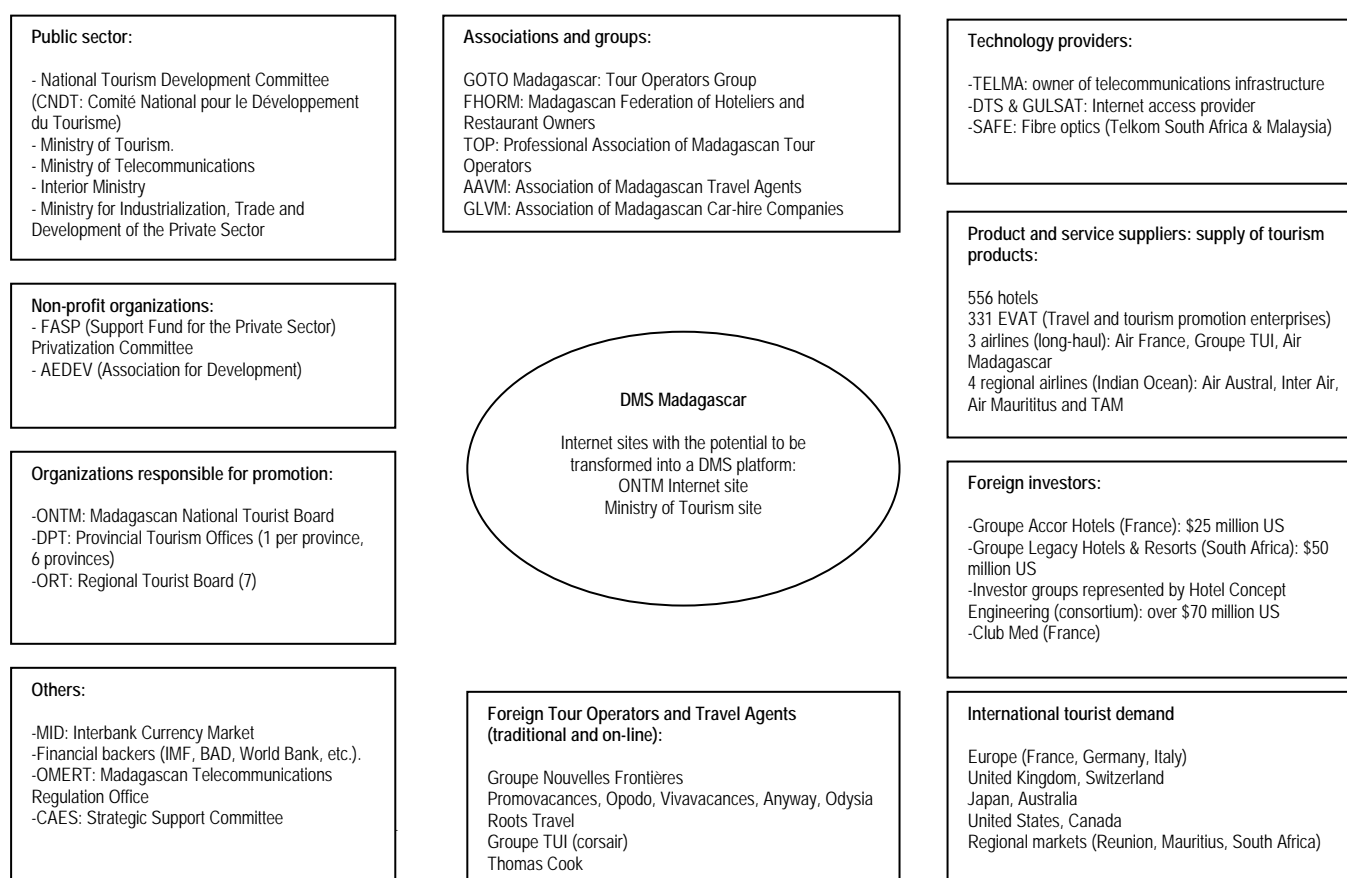
The pursuit of a national consensus on the initiative

The successful implementation of an e-tourism policy in Madagascar depends on three essential factors:

1. the political goodwill of the government by considering the initiative as a national priority, by putting place the necessary infrastructure (public investment) and by granting a budget allocation sufficient for the completion of the initiative;
2. the willingness to reconcile different public and private actors in terms of their interests in order to have a shared, holistic and long term vision;
3. the negotiation of trade agreements with private international partners – potential owners of telecommunications infrastructure (fibre optics, satellites, foreign telecommunications operators, etc.).

Although the first point seems to be taking shape (however, nothing has yet been mentioned explicitly about tourism), the main challenge remains the pursuit of reconciliation of interests of the different actors (domestic and foreign, public and private). Figure 1 maps out the various interest groups in a (*hypothetical*) destination management system in Madagascar.

Figure 1 – The stakeholders for the putting place of a DMS project in Madagascar (interest groups, based on the Buhalis model, 2003)



For private operators, the priority remains for the moment short-term profitability and adapting their products and services to the eco-tourism clientele; the government's main worry is how to increase (public and private) investment in tourism and access infrastructure and attaining the DRSP goals (an essential condition for the granting of financing by backers).

It should however be noted that some organizations have been created of which the mission will influence the evolution of Madagascar's e-tourism and which illustrate the trend towards strengthening public-private partnership.

We can cite the following bodies in particular:

National Committee for the Development of Tourism (CNDT) - established in 1991: an inter-ministerial structure responsible for applying tourism development policy with the participation of representatives of private operators;

E-strategy Support Committee (CAES) – established in 2002: entity bringing together people from public institutions, technical and financial partnership bodies and organizations from civil society (the tourism sector is not as yet represented);

National Tourism Board of Madagascar (ONTM) – formerly Maison du Tourisme de Madagascar, re-organized and renamed in 2003: body responsible for promoting tourism and as a platform for meetings and exchanges for public-private partnership under the Ministry of Tourism.

Defining a national strategy/partnerships

Target markets

In 2001, the number of tourist visitors to Madagascar was 170,208, i.e. 1/10th of the total number of visitors to the south-west region of the Indian Ocean. The country has three categories of generating market: primary, secondary and regional markets.

The primary markets are mainly European countries (accounting for 64% of the total tourist visitors) and more particularly France (60% of European visitors). The secondary markets are North America (the United States and Canada), Japan, Australia and France, which account for 27% of the total tourist arrivals.

Moreover, regional tourism (Indian Ocean and South Africa) generated nearly 9% of tourism arrivals for the same period.

Customers' needs fall into three categories: adventure and discovery tourism (43%), seaside tourism (15.3%) and “green” tourism (41.7%) with the niche market of eco-tourism seeing the most considerable growth over the last ten years (average annual increase of 32% compared with average increase of 11.4% of all tourist arrivals).

Madagascar's main competitors fall into three categories:

- Regional tourism competitors: Reunion (French overseas territory with 450,000 visitors), Mauritius (560,000 visitors), the Seychelles (110,000 visitors) and South Africa (6.4 m visitors);
- Eco-tourism competitors: Kenya, Tanzania, South Africa, Australia, Costa Rica, Brazil, Ecuador and Indonesia (these destinations attracted over 75% of the world's eco-tourists);
- Seaside tourism competitors: all the destinations which are accessible with an average airfare of \$1,700 US (average return airfare to Madagascar).

The current strategy of tourism operators is to focus on aggressive, large-scale promotion in the main generating markets in order to increase the number of tourist visitors after a crisis in 2001-2002 due to the poor international economic climate. Nevertheless, the future of tourism in Madagascar seems inextricably linked with the country's capacity to reach “green” tourists and satisfy their needs and expectations. For that reason, the adoption and integration of ICTs will play a crucial role in the promotion and sale of Madagascan eco-tourism products to these customers.

Madagascar's tourism product

Madagascar's tourism product can be subdivided into three very distinct categories: accommodation establishments, travel and tourism promotion enterprises (EVAT) and airlines. Table 3 sets out the characteristics and challenges of each category.

Table 3 – Categories, characteristics and challenges for Madagascar’s tourism product

Category	Characteristics	Challenges
Accommodation establishments 2004 data)	746 hotels (of which 252 in Antananarivo): 220 classified (30%) and 526 not classified (70%) Ownership structure: 4 and 5 star hotels and ‘ecolodges’ (10% of the establishments counted): 90% foreign-owned. 90% of establishments have a 100% Madagascan ownership structure. Classification systems: by star-rating (international) and by ‘ravinala’ (domestic system) : 111 establishments rated 1 to 5 stars and 109 rated 1 to 3 ravinala Total number of rooms : 9000 - Occupancy rate - average 60%	Very few establishments meet international standards and tend to be concentrated in big urban centres. The classification system for accommodation establishments is not yet totally effective due to the growing number of unclassified establishments. Lack of tourism infrastructure (shortage of quality tourist accommodation in high season).
Travel and tourism promotion enterprises (EVAT) – (2002 data)	331 companies including 149 tour operators (45%), 116 travel agencies (35%), 50 vehicle/car-hire companies (15%) and 16 other companies connected with tourism (5%). Ownership structure: tour operators - 80% domestic, 15% joint (foreign/domestic) and 5% foreign. Travel agents - 10% foreign, 35% joint and 55% domestic.	Reliant on partnerships with foreign specialist tour operators, wholesalers and package dealers. They meet 90% of the costs connected with promotion in the generating markets (fairs, exhibitions, advertising, etc.), limited scope of promotional activities. Undifferentiated product in the “eco-tourism” niche market. Reliant on ICTs in terms of exposure on the generating markets for local companies.
Airlines (2002 data, except the prices)	Long-haul flights: 3 airlines - Air Madagascar, Air France and Corsair (TUI group) Air Madagascar: Paris (4 nights flights/week), Milan (2 flights/week), Bangkok (2 flights/week) Air France: 2 flights/week Corsair: 2 flights/week Average airfare (return): between 1204\$ US (low season) and 3695\$ US (high season) Regional flights (Indian Ocean): 5 airlines: Air Madagascar, Air Austral, Inter Air, Air Mauritius and TAM (Transport aérien de Madagascar) Flights: Reunion (6 flights/week), Mauritius (4 flights/week), Johannesburg (3 flights/week), Nairobi (1 flight/week) and the Comoros Islands (2 flights/week) Average airfare (return): between 574\$ US and 1021\$ US (a fairly uniform price throughout the year) Domestic flights: Air Madagascar and a dozen private operators (locally-chartered flights) Flights : 2 to 3 flights/week for the main towns of the 6 provinces and the administrative centres Average airfare (return): between 150\$ US and 300\$ US (quite a uniform price throughout the year)	With the current product, one would fear a lack of available places with the increase of tourist arrivals in the medium term. The privatization of the national carrier, Air Madagascar, risks giving control of the company over to groups of foreign investors whose rationale would be profitability and efficiency above all (abandoning unprofitable routes, restructuring, subcontracting of maintenance). The sale of tickets on-line could threaten the future of Air Madagascar agencies as well as local travel agencies. On-line reservations of Air Madagascar tickets (linked up to GDS) go 100% through foreign distribution companies. Serving the secondary markets will be a priority to reach the eco-tourism customers (in North America and Australia)

Several observations emerge from the analysis of Madagascar’s tourism range:

- the supply of accommodation is insufficient for the current and future demand and the classification of hotels is still far from being harmonised and effective;
- promotional campaigns in the main generating markets are mainly supported by private enterprises which, due to a lack of substantial financial means, are not able to conduct a real large-scale marketing strategy which reflects the country’s tourism potential;
- the distribution network for Madagascan tourism ranges on the international market is dominated by foreign operators which control access to it;
- Madagascar remains an expensive destination as far as airfares are concerned and therefore is not competitive on the international market (whatever type of tourism one is searching for: seaside, adventure, discovery or eco-tourism).

The future orientation of Madagascar’s tourism product comes down to increasing the number of tourist arrivals particularly through sustained development of tourism and access infrastructure, a more aggressive and targeted promotional strategy for the destination in the most lucrative markets (seaside, eco-tourism) and finally the

continued efforts of local tourism actors (public and private) to harmonize and standardize the tourism range to international standards.

The standardization and presentation of Madagascar's tourism product in the face of global demand

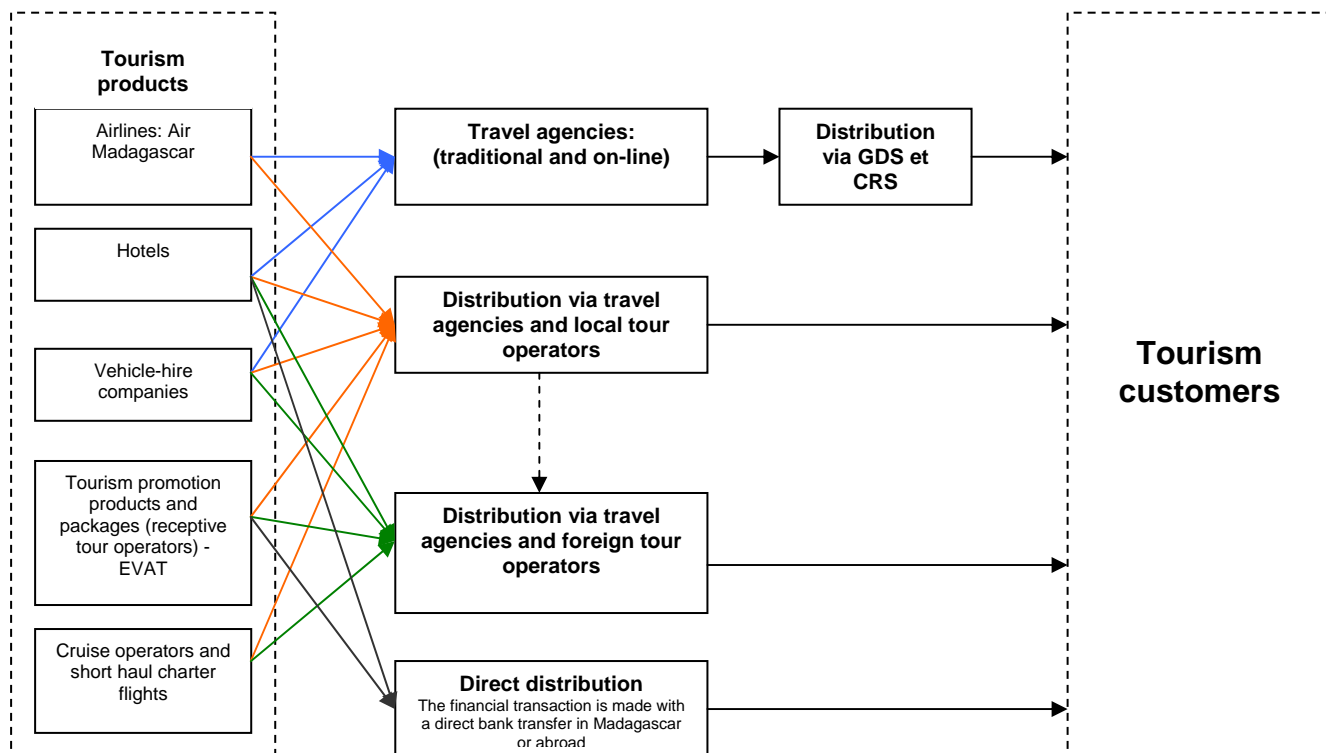
The standardization and presentation of Madagascar's tourism product require:

- the use of a classification system of which the criteria meet international standards (the creation of the brand "Welcome to Madagascar" for the quality of services is an initiative which needs to be extended across the board);
- an increased and systematic use of ICTs to support the promotion and direct distribution in generating markets;
- the strengthening of Madagascar's position as an eco-tourism destination in the global market is fundamental since the specialisation of destinations will become the norm in the medium term;
- the development of a destination management system for Madagascar in the medium term through increased public-private partnership, this should allow the country to take advantage of powerful incentive leverage for the customers in the markets of generating countries.

Business model for distribution

Madagascar's tourist products are still difficult to access via GDS and CRS. Plane tickets and accommodation are partially present on these systems and are thus potentially accessible via Internet for tourism customers. Nevertheless, Madagascan operators do not have direct access to these GDS and CSR and have to go through foreign companies which control access to them for Madagascar as a destination. The EVAT, cruise operators and charter airlines go through foreign tour operators or travel agencies to distribute their products 80% of the time. There is only minor direct distribution due to the difficulty in providing the financial transaction part (control of currency dealings, slowness of bank transfers, non-convertibility of the Madagascan currency outside Madagascar, non-existence of transactional Madagascan sites which accept major credit cards, etc.)

Figure 2 – Distribution of Madagascar’s tourism products



The E-Tourism Initiative, based on the integration of ICTs, will allow Madagascar to reduce this dependence on foreign intermediaries for distributing its tourism products in the long run. This will also allow the country to focus better on its target clientele in certain specialist niche markets and increase tourist arrivals and its profits.

Conclusion

This case study on Madagascar clearly shows that the country is at a crossroads as far as developing e-tourism is concerned. The development and integration of ICTs are now one of the priority strategic issues for the government and the framework paper PNTIC-D lays the groundwork for Madagascar’s future digital society. ICTs are a vital development lever for the country and a practical way of achieving the goals set out in the DRSP.

Although e-tourism does not yet have a high profile in Madagascar, all the economic actors are aware that the integration and adoption of ICTs in this industry will further its development and will make Madagascar’s tourism products more accessible to the rest of the world. ICTs will also allow the country to regain some autonomy in the distribution of its tourism products by having direct access to its target clientele. Moreover, setting up a destination management system will, in the medium term, speed up the process of standardizing products to international standards. The DMS will also favour public-private partnership and will allow all the economic actors in the industry to benefit from the advantages of a single powerful technological platform to promote their products and services, and above all, Madagascar as a destination.