

Developing Countries and the Tourist Industry in the Internet Age: The Case of Namibia

Arne Wiig

1. Introduction

For low- and middle-income countries, tourism represents almost 8 per cent of merchandise trade. Around one-third of international tourism is captured by developing countries, and tourism is the only major sector in international service trade where developing countries have consistently had surpluses.¹ Worldwide, travel services constitute 32 per cent of service exports, but in Africa they constitute 56 per cent. It could be claimed that these high shares of service exports reflect the low level of the other service sectors rather than a high level of tourism. This is only partly correct. International tourism has shown significant growth rates and these were 50 per cent higher in developing countries than developed countries in the period 1980–96. From 1995 to 1999 annual tourism in African countries increased by 6.9 per cent compared to a world average of 2.9 per cent (WTO, 2000a). In the past, high growth rates have led to an upsurge in the importance of tourism, a proc-

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1 38 per cent of tourist arrivals and 31 per cent of tourism receipts are accruing to low- and middle-income countries of which China, Thailand, Mexico, Malaysia, Singapore and Indonesia are the most important tourist destinations (World Bank, 2003:354).

ess that seems to be continuing. UNCTAD (2001ab) proclaims that there is further tourism potential for developing countries. In fact, tourism development appears to be one of the most valuable avenues for reducing the marginalisation of least developed countries (LDCs) in the global economy.²

The tourist industry represents an interesting avenue for poverty reduction and economic development (ODI, 1999; Sinclair, 1998). Tourism is labour-intensive; there are potential links with other industries such as construction, agriculture and transport; and the poor may have access to tourist assets such as natural resources and culture. At the same time, tourism may lead to de-industrialisation (undermine other industries) if prices of non-tradeables increase significantly (Copeland, 1991).³

My point of departure is that tourism is an information-intensive bundle or package of goods. As such, the tourism sector is intertwined with the development of information and communication technology (ICT), a factor that is hardly mentioned in the literature referred to above.

ICT already plays a significant role in tourism. Tourism is one of the most important sectors that apply ICT and one would expect that changes in ICT, particularly the arrival of the Internet, to influence the structure of the industry. UNCTAD (2000) proclaims that e-commerce and ICT represent an opportunity for developing countries to improve their relative position through a significant reduction in transaction costs. E-commerce permits development through productivity gains in supply chain management and is expected to represent about 20 per cent of worldwide business-to-business and retail transactions by 2006 (UNCTAD, 2002a). The Internet and e-commerce represent promising avenues for further development of the tourist industry in developing countries and challenge the traditional role played by 'bricks and mortar' intermediaries. Yet, one cannot be too optimistic. The 'new economy' is not so new, in the sense that fundamental economic principles also apply to it as much as to the 'old economy'. We do not yet know the fate of the traditional intermediaries and whether there is room for new agents, for example from developing countries. Traditional agents may as well

2 The participation of LDCs is small and uneven. Tanzania, Maldives, Cambodia, Nepal and Uganda account for half of all tourist receipts by LDCs.

3 As argued elsewhere, in the case of Namibia, this is not really a problem since manufacturing already plays a minor role, partly due to high labour costs (Brits and Wiig, 1998).

exploit the new opportunities created by the ICT revolution and adapt existing business activities to the new circumstances.

This article analyses how the use of ICT in the tourist industry influences the structure of the supply chain and looks at the potential impact on market share and revenue. For most developing countries, the retention of tourism revenue is currently as low as 30 per cent (WTO, 1998a). Most analyses focus on import leakage (part of tourist consumption is imported goods) and factor income leakage (airline companies, hotels, travel lodges and car rental firms are in many cases owned by foreigners). My focus is on savings in transactions costs. I will distinguish between three different consequences of ICT. The Internet may lead to a reduction in distribution costs. The first question I raise is whether the Internet makes it possible for a service provider to reach the customer directly through marketing. Normally, consumers buy their tourist goods or services through a travel agent in their home country. The agent receives a significant commission from the supplier, but the commission varies according to the tourist product. Through direct marketing the service provider saves distribution costs, which in turn may increase the market share and the retention of revenue. The second mechanism analysed is the Internet's impact on competition. The question I raise is whether the Internet increases competition between intermediaries. My focus is on competition across networks of global distribution systems (GDSs). Increased competition may reduce the fees the network charges and make it more likely for an individual service provider to connect to a GDS and thereby reach a larger market. The third mechanism is the Internet's capacity to market various marketing destination messages. The main question addressed is how co-operation between service providers can reduce distribution costs and exploit network externalities by creating destination portals.

While we know that online travel constitutes about 10 per cent of the market in developed countries, we hardly know anything about the extent of ICT and e-commerce or the importance of intermediaries in developing countries.⁴ Statistical data are important in order to design strategies for tourism development, and I will address the three questions raised above in relation to ICT with data from the Namibian tourist industry.

4 UNCTAD (2002b:7) provides an overview of available statistics, but no references are given to data from developing countries.

This article is organised as follows. As a background to the analysis, Section 2 elaborates on the information-intensive character of the tourist industry and discusses spillovers. Section 3 analyses the three mechanisms in which ICT may influence the supply chain in the tourist industry described above. Section 3.1 analyses conditions under which the service provider may substitute for the travel agent. Particular emphasis is given to the travel agent's role as a bundler and a 'certifier' of goods and services. The next two subsections analyse the impact of ICT on competition between distributors and on co-operation among service providers respectively. Based on the critical variable defined in Section 3, Section 4 presents results from a survey among stakeholders in the tourist industry in Namibia. Section 5 concludes.

2. Tourism – an Information-Intensive Product

The following section elaborates on the characteristics of the tourist product as an information-intensive bundle of goods and services. I then look at the wider perspective, in particular spillovers into other sectors such as telecommunications, financial markets and factor markets (i.e. labour, markets and skill formations), which underlines the importance of complementary goods and services. In order to analyse the impact of ICT on the supply chain in the tourist industry, corresponding changes in complementary assets must be analysed.

2.1 Characteristics of the tourist product

Tourism is a composite bundle of goods and services geographically segmented across specific geographical areas. It includes accommodation, transport facilities (air transport and vehicles), activities (what tourists do during their stay), attractions and ancillary services (banking, telecommunications, hospitals). Factors such as the destination's security level, confidence and trust between the main actors, and cultural identification are also important factors influencing the value of the tourist product. Of particular relevance in a Namibian context are wildlife and spectacular landscapes (Ashley, 1998; Brits and Wiig, 1998).

Consumers often do not place a separate value on individual elements of the composite goods. There are complementarities between certain elements. Site-specific assets such as spectacular scenery or wilderness may, for example, increase the 'value' of the

accommodation. Similarly, ancillary services and trust make it more attractive to be a tourist in a particular place. The consumer's choice of a particular destination and tourist product is determined less by individual components such as hotel facilities than by an attractive combination of various elements.

Tourism is an information-intensive industry, particularly during the booking phase (UNCTAD, 2001b) and when new tourist destinations are introduced. Producers and intermediaries try to earn the confidence of their customers through providing quality information. On delivery, tourism is labour-intensive. But also at this stage, provision of information about local history and culture influences the value of the product. Through tourism, people are exposed to different cultures, and informed tourism may change stereotypical images (which to some extent are also information goods), which have impeded travel activities, trade and direct foreign investments.

To reach international tourists, suppliers need intermediaries such as travel agents and tour operators who can obtain and provide information and bundle goods. Travel agents have traditionally taken care of these tasks through the use of different computer reservation systems (CRSs). During the 1980s, airline companies' computer reservation systems became global distribution systems (GDSs).

The travel agents and tour operators are also important certifiers of goods, which is of particular importance for new tourist destinations where consumers have no prior experience. In addition, there is a legal aspect to be considered. Consumers may sue travel agents if they sell substandard products. It is more difficult to sue individual service suppliers in remote areas that lack a sound legal system. Inclusive tour charter is therefore a common way to travel to new tourist destinations.

The main mode of supply is movement of consumers – not movement of producers or products. As with other service industries, foreign direct investments also play a significant role.

2.2 Spillovers

Tourism generates much employment worldwide. One person in ten is employed by the tourist sector, and tourism is a significant sector for small- and medium-scale enterprises (SMEs). Countries in the World Tourist Organization are in the process of creating satellite accounts for the tourist sector. Such accounts make it possible to analyse the importance of tourism in a particular country

and its indirect impact on other sectors (indirect multipliers). Satellite accounts are not generally available for developing countries.

In Namibia, tourism plays an important role in terms of both employment and exports, particularly for SMEs located in remote areas of the country where diversification is needed. More than 20,000 people are employed directly or indirectly in the tourist industry (see Government of Namibia, 1997). The indirect multiplier is estimated to be 0.7 although no input-output matrix is available. From visitors' surveys, it is estimated that air fare and accommodation constitute around 70 per cent of the total package costs and that the local carrier Air Namibia serves 50 per cent of travellers to Namibia. A similar pattern is found in developed countries.⁵

In addition to generating employment, tourism may also enhance a country's social capital through skill-formation. A positive service attitude, fluency in the language spoken by the tourists and a rating system of service providers may increase the quality of the product. Certain labour and quality standards are necessary in order to compete internationally. Such standards upgrade the quality of the staff and services provided, not only in tourism but also in other sectors.

The composite character of tourism may also lead to more co-operation. Ashley (1998) found that tourism in communal areas stimulated co-operation between community members as well as co-operation across communities.

Many developing countries market tourism as scenery- or wildlife-intensive, making it of utmost importance to preserve the wildlife. With a proper regulation regime, income from tourism may facilitate conservation and investment in wildlife and habitat, and also sustain culture (Ashley, 1998 and 2000). Namibia, for instance, is marketing its product as a 'wildlife product' and without a proper conservation policy tourism would not be sustainable. The focus of this article, however, is on tourism as an activity that may enhance information and communication technology (ICT) and financial services. These services have a spillover impact on local communities as well as at the national level and may lead to economic growth. In OECD countries, Roller and Waverman (2001) found

5 For instance, in Norway passenger transport services (bought in Norway) constitute nearly one-third of the total tourist expenditure. However, in Norway, food and beverages – not accommodation – constitute the second most important tourist expenditure, at 20 per cent of the total.

(See http://www.ssb.no/english/subjects/09/01/turismesat_en/tab-2002-08-29-02-en.html)

that ICT development stimulated economic growth through an increase in the total factor productivity.⁶ This result has been disputed in a developing country context (see, for instance, Aochamub *et al.*, 2002), but find some support in Jacobsen (2003).

A well-developed telecommunication sector is a prerequisite for international communication and supply chain management, including the development of e-commerce. Without Internet access, it is impossible to create web pages and have effective dialogue with partners or customers. Customers will be faced with high search costs when they look for tourist services in remote areas. With Internet access, they can be only a click away. In addition, financial services (online banking facilitates or similar services) are needed to encourage e-commerce.

The tourist sector plays an important role in increasing the demand for ICT services. Tourism is generally an ICT-intensive industry in terms of registered home pages, numbers of visitors to websites and online trade. In fact, tourism (travel, transport and hotel reservation) is the single most important product bought online, and constitutes 38 per cent of all online trade (UNCTAD, 2002a). Tourism represents the product with the highest growth rate (40 per cent) in e-transactions.⁷ According to the consultancy firm Forrester, more than 60 million households in the United States booked travel online during 2002, spending approximately US\$ 20 billion, constituting around 10 per cent of the travel market. As measured by the total number of composite visitors, online travel agents and air companies were the third most important websites visited (after Yahoo, and AOL) in 2001.⁸ There are also more visitors to information resources such as Lonely Planet and Milesource than to those on hotels and rental cars.

3. The Internet and Industry Structure

Lower transaction and distribution costs through the Internet may change the way the supply chain is managed, particularly the role played by intermediaries. In Section 3.1, I will focus on how the Internet makes it possible to provide information services directly to the customers and thereby reduce the role of travel agents. In

6 The increase in growth that cannot be explained by added labour and capital.

7 See <http://www.emarketer.com/news/article.php?1001794>

8 http://www.top9.com/top99s/top99_web_sites.html. The last available figures are from March 2001.

that section it is assumed that the number of GDSs (or networks) and the number of firms connected to a network is fixed. Section 3.2 extends the analysis to discussions on how the Internet may influence competition between networks and the individual service providers' incentives to participate in these networks. Section 3.3 focuses on how service providers may co-operate by creating a particular type of network, the so-called destination marketing portal.

3.1 The Internet reduces the importance of the travel agent

The traditional structure of the supply chain in the tourist industry consists of consumers, travel agents, CRS suppliers and service providers. In addition, local and overseas tour operators operate as merchants. Consumers undertake private or business travel, which are two distinct market segments. Our focus is on the private tourist market. Customers differ according to their willingness to pay for the tourist bundle, their attitudes to risk and their computer skills. These are all factors assumed to influence the demand of tourist services and the choice of distribution channel. Consumers may either buy the tourist bundle directly through individual service providers or through intermediaries. Most interactions in the travel market are currently completed through intermediaries.

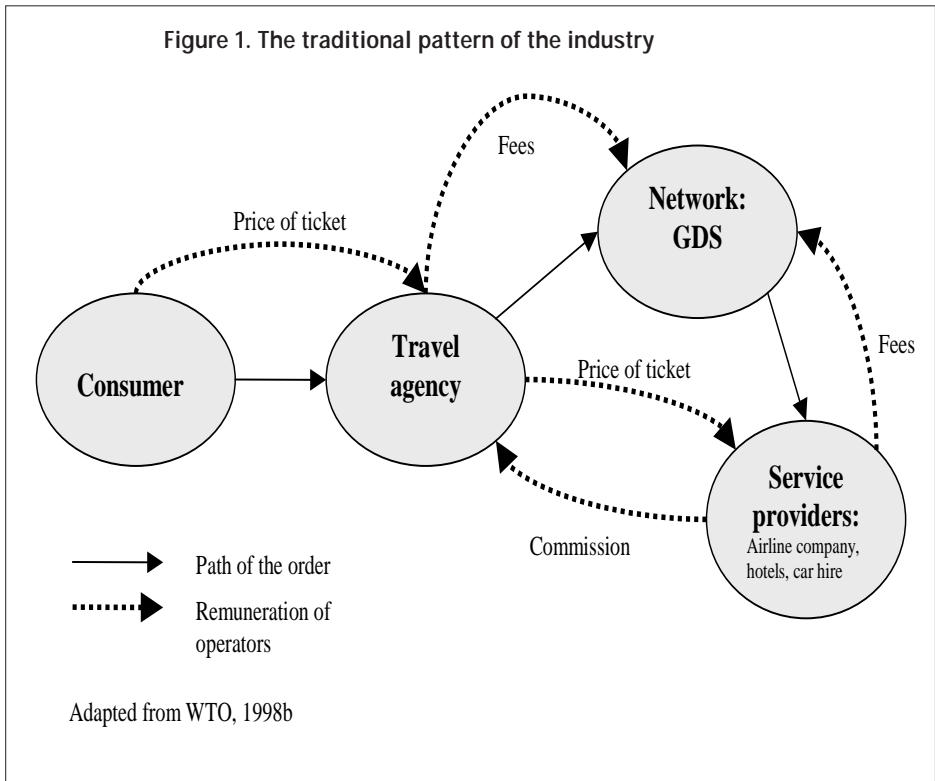
Travel agents and tour operators are both intermediaries who through their services facilitate the exchange of tourist services.⁹ Traditionally, the travel agent is seen as a retailer and the tour operator as a wholesaler. But this is only partly correct. To some extent, the tour operator and the traditional retailer play similar roles; both assume ownership of the product. Operators are remunerated through residual surplus (the difference between buying and selling prices). The travel agent, on the other hand, is a broker, does not own the product and is not faced with the risk of perishable products. The travel agent is remunerated by commission. Both agents provide information services about the supply and demand structure for a bundle of individual products which make up the composite good of tourism. In addition to creating a package, these intermediaries also serve as certifiers (guaranteeing quality and payment).¹⁰ In the following, I will restrict the analysis to travel agents since they, as brokers, are expected to be challenged the most by the new technology.

9 See Spulber (1996) for an overview of the theory of intermediaries.

10 Intermediaries also provide insurance and liquidity, and facilitate logistic management (Brousseau, 2002; Spulber, 1999).

Consumers do not have direct access to a network of information services, while travel agents do through their connections to CRSs or GDSs. Travel agents can use many GDSs, but normally use only one or two since each system requires a specific technology and travel agents normally get a discount after a certain volume of reservations. The agents make requests regarding connections, availability of seats, hotels, etc., through their network of information services. For an individual service supplier to be selected, the supplier needs either to have a direct contact with the travel agent, some system of electronic data interchange (EDI) or to be connected to a GDS. When connected to a GDS, their inventory is available to all subscribing agencies worldwide within the GDS they participate in.

Figure 1 reflects how orders are placed and money transactions made in the traditional industry structure. The travel agent is the customer of a GDS and pays for its services, and gets commissions from the individual service suppliers. Individual service providers normally pay a fee per transaction (segment) to a GDS, but also need to make fixed investments in computer systems.



The Internet has introduced new distribution channels. Services may be offered directly to the customers either by the individual service provider on a home page or by 'virtual travel agencies' providing information through the network.¹¹ Consumers may access information by searching the Internet and respond interactively, if full-fledged e-commerce solutions are available. The travel agent is therefore challenged both by direct contact between the consumer and the service supplier, and by virtual travel agencies. The increased pressure from suppliers is illustrated by air companies' recent moves to reduce the commissions paid to travel agents.

In Figure 2, below, I have sketched the supply chain (without the travel agent) including electronic intermediaries. In the figure, a distinction is made between four types of virtual agency. These are portals connected to existing GDSs, other virtual travel agents, travel portals of a group of individual service providers (air companies) and national portals created at particular destinations. In this section, I will focus on the first category only, emphasising a situation where competition between existing electronic intermediaries is unchanged, but services can be offered through the Internet. The alternative online option is direct marketing (which may be termed the fragmented solution). In the following section, I will discuss competition across networks.

The Internet has made it possible to make global distribution networks accessible for customers on the Internet, as Sabre has done by establishing Travelocity. Whether electronic intermediaries will take over the role played by traditional travel agents depends on whether electronic intermediaries are able to provide the same services at competitive prices, in terms of providing information, creating attractive packages and winning the trust of customers. The cost of providing information is low, since the only difference is that information previously provided by GDS systems is now made available on the Internet by the same agents. A likely implication is thus that virtual travel agencies will be able to provide information efficiently. Information goods have low marginal costs, the cost of creating a package of services is low, and virtual agencies are able to exploit this (see Section 3.2 for an elaboration). Regarding trust, GDSs already have a reputation in the market, which they exploit through the creation of virtual agencies.

¹¹ Travel agencies have also developed online booking systems, but these are still connected to GDSs. Travel agents are also using the Internet for information-seeking (and thereby bypassing GDSs). There are also web-based search engines dealing specifically with the lowest priced fares.

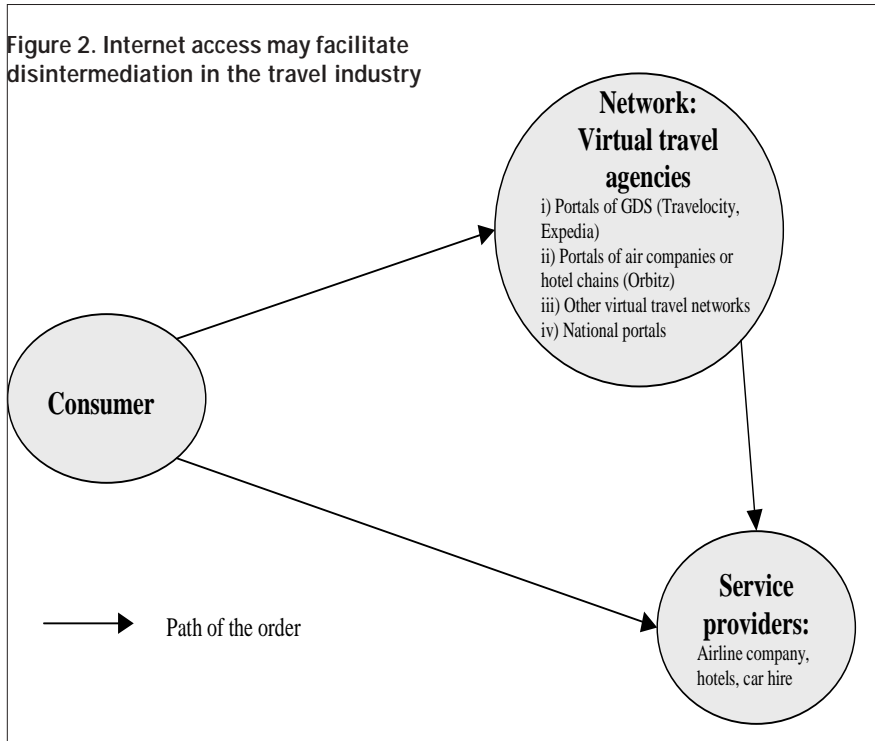
It is less likely that the possibility of direct contact between consumers and service suppliers will have an equally large effect on the industry. The customer is then faced with prohibitive search costs, ineffective bundling of the services required and trust deficiency. This is particularly true when it comes to small individual service suppliers in developing countries, and is not the case with large reputable airlines. The importance of trust generally increases with distance, particularly for differentiated goods.¹² Small service providers do not have a reputation for reliability and will still need some kind of intermediary.¹³ The fragmented organisation of the supply chain is most likely to benefit a particular market segment, rather than spur overall growth in the market. Service providers will reach risk-loving, highly skilled (computer-literate) but low-income backpackers with small search costs (i.e. ample time to search). Highly skilled independent travellers with higher incomes and low search costs (i.e. enjoying searching on the Internet) also represent an increasing market potential although this market constitutes a tiny share of the overall tourist market.

More generally, online travel markets may be expected to have the greatest prospects in markets where:

- ▼ consumers have credible information about the quality of service providers, are protected by some system of warranties and are not averse to taking some risks
- ▼ money transactions are secure
- ▼ consumers and suppliers are computer-literate
- ▼ distribution costs are high
- ▼ technology is convenient (allowing e-tickets to be issued) and facilitates the creation of bundles of goods. For the supplier creating a bundle reduces price competition, but for the consumer it means greater variety. If consumers have preferences for particular bundles, they can trade off a higher price for a better match.

12 Sandelien (2003) provides an overview of the literature on the relationship between distance, trust and trade.

13 See, for instance, Goldstein and O'Connor (2000).



In both cases of online travel discussed above, however, the role of travel agents will be reduced. The potential exclusion of traditional intermediaries may reduce transaction costs, and if so, service suppliers may acquire a higher share of the value added. Being a small provider of tourist services, it is unlikely that Namibia will benefit greatly from this (although individuals with an established reputation may benefit). The ability to build trust and confidence could be even more important for information-intensive goods, partly since the cost of marketing on the Internet normally is low, making it more difficult to distinguish between high-quality firms and substandards companies just by their advertising. Goldstein and O'Connor (2000:28) claim that branding is important in order to develop e-commerce.

The effect of the Internet might be greater if competition between virtual agencies reduces the cost of being connected to a network and individual service providers co-operate. These issues are discussed in the subsections below.

3.2 The Internet may increase service providers' participation in networks

In this section, I will analyse competition between GDSs. A GDS may offer a wider range of products than a CRS as it subsumes different CRSs. There are currently four major worldwide GDSs: Sabre, Amadeus, Galileo and Wordspan. Sabre is the largest, and is particularly important in the United States. In Europe, Amadeus is the largest, with a market share of approximately 60 per cent.¹⁴

My main point of departure is that these distribution systems have market power and price their services in a prohibitive way from the perspective of an individual service provider in developing countries. Tourist businesses in developing countries are therefore generally not connected to such systems. Connecting a network is crucial for reaching a larger market. The question I raise is whether the Internet may change the competition between GDSs and thereby induce participation from firms in developing countries. There are at least three mechanisms at work. First, competition will increase from firms that sell their products online (see Section 3.1, above). There are two main groups of such firms. No-frills carriers such as Ryanair sell their services outside existing GDSs only. In addition, many reputable service providers are selling both through GDSs and directly to customers. The pressure from individual service providers may drive down booking fees.¹⁵ If not, GDSs will not be able to exploit their network externalities. A network externality is characterised by a situation where the value of participation of one user is increased when other users join and enlarge the network. If important service providers disconnect, GDSs will face negative externalities. Second, competition will increase due to lower switching costs across GDSs. Switching costs arise when an agent is locked in to a particular technology and it is costly to change to a new system, say a GDS. The Internet makes it less costly for consumers to change to a new system. Third, there may at the same time be a risk that the pressure on GDSs from important vendors undertaking direct marketing is passed on to service providers who do not have similar outside options (say small service providers in developing countries). GDSs are facing financial problems because airlines try to save on distribution costs by circumventing their services,

14 Galileo is the second most important with a market share of 22 per cent as measured in terms of the number of travel agencies having access to the system (see Buhalis, 1998; WTO, 1998b:8).

15 At an international travel conference in May 2003, representatives of GDSs acknowledged that fees will be reduced. <http://www.travelmole.com>

leading small GDSs to go out of business.¹⁶ Unless they diversify GDS services, there is the risk that some service providers will face higher fees. Individual service providers may also face tougher price competition due to the Internet. Below I will focus on the first two mechanisms, my point of departure being the literature on network externalities and switching costs (Katz and Shapiro, 1985, 1994; Farrell and Saloner, 1985, Shapiro and Varian, 1999; Economides, 1996).

With network externalities, consumers' willingness to pay increases with the total number of units sold. A traditional GDS is characterised by three types of network externalities:

- i) *Economies of scope*. The GDS system enhances the possibilities of exploiting the complementarities between goods and saving on distribution costs. The technical booking system is applicable to more than one good. The aggregate costs of providing a number of different goods are therefore lower than the sum of individual components. GDSs provide a number of different information goods such as information on prices of air tickets, hotels, cars, etc., each of which have low marginal costs. Bundling is an appropriate way of exploiting economies of scope due to technological complementarities in production, distribution or consumption (Bakos and Brynjolfsson, 2000).
- ii) *Matching*. As more service providers are connected, more goods become available, facilitating the matching of a given number of consumers with service providers. As more service providers are connected, more customers will use the network.
- iii) *Economies of scale*. The more service providers are connected, the lower the fixed cost per unit (average costs). The network is characterised by high fixed costs and low variable costs. To some extent fees reflect this cost structure. Service providers pay a (variable) fee per segment/ticket/booking dependent on their level of participation in the system. In addition there is a fixed cost for being connected to the network (particularly in terms of investments in specific technology). Higher participation may lower fees and thereby encourage entry.

Markets with network externalities are generally characterised by imperfect competition. This has also traditionally been the case

¹⁶ Wordspan was sold recently because of financial problems.

with GDSs as revealed by the geographical segmentation of markets and concentration indices (see Box 1 for an overview of the anticompetitive mechanism applied by the GDS-owning firms). GDSs have a significantly higher market share in the country where the founder airlines operate than in other countries, and a few GDSs dominate the market (see above).¹⁷

Box 1. GDSs and competition

The airline industry was among the earliest industries to explore the use of ICT through a privately-owned network of services. Electronic data interchange allowed the network participants to control, promote and sell their product globally. The network was called a computer reservation system (CRS) and refers to computerised systems containing information about carriers' schedules, availability, fares and fare rules, from which reservations can be made and tickets issued (WTO, 1998b:4). Pemberton *et al.* (2001) distinguish between three phases in the development of the CRS and claim that the owning (airline) firms have kept their competitive advantage during all phases.

Initially only the big airlines developed *internal seat inventory systems*. Smaller air companies contracted out their seat inventory and reservation functions to carriers with CRSs. At this stage, owning carriers had a competitive advantage because of effective operational management of internal activities. During the second phase, CRS owners allowed other airlines to display information on their systems. The owners invested in CRSs while non-owning companies were charged booking fees. In addition to enjoying lower fees, owners also gained a competitive advantage by restricting fares and inventory from competing CRSs. One way of restricting fares was through the so-called *screen display bias*. When searching, systems were calibrated in such a way that parent company flights appeared before those of the competitor. Screen display bias was later prohibited by regulations, although some countries have made Most Favoured Nation exemptions for CRSs (see WTO, 1998b:10). The third phase of CRS development took place in the 1990s, when different CRSs were linked to each other through strategic alliances and partnerships and created global distribution systems (GDSs). Tour operators, travel agents, car companies, hotels and accommodation were also linked to these GDSs, making it easier for owners to control the whole value chain. During the third phase 'control, dissemination and manipulation of CRS data played a vital role in sustaining competitive advantage for CRS-owning companies' (Pemberton *et al.*, 2001).

17 In the case of Amadeus, the three founder airlines Air France, Iberia and Lufthansa control 60 per cent of the shares and Amadeus' market share in its founder countries is nearly 90 per cent.

The Internet represents a new phase in the development of GDSs, allowing consumers direct access through the Internet to a CRS or GDS. GDSs are adapting to this new reality by applying multi-channel distribution strategies. Sabre has introduced Travelocity. Galileo has acquired Trip Com. Amadeus has a stake in Opudo and E-travel. In addition to previous actors adapting their strategies, new actors with a background in communication services have entered the scene. Microsoft has, for instance, created Expedia, an online booking facility. Expedia and Travelocity are the largest online travel agents covering more than 50 per cent of the online trading market.

The new virtual agents mentioned above use existing platforms of GDSs (as Expedia is connected to the Wordspan system and Travelocity is connected to the Sabre system). For instance, Travelocity only provides information about service providers connected to the Sabre system. These ‘agents’ therefore continue the role of traditional travel agents, rather than substituting GDSs. They are dependent not only on the services provided by GDSs, but also on those provided by traditional travel agents. So far, they need travel agents to issue tickets and in many cases to take care of financial arrangements. Virtual travel agencies are therefore national in scope. More generally, travel agency services provided online are not very different from those provided by traditional ‘bricks and mortar’ travel agencies. On the demand side, customers can easily switch between virtual and traditional travel agencies. On the supply side, traditional travel agencies are able to turn into virtual agencies and vice versa.¹⁸ As for GDSs, it is easy for them to become virtual trade agencies.

To some extent, the close relationship between air companies and GDSs is being challenged, and the capital structure is changing. Sabre was separated from American Airlines in 2000 and Galileo was acquired in 2001 by Cendant Corporation, a vertically integrated multinational providing all types of travel services.¹⁹ GDSs become public, and discriminate less against non-owning carriers. Yet, the overall system has not become less concentrated.

The global distribution system has been accused of being discriminatory. The large virtual travel providers have met with the

18 The competitive assessment applied in this paragraph is in line with the approach taken by the European Community. See, for instance, The Commission of the European Communities. Case No COMP/M.2794-Amadeus/ggl/jv 21.05 2002:3

19 Avis, for instance, is owned by Cendant.

same accusation. The market is characterised by vertical restraints such as exclusive dealing, for instance American Airlines provided web-only fares to Travelocity, and not to Expedia, who did not agree to cut fees. Expedia on their side stopped selling Northwest Airlines for some weeks because the airline wanted lower fees. According to Forrester Research, Expedia tends to favour carriers with which it has marketing arrangements.²⁰

Virtual travel agencies and traditional GDSs have the same type of *network externalities*. The same service providers are connected, the same bundling possibilities are available, but operational costs may be lower for virtual travel agencies. These network externalities are all mechanisms that have been available in the pre-Internet era, and it is an open question whether the virtual networks discussed above will influence them in any way. The main difference is that the consumer to some extent substitutes for the travel agent, does the matching and creates the bundle himself. To enhance consumers' trust in all types of online travel (see Section 2.1), improved legislation is a prerequisite.

Individual service providers try to bypass GDSs by creating their own portals that are not connected to a GDS. Four American airline companies have for instance introduced Orbitz, and SAS has introduced online booking facilities which are not connected to any particular GDS. By creating Orbitz, the American airline companies could bypass traditional GDSs without being subject to mandatory participation in other distribution systems.²¹

For these new actors to be viable, bundling possibilities and trust seem essential. During the current Internet phase, consumers mainly package online on the web page of a virtual travel agency (build-your-own package) or combine individual home pages (say SAS and AVIS).

Individual service suppliers with a customer base and brand name represent a serious threat to GDSs, particularly when customers (as independent travellers) have low bundling costs or low preferences for bundling. In addition, the Internet has probably reduced the costs of running a GDS or virtual network. More important, the

20 Quoted from Michael Shapiro, 'The sum of all fares', *Washington Post*, 28 July, 2002.

21 Galileo claims that Orbitz is discriminatory.

http://www.cendant.com/media/pr/press_release.cgi/Travel+Distribution+Services/10982. In the United States, 'mandatory participation' has been required up to now. This means that airline companies owning a CRS should also participate in other CRSs. Through this participation, it is expected that airline companies make competitive offers at any CRS.

Internet has a greater potential impact on the switching costs between systems. It has also increased the compatibility between different online systems. Customers may switch from one online network to another with just a click, reducing the lock-in mechanisms characterised by previous GDS systems. The arrival of new virtual travel agencies, particularly agents unconnected with traditional GDSs, increases competition not because of a reduction in network externalities, but due to a reduction in switching costs. Each GDS has its own individual technological platform that requires specific investments in skill and capital (for instance in accounting and booking systems), and subsequently high switching costs for the travel agents. The Internet provides a more general technological platform and may therefore stimulate competition among the GDSs and between GDSs and individual service providers. If so, fees will decrease and the incentives to participate in networks increase.

At the same time, the main new market players are actually not new. As shown above, reputable firms are behind the new type of networks and GDS suppliers still control the market for electronic intermediaries. In markets with network externalities such reputations can be self-perpetuating, leading to increased concentration. The extent of vertical restraints also indicates that competition could be stiffer. In spite of these problems, it is reasonable to expect that the cost of connecting to a network will decrease and that will lead to increased participation both in traditional and new virtual distribution systems. Connection to a network is of the utmost importance for reaching a larger market and exploiting complementarities between goods. However, one also needs to bear in mind that consumers may gain through a reduction in prices due to lower distribution costs while individual service providers are faced with stiffer competition.

3.3 Destination marketing

UNCTAD devotes particular attention to one ‘virtual’ network and suggests that developing countries should create destination marketing organisations, co-ordinating individual initiatives.²² However, UNCTAD hardly discusses the requirements that need to be met if these organisations are to substitute for the travel agent, or whether governments should play a role. Proper standard-setting and co-operation between individual service providers and the government

22 See also WTO (1999).

are elements in such a strategy. Let me end this section with some comments on destination marketing in the light of the discussions in the previous sections. To facilitate a destination marketing portal, there are at least three reasons for government intervention:

- ▼ Direct network externalities. A portal has the same type of network externalities as those described in Section 3.2 (economies of scope, matching and economies of scale), but may be controlled by the individual service providers rather than by GDSs or their virtual substitutes. These externalities lead to co-ordination failures. An agent does not take into account that his connection to a network increases the value of the network.
- ▼ Public goods and information failures. The branding of a tourist destination, infrastructure and ‘wildlife’ are to some extent public goods and need government support. The same applies to the concept of trust, at least the type of trust that can be influenced by the government. In Section 3.1 the importance of trust was discussed. Without trust, people will not book online. Tourists do not have accurate information (see Section 2.1). The government should therefore control or guarantee the information provided through, for example, proper standard-setting, dispute resolution mechanisms and secure financial transaction systems. Otherwise there is the risk that ‘lemons’ tap the reputation of a particular destination.
- ▼ Complementarities and spillovers between pairs of tourist goods or across services (roads and air transport increase the value of accommodation). ICT investment facilitates communication and financial services facilitate online trading (see Section 2.2). Developing a booking system also requires the development of a telecommunication sector for communication and a financial sector for online trading. Tourism policy needs to develop complementary assets such as telecommunications, financial intermediation, trust and bundling facilities.

These market imperfections have led to market failures in the supply chain, and represent challenges for governments at any particular destination. Some parts of the tourist industry (GDSs in particular) are rather concentrated (see Section 3.2).

As discussed in Section 3.1, the travel agent is of particular importance in providing information and creating a package of goods (facilitating ‘one-stop shopping’). When the number of potential products is reduced (for example when there are a few service

providers from one country), it is easier to establish independent portals competing with the traditional intermediaries. As argued in Section 3.1, small individual service providers will generally not succeed with individual web-based solutions only, due to high search costs and a lack of high-profile reputation. Co-operation between firms through a network or portal is an alternative strategy. The establishment of a common portal for graded tourist resorts may reduce consumers' search costs and lead to increased revenue for individual service providers. But the other side of the coin is that a new destination portal does not have existing customers and needs to build up a new clientele.

A new portal needs a booking mechanism for the individual service providers connected with it, links to information sites (so as to provide information), links to air companies (to facilitate the creation of packages), and some sort of arrangements for financial transactions, including electronic signatures and mechanisms for settling disputes. A portal needs to convey the message that its services are to be trusted. It also needs to connect to a number of search engines, otherwise consumers will not be connected.

4. Tourism in Namibia

The following section provides an overview of the tourist industry in Namibia based on secondary data as well as data from field trips to Namibia (in June and November 2001). Based on the theoretical approach in Section 3, the main purpose of this section is to illustrate some of the principal challenges faced by the tourist industry in one particular developing country, due to the rising importance of ICT. Namibia is of particular interest since its tourism potential is great. In addition, Namibia is a middle-income country with well-developed telecommunication and financial sectors, making it easier to exploit the opportunities created by the Internet than in many other developing countries without these complementary assets. To some extent, therefore, it serves as a test case for whether 'the new economy' makes a difference for tourism in developing countries.

I conducted 15 structured interviews with some of the main stakeholders in the tourist industry such as lodges, hotels and airline companies,²³ tour operators, traditional travel agents and new 'virtual' agents. In addition, I interviewed representatives from the govern-

23 Air Namibia was the only airline willing to respond to my questionnaire.

ment and from the ICT industry. The interviews were not representative of the population and the selection of firms was also biased. I chose to interview the largest tour operators and the largest hotels because I expected them to be using ICT (through web pages, e-commerce or booking systems) more intensively than other agents in the sector and therefore more easily able to create link directly with customers. As a comparison, I interviewed some local community-based organisations, which served as network organisations for small tourist firms. I was particularly interested in responses to questions along the same lines as those analysed in Section 3.

- ▼ The current importance of travel agents and the structure of the supply chain. What roles are currently played by intermediaries, in relation to the size of the market and incentive structures between the actors involved?
- ▼ Whether the firms face any problems with their access to GDSs and how they have adopted ICT in general and as a marketing device in particular. Have firms developed e-commerce solutions and, if not, what kind of problems have agents experienced? How are service providers winning the trust of their customers?
- ▼ Private and public initiatives to increase co-operation, such as the creation of common platforms and of a destination marketing organisation.

Primary data will be presented in Sections 4.1-4.3 emphasising the importance of intermediaries, agents' adoption of ICT and the government's role in tourism and ICT policy. First, however, I will present some background material.

Tourism is the third most important sector in Namibia and its contribution to GDP is around 7 per cent. It is by far the most important commercial service exporter (92 per cent of Namibia's commercial services are in tourism). Namibia had 861,000 tourist arrivals in 2001 and its expenditure on tourism was approximately US\$ 300 million (in 1998).²⁴ It was one of a very few markets worldwide that grew in 2002, one of the industry's toughest years in history.²⁵

²⁴ WTO (2001); World Bank (2003: 353).

²⁵ Information provided from Galileo.

Namibia participates in the World Tourism Organization and in regional tourist organisations such as RETOSA (part of SADC). As a member of SADC, Namibia allows free establishment for SADC-registered companies in Namibia. During the GATS negotiation, Namibia is in fact the only SADC country without any limitations on foreign suppliers of tourism services.

Namibia's market share in Africa is one-tenth of South Africa's, the largest tourist destination in Africa. Tunisia and Morocco also have significantly higher market shares than Namibia.²⁶ But Namibia scores higher than Tanzania (the most important tourist destination among LDCs). On average Namibia experienced a 12 per cent annual growth rate in tourism from 1995 to 1998 (WTO, 2000a). Although Namibia is a significant tourist destination in Africa, Africa accounts for only 4 per cent of the tourist arrivals worldwide and 2.3 per cent of international tourism receipts (WTO, 2000b).

There are several explanations for the growth of Namibia's tourist industry. Increased consumer income in developed countries and an increased awareness of and preferences for new and exotic tourist destinations are relevant factors.²⁷ Increased knowledge of foreign destinations and political stability in Namibia have spurred this growth.²⁸ The tourist industry is characterised by product cycles where new tourist destinations regularly replace traditional destinations. We see that destinations in developing countries have started to compete with traditional tourist resorts located in the Mediterranean, particularly if these new destinations are perceived to be safer than traditional tourist destinations such as Turkey and Egypt. Namibia is an example of this. The growth is also a result of the globalisation process where service trade is increasing. Globalisation leads to an increase in business travel, which in turn leads to the expansion of leisure and personal tourism, which may have benefits for trade and investment. An increase in service trade increases tourism, particularly in sectors where the movement of individuals represents the main mode of supply. This is of particular importance for intra-regional tourists, such as business people from South Africa delivering services to Namibia.

26 For an overview of tourism in Africa, see Christie and Cromton (2001).

27 According to Denstadlie and Hjorthol (2002:73), overseas travel significantly increases with income, education and age (up to 66 years). Long-haul travelling has therefore increased during recent years. Other countries have similar findings (for the case of Germany, see, for instance, WTO, 2000b:1699).

28 Terrorist attacks, war and a severe acute respiratory syndrome (SARS) have changed this, particularly for countries in Northern Africa and Asia.

The market is divided into three different categories of international tourist. Visitors from South Africa (39.1 per cent), Angola (30.3 per cent) and Germany (10.5 per cent) are the most important (in terms of tourist arrivals). Tourist arrivals from countries outside Africa increased annually by approximately 20 per cent during the 1990s, which is higher than the overall growth rate (12 per cent). The growth rate has been highest for the richest income groups. The relative importance of intra-regional tourism is similar in South Africa and Namibia, and more important than in Kenya where inter-regional tourism plays a more significant role. The travel pattern and the reasons for travelling differ between these categories. Four out of five tourists travel for leisure, but the share of business travel is higher for African residents.

According to WTO (2000a), by 2020 more people will visit Namibia than the size of its population. WTO claims that the growth of tourism in Namibia will be higher than in the rest of Africa if Namibia maintains its conservation programmes.

4.1 Travel agents

For the big Namibian hotels, tour operators located in Namibia and Namibia's wildlife resorts (covering all accommodation in national parks in Namibia), 60–80 per cent of bookings currently go through intermediaries, mainly located in the importing countries. For Air Namibia, the share is even higher. The commission rate varies between 9 per cent for the local air carrier and 35–40 per cent for the largest hotels and packages provided by local tour operators. These figures only relate to commission. If marketing costs and the costs of being connected to a GDS are included, distribution costs are quite high. For the local air carrier these constitute an additional 10 per cent. Distribution costs for the local service providers therefore vary between 20 per cent and 50 per cent of the consumer price.

4.2 GDSs, use of ICT and e-commerce

Apart from Air Namibia, the biggest tour operators and hotels, service providers were not connected to a GDS (Galileo and Amadeus in particular), mainly because their market base was too small to cover the costs. Instead, operators had connections with agents overseas. The variable fee is around US\$ 5 per segment or booking. For room reservation this represents about 10 per cent of the

costs. The charge depends on the supplier's level of participation in the GDS. So far, the establishment of virtual travel suppliers has not influenced the individual firm's incentive (at least not in Namibia) to participate in networks, whether a GDS or an online global travel network. Generally, suppliers do not participate.

Apart from community-based tourist resorts located in remote areas without access to telecommunication facilities, and resorts in national parks, most firms interviewed had created their own home pages. Out of registered domain names (in Namibia under the .na name), around 20 per cent relate to tourism, but we do not know how many tourist sites are registered under the .com and under the .de (Germany) domain name. Many businesses put up web pages to protect their trademarks. Web hosting is cheap (less than US\$ 100 a month).²⁹

Yet, few had online booking facilities and none had an e-commerce solution. E-commerce is a prerequisite for bypassing intermediaries. The combination of online (through e-mail) booking and payment confirmation by fax was widely used. The most important bottleneck for e-commerce was found to be insecure financial transactions. Although the same banks operate in Namibia and South Africa and e-commerce solutions are available in South Africa, such is not yet the case in Namibia. The financial sector is, however, implementing systems that may facilitate the development of e-commerce. Meanwhile, financial transactions are completed through intermediaries located in South Africa or by fax. It was also claimed that the country has not yet approved privacy laws and copyright protection, which are essential in order to secure the trust of individuals searching on the home pages of individual firms. In fact, firms could misuse their information by tracking individuals who have visited their home pages.

Namibia has not yet an approved ICT strategy or tourism policy (only draft policy documents). It is noteworthy that the current tourism policy does not address how ICT technology may facilitate an increase in the retention of revenue. When discussing the retention issue, the government focuses instead on ownership and leakage issues. The absence of electronic signatures, infrastructure security, privacy and data protection laws and online dispute resolution (for example, online handling of financial claims or complaints) impedes the development of e-commerce and the saving of distribution costs in tourism. Moreover, the question of increased confi-

29 I thank Ben Fuller for providing me with this information.

dence, security and trust through laws or regulations is hardly discussed in the tourism policy.

4.3 Portals and tourism policy

Few initiatives had been taken to create portals for the whole industry. At the time of my visit, the government had not implemented any measures to create a marketing destination organisation. A booking system for national parks has recently been created.³⁰ Some firms, however, had been connected to new private travel portals such as <http://www.travelinnamibia.com/>.

Just as few government initiatives had been taken towards creating an ICT policy, such was also the case for Namibia's tourism policy. Endless discussion, without any agreement on how the Tourist Board should be financed and on the appointment of a chairperson, led to a paralysed Board. Without any financial support, the Board could not initiate any activities such as marketing campaigns or standardisations of individual service providers.³¹

Although the tourism policy recognises the government's role in co-ordinating the private sector and the financial institutions, co-ordination of marketing strategies is hardly mentioned apart from the establishment of a National Tourist Board. Co-operation between the government and individual service providers has up to now been very difficult. The Tourism Board has now come on-stream, increasing these possibilities, although its US\$ 1.5 million budget is extremely low. Its primary objective is marketing the country as a tourist destination. Branding Namibia has up to now been a very elaborate process. The Board has created a new logo and is in the process of introducing a whole new marketing strategy. An Act of Parliament made provision for tourist levies to finance the Board. It was originally proposed that levies would be raised through charges on business turnovers, but these are now to come through charges on tourists' bills instead (15 per cent).

The tourism policy recognises the need to raise the level of its marketing expenditure, particularly in its key markets in Europe and in certain developed markets throughout the world, but barely discusses how the government can support marketing campaigns.

30 <http://www.namibiareervations.com/namibiawildliferesorts.html>

31 The Namibia Tourism Board seems recently to have come on stream.

5. Conclusion

Tourism is a service sector with untapped potential for developing countries. In this article I highlight the specific character of tourism as a bundle of complementary information goods. Tourism is an ICT-intensive sector with a spillover impact on other sectors. The main question addressed here is whether ICT, particularly the Internet, changes the traditional structure of the supply chain and thus opens up new possibilities for tourism suppliers in developing countries. Data from Namibia are used to illustrate some of the theoretical findings.

The Internet facilitates direct access to the customer. Reduction in distribution costs is of particular importance for the South. Today, intermediaries overseas certify and bundle the tourist product. I argue that without certification and the ability to bundle goods, it is unlikely that local providers of tourist services will be able to bypass the intermediaries located overseas without reducing the value of the product. While SAS may succeed with online direct marketing, a small provider in Namibia will probably fail. Accordingly, I find that the introduction of ICT in the tourist sector underscores the importance of market certifiers. Certification is needed, although new institutions may do it.

Direct marketing may lead to a reduction in the existing client base. At the same time, the Internet will stimulate groups of tourists with low search costs and who have low certification demands (such as backpackers or independent travellers) but they will not exploit complementarities between tourist products since bundling possibilities are weak.

Until new technological standards are available, I also dispute that new virtual travel agencies such as Expedia will increase competition between GDSs and thereby reduce the service provider's costs of being connected to the network. Rather, these firms compete with travel agencies, not with GDSs since they generally use existing GDS booking engines and technological platforms.

Consumers' switching costs will, however, reduce. Another GDS is just a click away. Competition will increase when new virtual agencies or reputable individual suppliers (such as airline companies) market online (outside existing GDS platforms). I conclude that fees will be reduced, making it more likely for service suppliers to connect with and reach a larger market. At the same time, the individual service providers will be faced with higher price competition.

In order to reach a larger market and to exploit complementari-

ties between products in the tourist bundle, I argue that individual service providers need to connect to a network. Currently, Namibian service providers are generally not connected to a GDS. The establishment of virtual travel portals in Namibia has not changed this yet.

Establishing a common marketing destination portal is a way to exploit network externalities and build trust, and thus, a mechanism to promote the tourist industry. In fact, the industry itself or representatives from the business community have initiated some portals, and the Namibian government is currently seeking to establish a marketing destination organisation. By creating a marketing destination organisation, one may explicitly stimulate co-operation between service providers. The introduction of ICT does not change the vendor's individual gain from bypassing the travel agent. Tourism suppliers in Namibia therefore need to co-operate in order to achieve disintermediation. Such efforts may increase the tourism profit in the Internet age. Major structural changes of the industry are probably still yet to come.

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Food Aid and Human Security

Edited by **Edward Clay** and **Olav Stokke**

The future role of food aid is in question. This matters because food aid has been historically a major element of development aid to support longer-term development and the primary response to help countries and people in crisis. Doubts about food aid are arising because there is a growing mismatch between the new circumstances produced by rapid political and economic change and the international arrangements and institutions for food aid that are predicated on an earlier reality.

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