Re-Engineering the Package Holiday Business

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Abstract. Major European tour operator groups have been developing and installing new systems and corporate networks as well as links between these and other information and reservation systems in the travel and tourism industry during the most recent years. It is argued that these new system strategies are a key part of overall strategies to re-engineer their business activities both in the production and distribution of package holidays, in particular through the assembly and sale of new types of packages, to reduce threats imposed by technological developments and to cater for changed customer demand. It is likely that these re-engineered activities will secure the position of these tour operator groups not only in the short, but also in the long-term.

1 Introduction

The travel and tourism industry can be said to be going through a state of change, affected and directed in particular by developments in technologies, booking systems and customer demand (Poon, 1993 and 1994; Schertler, 1994; Schertler et al., 1994 and 1995; Sinclair and Stabler, 1991). Specifically in the package holiday business, on-line trading platforms such as the Internet's World Wide Web and the commercial CompuServe and Microsoft Network, self-service booking kiosks and interactive television channels, combined with an increasing customer demand for more individual holidays away from mass-market package holidays, are posing major threats to tour operators and travel agents, in fact ultimately threatening to make them redundant in the distribution chain of holidays (Kärcher, 1995a).

It is argued here, however, that major European tour operator groups are re-engineering, i.e. radically redesigning their business and reinventing the way they operate to counter or reduce the threats imposed by new technologies and to cater for altered customer demand. As a key part of their new co-ordination strategies, i.e. the sum of all the decisions necessary for the operation of inter-organisational arrangements (Klein, 1995), these tour operator groups are implementing new systems together with links between these and other systems in the industry.

A number of these new system strategies, which were implemented by leading European tour operators, in most cases involving a complete replacement of their older systems, are summarised in Table 1. The information presented indicates in addition how recently these developments have taken place.

Table 1 New or Enhanced Tour Operator Systems

Interviewed Tour Operator(s) in Britain or Germany **(Corresponding Tour Operator or Travel Group)**	**Name of New or Enhanced Tour Operator System(s)**	**Details of Changes in Tour Operator System(s)**	**Time Scale of System Development and Implementation**
Airtours Holidays Limited, Helmshore/Lancashire (**Airtours** PLC)	**Airtours Central System**; **Tradewinds System**	system enhancements of central system; completely new system for Tradewinds	back-office system enhanced during the end of 1993 and during 1994; new system for long-haul and tailor-made holidays brand Tradewinds introduced in mid 1995; major system overhaul planned for 1996
British Airways Holidays Limited, Crawley/West Sussex (British Airways PLC / BA)	**BA Link Option 2** (distribution system)	complete replacement of old distribution system	system was implemented for some destinations on 24 April 1995 with the rest to follow
Club Méditerranée Deutschland GmbH, Düsseldorf (Club Méditerranée S. A. (**Club Med**), France)	N. A.	complete replacement of all individual systems in group	system fully operational in Germany since mid 1995
DER-Tour, Frankfurt am Main (Deutsches Reisebüro GmbH / DER)	**Phoenix**	complete replacement of old TOUR system	project started in January 1994; system development started in August 1994; winter holidays on system since mid 1995; summer holidays on system since the end of 1995
First Choice Holidays & Flights Limited, Crawley/West Sussex (**First Choice Holidays** PLC)	**Merlin** (central database system); **Delphi / Speake** (planning system); N. A. (distribution system)	complete replacement of old central database system; major enhancements of planning and distribution systems	Merlin project started in January 1994; Merlin partly operational since November 1994; Delphi / Speake project started in 1993; Delphi / Speake operational from early 1996; distribution system operational from December 1995 / early 1996
Hetzel-Reisen GmbH & Co. KG, Stuttgart	**TOS** (Tour Operator System)	complete replacement of old system	system fully operational since 23 August 1994
International Tourist Services Länderreisedienste GmbH (**ITS**), Köln	**ITOS** (International Tour Operator System)	complete replacement of old system	project started in mid 1993; system fully operational since 1 August 1994 [1]
Kreutzer Touristik GmbH, München	**TOPIX**	complete replacement of old system	implementation of system started in January 1994 and completed in August 1994
Kuoni Fernreisen GmbH, Kriftel; Kuoni Travel Limited, Dorking/Surrey (**Kuoni** Reisen Holding AG, Switzerland)	**FlexiPack** (flexible packages) / **Kuoni Platform 2**	completely new system in Germany; British system enhanced	German system installed in mid 1994, based on the British system; enhancements for British system completed in October 1994
LTU Touristik GmbH & Co. Betriebs KG, Düsseldorf (The **LTU** Group)	**PROVIT**	complete replacement of all individual systems in group	project started in 1992; system fully operational at Jahn Reisen from May 1996 and at all other tour operators by the end of 1996

Interviewed Tour Operator(s) in Britain or Germany (Corresponding Tour Operator or Travel Group)	Name of New or Enhanced Tour Operator System(s)	Details of Changes in Tour Operator System(s)	Time Scale of System Development and Implementation
NUR Touristic GmbH, Oberursel	**NURVIS** (NUR Verkaufs- und Informationssystem / distribution and information system)	major system enhancements	system fully operational since October 1994
Bridge Travel Group, Broxbourne/Hertfordshire; Cresta Holidays Limited, Altrincham/Cheshire (**Sun International** N. V., Belgium)	**ITOS** (International Tour Operator System)	complete replacement of all individual systems in the Sun International group including SITOS (Sun International Tour Operator System)	system fully operational since mid 1994
Thomson Tour Operations Limited, London (The **Thomson** Travel Group)	**TOLCICS** (administration system) and various other back-office systems	enhancements of back-office systems	back-office systems enhanced in 1994
Touristik Union International GmbH & Co. KG (**TUI**), Hannover	**IRIS-Neu** (Integriertes Reservierungs- und Informationssystem / Integrated Reservation and Information System)	replacement of system IRIS-Alt	system introduced in August 1992 for some destinations; system fully operational since mid 1995

[1] Note that following the take-over and break-up of the ITS group in early 1995, ITOS, which was regarded by the new management as 'too complex', was replaced by the 'off-the-shelf' tour operator system Blank by W. Blank Software GmbH (WBS), Frankfurt am Main, on 7 August 1995.
Key names are highlighted. Source: Kärcher (1996).

Tour operators can be regarded as the key players in the package holiday business (Kärcher and Williams, 1995), due to their functions as wholesalers in the industry as well as due to their vertical integration both backwards into the charter airline and accommodation sectors and forwards into the travel agent sector (Renshaw, 1994). The twelve largest European tour operator groups in early 1995 are listed in Table 2, with turnover and customer figures reflecting their importance in the package holiday business and, indeed, the travel and tourism industry as a whole.

Table 2 The Twelve Leading European Tour Operator Groups in Early 1995

Rank [1]	Tour Operator Group	Country	Turnover in 1994 (DM billions)	Customers in 1994 (millions) [2]
1	Touristik Union International GmbH & Co. KG (TUI)	D	5.59	4.81
2	NUR Touristic GmbH	D	3.95	3.94
3	The Thomson Travel Group	GB	3.13	4.10
4	The LTU Group	D	2.97	2.15
5	International Tourist Services Länderreisedienste GmbH (ITS)	D	2.85	2.01
6	Club Méditerranée S. A. (Club Med)	F	2.55	2.28
7	Airtours PLC	GB	2.12	3.50
8	Nouvelles Frontières	F	1.89	1.91
9	Hotelplan Internationale Reiseorganisation AG	CH	1.62	1.47
10	Kuoni Reisen Holding AG [3]	CH	1.41	N. A.
11	First Choice Holidays PLC	GB	1.39	2.05
12	Deutsches Reisebüro GmbH (DER)	D	1.36	1.90

[1] in decreasing order in terms of turnover in 1994, including that of national and international subsidiaries
[2] 1993 figures for ITS, Club Med and Hotelplan
[3] until 17 February 1995 called Reisebüro Kuoni AG
Source: FVW International (1995, p. 11).

Tour operators are therefore concentrated on in this study, with additional information about the charter airline, accommodation and travel agent sectors being incorporated wherever useful. The data presented was gained from interviews during November 1994 to May 1995 with 44 mainly outgoing tour operators in Britain and Germany, which controlled an estimated combined market share, according to turnover, of greater than 65% of the total tour operator business and 80% of the outgoing tour operator business in their respective countries (Kärcher, 1996). Furthermore, all leading charter airlines in Britain and Germany as well as a number of tour operator associations, system suppliers and industry experts were interviewed. British and German subsidiaries of large French and Swiss tour operator groups were included in the study, thus gaining information on ten of the largest twelve tour operator groups in Europe (Nouvelles Frontières and Hotelplan were not interviewed). However, little information is presented in the following with reference to a specific tour operator due to confidentiality reasons; instead, overall trends are summarised without exposing the actual state of art of a particular tour operator's systems.

2 Methodology: Levels of analysis and a positioning model

Porter (1980, pp. 3 - 33) developed a competitive positioning model as a framework for the structural analysis of industries and for the development of strategies to competitively position firms. Reve (1990) adapted Porter's framework by adopting a contractual and transaction cost view of the firm, incorporating co-operative and collaborative strategies, combining the two industry forces of competitors and potential entrants into one, and re-focusing the model from one based on a core part of an industry to one based on a core part of a firm. Reve's positioning model (1990, p. 157) provides a basis for the proposed strategic positioning model for the tour operator business.

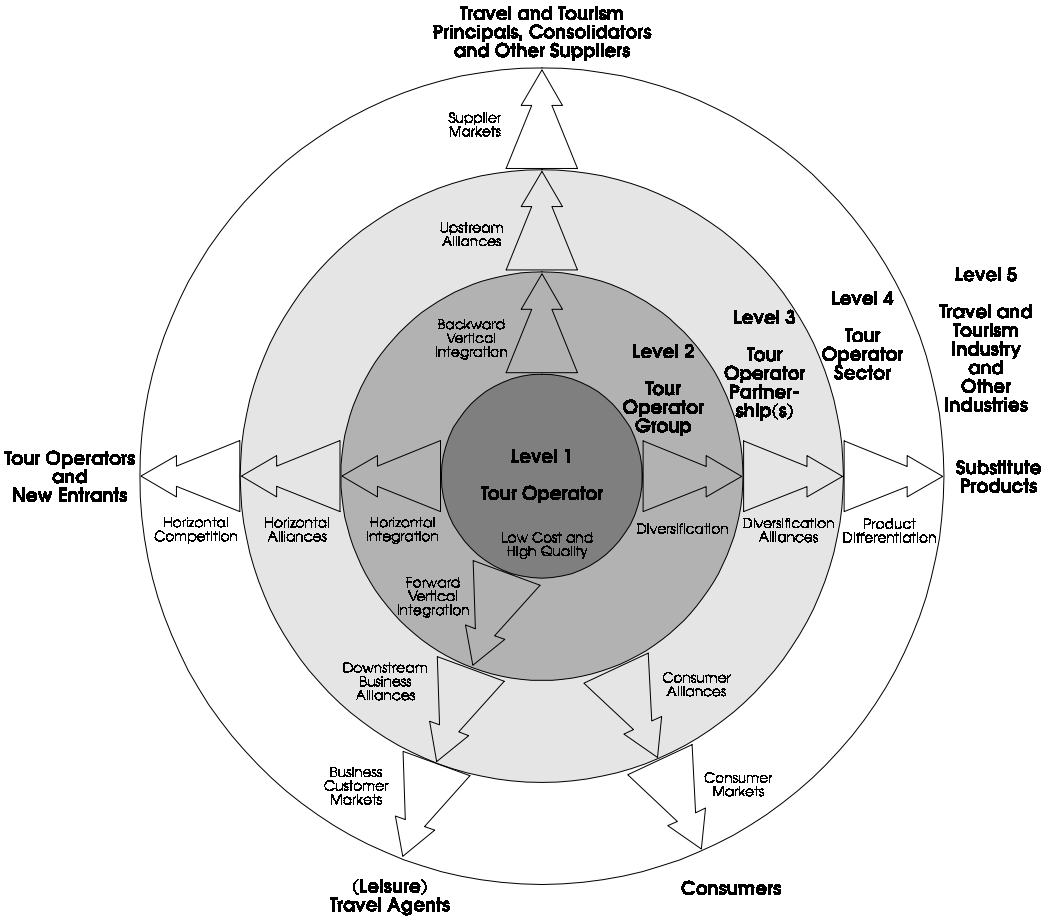
Similarly to Reve, a contractual (or relationship based) and transaction cost view of the firm is taken. However, moreover a distinction between different levels of analysis is made. At Level 1, core business or intra-organisational relationships within a company are investigated. At Level 2, ownership relationships within a group of companies are analysed, which are typically of hierarchical nature. At Level 3, co-operative trading relationships, being typically network-based, are investigated. At Level 4, competitive trading relationships are analysed, which are typically market-based. Finally, general trading relationships at an industrial level are studied at Level 5. From the perspective of a tour operator, a higher level is also associated with a decrease in control over the respective relationships. These levels of analysis are summarised in Table 3. Distinctions between these five levels are made to allow a systematic and structured analysis of the relationships in a sector, while reflecting and preserving more of its complexity than in Porter's and Reve's models.

Table 3 Levels of Analysis

Level of Analysis	Type of Relationships	Corresponding Industrial or Organisational Level
Level 1	Core Business Relationships	Tour Operator
Level 2	Ownership Relationships	Tour Operator Group
Level 3	Co-operative Trading Relationships	Tour Operator Partnership(s)
Level 4	Competitive Trading Relationships	Tour Operator Sector
Level 5	General Trading Relationships	Travel and Tourism Industry (and other industries)

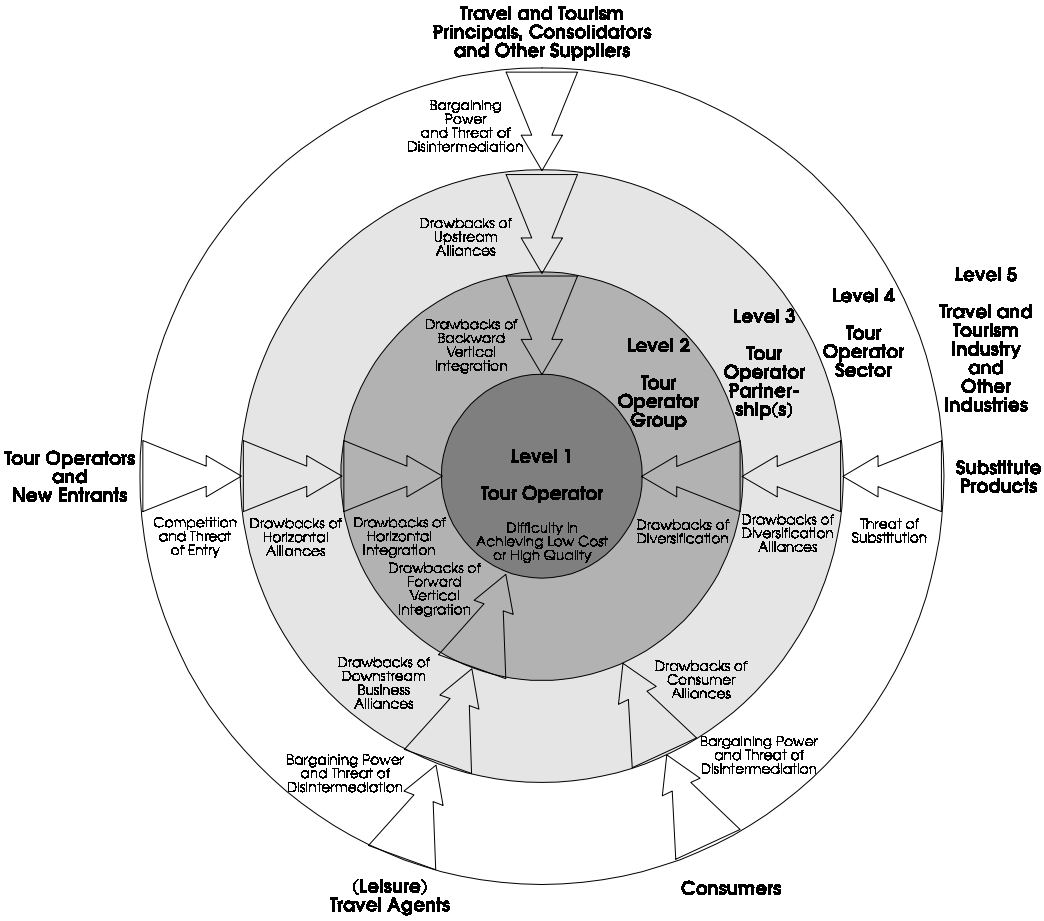
Klein and Williams (1995, p. 2) argue that a distinction between business and consumer markets, i.e. markets between firms and markets between firms and consumers, is important when analysing inter-organisational relationships. This suggestion is taken up in the proposed model by treating travel agents and consumers as two separate forces. The five levels of analysis can then be combined with Reve's and Porter's models to create the positioning model shown in Fig. 1.

Fig. 1 Strategic Positioning Model for the Tour Operator Business



Each of the arrows in Fig. 1 represents the main strategies of tour operators, from which they can choose to position themselves against the five industry forces of competitors (and new entrants), substitute products, suppliers, travel agents and consumers. Further strategies, such as that of economies of scale and scope result from strategies at Levels 1 to 3. Each of these strategies has corresponding disadvantages or threats, of which some of the main ones are shown in Fig. 2. The threats at Level 4 are discussed by, for example, Porter (1980) and Williamson (1975 and 1985), the disadvantages of co-operations (Level 3) are analysed by, among others, Miles and Snow (1992), and the disadvantages of integration (Level 2) are discussed by, for example, Williamson (1975 and 1985).

Fig. 2 Main Threats and Disadvantages of Positioning Strategies



3 New system strategies of tour operators

System strategies, i.e. the strategies concerning the use of information and communication technological (ICT) systems, are a central part of the co-ordination strategies of tour operators (Kärcher and Williams, 1995). Using the five levels of analysis (Table 3) and, to some extent, the positioning model (Fig. 1), new system strategies of tour operators are analysed and it is hypothesised that tour operators are re-engineering their business activities. In the next section, Section 4, the positioning model (Fig. 1) together with the analysis of the corresponding threats and disadvantages (Fig. 2) is then used to assess how these new system strategies are likely to impact on the package holiday business.

At *Level 1*, tour operators are developing and implementing more flexible tour operator systems with regards to data storage, retrieval and processing, either by enhancing their old systems or even completely replacing them (see Table 1). In particular, developments of the following kind were found which support this hypothesis (detailed data is presented in Kärcher, 1996):

- Data storage: The data stored in tour operator systems, which was previously held in blocks, is split into individual data entries (also Schmidt, 1994). When relational databases are being used, this development is reflected in an increase in the number of tables used to organise the data. Moreover, additional data is being entered into the systems, both for previously stored travel and tourism components such as detailed descriptions of accommodation facilities as well as for new components such as digital pictures of properties and area maps.
- Data retrieval (and storage): Hierarchical (and network) databases are being replaced by relational databases. Relational databases, compared to hierarchical ones, in general reduce the time and effort

needed to combine or link various data entries, thus making the assembly of complex holiday packages more cost effective. Relational databases are also more easily adapted than hierarchical ones when new and different types of data are entered and consequently new search strategies are necessary for retrieval.

- Data processing: New system architectures and applications are being implemented, in particular client-server structures and internal booking masks. Client-server applications create open systems by combining various hardware and software, leading to a number of benefits regarding flexibility, as detailed in, for example, Doh (1995) and Jaccottet (1995). Internal booking masks allow more flexible access and processing of stored data, avoiding restrictions of external booking masks such as START's TOMA (Touristik Maske / Tourism Mask) in Germany.

Each of these developments, i.e. the increase in the amount and the modularisation of the stored data, data retrieval through relational databases and data processing within new system architectures as well as combinations of these, are all key indicators of increased flexibility in new tour operator systems. This increased flexibility in data storage, retrieval and processing allows tour operators to automatically assemble more individual holiday packages by combining various travel and tourism components more flexibly than was previously possible with the old systems.

At *Level 2*, it is argued that tour operator groups develop and implement corporate tour operator networks, connecting their offices and subsidiaries worldwide. A corporate network is an ICT network, which in its most basic form is a customer premises network, i.e. a local network that links customer premises equipment. In a more complex form, a corporate network links several customer premises networks and/or remote customer premises equipment (Stahlknecht and Schäffer, 1994). As part of this new system strategy, some tour operators implement distributed databases, allowing data to be held almost anywhere in the world without the need to store all data in one central location. Corporate networks enable group-wide electronic communication and exchange of information with the following particular impacts on tour operators and the other companies in their group:

- (Backward vertical) links with charter airline subsidiaries allow the exchange of booking and passenger information, replacing paper notes sent by standard mail, telex or fax and data sent on floppy disks.
- (Backward vertical) links with owned hotels and other suppliers allow the exchange of booking and customer information, replacing paper lists carried as co-mail (i.e. company-mail, typically transported in red suitcases) on flights by tour representatives as well as all telephone, fax and telex messages and floppy disks.
- (Backward vertical) links with destination agencies allow the exchange of customer information, replacing paper lists carried as co-mail, fax and telex messages and floppy disks; moreover, as a second step, destination agencies can get direct access to tour operator's databases, enabling them to operate as tour operators themselves without requiring major investments in their own systems and without having to conduct airline seat and other contracting themselves.
- (Horizontal) links with sister tour operators allow data sharing.
- (Forward vertical) links with travel agent subsidiaries give them direct access to tour operator's databases, thus avoiding restrictions imposed by external booking systems and replacing any telephone, fax and mail messages.
- (Forward vertical) links with owned airport offices replace paper notes sent by standard mail as well as telephone, fax and telex messages.

One of the main consequences of all these links for tour operators is an increased ability to automatically produce individually tailored holiday packages in the following ways:

- (Backward vertical) links with owned charter airlines, hotels and other suppliers as well as destination agencies allow the automatic exchange of single passenger information and the reservation of additional components, which is necessary for the production of individual travel itineraries, while at the same time reducing the relative administration costs of and shortening the time needed for this information exchange, which moreover enables tour operators to be more flexible regarding late-minute bookings, re-bookings and cancellations.

- (Horizontal) links with sister tour operators give access to each other's products, such as those aimed at more specific customer segments, for example families, sports enthusiasts or young people, which can then be automatically combined with their own products, allowing a wider product range to be offered.
- (Forward vertical) links with owned travel agencies and airport offices, such as with ITS' ITOS and NUR Touristic's NURVIS, allow staff in those outlets to book single holiday components electronically, thus reducing time and effort in comparison to the previous manual bookings by telephone, fax and standard mail, while at the same time avoiding the restrictions imposed by external booking systems such as viewdata or START, which typically are fairly limited regarding booking of individual components; in addition, the reduction in time taken by the booking process enables tour operators to cater for the individual needs of customers with last-minute requests.

Also as part of Level 2 system strategies, as well as of higher levels, monochrome screens are being replaced by colour screens and other display equipment, thus increasing flexibility in data presentation enabling the data stored to be presented in more effective ways. Software applications such as internal booking masks are consequently being implemented to support this change in data display, again avoiding restrictions of external booking masks such as START's TOMA.

At *Level 3*, it is argued that tour operator groups are co-operating with other organisations to establish sector-wide (and to some extent industry-wide) electronic communication standards. These standards such as the new Standard-Datensatz Touristik (SDS-T) in Germany and other technology initiatives are likely to foster the uptake of electronic links between various organisations involved in the travel and tourism industry and the tour operator sector in particular, especially those links which are discussed at Levels 2, 4 and 5. Finally, regarding Level 3, it should be noted that while small tour operators have often formed alliances or associations such as The Association of Independent Tour Operators (AITO) in Britain, mainly as a response to the increasing concentration and dominance of large tour operators (Kärcher and Williams, 1995), little evidence was found that these co-operations are developing new joint system strategies.

At *Level 4*, it is argued that on-line program-to-program links are being developed and implemented, linking tour operator systems and other information, communication, reservation and booking systems in the tour operator sector. The main links being established are:

- (Backward vertical) links between global distribution systems (GDSs), i.e. Amadeus, Galileo International, SABRE and Worldspan, and tour operator systems for automated transportation and accommodation reservations and bookings (Kärcher, 1995b). The main examples of these links are Worldspan's WorldSolutions (launched in 1993), Worldspan's Tour Connect and Galileo International's Inside Access (launched in 1994 for tour operators).
- (Backward vertical) direct links between principals' systems and tour operator systems, in particular of charter airlines and hotels, for automated reservations and bookings.
- (Forward vertical) direct links between tour operator systems and travel agent systems for automated selling of holiday packages, for example ITS' ITOS and NUR Touristic's NURVIS.
- (Forward vertical) links between tour operator systems and national reservation systems such as viewdata in Britain and START and Dillon Communication Systems GmbH's (DCS) Robin in Germany for more flexible automated selling of holiday packages.
- (Forward vertical) links between tour operator systems and global distribution systems (GDSs) for automated selling of holiday packages in particular internationally (Kärcher, 1995b). The main examples of these links are Galileo International's TourMaster (launched in 1991 for German tour operators), Galileo International's Leisure Shopper (launched in the USA in February 1993 and in central Europe in early 1995) and SABRE's Tourlink.
- (Forward vertical) links between tour operator systems and electronic consumer trading platforms such as the Internet's World Wide Web (WWW), CompuServe, Microsoft Network (MSN) and Datex-J / T-Online (formerly Bildschirmtext / Btx) for automated selling of holiday packages directly to consumers.
- (Forward vertical) links between tour operator systems and other on-line direct booking systems, for example self-service booking kiosks, such as Thomas Cook Travel Kiosks and LTU's Reisemulti, and interactive home shopping systems, such as British Telecom's BT Interactive TV.

Automated electronic links between tour operator systems and principals, typically indirectly via GDSs but also directly, have similar impacts as the Level 2 links of tour operator systems with the systems of their own principals and destination agencies. In the same way, direct links between tour operator systems and travel agent systems have similar impacts as the Level 2 links of tour operator systems with the systems of their travel agent subsidiaries. As a response to the establishment of direct links between tour operators and travel agents and tour operators and direct booking systems, which thus by-pass national reservation systems, the operators of these national systems are adding further flexible features such as multiple booking masks and colour display to their systems to allow reservations for individual holiday packages, thus trying to keep old as well as attract new customers to use their systems. The new links between tour operator systems and GDSs and, to some extent, consumer trading platforms allow tour operators to sell their products internationally and indeed globally, and also enable customers to change their travel itineraries while abroad, thus also catering for these individual demands. Links to consumer trading platforms and other direct booking systems moreover add to the flexibility of distributing package holidays, enabling customers to book directly and change on-line holiday packages without having to contact a travel agent.

At *Level 5*, it is argued that on-line program-to-program links are being developed and implemented, linking tour operator systems and new destination information, reservation and booking systems in the travel and tourism industry, which are predominantly aimed at the independent travellers' market, such as GermanSoft, CitySoft and Euro-START (formerly EuroSoft). These links allow tour operator groups to sell any unsold holiday packages as parts or even as individual components automatically via these systems, thus effectively entering the markets of independent and business travel which were previously little catered for.

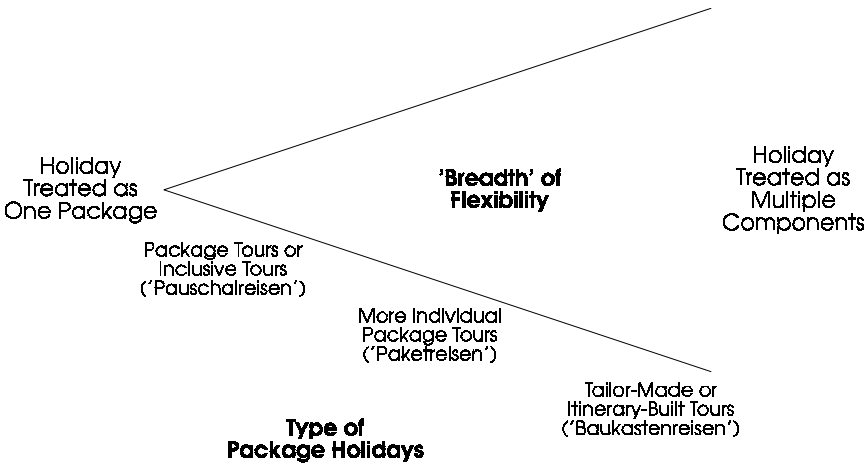
The new system strategies of tour operators are summarised in Table 4.

Table 4 Summary of New System Strategies

Level of Analysis	Corresponding Industrial or Organisational Level	Main New System Strategies of Tour Operators at Each Level
Level 1 **Core Business Relationships**	**Tour Operator**	development and implementation of more flexible tour operator systems with regards to data storage, retrieval and processing
Level 2 **Ownership Relationships**	**Tour Operator Group**	development and implementation of corporate tour operator networks, linking offices and subsidiaries worldwide as well as development and implementation of improved data display
Level 3 **Co-operative Trading Relationships**	**Tour Operator Partnership(s)**	initiatives for the creation of sector-wide (and industry-wide) electronic communication standards
Level 4 **Competitive Trading Relationships**	**Tour Operator Sector**	development and implementation of on-line program-to-program links between tour operator systems and other information, communication, reservation and booking systems as well as development and implementation of improved data display
Level 5 **General Trading Relationships**	**Travel and Tourism Industry (and other industries)**	development and implementation of on-line program-to-program links between tour operator systems and new destination information, reservation and booking systems

The development and implementation of new tour operator systems (Level 1) allows the automatic and flexible assembly of stored holiday components. The adoption and diffusion of corporate tour operator networks (Level 2) and automated on-line links to external systems (Level 4), which is fostered by co-operative technology initiatives (Level 3), enable tour operators to automatically exchange individual customer information and automatically book additional single components. These developments combined allow tour operators to produce the types of holiday packages shown in Fig. 3.

Fig. 3 Types of Holiday Packages



(German terms, being fairly well established in the industry, are included for reasons of completeness.)

Furthermore, links to GDSs and direct booking systems (Level 4) enable tour operators to open up international markets, while links to new destination systems (Level 5) enable them to expand into the independent and business travel markets. All of these developments support the hypothesis that tour operators are radically reorganising and reinventing, i.e. re-engineering their business activities.

4 Consequences of the new system strategies

The new system strategies of the tour operator groups, as outlined in Section 3, are likely to have a number of important consequences for tour operators themselves (Level 1), their groups (Level 2) and their partnerships (Level 3) as well as for the structure of the tour operator business (Level 4) and the travel and tourism industry in general (Level 5).

At *Level 1*, the new system strategies are enabling tour operators to achieve the following strategies:

- Strategy of low cost: After depreciating or off-setting the costs of the development, installation and maintenance of the new systems, the automation of previously manually assembled holiday packages allows tour operators to reduce costs and to achieve economies of scale. Some interviewed tour operators, for example, have directly linked the introduction of their new systems with redundancies among reservation and purchasing staff.
- Strategy of diversification into existing and new product markets: Increased flexibility in the assembly of package holidays through flexible data storage, retrieval and processing combined with automated links with suppliers allows tour operators to enter certain niche markets, which were previously financially unattractive to them due to low numbers of customers and/or high labour costs, conditions that exist for example with round-the-world trips or special interest holidays, and to achieve economies of scope. In effect, this flexibility enables mass market tour operators to become specialist tour operators at the same time by allowing automated bookings of single components to form individualised as well as itinerary-built or multi-centre holidays, i.e. holiday packages consisting of any feasible combination of transportation, accommodation and additional components. Moreover, this new flexibility combined with low prices and automatisation of the booking process may attract new customers such as business and 'independent' travellers, who previously had assembled (with or without the help of a travel agent) their trips and holidays themselves. Overall, this strategy is probably the most important, adopted by tour

operators with the introduction of their new systems, since this strategy allows tour operators to flexibly adapt to changes in customer demand (Section 1) and since it also underlies key strategies at Level 2 and Level 4, as discussed below.

At *Level 2*, the new systems are supporting tour operators in achieving the following strategy:

- Strategy of horizontal integration (and diversification within the package holiday business): The new system strategies are improving the exchange of management information between the various subsidiaries and units necessary for their co-ordination by replacing standard mail, fax, telex and telephone messages by on-line electronic messages. Therefore, both at a national as well as an international level, administration functions and other functions such as those of destination agencies can be combined, and joint purchasing and distribution activities can be more easily and cost effectively conducted, while exercising bargaining power and achieving economies of scale. Combined with Level 1 strategies, further horizontal integration is likely in the tour operator business with, in particular, mass market (and therefore predominantly outgoing) tour operators integrating (and diversifying) into sectors such as those of specialist holidays, domestic holidays and (previously) independent travel. Moreover, in the case of distributed databases, data held in the various systems can be automatically combined, which supports national and in particular international integration. For example, the headquarters can conduct the purchasing of all long and medium-haul flights and accommodation in global hotel chains and store this data in its system, thus exercising global purchasing power and achieving economies of scale. In contrast, the foreign subsidiaries, while having more detailed knowledge of the local areas, can conduct the purchasing of local components such as connecting flights and accommodation in small hotels, which often are not listed on international systems and therefore cannot be booked directly by the headquarters. The subsidiaries can then store this data on their own systems. Through links between the group's systems, data can be automatically exchanged and packages can be assembled using components stored in any of the systems, thus in fact combining local expertise with global purchasing power. Furthermore, destination agencies or resort offices, which in the past have usually acted only as incoming agencies, can become outgoing tour operators themselves. For example, some destination agencies at the classic mass-market destinations of the Balearic and Canary Islands are becoming outgoing tour operators by selling package holidays to local residents. With falling restrictions and the opening of competition in particular in the global airline business, it can be expected that the distinctions between the incoming and outgoing package holiday sectors, as they have existed in the past, will increasingly become blurred. In the long term, these developments would also make the tour operator business become a global business, similar to those of the international hotel and business travel agent sectors.

It should be noted that the strategies of backward and forward vertical integration, though fostered through the new system strategies, are not as such a consequence of these and, hence, are not further discussed here.

At *Level 3*, the following strategies are likely to be direct results of the new system strategies:

- Strategy of forward vertical co-operation with travel agents: As part of their new systems strategies, some large tour operators have developed management information systems (MISs) which automatically monitor the performance of each of the travel agencies under contract. These systems are used to 'enforce' co-operations with travel agents such that travel agents are automatically rewarded with discounts and other offers in return for making a certain number of bookings with that tour operator. Travel agents failing to make a minimum number of bookings will not have their contracts extended and other travel agents are contracted instead.
- Strategy of forward vertical co-operation with customers: Similar to the travel agent MISs, MISs have been developed to monitor (direct and indirect) customer booking behaviours. Although impeded by the bargaining power of travel agents threatening to withdraw tour operators' brochures from their shelves, some customer loyalty schemes have been introduced by tour operators. In the long-term, one could imagine schemes through which customers are rewarded for regular bookings with discounts, while tour operators are gaining not only loyal customers but also detailed information on the customers' travel and holiday behaviour, thus being able to tailor their products more specifically to their needs.

It remains to be seen whether further co-operative strategies such as those leading to virtual corporations similar to the Rosenbluth International Alliance (RIA), which was described by Clemons et al. (1992) but which was dissolved in September 1993, will emerge in the package holiday business.

At *Level 4*, the following main strategy is likely to be achieved through the introduction of the new systems:

- Strengthening of the position in the business / reduction of the threat of disintermediation: Particularly new technologies and booking systems (Section 1), combined with more individual customer demand, are threatening to lead to disintermediation or by-passing of tour operators in the distribution chain of holidays. Van der Heijden (1996), however, points out that technology can also increase complexity which thus can strengthen the position of intermediaries who reduce this complexity for customers. Increased complexity of products through modularisation, individualisation and customisation is indeed a result of the new system strategies of tour operators. It could be argued that tour operators increase the complexity of products and then offer customers a reduction in complexity by tailoring the products to their demands, thereby securing their own position in the business. Furthermore, due to this new 'added value' and due to the flexibility in linking to external systems, electronic market systems (EMSs) and other booking systems and technologies, which initially appeared as a threat to tour operators, can instead be used to the tour operators' advantage by linking to these systems and using them as distribution systems, as in fact is already being done by a number of tour operators.

At *Level 5*, the new system strategies may lead to a number of long-term developments:

- In Britain, the largest five charter airlines are wholly-owned by the largest five tour operator groups (Kärcher, 1996). Although their ownership structure is more complex, most of the major German charter airlines are also either directly or indirectly partly or wholly-owned by the major tour operator groups. Therefore, it can be argued that the system strategies of British and German charter airlines are part of or at least closely linked to those of the major tour operator groups. Until 1995, all airline systems of the major British and German charter airlines were stand-alone systems, with the exception of LTU's since LTU operated some scheduled flights. With tour operators increasingly needing to book individual airline seats in contrast to whole blocks as in the past, and combined with 1993 European Union legislation allowing the display of seats on charter airlines on computerised reservation systems (CRSs), several of the major charter airlines in Britain and Germany have been starting to link their airline systems either directly to the systems of tour operators or indirectly to them via national and global reservation systems since mid 1995, thus allowing tour operators automated booking of single seats. These individual charter flight seats can also increasingly be booked via reservation systems or via tour operator systems by travel agents and customers. An immediate consequence of this development is an increase in competition in the airline business, while, in the long term, the distinction between the charter and scheduled sectors will increasingly become blurred.
- Similar to the charter and scheduled airline sectors, the accommodation sector can be split into the sector of international hotel chains, being predominantly utilised by independent and business travellers, and into the package hotel sector. While international hotel chains were bookable via CRSs, hotels catering for the package holiday business were predominantly not linked to any reservation systems. However, in particular through the new corporate networks of tour operators, their hotel subsidiaries are becoming bookable on-line by travel agents and consumers. With for example Club Med and TUI ranking among the top 20 hotel operators in the world (Kärcher, 1996), this will increase the competition in the global hotel sector and, in the long run, is likely to blur the distinctions between the package and the independent / business accommodation sectors.
- Finally, the distinction between the package holiday business and the independent and business travel business may increasingly become blurred in the long term. On the one hand, tour operators are providing more products aimed at the independent and, to some extent, business travel markets, as discussed at Level 1, while, on the other hand, business travel agent consortia and alliances such as American Express and Rosenbluth International may expand into the package holiday markets (Kärcher, 1996).

5 Summary

A multi-level analysis and a positioning model are proposed for the study of strategies adopted by tour operator groups and for the analysis of the likely consequences of these for the package holiday business. The main advantages of these frameworks when compared to those of Porter (1980) and Reve (1990) are that data can be structured and presented in a concise form while preserving and reflecting more of the complexity of the package holiday sector.

Using these frameworks, it is shown that major European tour operator groups are developing new system strategies with the aim of re-engineering their business activities by implementing flexible systems with regards to data storage, retrieval and processing, corporate networks within the group and links with systems outside the group.

It is argued that these new system strategies and re-engineered activities are likely to have a number of important consequences for tour operators and their groups as well as the package holiday sector and the travel and tourism industry in general. Most of all, these new strategies are enabling tour operators to produce a wide range of holiday packages, especially packages individually tailored to customers' needs and their travel itineraries, thus catering for altered customer demand as well as enabling tour operators to expand into new markets. Other strategies are also supported such as international expansion. Finally and very importantly, the position of tour operators in the package holiday business is likely to be strengthened through increased 'value added', with the threat of disintermediation, especially posed by new technologies and direct booking platforms, being reduced. In summary, it is shown how tour operator groups are re-engineering their activities to secure their position in the package holiday business in the long-term.

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