

Internet Distribution of European Travel and Tourism Services

The Market, Transportation,
Accommodation and Package Tours

by

Carl H. Marcussen

Research Centre of Bornholm
August 1999

This publication is available through:
Research Centre of Bornholm
Stenbrudsvej 55
DK-3730 Nexø
Tlf.: +45 56 44 11 44, Fax: +45 56 49 46 24
E-mail: rcb@rcb.dk

Copyright: © 1999 Bornholms Forskningscenter
and Carl Henrik Marcussen

Short extracts, including figures, tables and quotations
may be quoted if there is given due credit to the source.
Any publication mentioning this report, such as
reviews, citations etc. should be sent to the Research
Centre at the above address

Preface

This publication looks at *Internet distribution of European travel and tourism services* from a marketing, management and business oriented perspective.

The *market* chapter includes a baseline estimate of Internet sales on the Western European travel and tourism market in 1998, a break-down of this into sub-sectors, and a comparison with the US. Also there is a forecast for Europe to the year 2002 at the aggregate level.

More than 26 Western European *case studies* are presented from 10 different countries, and from 10 different sectors of the travel and tourism market. Additionally there is brief mentioning of a few other examples, mainly from the US. The emphasis is put on direct sales via the Net and sectors within the travel and tourism industries which are typically European - rather than airlines, hotel chains, car rental firms and online agencies which normally gets most of the attention, at least in American studies. (1) Airlines and (2) the car rental sector are included, though, whereas hotel chains and online agents are not. Other sectors which are covered include (3) railways (long railway trips), (4) international ferry lines, (5) long distance coaches, (6) umbrella systems for the booking of individual hotels (not necessarily in chains), (7) youth hostels, (8) holiday cottages, (9) camping, and (10) package tours.

The *conclusion* includes a summary, an assessment of a series of propositions of the effects of the Internet on the marketing mix and competitive advantage, and a listing of some of the most successful European owned Web-sites in terms of Internet sales (to Europeans) in 1998 and 1999 (estimated) in the different sub-sectors of travel and tourism services.

The research has been funded by the basic grant of the Research Centre of Bornholm, and has been undertaken during about one man-year from September 1998 to August 1999. At this place the author has wished to convey special thanks to the respondents who have provided first-hand information for the case studies, as well as to Professor Stefan Klein, Institute for Information Systems, University of Münster, Germany, and to Professor and Head of Studies Georg Kamfjord, Department of Knowledge Management, The Norwegian School of Management BI, Norway, for providing constructive comments in the final stage of the writing process.

Anders Hedetoft
Acting Head of Research
August, 1999

Contents

1. Introduction	13
1.1 Background	13
1.2 Aims and objectives.....	16
1.3 Emphasis and delimitation	16
1.4 Formulation of propositions	18
2. Internet penetration and Internet travel sales in a European perspective	23
2.1 Number of Internet users in Europe - and elsewhere	23
2.2 Forecasts for the number of Internet users in Europe and the rest of the world	26
2.3 Internet commerce - 1998 and 2002 - in Western Europe and the USA.....	28
2.4 Status and forecasts for tourism/travel sales (distribu-tion) via the Internet	29
2.5 Payment, security, and privacy issues in connection with trading on the net....	36
3. Airlines selling tickets directly over the Internet.....	39
3.1 Overview of major airline websites with respect to Internet bookings.....	39
3.2 Lufthansa - InfoFlyway.....	43
3.3 British Airways - actual and expected Internet sales.....	47
3.4 Iberia, Spain	49
3.5 Finnair - World Wide Wings	50
3.6 Braathens, Norway	52
3.7 SAS.....	54
3.8 LOT, the Polish Airlines.....	55
4. European railways on the Web	57
4.1 Overview - Railways on the Web	57
4.2 German Rail on the net.....	62
4.3 Swiss Federal Railways on the net	67
4.4 Swedish Rail on the net	70
4.5 Danish Rail on the net	79
4.6 UK railways on the net	87
4.6.1 Railtrack.....	87
4.6.2 North Western Trains	87
4.6.3 TheTrainLine - in association with Virgin Trains	88
4.6.4 Eurostar.....	89
4.6.5 National Express - trains	89
4.7 North American railway websites	90
4.7.1 Amtrak, USA	90
4.7.2 VIA Rail, Canada.....	91
4.8 Some other railway sites of the world.....	91
4.9 Final discussion.....	92

5.	Booking road and sea transport services over the net: Express coach tickets and car rentals - with deep discounts - and booking the ferry.....	97
5.1	Long distance scheduled express coaches.....	97
5.1.1	Introduction to long distance express coaches.....	97
5.1.2	Long distance scheduled coaches in Sweden: Svenska Buss.....	98
5.1.3	Long distance scheduled coaches in Norway.....	100
5.1.4	Long distance scheduled coaches in Denmark and Finland.....	101
5.1.5	The UK and Germany.....	102
5.1.6	The Eurolines organisation.....	102
5.1.7	National Express/Eurolines UK - coaches.....	104
5.1.8	Greyhound Lines, USA, Greyhound Canada - and Greyhound Pioneer Australia.....	106
5.1.9	Summary: Status and outlook in Europe and elsewhere for sales of tickets for and reservation of long-distance coaches on the net.....	108
5.2	Car rentals.....	109
5.2.1	Brief introduction to the car rental industry.....	109
5.2.2	Europcar International - emphasising Europcar Germany.....	111
5.3	European international ferry lines.....	115
5.3.1	Overview of European international ferry lines on the net.....	115
5.3.2	Stena Line, Sweden (Scandinavia and the British Isles).....	117
5.3.3	Scandlines AG.....	121
5.3.4	Irish Ferries.....	123
6.	Distribution of European accommodation services via the net.....	125
6.1	Introduction to booking of accommodation through the net.....	125
6.2	Hotels.....	127
6.2.1	An overview of hotels in Europe.....	127
6.2.2	The <i>Bookings NL</i> on-line hotel reservation system, Netherlands - and Europe.....	128
6.2.3	Hotel Reservation Service, HRS, Germany.....	131
6.3	Brief introduction to destination-based reservation systems.....	133
6.3.1	TICcover - revenue generated by online bookings.....	134
6.3.2	Gulliver, Ireland: Moving towards online bookings.....	134
6.4	Youth hostels.....	135
6.4.1	Hostelling International - World-wide and in Europe - and IBN.....	135
6.4.2	Hostelling International Norway (HIN).....	136
6.5	Holiday cottages.....	149
6.5.1	The online cottage reservation system of Matka-Ruka Oy, Kuusamo, Finland.....	149
6.5.2	Danish holiday cottages - A general overview.....	154
6.5.3	dansommer - A Danish cottage letting agency.....	156
6.5.4	Sol & Strand - A Danish cottage letting agency.....	160
6.6	Camping.....	161
6.6.1	Camping in Europe - An overview.....	161

6.6.2	eCamp, SASS GmbH, Germany.....	163
7.	Distributing European package tours on the net	167
7.1	Introduction to European tour operators on the net	167
7.1.1	The UK	168
7.1.2	Germany.....	170
7.1.3	Switzerland	171
7.1.4	The Nordic countries: Sweden, Denmark, Norway, Finland	173
7.2	Tour operator packages on the Internet	174
7.2.1	German tour operators on the net.....	176
7.2.2	Major UK tour operators - and associated retail operations - on the net.....	180
7.2.3	Tour operators in the Swiss market on the net.....	184
7.2.4	Tour operators in Scandinavia and Finland on the net	185
7.2.5	Rest of Europe - remaining players on the top 10 list of European tour operators.....	188
7.3	TUI, Germany, on the net.....	189
7.4	Kuoni, Switzerland, on the net.....	192
7.5	Ving, Scandinavia, on the net.....	195
7.6	Apollo, Sweden/Scandinavia	204
8.	Summary, conclusions (accessing the propositions) and reflections	207
8.1	Summary	207
8.1.1	The market	207
8.1.2	Transportation	208
8.1.3	Accommodation	210
8.1.4	Package tours - tour operators.....	210
8.1.5	Overview of case studies	212
8.2	Accessing the propositions.....	213
8.2.1	Distribution over the net - and price.....	213
8.2.2	Distribution over the net - and promotion	214
8.2.3	Distribution over the net - which products?.....	215
8.2.4	Distribution/sales over the net - how much?.....	216
8.2.5	Distribution over the net - and its effect on the different types of actors in the distribution chain.....	218
8.2.6	The Internet and competitive advantage.....	218
8.3	And the winners are... ..	220
9.	Bibliography	225
10.	Appendices.....	235
Appendix 1.1	General structure of the individual case studies	235
Appendix 1.2	List of people and organisations interviewed	236
Appendix 1.3.	Exchange rates.....	238
Appendix 2.1	Considerations behind Figure 2.6 - the assumed mix of Internet travel sales in Western Europe in 1998.....	240

Appendix 2.2	Internet sales of cruises on the US market	248
Appendix 2.3	Travel market sizes - in the US and Western Europe.....	250
Appendix 2.4	Discussion of Internet travel sales in Western Europe - 1998 and 2002 - cf. Table 2.4	252
Appendix 2.5	Shares of the online players on the US Internet travel market 1998 .	254
Appendix 2.6.	The Internet payment situation in Denmark	256
Appendix 3.1.	On the criteria for selecting the three times 20 major airlines in Table 3.1.	259
Appendix 4.1.	Overview of the 25 UK train operating units (franchises) + Eurostar	260
Appendix 4.2.	Train operator website feature matrix - selected countries.....	261
Appendix 5.1	Discussion of the size of the US and Western European market for long-distance travel by scheduled coaches	263
Appendix 5.2	Revenue figures of some UK private sector players in bus, coach and other forms of public transport.....	265
Appendix 5.3	The world-wide car industry at a glance	266
Appendix 5.4	Looking for lowest prices on two different Europcar sites.....	267
Appendix 5.5	Investment, costs and benefits of the Stena Line Internet booking site	269
Appendix 5.6	The Stena Line Internet booking system architecture - Phoenix.....	270
Appendix 6.1	Number of hotels by country in Western Europe and the US.....	271
Appendix 6.2	The Top 50 Hotel Brands	272
Appendix 6.3	European Youth hostel statistics (1997).....	273
Appendix 6.4	A review of (lack of) booking functionality for European youth hostels.....	274
Appendix 6.5	Why the hostels in IYHF's IBN system cannot be booked through the Web.....	276
Appendix 6.6	Hostelling and train-travel in the Nordic countries	277
Appendix 6.7	Costs and benefits seen from the point of view of the Matka-Ruka letting agency.....	280
Appendix 7.1	The players in the Nordic package tour market - 1998.....	282
Appendix 7.2	Ving's Internet package tour sales - and European totals – 1998-1999-2002, in volume and value (estimates).....	284
Appendix 7.3	Internet commerce in Sweden 1998.....	285
Appendix 7.4	Ving: cost savings, break-even and pay-back.....	287
11.	Index.....	289

List of Figures

Figure 1.1	Defining the scope and functionality of your tourism Web-site	17
Figure 1.2	Distribution over the Net as a marketing parameter - and its interrelations with the other marketing parameters.	20
Figure 2.1	Internet users by region of the World (late 1998).....	23
Figure 2.2	Internet users and Internet buyers in Western Europe (late 98 / early 99)...	24
Figure 2.3	Internet penetration by country in Western Europe (Jan. 1999 ~ end of 1998)	25
Figure 2.4	Number of Internet users by region in the world, 1997-2005 (Datamonitor)	27
Figure 2.5	The mix of Internet travel sales - in the US - 1998 and 2003.	30
Figure 2.6	The mix of Internet travel sales to Western Europeans in 1998 - An estimate.....	31
Figure 2.7	Defining the Internet travel/ tourism market - where at least one overnight stay is likely to be involved, i.e. excluding commuting/pending etc.	33
Figure 3.1	The Lufthansa Multimedia Server	44
Figure 4.1	Passengers per year for national Western European railways (1998).....	58
Figure 4.2	Number of page views for www.bahn.de per month, Jan. 98 - March 99....	63
Figure 4.3	DB timetable searches by time of day	64
Figure 4.4	DB timetable searches by day of week	64
Figure 4.5	Distribution of about 14 million page views on the Web-site of SBB in 1998.....	68
Figure 4.6	The SJ Web connection	72
Figure 4.7	Costs and savings of the SJ Web-site - A rough break-even chart.	77
Figure 4.8	Three levels of detail in the travel planner part of the DSB (Danish Rail) site	80
Figure 4.9	A break-even chart for DSB InterNet.....	85
Figure 5.1	Revenue structure of the National Express Group PLC	105
Figure 5.2	Market shares by value on the \$ 16.4 billion US car rental market (1997)	109
Figure 5.3	Approximate shares of the 6 billion \$ European car rental market (1997)	110
Figure 5.4	Number of Europcar rental stations by country (1999).....	112
Figure 5.5	Interactive route map of Stena Line	118
Figure 5.6	Break-even chart of Stena Line's Internet investment (in mill. \$)	120
Figure 5.7	Basic elements of an in-house bases Internet booking system.....	121
Figure 5.8	Scandlines routes (Germany-Denmark-Sweden).....	122
Figure 5.9	The Irish Ferries route map	124
Figure 6.1	The booking pattern for Europeans who go abroad for their holidays.....	126
Figure 6.2	No. of hotel properties per country in Western Europe.....	128
Figure 6.3	Break-even chart for Bookings NL BV	130
Figure 6.4	Average accommodation revenue per establishment - hostels and hotels..	138

Figure 6.5	The Web, e-mail, and fax based booking request system of HIN, Norway	140
Figure 6.6	Responding to booking requests to Norwegian hostels	141
Figure 6.7	Seasonal pattern for overnight stays at hotels and at hostels in Norway ...	144
Figure 6.8	Break-even chart for the Internet investment of Hostelling International Norway	145
Figure 6.9	Break-down of guest nights by market (i.e. guests' home country) for hotels, for hostels in general and for Internet bookings of hostels (1998) .	146
Figure 6.10	Booking pattern for international hostel guests, for national hostel guests, and hostel guests in total	147
Figure 6.11	Total No. of bookings (all channels) received by Matka-Ruka per season 1996-99.....	149
Figure 6.12	Basic components of an Internet based booking system - e.g. for cottages	151
Figure 6.13	Break-even chart for the Matka-Ruka Internet booking system	153
Figure 6.14	No. of camping sites per country in the eCamp Web-site	163
Figure 7.1	The top 10 tour operators in Europe (financial year 1998).....	167
Figure 7.2	Market shares among tour operators on the British market (by value, '98).	169
Figure 7.3	The top tour operators on the German market 1997/8.....	171
Figure 7.4	Distribution of the Swiss package tour market (by value, 1998)	172
Figure 7.5	Distribution of the Nordic market for package tours by owners (1997/8-volumes)	173
Figure 7.6	The activities of Kuoni at a glance (1997 data).....	193
Figure 7.7	Ving sales by market, in general (1998)	197
Figure 8.1	No correlation between Internet penetration and % of users which are buyers.	217
Figure 8.2	Three basic architectures for Internet based booking systems.....	219

List of Tables

Table 1.1	Sectors and types of actors covered - and those not covered - in this publication.....	18
Table 2.1	Comparing Western Europe and North America	26
Table 2.2	Number of Internet users by region of the World - end of 1998 and 2002 ..	28
Table 2.3	Differences between the US and Western Europe with respect to tourism/travel.....	34
Table 2.4	Internet travel market in the USA and in Western Europe, 1998 and 2002.	35
Table 3.1	Twenty major airlines with Web-sites in each of three regions in the World	40
Table 3.2	Some published data for Lufthansa's Internet sales - and analysis	46
Table 3.3	Key statistics of the Finnair Web-site.	51
Table 3.4	Overall passenger revenue and Internet revenue for Braathens, 1998.....	53
Table 4.1	European railways - and a few others - on the Net	59
Table 4.2	Investment (costs) and savings from usage of the DSB on-line timetable ...	84
Table 4.3	Internet bookings with three railway companies (1998).....	93
Table 4.4	Internet Web-sites as ways to gain competitive advantage - via cost savings or positive differentiation (more orders)?	94
Table 4.5	Penetration of mobile phones by total population, percentage, 1996 and 1998 - supplemented with Internet penetrations figures for 1998.....	95
Table 5.1	Some bus operators in Sweden - with long routes - and their Web-sites	99
Table 5.2	National Web-sites of the Eurolines organisation.....	103
Table 5.3	European international ferry lines on the Net & their booking functionality (if any).....	116
Table 6.1	Opportunities for Internet bookings of European accommodation services	127
Table 6.2	The <i>Bookings NL</i> on-line hotel reservation system, Netherlands - and Europe	129
Table 6.3	Summary of key statistics for the www.bookings.org site	130
Table 6.4	Hostels in IYHF, and in the IBN system	136
Table 6.5	Comparing hotels and youth hostels in Norway	137
Table 6.6	Internet statistics and analysis - Hostelling International Norway	139
Table 6.7	E-mail penetration among Norwegian youth hostels, May 1999.....	140
Table 6.8	IBN vs. Internet - the case of Norway	142
Table 6.9	Internet investment appraisal - hostelling International Norway (in NOK and \$).....	143
Table 6.10	Realised and predicted Internet sales for Hostels International Norway....	146
Table 6.11	Internet bookings for Matka-Ruka 1996-1999	152
Table 6.12	Internet bookings for dansommer - realised and expected	157
Table 6.13	The great importance of the Internet for dansommer as a distribution channel - for the booking period January-May, 1999	158

Table 6.14	Some statistics of the eCamp Web-site.....	164
Table 7.1	The Web-sites of the top 10 tour operators in Germany	176
Table 7.2	Tour operators on the Net - The UK market Part I (Thomson).....	180
Table 7.3	Tour operators on the Net - The UK market Part II (Airtours)	181
Table 7.4	Tour operators on the Net - The UK market Part III (Other majors).....	182
Table 7.5	Tour operators on the Swiss market - and their Web-sites.....	184
Table 7.6	SLG (Airtours).....	185
Table 7.7	Fritidsresor Group (Thomson).....	186
Table 7.8	Finnair Travel Services (Finnish market only).....	187
Table 7.9	Apollo, Scandinavia (1998).....	187
Table 7.10	Kuoni - on the Danish market: Alletiders Group (1998)	187
Table 7.11	Leading tour operators in the rest of Europe: Little Web-site functionality.	188
Table 7.12	Functionality of major tour operator Web-sites in Europe: The general picture.....	189
Table 7.13	Some statistics of www.tui.de: Visits, bookings, revenue, and forecast.....	191
Table 7.14	Stepping-stones for TUI to reach 5% via Internet in the year 2003	192
Table 7.15	Estimated market shares for the Ving brand and major tour operator groups in the four Nordic markets	196
Table 7.16	Summary and interpretation of published statements about Ving's package tour sales via Internet - compared with European tour operators in general: % of own volume and % of own revenue via Net for the years 1998, 1999, and 2002.	202
Table 7.17	Packages sold via Internet by Apollo (mainly www.apollo.se).....	205
Table 8.1	Overview of case studies.....	212
Table 8.2	Some successful European owned, European oriented Web-sites 1998 - and 1999.....	221

1. Introduction

1.1 Background

Information and communication technologies (ICTs) on one hand, and tourism/travel on the other are among the largest and fastest developing industries in the world. ICT contributes 6% of aggregate global GDP to the world economy, making it one of the top industries world-wide.¹ And *the travel market is the world's biggest IT spender, with IATA companies alone investing some \$5bn annually on information systems.*²

Within the ICT field, the Internet - in its different variants - is one of the most dynamic sub-sectors. And within the Internet, trading over the net, which is limited at the moment, is expected to grow exponentially, especially trading of travel/tourism services. Tourism/travel is a significant application of the Internet, in surveys typically found to account for between a fifth and up to a third of its use, both with respect to providing and searching for information, and when it comes to making purchases.

Western Europe plays a key role in the field of travel and tourism internationally, but its position is stagnating. Disregarding international tourist arrivals as a fair indicator for making comparisons between North America and Western Europe, other indicators show that North America is comparable to Western Europe with regard to the size of the tourism industry. For example, direct and indirect employment in tourism is exactly the same in North America as in Western Europe (excluding Turkey): 6.5 million people in both regions. Tourism account for 5.9% of GDP in North America vs 5.1% in Western Europe.³ In the European Union (EU15) tourism accounts for 5.5% of GDP and 6% of employment.⁴ For comparison, the IT industry should account for 10% of the US economy vs 6% for tourism, so obviously IT - as well as tourism - is a very important sector in the US economy. In absolute numbers, the total contribution of tourism to GDP in North America was about \$440 billion in 1995 vs \$330 billion in Western Europe (again excluding Turkey).⁵ With regard to Internet use, both in terms of the number of users and their propensity to make (travel) purchases on the net, and in terms of the number of (travel) websites and their functionality, Western Europe is (far) behind North America. In 1998 there were

1 www.witsa.org/ (was at: www.witsa.org/pr.htm).

2 www.icl.co.uk/ (was at: www.icl.co.uk/news/consguide/markets/travel.htm).

3 OECD, 1995, p. 33.

4 <http://europa.eu.int/en/comm/dg23/tourisme/tourismeu.html>.

5 Calculated as GDP in 1995 multiplied by the percentage of GDP which tourism accounts for per country in each of the two regions, according to OECD (1995). The percentages in the mentioned source are probably from the first part of the 1990s (1992/93). For 1998 data covering the US only see www.ahma.com/infocenter/eco_impact98.htm

about 35 million users in Western Europe vs about 70 million in the US alone. In North America consumers are more inclined to make purchases over the net than in Western Europe and in the rest of the world.⁶ The US most likely has a great surplus on *the Internet balance of payments*, meaning that international (actually intercontinental) purchases in general on the Internet are often made at US websites. Also in the specific field of transactional travel/tourism websites - where bookings can be made - American sites are clearly dominant, although some air-ticket sites have been restricting Internet sales to the North American market, while others are establishing branches in Europe. In the field of distribution of hotel accommodation as individual room nights (as opposed to packages), it is actually hard to find examples of European owned websites with on-line real-time booking facilities on the net. Most of those around seem to be headquartered in the US, and mainly US-owned.⁷ Measured by employment, the hotel and catering sector is, incidentally, the most important sector in tourism, accounting for around one third in OECD countries, whereas the transport sector (air, rail, road) accounts for around 15%, and the travel agency field for about 4%.⁸ When it comes to Internet travel purchases, airline tickets currently account for the bulk of purchases, both in North America and Europe.

It will be a major challenge for European actors to catch up with the American sites, and to figure out how they can establish themselves on the Internet, and utilise the medium not only as a promotional medium, but also as a sales/distribution channel - without necessarily having to make a virtual Atlantic crossing to American middlemen to make or take on-line real-time bookings over the net.

During 1998 many owners of European websites have made statements about their expectations of the results of their own website or tourism/travel managers have tried to quantify their general expectations as to the percentage of all travel/tourism sales which will be made over the net in a few years time. A typical statement is that in the year 2001 around 20% of our sales of travel/tourism products will come through the Internet.

Nobody knows what the future will bring for the tourism/travel industry. But without any doubt sales/distribution of European tourism products over the net will increase dramatically - at least in percentage terms. In absolute terms Internet travel sales are predicted to rise from about \$250 million in 1998 to about \$4 billion in 2002 in Western Europe (by contrast in North America they are predicted to rise from around \$3 billion to \$18 billion). Travel services are one of the top selling products on the Internet, with airline tickets as the main product category.

6 While Americans constitute 62% of Internet users worldwide, the US generated 85% of global Internet revenues during 1997 according to a IMRG report from 1998, <http://www.hp.com/Ebusiness/imrg.html>.

7 Or *powered* by GDSs such as Sabre and Worldspan, which are headquartered in the US.

8 OECD, 1995.

This writer holds that many of the firms in tourism/travel who expect 20% of their bookings to come through the net in less than five years will have to revise their expectations downwards. Certainly, at the aggregate level, sales over the Internet of European travel/tourism products will have to be measured by a small one digit percentage figure for at least five years, i.e. until and including the year 2003. In the US, even according to the most optimistic forecast, Internet travel sales will not exceed 12% of all (leisure) travel in the year 2003.⁹ In Western Europe the corresponding figure would probably be less than a third of the US level, i.e. less than 4% at an aggregate level. Some suppliers will of course be able to exceed the average considerably (which a few have done already by a considerable margin in 1999). There are many reasons why Internet commerce for tourism/travel (and other) products may not develop as smoothly and swiftly as expected, such as problems with integrating internally and externally oriented systems.

This book will show state of the art examples of innovative Internet uses for distribution of European tourism/travel services and in this way indicate possible ways of further developing Internet commerce in Europe for tourism.

Other studies have looked at IT uses in tourism in general,¹⁰ have emphasised the hotel sector and Destination Management Systems,¹¹ Internet for general marketing purposes,¹² or Internet uses for tourism and travel mainly from an American perspective.¹³ A number of theses at the masters level have started appearing on the subject of the Internet applied to tourism.¹⁴ This book focuses specifically on the Internet for tourism and travel. It does so from a European rather than an American perspective. Emphasis is placed on commerce (buying/selling) over the net rather than merely information provision or promotion.

In spite of the focus on Europe in the selection of examples of websites to be reviewed, the examples will also be of interest to non-Europeans, since barriers, obstacles and opportunities are similar to those in Europe in some other parts of the world. A few non-European websites will also be included, where deemed relevant, i.e. to illustrate certain technological possibilities or to make comparisons with Europe, and European tourism managers may very well decide to distribute their products over non-European websites.

9 Forrester, 1998.

10 E.g. Sheldon, 1997 and Werthner & Klein, 1999.

11 O'Connor, Peter, 1999.

12 Ellsworth & Ellsworth, 1997.

13 Multiclient report from Jupiter Communications, March 1998, *On-line Travel: Five Year Outlook*, summary at: www.jup.com/research/reports/travel; and *The PhoCusWright Yearbook 1999*, www.phocuswright.com/yearbook.htm, forthcoming.

14 Kristensen, Thomas, 1998, Ka Kei Ng, Samuel, 1998 and Fink, Karen, 1998.

1.2 Aims and objectives

The objectives are as follows:

- A. Review current innovative uses of the Internet/WWW for interactive information provision and especially for distribution/sales of bookable European tourism products - in order to illustrate ways ahead for tourism businesses and organisations.
- B. Explore relations between the distribution parameter and the other parameters in the marketing mix in an Internet context (based on A in addition to a literature review).
- C. Discuss if, how, and for whom - i.e. types of actors in the distribution chain – the Internet might be a way to gain a competitive advantage, and to discuss the challenges (threats, limitations, barriers and obstacles) and opportunities of the Internet as a distribution channel - for different types of tourism products and tourism industry actors.

1.3 Emphasis and delimitation

Geographic emphasis within Europe:

The geographic emphasis will be on Germany, the UK, and the Nordic countries: the reasons for this - apart from the obvious advantages of a geographic delimitation in connection with the undertaking of the fieldwork - are that Germany and the UK are the two countries with the largest Internet user populations, whereas the Nordic countries have the greatest Internet penetration in Europe. Germany, the UK, and the Nordic countries, account for about two thirds of Internet users in Western Europe.

Product focus:

All the main categories of tourism products will be covered. Since emphasis is placed on distribution - and not just on information provision - the focus will be on bookable tourism/travel services, which are in fact services.

Functional emphasis of the websites reviewed:

There will be an emphasis on websites which at least have availability data - where relevant - i.e. where pre-bookings are possible or necessary. Distribution can be with or without payment settlement on the net. Ideally there should also be payment facilities on the websites, but this is not a must. Price information will generally be included in the websites reviewed. In some instances, such as in the case of websites for low cost accommodation, availability data is not included. But then there must at least be query-response functions, where the user can search a database in some advanced fashion.¹⁵

15 Interactive information provision is typically based on the linking D-bases and websites in the form of query-response functions.

User groups emphasised:

Final customers:

***** Internet

Between trading partners:

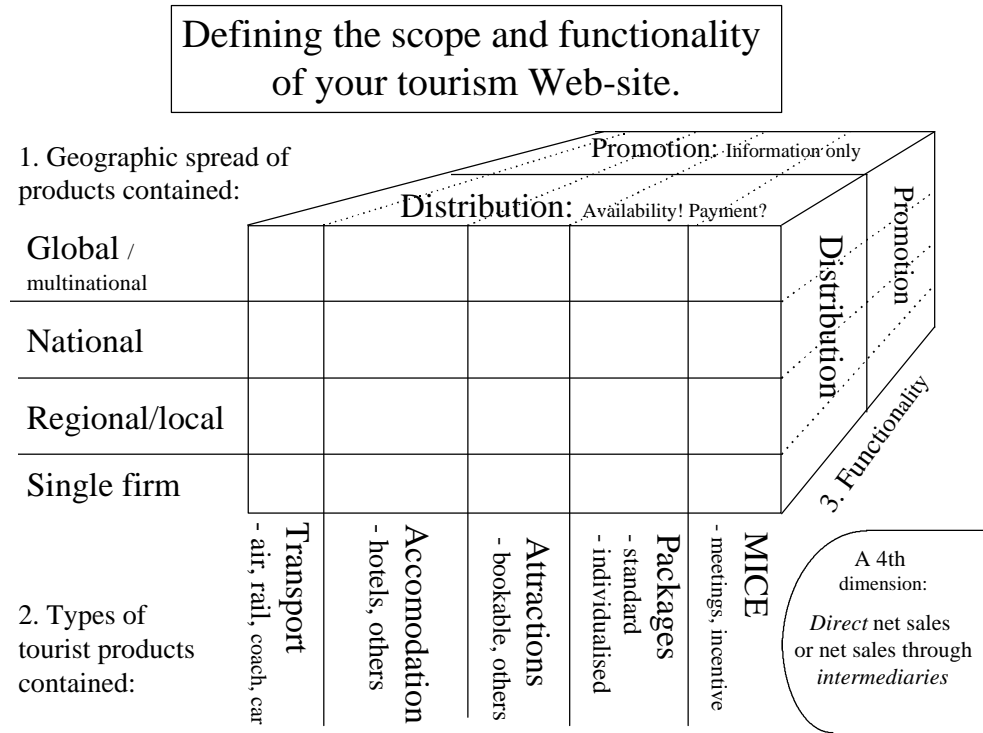
** Extranet

(not covered)

Within company (employees):

* Intranet (not covered)

Figure 1.1 Defining the scope and functionality of your tourism website



Note: A 5th dimension Reach: Global: Internet; Inter-firm: Extranet; Intra-firm: Intranet.

MICE and tickets for attractions are not covered at all. Intermediaries are not dealt with in depth.

Criteria in the selection process of websites for this book:	Weight:
• Transactional websites - with availability data and booking facilities - rather than without.	20
• European - rather than non-European owned (and headquartered) websites.	10
• The greater percentage of products presented in the website which are European, the better.	10
• Websites from the Nordic countries, Germany or the UK rather than other European ones	10
• Internet website (10) rather than extranets (5) - and intranets (0)	10
• With payment functions on the net - rather than payment by other means.	5
• Advanced D-base query functions rather than flat simple websites.	5
• Websites with price information rather than without price information.	5
• Websites with at least national coverage - rather than local coverage - are preferred.	5
Total, max. Points	80

Figure 1.1 is a selection support scheme only. Scores for each website will not necessarily be calculated before deciding whether or not to include it. It is meant to be a guideline.

Table 1.1 shows the sectors and types of actors that will be covered.

Table 1.1 Sectors and types of actors covered - and those not covered - in this publication

The following is covered in this publication:	The following is <i>not</i> covered in this publication:
- Air transport, direct sales from airlines	- GDS based - typically US - on-line agents
- Rail transport, time-tables and direct sales	- hotel <i>chains</i>
- Coaches, rental cars, ferry lines	- <i>tickets</i> for attractions and events
- Individual hotels - via on-line intermediaries	- individualised packages
- Youth hostels	- MICE (Meetings, incentives, conferences, exhibitions)
- Camping	- National/regional/local destination marketing and reservation systems (<i>mentioned briefly</i>)
- Holiday cottages	- Extranets and Intranets
- Package tours	- Simple one-property old-fashioned homepages

The general structure of the individual case studies are shown in Appendix 1.1.

1.4 Formulation of propositions

The formulation of propositions takes its starting point in the 4Ps - representing the marketing mix - which have been part of most general and tourism marketing text books since the 4Ps were introduced by McCarthy four decades ago in 1960.¹⁶ Within the service mar-

16 McCarthy, J.E., 1960, and e.g. Kotler, Philip, any edition; Keegan, W.J., 1989, 4th ed., chap. 12-15 (or later editions), Witt & Moutinho (eds.), 1994, 2nd ed., Part III section 2, Holloway & Robinson, 1995, chap. 5-13. Kotler, Philip, John Bowen and James Makens, 1999, 2nd ed., Prentice Hall, Porter, Michael J., 1980, the Free Press, New York; Porter, Michael J., 1985, the Free Press, New York.

keting field there have been attempts to twist the 4Ps into 7Ps or even 30Rs, but the 4Ps still stand.¹⁷

Figure 1.2 shows a split of the 4Ps into:

- Product and Price, which represents the basic offer to the market, and Promotion - and
- Promotion and Place(/distribution), which communication and contact with the market.

This split is inspired by a Scandinavian tradition of dividing the marketing parameters into basic parameters and contact parameters. The Norwegian professor Otto Ottesen, who taught at the Copenhagen Business School for many years, is the father of this tradition (or at least one of them, cf. Frey, 1961, mentioned below). However, Ottesen - in his multi-edition text book in Norwegian on market communication - did not explicitly apply this split to the 4Ps.¹⁸ Therefore the explicit combination of Ottesen's double-split of the marketing parameters and McCarthy's 4Ps - may be a fresh way of perceiving the 4Ps. Ottesen only classified four different forms of market communication (personal and impersonal; mass and individual, as a two-by-two matrix) as contact parameters, whereas physical distribution was classified among the basic parameters. Here, however, for tourism and travel services there is no physical distribution, and the contact parameters are perceived more broadly, including Internet distribution.

In 1961 - or actually even earlier - Frey proposed a double-split of the marketing parameters, which corresponds fully with the split of the 4Ps shown in Figure 1.2. It may therefore be considered a combination of McCarthy's and Frey's work.¹⁹ The origins of Figure 1.2 can thus be traced back four decades.

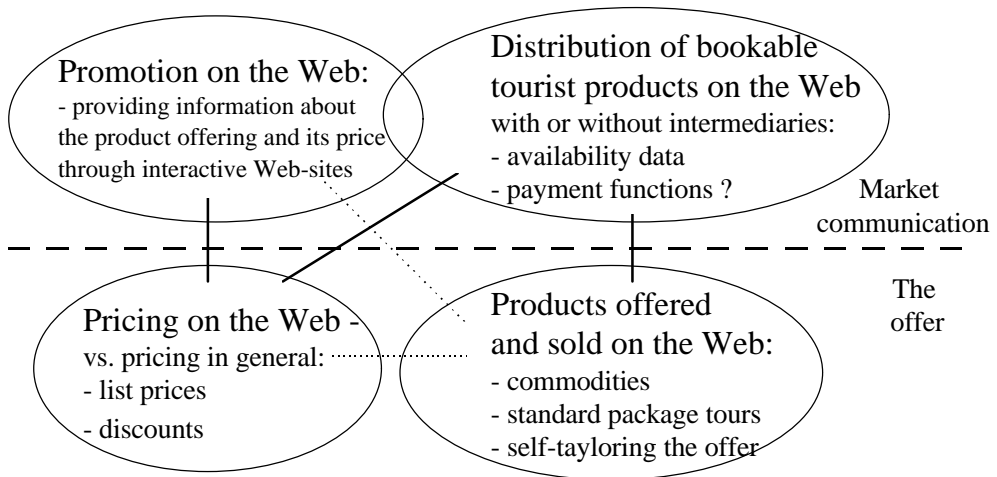
The 4Ps as a basis for the propositions are supplemented with the notion of competitive advantage as introduced by Michael Porter (1980, 1985).

17 Palmer, Adrian, 1994, McGraw-Hill; Gummesson, Evert, 1998.

18 Ottesen, Otto, 1981 (first published in 1977). There is no reference to McCarthy, 1960 (or any of Kotler's early work) in Ottesen, 1981 (p. 30ff.) where he introduces his split.

19 Frey, Albert W., 1961, p. 30, New York: Ronald Press, according to Kotler, Philip, 1984, p. 68, note 25, or Kotler, Philip, 1997, p. 107, note 33.

Figure 1.2 Distribution over the net as a marketing parameter - and its interrelations with the other marketing parameters.



Distribution over the net - and price:

- P1. Prices to the end-user of the most commodity-like tourist/travel products are - or will be - lower than the same products being sold through traditional distribution channels.
- P2. Prices are not commonly reduced for tourist/travel products offered over the Web. This is impeding sales over the net.

Distribution over the net - and promotion:

- P3. Promotion (information provision) and distribution are closely linked.
- P4. As the Internet matures as an advertising medium, reliable and comparable media measurements will be developed as for other media.

Distribution over the net - which products?

- P5. The more standardised (commodity-like) the product, the more it is being sold over the net.
- P6. In general, the lower the transportation costs, the more likely is it that products are being sold over the net. Services - such as tourism and travel products - are ideal for being sold over the net, since there are no transportation costs.

Distribution/sales over the net - how much?

- P7. The lookers to bookers ratio will improve as the willingness of end-users to place orders - and make payments - over the net increases.
- P8. The willingness of end-users to purchase tourism/travel products over the net is positively correlated with factors such as the penetration of the net (percentage of the population), and the penetration of international payment cards in different countries.

Distribution over the net - and its effect on the different types of actors in the distribution chain:

- P9. Tour operators and other players at the wholesale level in markets which traditionally rely heavily on retail sales through independent travel agents - will start opening websites with the possibility of making bookings directly to them - thus bypassing travel agents.
- P10. Airlines will start taking bookings for simple return tickets over the net - thus bypassing travel agents - and increasing their percentage of direct sales.

The Internet and competitive advantage:

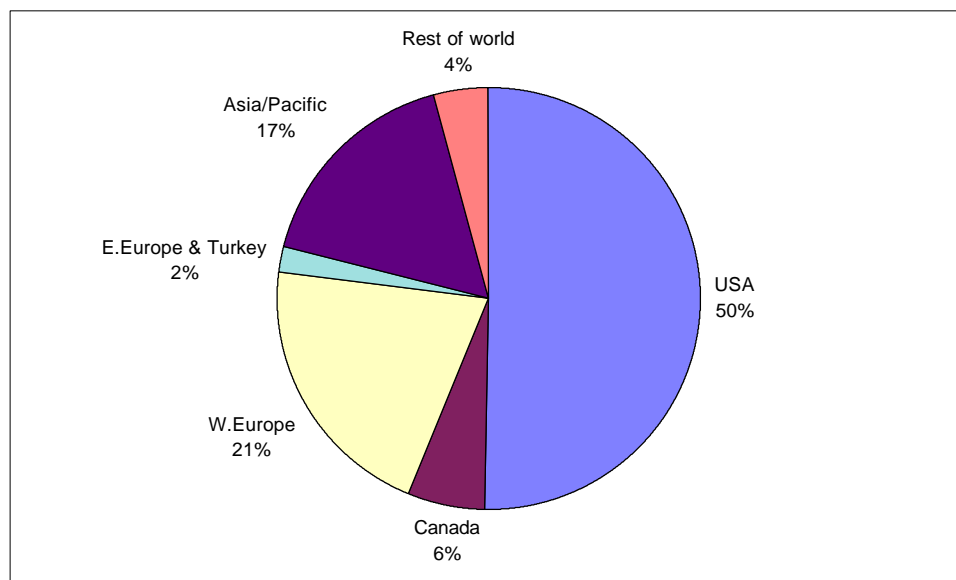
- P11. Cost savings will only be made by the big players to any measurable degree.
- P12. Advantages through a positive differentiation from competitors can no longer be achieved through simple (non interactive, and non transactional) websites. Already today positive differentiation from competitors by means of the Internet requires more than just a basic website.

2. Internet penetration and Internet travel sales in a European perspective

2.1 Number of Internet users in Europe - and elsewhere

Historically, which in web terminology effectively means since about 1995, North America has accounted for the majority of Internet users, and still does. Estimates for the number of Internet users world-wide by the end of 1998 range from 131 million (Datamonitor) to 158 million (NUA - based on a number of different sources), of which the US alone accounted for about half. For Europe (Western + Eastern), the number of Internet users by the end of 1998 and in early 1999 has been estimated to about 37 million by both Datamonitor and NUA. According to data published on the NUA website, Western Europe accounts for about 21% of the world's Internet users, and Eastern Europe for another 2%.

Figure 2.1 Internet users by region of the world (late 1998)



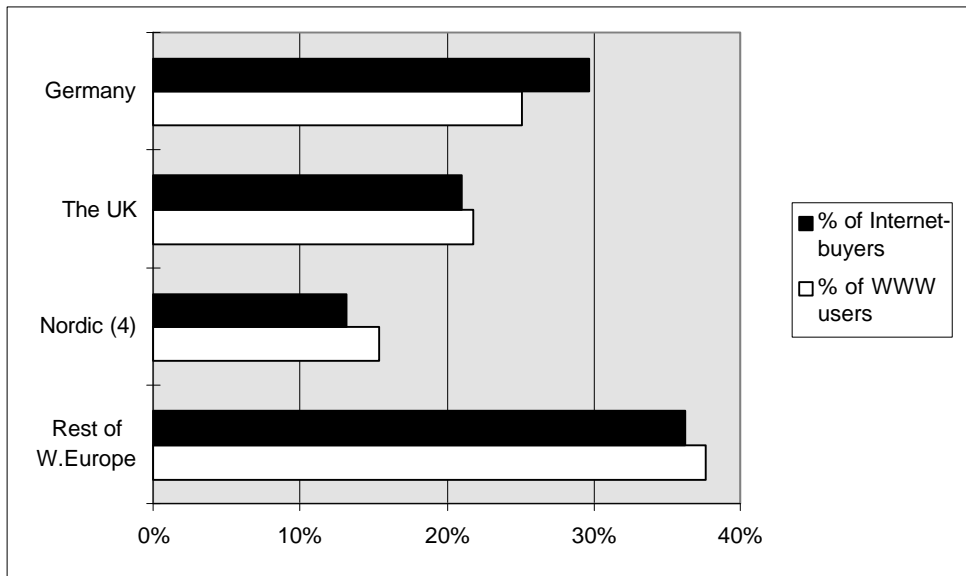
Source: Based on www.nua.ie/surveys/how_many_online/index.html.

Based on data from a variety of sources typically from around October 1998, NUA mentions a world total of about 158 million (published in March 1999 on their website), 33.5 million of which are in Western Europe, and another 3.2 million in Turkey + Eastern Europe/Russia.

According to IDC, there were about 41 million Internet users in January 1999 in Western Europe, which is interpreted as an end of 1998 estimate. The IDC estimate is somewhat higher than that of NUA, in spite of the fact that IDC actually counts World Wide Web

users only. On the other hand, the sources upon which NUA build in their somewhat lower estimate, are generally from about October 1998 (although published in March 1999). Therefore there is a reasonable explanation of the difference between NUA and IDC as far as the Western European estimate is concerned. The IDC estimate of 41 million for Western Europe for the end of 1998 corresponds to 10.7% of the whole population. Of these WWW users, Germany accounted for 25%, the UK for 22%, and the Nordic countries for 15%.²⁰ In the last quarter of 1998 only about 11% of the Internet (WWW) users purchased something on the net. This percentage was a little higher for Germany, and a little lower for the Nordic countries.

Figure 2.2 Internet users and Internet buyers in Western Europe (late 98/early 99)



Source: Based on IDC, January 1999, *European Internet Statistics: How many people are on-line in Europe?* (www.eurointernet.idc.dk/euinet/stats.htm), which is being updated quarterly, and a graph from Computerworld Denmark, 5th February, 1999, p. 21 in an article in Danish by Stefan Elmer, IDC Nordic, showing the Internet buyers in Western Europe by country (last quarter of 1998).

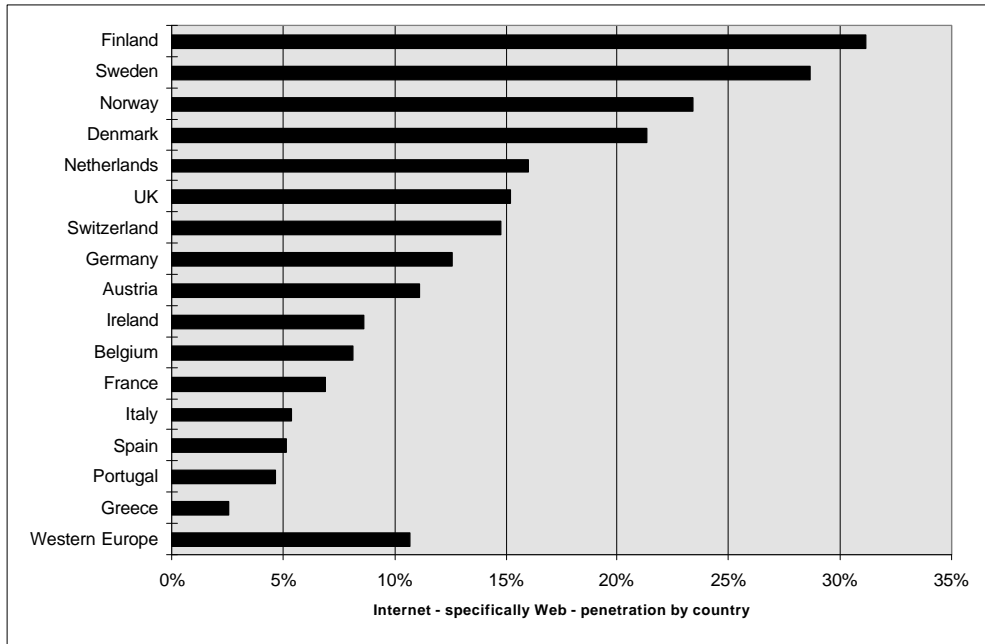
Note: There were 40.9 million web users in total in Western Europe in January 1999, about 11% of which were Internet buyers, according to IDC.

So Germany, Britain, and the Nordic countries account for 62% of the users, and about 64% of the Internet buyers in Western Europe. This - together with the fact that there are about 10 times more Internet users in Western than in Eastern Europe - underlines the

20 The Nordic countries are here defined as Sweden, Denmark, Norway and Finland. Being one of the smallest nations in Europe, Iceland is not included, although Internet penetration is as high in Iceland as in Denmark or Norway.

relevance of the chosen geographic emphasis within Europe: Internet penetration varies considerably between countries or regions of Western Europe, cf. Figure 2.3.

Figure 2.3 Internet penetration by country in Western Europe (end 1998/Jan. 1999)



Source: Based on IDC, www.eurointernet.idc.dk/euinet/stats.htm, i.e. the number of Web-users by country, Jan. 1999, divided by the latest official population counts.

In spite of the fact that Western Europe and North America have fairly comparable economies - total GDP is 14% higher in Western Europe than in North America - there are less than half as many Internet users in Western Europe as in North America. And although the economic stage of the two regions is relatively comparable - as indicated by GDP per capita - Internet penetration is much higher in North America than in Western Europe.

Table 2.1. Comparing Western Europe and North America

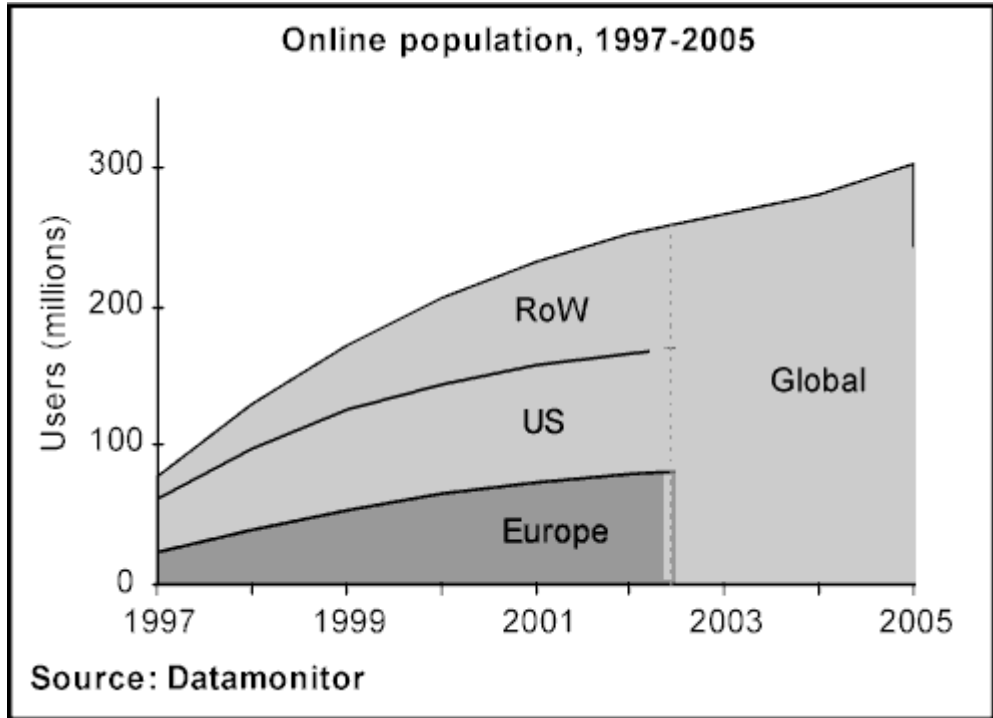
	(1) Western Europe	(2) North America	(3) of which USA alone	(1) W.Europe / (2) N.America
Total GDP (1996), \$ billion	9054	7963	7388	1.14
Population (1996)	384	297	267	1.29
GDP per capita, \$	23 600	26 850	27 712	0.88
Internet users, million (1998)	~37 (34-40)	~ 78 (69-88)	~70	0.47
Internet penetration (% of pop.)	~ 10%	~ 26%	~26%	0.36

Telecommunications costs, which are an important determinant of Internet use, are about five times higher in Europe than in the US (Forrester, 26th June, 1998). Some fall in costs is expected following deregulation of the telecom sector in Europe.

2.2 Forecasts for the number of Internet users in Europe and the rest of the world

Datamonitor predicts the number of Internet users world-wide to increase to about 250 million by the year 2002, fairly equally split between Europe, the USA, and the rest of the world. In Europe the number of Internet users is set to more than double from 1998 to 2002 - to about 80 million - according to Datamonitor.

Figure 2.4 Number of Internet users by region of the world, 1997-2005 (Datamonitor)



www.datamonitor.com/, press release 1st March, 1999.

IDC is considerably more optimistic than Datamonitor, predicting the number of users to more than triple in Western Europe by the end of 2002 compared with 1998. That also goes for the world total, which they expect to reach as high as 500 million - albeit not until the end of 2003. For comparison Datamonitor predicts a world total of *only* 300 million - in the year 2005 - cf. Figure 2.4. These differences in forecast illustrate the considerable uncertainty margin involved in Internet-related forecasts, be it forecasts for the number of Internet users or, as we shall see, forecasts for travel purchases via the Internet.

Table 2.2 Number of Internet users by region of the world - end of 1998 and 2002

Region	Datamonitor (1998)	NUA (1998)	IDC (1998)	Datamonitor (2002)	IDC (2002)
(W.) Europe	38 (29%)	37 (23%)	40	79 (32%)	140
USA	60 (46%)	79 (50%)		87 (35%)	
Rest of world	33 (25%)	42 (27%)		85 (34%)	
Total	131 (100%)	158 (100%)	150	251 (100%)	320+

Source: Datamonitor, 1999, www.datamonitor.com, from graph in press release dated 1st March; NUA, March 1999, *How many on-line?*, www.nua.ie, quoting sources from about October 1998. For the USA NUA quotes IntelliQuest (Jan. 1999) for a estimating 79 million users in the USA; IDC, January 1999, www.eurointernet.idc.dk/start.htm, *European Internet Statistics: How many people are on-line in Europe?* To be quite exact, IDC mentions the number 40.9 million Web users in Western Europe as of January 1999 on the site.

There may be an almost inherent positive bias in studies of the number of Internet users. Thus Hoffman, Kalsbeek & Novak (1996) convincingly argued that one in three users should be knocked off a Nielsen (CommerceNet/Nielsen) estimate for 1995 for a number of reasons.²¹ Since the risk is that positive bias creeps into almost any Internet estimate even for a current year, when it comes to Internet *forecasts* it is even more obvious, that they may be positively biased. It has been argued by Wäsche (1998) that Internet forecasts such as those of Forrester and Jupiter, which we shall discuss later, are *partially the necessarily optimistic expectations of the market participants themselves*.²² This means that the key industry players who have been interviewed as part of the forecasting process simply have to be optimistic about the future. The danger is that the enthusiasm and optimism of each of the professional respondents is carried over too extensively into the aggregated published Internet forecasts.

2.3 Internet commerce - 1998 and 2002 - in Western Europe and the USA

The fact that not many more than one in 10 people in Western Europe are Internet (specifically Web) users, and that not many more than one in every 10 Internet users buys anything on the net means that only about 4.5 million out of a total population of 384 million, i.e. 1.2%, were Internet *buyers* at the very beginning of 1999. However, IDC expects that:

1. Internet penetration in Western Europe will increase to as much as 35% by the end of 2002 (i.e. about 140 million Internet users out of a population of about 400 million by then);
2. almost one in four (~24%) of the Internet users will also buy on the net; and

21 Hoffman, D.L., W.D. Kalsbeek and T.P. Novak, 1996, Communications of the ACM, 39 (December), 36-46, <http://ecommerce.vanderbilt.edu/baseline/internet.demos.july9.1996.html>.

22 Waesche, Nico, 1998, <http://heise.xlink.de/tp/english/inhalt/te/1661/1.html>.

3. the average amount spent by each Internet buyer will increase considerably.

Because of 1 and 2, IDC estimates that there will be 34 million Internet *buyers* in Western Europe by year-end 2002,²³ corresponding to 8.5% of the population by then (compared with only 1.2% by year-end 1998 as mentioned).

Internet penetration (Internet users as a percentage of the population) is about two and a half times greater in North America than in Western Europe (cf. Table 2.1). Furthermore, among those who actually use the net, the Western Europeans are no more than half as likely as their North American counterparts to make purchases on the net. And finally, the average amount spent per Internet user is less for Europeans than for Americans. Therefore North America's share of the world's Internet commerce is much greater than its share of Internet users shown in Figure 2.1.²⁴

2.4 Status and forecasts for tourism/travel sales (distribution) via the Internet

For the US only, Internet sales of leisure travel services are projected to increase from \$3 billion in 1998 to almost \$30 billion in 2003 - out of total Internet sales of \$108 billion in the business-to-consumer field by then. If this Internet travel sales forecast is realised it will correspond to 12% of all travel sales in the US. The travel forecast goes via \$21 billion in 2001, and this is three times as high a forecast as previously made by the same market research firm, Forrester Research. For the year 2002 the Forrester (leisure) travel Internet sales forecast is about \$25 billion. For comparison, Jupiter Communications have predicted the US on-line travel revenue to reach \$11.7 billion in 2002.²⁵ *At less than half* of the Forrester forecast for the same year, this indicates that the revised Forrester forecast is optimistic. A study by Bear Stearns & Co. also agrees with Jupiter rather than Forrester, i.e. about \$12.4 billion in on-line travel sales in the US in the year 2002.²⁶

23 www.idc.com/idc7/data/global/content/020899gb.htm.

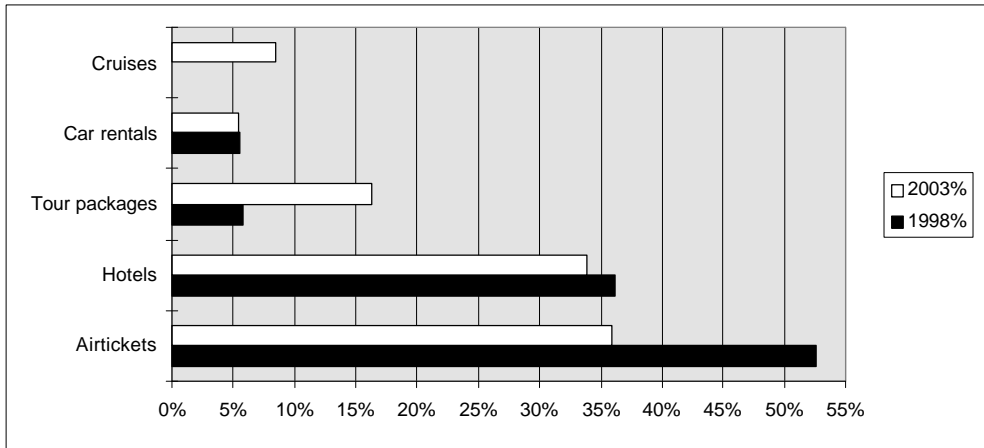
24 The numbers 85% of all Internet-based commerce for the US, 10% for Europe, and 5% for the rest of the world have been mentioned (IMRG report), albeit not for 1998, but for 1997.

25 www.thestandard.net, Industry Spotlight: Travel on the Web. - According to Jupiter, 59% of the \$11.7 billion will be airtravel in the year 2002. Also according to Jupiter, as much as 84% of Internet travel sales (of \$0.911 billion) back in 1997 concerned air travel. This indicates that the Forrester estimate for Internet hotel bookings may be an overestimate. The Jupiter forecast of \$11.7 billion for travel for the US in 2002 is also adjusted up from \$8.6 billion predicted earlier by Jupiter.

26 Bear Stearns & Co. predicts that 25% of this (\$3.1 billion) will be on-line hotel bookings for the year 2002, up from just 9% in 1997 (www.nua.ie). The Forrester forecast for hotels for the year 2002 would be about \$8 billion - and \$10.6 billion out of the \$29.5 billion total in 2003.

Of Internet travel sales, airtickets accounted for 53% in 1998 in the US, which will drop to 36% in 2003 (Forrester).²⁷ The Forrester estimates and forecasts are supposed to exclude business travel. In reality this is probably not the case. For example airlines and on-line travel agents which have contributed to the study have probably not excluded business travel sales from the numbers they have contributed, and Forrester themselves seem not to believe that much - if anything - should be added for business travel.²⁸ The Forrester forecast for Internet sales of *cruises* on the US market is discussed in Appendix 2.2, and is considered to be much too optimistic by at least a factor of four.

Figure 2.5 The mix of Internet travel sales - in the US - 1998 and 2003



Source: Based on press release from Forrester Research, dated 30 September 1998.

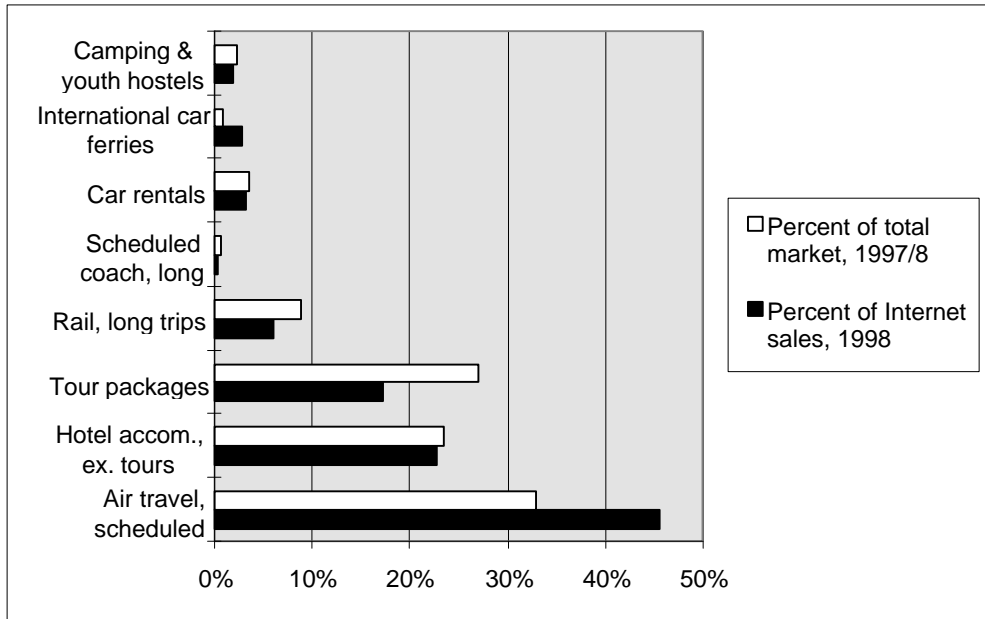
Note: The total in 1998 was \$3.046 billion, and the 2003 Forrester on-line travel forecast is \$29.5 billion for the US. Therefore, in absolute numbers Internet sales of airtickets will also increase dramatically in the US.

Unfortunately not a single research firm has made an estimate of the magnitude of the value of Internet travel sales in Western Europe for the year 1998, and therefore a breakdown by travel service categories has not been published. However, an estimate of the distribution of the purchase of travel/tourism services over the net by Europeans is provided in Figure 2.6.

27 To get a total estimate for North America in value, Canada has to be added to the US figures, which can probably be assumed to be additionally 8% in Internet travel sales, both for 1998 and 2003.

28 This is inferred from the statement that most business travel is bound by a corporate travel policy.

Figure 2.6 The mix of Internet travel sales to Western Europeans in 1998 - an estimate



Source: Own estimate, cf. Appendix 2.1.

Note: The black columns are estimated percentages of Internet sales. To put this into perspective, the corresponding percentages for the estimated total market value, irrespective of distribution channel are also shown (the white columns). Total Internet travel/tourism sales in the Western European market in 1998 were about \$250 million, cf. Table 2.4. In principle, *any Internet travel sales to Western Europeans* - irrespective of whether or not the site is European or not - are included. Correspondingly, in principle, any travel sales from European sites to *non-Europeans* are excluded.

The total of \$250 million as well as the breakdown of this by type of travel product and by Internet channel (direct or through intermediary) is of course an estimate only. Unless more airlines and others come forward with realised Internet sales in 1998, broken down by sales to Europeans and non-Europeans, we will never know the true (or a more true) 1998 figure.²⁹ Some disappointing published Internet sales figures suggest that Internet travel sales on the European market are unlikely to have been over \$250 million in 1998. At PhoCusWright LIVEurope99 in Brussels it was reported that nine leading European airlines achieved combined (direct) Internet sales in 1998 of *under* \$60 million - but it is not stated how far under.³⁰ This may even include some Internet sales to non-Europeans.³¹

29 By now it is too late to ask the consumers about their 1998 travel purchases on the net. In order to make meaningful forecasts we must at least know the historical data, a base line estimate.

30 PhoCusWright, press release, Brussels, 7 May 1999, *European airlines slow to jump on the Internet eCommerce bandwagon*, www.phocuswright.com/EA050799.HTM.

The airlines polled by PhoCusWright represent roughly 60% of the passengers carried by scheduled airlines in Western Europe. The top four were included,³² but not the fifth, SAS. We do not know how much less than \$60 million in Internet sales the the nine polled european airlines achieved in 1998 though, and Internet sales figures for the individual airlines have not been published (except for Lufthansa). In percentage terms the amount mentioned roughly translates to *less than* 0.18% for the polled airlines, but we do not know how much less.³³

On this basis it seems fair to assume that the combined *direct* Internet sales of *all* Western European airlines were just below \$60 million in 1998 (\$57 million) - which was about 0.10% of *all* revenue from scheduled flights by the top 20 Western European airlines. For Lufthansa this percentage was just 0.08% for 1998 (but will be 0.3% in 1999). The percentage was certainly lower for several other major airlines, and no scheduled airlines have come forward with a percentage of more than 0.15% (Braathens) (see the next chapter). Therefore the estimate is actually somewhat optimistic. On top of the \$57 million in direct Internet sales from the airlines should be added on-line agents' sales of airtickets on the European market, which may have been another \$57 million, i.e. roughly \$114 million in total. Then come direct and indirect Internet sales of other (selected) types of travel and tourism services, which may have been about \$136 million in 1998, i.e. \$250 million in total in 1998, as a best - but not particularly conservative - estimate.

It was also announced at the PhoCusWright LIVEurope99 conference that the expectation for 1999 was 1.5% for 1999 on average for the polled airlines (Air France, Alitalia, BA, Iceland Air, KLM, Lauda Air, Lufthansa, Sabena and Virgin). In light of the meagre 1998 result (less than 0.16%) it seems very optimistic that the airlines should reach 1.5% in 1999 (roughly a tenfold increase over 1998). And in fact in the announcement from LIVEurope99 it is stated that the airlines expect Internet bookings to increase by about 200%-300% over 1998. This writer believes that an expectation of *less than* 3 times 0.16% ~ 0.5% would be a more realistic expectation for the Western European airlines in 1999 (as a weighted average).

The considerations, estimates and assumptions behind Figure 2.6 are provided in Appendix 2.1. But basically the following two factors have been taken into account: firstly, the total market size per travel service category has been taken into account. Secondly, so has the willingness and ability of customers to place orders for different types of products via

31 In principle, Internet sales (for example by European airlines) to non-Europeans should be excluded from an estimate of Internet sales on the European market. On the other hand, if US airlines sell anything to European residents via the net, this should be added. Whether these two elements cancel out we do not really know.

32 Press release from www.phocuswright.com, 10 May 1999.

33 Estimated as less than 60 million \$ in Internet sales/(152 million segments x \$220 per segment) = less than 0.18%.

Table 2.3 Differences between the US and Western Europe with respect to tourism/travel

US	Western Europe
<i>Relatively important types of products:</i>	<i>Relatively important types of products:</i>
Air transport (scheduled) and car rental.	Rail transport
Long distance scheduled coaches.	
Hotel accommodation, individual room nights	Tour packages (charter flight & hotel)
Cruises	Ferry crossings (scheduled)
Mobile homes	Camping, youth hostels, holiday cottages
<i>Relatively important types of actors:</i>	<i>Relatively important types of actors:</i>
Scheduled airlines, hotel chains, car rental companies, cruise lines, on-line travel agents	Tour operators, railways, ferry lines, owners of alternative forms of accommodation

So, compared to the US (and Canada) where was Western Europe in 1998 in terms of Internet travel sales - and is Western Europe catching up?

Let us assume that each European Internet buyer spends \$53 on leisure travel and related services, corresponding to just 13% of the business-to-consumer spending,³⁵ and another \$13 on business travel, i.e. \$67 per Internet buyer in total for travel. With 4.5 million Internet buyers this equals \$300 million in Western Europe in 1998 for leisure and (small) business travel sales over the net.³⁶ This is what the writer considers to be the absolute maximum Internet travel sales on the European market in 1998.

\$250 million would seem to be a better estimate. Seen in relation to the total Western European leisure travel market, this would correspond to 0.10%, vs 1.2% for the US. It is rather awkward to put an estimate for Internet sales of selected travel and tourism services in relation to the total for the leisure travel market, so let us quickly move on to a more appropriate comparison: the \$250 million European Internet travel sales in 1998 would correspond to 0.15% of *selected* travel and tourism categories (leisure and business) vs about 1.5% for the US.³⁷ So, Western Europe was roughly at a tenth of the US level in relative terms with respect to travel and tourism sales via the Internet in 1998.

And where will Europe be in the year 2002 in terms of travel sales over the Internet? Assuming that the average purchase value of travel and related services will triple to \$200 per Internet buyer, and multiplied by the number of Internet *buyers* of 34 million which IDC projects for Western Europe in the year 2002, this would equal Internet travel pur-

35 For comparison, in the US travel accounts for about 24% of Internet business-to-consumer sales (www.emarketer.com, eStats, 25 March 1999), which is somewhere between Forrester and Jupiter estimates. Europe is assumed to be somewhat below the US level.

36 Actually, only one in every four of the 4.5 million Internet buyers in 1998 made a travel purchase at all, so there must have been only 1.25 million Internet travel buyers in Europe in 1998. On the other hand the average travel purchase per Internet travel buyer was four times \$90, so the total Internet travel sales value works out the same either way.

37 1.5% as a medium estimate, or 1.7% using the maximum estimate for US Internet sales, cf. Appendix 2.1.

chases of \$6.8 billion. This maximum would correspond to about 2.5% of the whole Western European leisure travel market, and this can be considered a maximum for the year 2002, cf. Table 2.4.

Table 2.4 Internet travel markets in the US and Western Europe, 1998 and 2002

	USA, 1998	USA, 2002	W. Europe 1998	W. Europe 2002
Total population (millions), approx.	267	278	384	400
Internet users, end of year, max. (millions)	79 (a)	112 (c,x)	40 (b)	140 (b)
Internet users, end of year, mean (millions)	73 (x)	~100 (x)	37 (x)	110 (x)
Internet users, end of year, min. (millions)	60 (e)	87 (e)	33 (g)	80 (e)
Internet penetration (% of whole population) (x)	23-27-30	31-36-40	8.6-9.5-10.4	20-28-35
No. of net buyers, end of year, max. (millions)	20 (a)	68 (x,c2)	(b)	34 (b)
Travel purchase per Internet buyer, \$	152 (x)	375 (x)	100 (x)	300 (x)
Internet travel purchases, \$ million, max.	3,046 (c)	25,500 (c,x)	300 (x)	6,700 (b,x)
Internet travel purchases, \$ million, medium	2,675 (x,f)	18,000 (x)	250 (x)	4,000 (x)
Internet travel purchases, \$ million, min.	2,300 (d)	10,700 (d)	200 (x)	1,700 (e)
<i>Total leisure travel market, \$ billion, approx.</i>	223 (c,x)	241 (c,x)	~250 (x)	~270 (x)
Internet travel sales as % of travel, max. (c,b,x)	1.4	10.6	0.12	2.5
Internet travel sales as % of travel, mean (x)	1.2	7.5	0.10	1.5
Internet travel sales as % of travel, min. (d,e)	1.0	4.4	0.08	0.6
Total market for <i>selected</i> travel and tourism categories, \$ billion, approx., cf. Appendix 2.1	182	197	168	178
Internet sales as % of selected t & t cats, max.	1.7	13.0	0.18	3.7
Internet sales as % of selected t & t cats, mean	1.5	9.2	0.15	2.2
Internet sales as % of selected t & t cats, min.	1.3	5.4	0.12	0.9

Sources: (a) IntelliQuest, Jan. 1999 (adults); (b) IDC; (c) Forrester; (c2) About 34 million households - up from nine million in 1998 (Forrester). (d) Jupiter; (e) Datamonitor; (f) PhoCusWright's forthcoming yearbook 1999 will state \$2.5bn for the US in 1998; (g) NUA, ~Oct. 98 sources; (x) Own estimate or calculation.

Note: Total leisure travel market sizes are discussed in Appendix 2.3, and the maximum and minimum for Internet travel purchases in Western Europe are discussed in Appendix 2.4.

Clearly, it is no simple matter to figure out the size of the Internet travel market actually in a year which has already passed. Therefore it should be even clearer that any Internet forecast for the year 2002 and beyond should be interpreted with great caution. But in any case, there is no doubt about the strong trend towards more sales via the net of travel and related services, both for leisure and business purposes, on both sides of the Atlantic, and in due course in the rest of the world.

The *regulatory environment* for electronic commerce in the EU has been labelled a *patchwork*, which should be made more coherent and predictable. Otherwise the potential of the Internet economy in Europe may be reduced by as much as a third (Forrester, 18 February 1999).

In summary, from 1998 to 2002 the Internet channel will go from accounting for about 1.5% to about 9% of the market for selected travel and tourism categories in the USA, i.e. about a six-fold increase. During the same period the corresponding development in West-

ern Europe will be from only 0.15% to about 2.2%, i.e. a fifteen-fold increase. So, in relative terms, i.e. after taking market size differences into account, Western Europe will start to catch up with the US from 1998 to 2002, going from a tenth to almost a fourth of the level in the US. However, in absolute terms (i.e. measured by the value of Internet travel purchases) the gap between the US and Western Europe will widen, although there may be more Internet users in Western Europe than in the US by the end of 2002.

US travel intermediaries - and also principal travel service suppliers such as transatlantic airlines - will be more than happy to fulfil the demand from European Internet buyers.³⁸ It will be up to the European players themselves to make Internet offers which will capture - or lure - online travel service buyers, including non-European travel service buyers. In the following chapters we will see what some European players - and a few American ones - have already done or plan to do in order to serve online travel service buyers.

2.5 Payment, security, and privacy issues in connection with trading on the net

The general considerations and concerns about payment, security, and privacy in connection with trading on the net also apply to travel services. Payment may or may not be carried out on the net. Payment cards used are typically international payment cards such as Visa and MasterCard, but may also be ordinary bank cards. - Worldwide there are 800 million holders of Visa-cards, and nearly 700 million MasterCard holders. Security standards used are typically SSL, but may also be SET.³⁹

95% of secure Web sites worldwide - i.e. over 125,000 in spring 1999 - use VeriSign Secure Server IDs to authenticate themselves and to enable SSL encryption to protect sensitive data and transactions.⁴⁰

Actual and potential Internet buyers are very concerned about the possible misuse of their credit card details. Also privacy is a concern.

Over half, 52 percent, of the respondents said they intend buying something on-line by the end of the year. When asked about their reluctance to buy on-line, 31 percent of users cited security risks ... Germans Doubt the Security of Net Shopping. Dec 16 1998: 60 percent of German users are not confident about the security of on-line transactions, according to a recent study by First Surf.⁴¹

38 One Dutch Internet commerce study found that *almost half of purchases are made from US sellers ...* (www.nua.ie / Blauw, December 1998). Although this is a general study and for just one country not focused on travel and strongly dominated by computer hardware/software it indicates the challenge for European travel service suppliers.

39 Ready, SET..wait - *SunWorld* - May 1998, www.idg.net - And one year later (May 1999) we are still waiting.

40 www.verisign.com/

41 www.nua.ie/surveys/ - Durlacher Research Ltd: UK Ecommerce Demands Are Not Met. Feb 03 1999.

NUA quotes (<http://www.nua.ie/surveys/>)

Visa: Net Transactions Cause Credit Card Disputes

Mar 25 1999: Internet transactions generate 50 percent of credit card disputes and fraud transactions at Visa International. This is despite the fact that just 2 percent of the credit card company's overall business comes from Internet trade.

In the majority of cases the blame lies with the consumer.

Disputes about Internet transactions are more common than fraud.

If there is to be widespread trust in ecommerce and protection for both consumer and merchant, good security technology must be coupled with good authentication in the form of recognised certification authorities, according to Collimore (of Visa).

Equinus found the majority of the population now have access to a personal computer at home and one adult in two can use the Internet either at home or at work. What's more, many would be happy to buy a holiday and pay for it on the Internet, while *many more were still happy to book a holiday on the Internet provided they could give their credit card details in a phone call immediately afterwards instead.*⁴²

Even in the US, security is a concern: *Skepticism about the security of credit card numbers also has slowed Internet sales. Advocates claim the Internet is safer than giving your credit card number over the phone. But so far, many travellers don't believe it.*⁴³

The current payment situation in one of the small European markets, Denmark, whose Internet users have been the most reluctant in Europe to make Internet purchases, is described in Appendix 2.5.

42 www.equinus.com/320.html.

43 Volgenau, Gerry, 1999, Travel Writer, *The going things: More E-tickets, less luggage*, 3rd Jan., Free Press, www.freep.com/news/airtravel/qtrend3.htm.

3. Airlines selling tickets directly over the Internet

This chapter contains two main sections:

1. An introductory section, which gives an overview of Internet booking with airlines. In this chapter the Internet booking functionality of European airlines is compared with their North American counterparts, and those of major airlines in the rest of the world.
2. A case studies section, where specific Western European (here: airline) websites are described.

3.1 Overview of major airline websites with respect to Internet bookings

In this first section there will be a general review and comparison of the websites of

- 20 major North American airlines;
- 20 major Western European airlines;
- 20 other major airlines in the rest of the world;

with respect to Internet bookings. Given that the airlines have websites, we will investigate whether bookings can be made on each of the sites, if special incentives for placing orders over the Internet are given, and if on-line auctions are held.

The North American airlines have been dominating the air traffic market in the past three decades, and they still do. Thus when looking at the current IATA top 50 list of airlines of the world ranked by number of passengers carried (1997 data), North American airlines occupy the first five (or six) places.⁴⁴ Among the top 50 airlines in the world, 12 North American airlines accounted for 49% of passengers carried, 15 Western European airlines accounted for 22%, and 23 airlines from the rest of the world accounted for 29%. In total the top 50 airlines included on the IATA list carried 1.03 billion passengers in 1997, 70% of which was for domestic flights.

Each airline on the IATA top 50 by passengers carried list in 1997 has a website, except Iran Air and the Spanish domestic airline Aviaco, which has only put up an entry page with no information behind it. Iran Air and Aviaco have therefore been disregarded in the following.

44 IATA. See www.british-airways.com/inside/factfile/industry/docs/rankings.shtml for a the top 10 list. Southwest Airlines of the US carry more passengers than the largest non-US airline, but Southwest is not included in the IATA top 50 list by scheduled passengers carried in 1997.

Table 3.1 Twenty major airlines with websites in each of three regions of the world

20 North American airlines	20 Western European airlines	20 Other major airlines
(1) Delta Airlines	(8) Lufthansa	(6) All Nippon Airways
(2) United Airlines	(9) British Airways	(10) Japan Airlines
(3) American Airlines	(11) Air France	(12) Korean
(4) US Airways	(13) Alitalia	(16) Japan Air System
(5) Northwest Airlines	(15) SAS	(18) Qantas, Australia
(-) Southwest Airlines	(19) Iberia	(20) Malaysia Airlines System
(7) Continental Airlines	(23) KLM	(22) China Southern Airlines
(14) TWA	(28) Swissair	(24) Thai Airways
(17) America West Airlines	(31) Turkish Airlines	(-) Ansett Australia
(21) Air Canada	(37) Olympic Airways	(26) Singapore Airlines
(25) Alaska Airlines	(39) Sabena	(30) Cathay Pacific
(32) Canadian Airlines	(44) Finnair	(33) Philippine Airlines
(-) Reno Air	(46) British Midland Airways	(38) Air New Zealand
(-) Hawaiian Airlines	(-) Austrian Airlines, Vienna	(40) Garuda Indonesian Airlines
(49) Aloha Airlines	(47) Braathens, Norway	(41) China Eastern Airlines
(-) AirTran (prev. ValuJet)	(-) Aer Lingus, Rep. Ireland	(42) Indian Airlines
(-) American Trans Air	(-) Ryanair, Rep. Ireland	(27) Saudi Arabian Airlines
(-) Midway Airlines	(-) TAP Air Portugal	(29) Varig, Brazil
(-) Midwest Express	(-) Air UK (now KLM UK)	(34) Aeromexico
(-) Tower Air	(-) Virgin Atlantic	(36) Mexicana Airlines

Note: Within each region, the airlines have been ranked according to number of passenger carried in 1997, according to IATA, *World Air Transport Statistics*. The ranking on the IATA top 50 list (by passengers) is given in brackets.

In Appendix 3.1 there is an explanation of the criteria for selecting the three times 20 major airlines.

In total, the three times 20 scheduled airlines shown in Table 3.1 carried 1.11 billion passengers in 1997, of which 52% were carried by the 20 North American airlines, 22% by the 20 Western European airlines, and 26% by the 20 largest airlines in the rest of the world. The airlines in Table 3.1 represent three-quarters of all the passengers carried by the more than 200 scheduled airlines in the world.⁴⁵

Below are the key findings from the comparison of the top 20 airlines from three parts of the world.

1. Today, there is hardly any major airline in the world which does not have a website. However, there seems to be a hierarchy in terms of airlines' website functionality as well as in the field of providing incentives for making Internet bookings.
2. (a) On as many as 19 out of the 20 largest North American airline websites it is possible to book tickets, and the twentieth, in fact the smallest on the top 20 list, has stated that it intends to establish a booking function in future. (b) Bookings can be made on

45 According to the Annual Civil Aviation Report 1997 from ICAO, the International Civil Aviation Organization (http://www.icao.org/icao/en/jr/5306_ar3.htm), the world's airlines are estimated to have carried 1448 million passengers in 1997, 70% of which were domestic, 30% international.

12 out of the 20 largest Western European airlines websites. On five of them only some ticket types are sold, however. (c) It is only possible to book tickets on four of the 20 largest airline websites in the rest of the world (ROW).

3. (x) By the middle of 1999, status for booking capabilities is as follows: (a) bookings can still be made on 19 of the top 20 US airline sites. (b) Bookings can now be made on 16 of the top 20 European airline sites, and (c) on seven of the sites of the 20 largest airlines in the rest of the world.
4. (a) Eleven of those 19 major North American airlines which sell tickets over the net offer some kind of incentive for Internet bookings - apart from convenience. The most common incentive used is extra bonus miles on the frequent traveller programmes, which are used by more than half of those airlines with Internet booking incentives. (b) In Western Europe, *none* of the 12 airlines selling tickets over the net offers incentives for Internet bookings. (Lufthansa does give bonus miles for Internet bookings, but apparently not *extra* bonus miles). However, Lufthansa sends out special offers by e-mail. TAP Portugal offers tickets through virtual auctions on a regular basis, (once a week). Auctions with TAP are only for a few specific tickets, and are therefore not general incentives for Internet bookings. Lufthansa has also held on-line auctions (monthly), in association with SAS. (c) *None* of the major airlines in ROW offers general incentives for Internet bookings. Korean Airlines, like several American airlines, offers customers to receive special offers by e-mail.
5. In general, on the North American airline websites, as well as on the sites of the two largest European airlines Lufthansa and British Airways, sales have been put in the forefront. On the majority of the other major airline websites things like corporate profile still get a relatively more prominent position.

No single airline in Europe was (even close to) getting 1% of their bookings through the Internet in 1998. Airtickets are almost ideal for being sold through the Internet. They are easy to describe, and easy for the Internet user to book. The only two problem areas are payment and ticketing. It is a technically complex process to complete an airticket booking. But it can be made easily understandable for the Internet user. The ability to make bookings via the net - for certain airlines - may move market share a little, for certain segments of the population, but it does not create much additional air travel. There may also be some shift from telephone sales to Internet sales.

Equant, formerly Novus, believes that airlines are saving costs per transaction when customers use their sites for bookings. Internet bookings are significantly cheaper than travel agent (TA) bookings for the airlines, since both the travel agent's commission and the

GDS fee is saved. The TA commission can be up to 10%, and is typically 5%-10% of the value of the booking. The GDS fee is \$2-3 per passenger segment. Gross savings = $(8\% \times \$300) + 2(\$2.5) = \$29$. From this should be subtracted the costs of the Internet bookings, which may be \$5-10, say \$6. Net savings per Internet booking compared to TA bookings may therefore be \$23. Savings are less if Internet bookings are compared with telephone bookings to an airline's call centre. But there are significant initial investments to be made to put the Internet bookings infrastructure in place. To reach break-even for the Internet investment, a high volume of Internet bookings is required. Few airlines - or major on-line agents - in the world, and hardly any in Europe, have reached break-even.

Some of the largest airlines in the world (AA, Delta, United, BA, Lufthansa), have each invested \$1-5 million in initial development costs. Slightly smaller airlines typically implement more standardised solutions at about \$50,000-100,000 each for a small scale genuine Internet booking system. If airlines just wanted to advertise fares and then take bookings by e-mail this can be done very cheaply, from an ordinary PC. The annual recurrent costs are likely to be anywhere between 25% and 75% of the initial set-up costs, according to Equant.

Equant developed a solution for British Midlands, which was implemented by the end of 1995, and was the first of its kind.⁴⁶ Equant has also developed Internet booking solutions for, among others, the following European airlines: Air UK (now KLM UK), British Airways, Lufthansa, Virgin Atlantic (UK), and Braathens (Norway).⁴⁷

All of these sites comprise all the features of an Internet booking site, including payment via the net. The solutions of British Midlands, Air UK, Braathens⁴⁸, and Virgin are all based on the same technology. An application called Quick Seat stores all fares. Then there is a link to a reservation system to find out about availability. A choice among available offers can then be made. Credit card information must be keyed in.

In future airlines may start tackling the issue of distressed inventory creatively, with respect to the possibilities of Internet sales. Airtickets may be packaged together with other products - hotels - to make weekend-breaks. Some airlines even own hotels, and many airlines have alliances with hotels etc., which may come in handy with respect to packaging.

46 Cyberseat - British Midland Case Study, www.equant.com/company/customers/britmidland.html, and Equant, formerly Novus, Delivers First Internet Booking System with On-line Payment for British Midland, press release, November 1995, www.novus.com/3about/n3611.htm (under www.equant.com).

47 Equant, Customers, www.equant.com/company/customers/customers.html (e.g. Lufthansa), and On-line Business Solutions www.novus.com/3about/n323.htm (under www.equant.com). Additionally, in America Internet booking solutions have been developed for US Air, EDS, and the train operating companies Amtrak (USA) and VIA Rail Canada.

48 Press release about Braathens, April 1997, www.equant.com/relation/news/pr/1997/braathens.html; links to seven live travel sites, www.novus.com/3about/n313.htm - under the www.equant.com domain.

ing offers. In this way the possibly deep discounts on the airtickets can be hidden. Since the airlines are reluctant to risk annoying the TA community they are looking for ways to sell things which are not traditionally sold through TAs, and this can be things like distressed inventory (cheap flights), sold in creative ways, possibly through auctions (cf. the priceline.com reverse auction concept). There will be a push towards e-ticketing especially for business travellers (which is already gradually being implemented) and last minute sales.

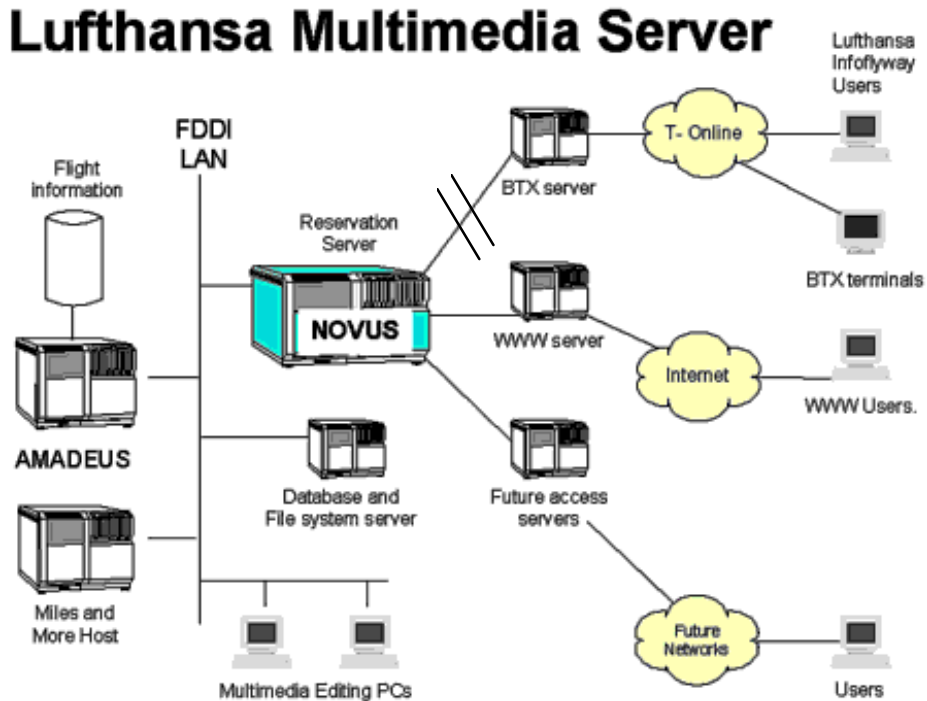
3.2 Lufthansa - InfoFlyway

Equant also developed the technical solution for Lufthansa's Internet booking site, InfoFlyway. It is a multimedia server system, which here means that the Web front-end is not the only presentation channel for the data.

The system offers reservations on both Lufthansa flights and other airlines. At least 90% of the bookings are for Lufthansa flights, but the possibility to book other airlines as well is attractive to the end-user. The purpose of the system is both to encourage Internet users to participate in the Lufthansa frequent flyer scheme, and to act as a real-time on-line booking service for all Internet customers. As a basic prerequisite to enter the InfoFlyway, all users are asked to select a user-ID and a password. Customers who wish to make reservations are required to provide additional information pertaining to areas such as form of payment, ticketing methods and travel preferences. Additionally, the InfoFlyway provides a test booking functionality for users who perhaps do not wish to select a user-ID and password, or simply wish to try out the booking functionality. InfoFlyway is connected to the Amadeus reservation system, which is how it offers the wide range of other airlines. It is also connected to Lufthansa's Miles and More system which holds the frequent flyer information.

The Lufthansa Live Auction is extremely popular world-wide, and is held on the first Thursday of every month for all German customers. The schedule for auctions for all other countries is available on the website. The auctions contain flights to various Lufthansa destinations, as well as attractive offers from partners, e.g. car rental, flights with Star Alliance members and holiday trips from Condor or L'TUR.

Figure 3.1 The Lufthansa Multimedia Server



Flight information		Reservation server			
Amadeus		LAN	D-base & file system server	WWW server	Internet WWW users
Miles and More Host		Multimedia Editing PCs	Future access servers	Other users	

Source: www.equant.com/company/customers/lufthansa.html.

Note: Lufthansa no longer supports the BTX Server (T-On-line) platform.

In 1997 Lufthansa realised sales of DM 10.5 million (\$6.2 million) for just over 14 000 bookings.⁴⁹ The expectations for 1998 expressed by Mr Stefan Pichler at the ITB Congress in March 1998, was an increase to DM 40 million (\$24 million) for 55 000 bookings.

At the following year's congress in March 1999 it was reported, again by Mr Pichler, according to Jegminat in *fvw* 6/99, p. 26, that Lufthansa *actually* sold the following in 1998 through the InfoFlyway site:

⁴⁹ In light of this fact, the Datamonitor estimate of just \$7.7 million for all Internet travel sales in Europe in 1997 appears to be too low, although Lufthansa was no doubt one of the big players (Datamonitor press release 24 May 1999).

- a) 4500 (return-)tickets for DM 1.3 million in 25 on-line auctions.
 - b) 40 000 segments (~20 000 bookings/simple return tickets) for DM 11 million.
- Total: ~24 500 direct Internet bookings, generating revenue of DM 12.3 million (\$7 million).

The average price per ticket in the auctions was DM 289 (\$164). The average price for each two segments sold over InfoFlyway was DM 550 (\$313). This was actually a higher price than for Lufthansa return tickets in general, for all channels in average, which was about \$448 in 1998.

Clearly this actual result for 1998 of about 24,500 tickets/bookings, generating a revenue of DM 12.3 (\$7 million) must be considered a disappointment both because it is only a quarter of the expectations, and also because there was no significant increase in Internet sales from 1997 to 1998 through the Lufthansa InfoFlyway site, according to the published sources. Both the quantities and the prices achieved on direct Internet sales were below expectations. In 1998 Lufthansa's direct Internet sales, based on published data, remained below 0.1% of all scheduled passenger revenue (i.e. excluding revenue from charter flights), cf. Table 3.2. However, the Lufthansa InfoFlyway team has been conscious of the growing momentum of the Internet. Restructuring for the future and content of services provided by the website was taken as a higher priority than sales figures, for which Lufthansa and the InfoFlyway team are now reaping the rewards: bookings for the first half of 1999 reached 42 000. A conservative estimate for all of 1999 - based on the number of Internet bookings actually received during the first half of 1999 - would then be 100 000 bookings, i.e. \$28 million - four times the 1998 level!

Table 3.2 Some published data for Lufthansa's Internet sales - and analysis

	Realised, 1997	Expected, 1998	Realised, 1998	Projected, 1999
Bookings (two-segment tickets)	14078	55000	24500	100000
Average price per ticket in on-line auctions			\$ 164	
Average price per return ticket in InfoFlyway			<u>\$ 313</u>	
Overall average price (\$) per Internet booking	424	414	286	
Direct Internet sales (\$ mill.)	6.0	22.7	7.0	\$ 28
As % of scheduled passenger revenue	0.07	0.26	0.08	0.32
As % of scheduled passenger numbers	0.08	0.29	0.13	
Average price (\$) per scheduled return ticket	461	448	448	
Internet price as % of the average price per return ticket for all scheduled flights	92	92	64	

Sources: ITB Press Conference 1998; Lufthansa Annual accounts, 1998; Jegminat in fw 6/99, p. 26. IATA statistics for scheduled passengers in 1997.

Note: Exchange rate, \$ per DM: 0.5687.

In addition to selling directly over the Internet through its own InfoFlyway site, Lufthansa also sells through online intermediaries, including Microsoft Expedia. From 18 November to 11 December 1998 and from 6 January to 15 March, Expedia offered 10% off Lufthansa's regular, published prices on flights between 10 different US gateways and 23 European cities.⁵⁰

Correspondingly, from 8 to 21 March, Preview Travel offered 50% off for the companion of a traveller who purchased a round-trip ticket at the lowest published fare. Tickets for a third and fourth companion were discounted by 60% and 70% respectively. The offer marked the kick-off of a marketing agreement between Lufthansa and Preview, the objective of which is to boost on-line sales of Lufthansa tickets.⁵¹

In a study undertaken by the London School of Economics sponsored by Novell, the Lufthansa website came out as number one among the sites of 100 of the world's largest multinational companies. Other major airlines included British Airways (ranked as number 5 overall). The US airlines Delta and American were ranked as number 12 and 14, respectively, and Japan Airlines as number 17 overall.⁵²

50 <http://expedia.msn.com/promos/Lh/>.

51 Lufthansa and Preview Travel Announce Marketing Cooperation Agreement - Innovative Companion Fare Program Kicks Off Alliance, press release, 8 March 1999.
www.previewtravel.com/About/Mediaguide/Press/990308_lufthansa.html.

52 Novell, press release, 19 May 1999.

3.3 British Airways - actual and expected Internet sales

There is a Java version and an html-version of the BA site. In the former, the departure airport and destination are chosen on interactive maps. Dates for the outbound and return trip are chosen from a calendar, which is aware of fare restrictions (such as requirement of staying over a Saturday night) and seat availability of flights. The user does not notice the complexity of the booking process.

Early in 1997 British Airways started using *a Java-based Internet booking and credit card payment system developed by Equant. The Equant booking screens integrate seamlessly with BA's website, allowing customers to view the availability of BA World Offers.*⁵³

BA has a large corporate site, from which cheap flights are sold under the brand name of World Offers. Those who are interested in World Offers mainly focus on price. This means that they may know where they want to travel from, but not necessarily where they wish to go, and they may be happy to consider many alternatives. Once the Internet user has specified the departure airport, the system comes up with a number of alternatives from the World Offers database. The user then selects one of these, availability is checked, and the booking can be completed. Payment can be settled either on-line by entering credit card details, which are then manually processed by BA, or these details can be given off-line via the telephone within a certain time period.

During the first 12 months after the launch of the site, i.e. during the year 1997, *more than 3200 tickets were sold via the site, bringing in a revenue of around £750 000 (\$1.23 million).*⁵⁴

At the beginning of 1998 it was announced that - in the US - British Airways was to *close its 17 ticket offices in the US as customers are increasingly booking tickets via the Internet and telephone.*⁵⁵

In 1998 British Airways counted *about a million visits to its Internet site per month. The visitors look for information on everything from seat availability, to schedules, to fares, to details of inflight films. Fewer people are confident, as yet, about booking their seats via*

53 British Airways deploys on-line booking service, *Global Network News*, Volume 3, issue 2, May 1997, www.sita.int/index.html?/sita/; and *Novus develops JAVA-based Internet Booking & Payment System for British Airways*, press release, 10 January 1997, www.equant.com/relation/news/pr/1997/british_airways.html.

54 Press release from BA, 2 March 1998, *British Airways Wins New Media Awards*, http://www.british-airways.com/inside/media/archive/1998/9803/19980302_19.shtml.

55 Guglielmo, Connie, 1998, *Travel business packs 'Em in on-line*, *Interactive Week*, 18 February, www4.zdnet.com/intweek/printhigh/21698/ds216b.html.

*their computers - which is also possible but nevertheless, they get more beneficial information more immediately than has ever previously been possible.*⁵⁶

At the beginning of 1999 British Airways was receiving *less than 1% of its bookings via the Internet*. Probably far less than 1%. But BA is investing heavily in this field and has got tremendous expectations of distribution via the net: *British Airways is spending tens of millions of pounds to invest in an Internet infrastructure, including the challenging task of integrating legacy systems with the new Web front end. BA hopes to make 50% of its sales on-line by 2003.*⁵⁷

To put the BA goal into perspective it can be mentioned that United Airlines got as much as 2% of its bookings through the net in 1998, and expects to reach 10% by 2002 at a conservative estimate.⁵⁸

Its stated goal does *not* mean that BA hopes to make 50% of its sales through its own website only, it is also intending to take booking through other interactive, electronic, self-booking distribution channels such as the following:

- Internet based travel agents (like the well-known four big American ones).
- Traditional travel agents who put up Internet sites.
- Interactive TV.
- Electronic kiosks.

BA is inspired by developments in the US, and expects something similar to happen in Europe. To fertilise a shift in mind sets, BA has to aim high.⁵⁹

This writer is not the only person who has been puzzled by the 50% mentioned by BA:

56 Julia Groves, web publisher at British Airways, quoted in Gaby Huddart, Travelling With A Mouse, *Global View*, June 1998, <http://www.britishairways.com/travelqa/fyi/trnews/docs/1998/9806.shtml>.

57 Machlis, Sharon, 1999, *British Airways plans more on-line sales*, Computerworld, On-line News, 8 March, www.computerworld.com/home/news.nsf/all/9903081airl.

58 www.btonline.com/db_area/archives/1998/10/98102631.htm.

59 Patricia Crossley-Smith, Senior Distribution Manager, BA.

BTN: Can you elaborate on the statement that BA wants to move half its bookings to the *Internet*?

Brewin: We're making a sort of planning assumption where we believe 50 percent of business will be on-line. It could be the *Internet*, but it could be extranet or agency. Dale Moss, my predecessor, is involved in that in his new role as director of sales worldwide. It's an assumption on which we're basing our investments in IT, product, airport systems, etc. It's not a goal, but rather a view of the future marketplace and it does match our need to spend less money actually transacting.

BTN: But at a certain point you have to go for headcount--does that mean fewer agents?

Brewin: That's a possibility, certainly, as a lot more of the work is done electronically. But I don't think we should be predicting redundancy; I think people will change their roles. An *Internet* with a personal touch will be far more successful than one that is just a mechanical process.⁶⁰

3.4 Iberia, Spain

Iberia is the sixth largest airline in Europe - and about 20th in the world by number of passengers carried.⁶¹ Iberia was founded in 1927 and has about 23 000 employees. About 70% of the revenue is from the Spanish market (Spaniards living in Spain), with Latin America being the most important foreign market. Iberia is the number one travel company in Spain. Iberia's first internal electronic booking system was installed in the late 1960s. The current booking system is about 10 years old, a mainframe Unisys system, but it is constantly being updated and extended.

The Iberia website was first opened in January 1996. At the beginning of 1998 it became possible to book business class (full fare) tickets on the Iberia site, in cooperation with Amadeus.⁶²

The site currently contains the following features:

- corporate information;
- last-minute offers;
- business ticket sales function;
- information about frequent flyer programme;
- description of Iberia's various services;
- a news section.

60 Terrion, Pat (BTN), 1999, *A Dozen Buyers, BA Try Extranets*, BTN On-line (Business Travel News), Issue Number 435, 7 June, www.bton-line.com/db_area/archives/1999/06/99060727.htm.

61 The number 20 ranking is given in *Airline Business*, September 1998, p. 55.

62 Amadeus empowers Iberia's website, www.global.amadeus.net/news/press/1998/iberia0298.htm.

The Iberia website contains all the main features of a booking site: interactive search functions, prices, flight and seat availability data, booking function, and secure payment by credit card. The seat availability data is completely on-line (real-time). No discounts or other forms of incentives are given for Internet bookings yet. But Iberia has got last-minute information, with departures from the following day and the rest of the current week on international and domestic flights. The last minute offers for *domestic flights*, e.g. Barcelona-Valencia, can now be purchased on the web. These last minute offers are *only advertised on the web*, and can all be booked by phone, in any Iberia office, or in a travel agency. Iberia counted about 150 000 visits per month in 1998, but received *very few* bookings, mostly from Spaniards. In the first half of 1999 there were about 300 000 visits per month. The possibility of booking last minute domestic offers on the net is thought to have led to a 20% increase in Internet bookings.

Airtickets are considered well suited to be sold over the net, in general, but the relatively low Internet penetration in Spain, cf. Figure 2.3, inhibits Internet sales. In Spain airtickets are not among the key products sold via the Internet at the moment. It is considered rather simple, technically, to sell airtickets via the Internet/WWW. Iberia does believe that it has received additional orders because of its website, namely for last-minute offers. Iberia *is* saving costs when customers use the website, but has not reached the break-even point for its investment.

Future plans include the following:

- Best buy: Cheapest fare to/from the various destinations, and booking of these.
- Offer of the month, including booking.
- Booking of last-minute offers on international flights.
- On-line auctions.
- Enhancing the information on the site permanently.
- Access for frequent flyers to check their points status.
- Flight tracking (on-time or delayed departures and arrivals).

Iberia believes that no European airline achieved any significant Internet sales in 1998. In the year 2001 Iberia expects to receive no more than 1% of its bookings via the Internet. In five to 10 years, when the current heavy Internet users among the young population (in their early 20s and below) become airticket buyers, Internet sales will take off, not before, certainly in Spain. In other countries in Europe, such as Finland, where Internet penetration is even higher than in the US, the situation and outlook may be different.

3.5 Finnair - World Wide Wings

Finnair is the national airline of Finland, and is one of the top 20 airlines in Europe by number of passengers carried on scheduled flights. There are 11 200 employees in the

Finnair Group, of which 9050 are in the core airline business. Development of the Finnair website started in February 1995 and was opened in the middle of October 1995. The Internet booking function was implemented in February 1998, in cooperation with Amadeus, who have also worked with a number of other airlines to implement similar booking solutions.

The Finnair World Wide Wings site includes:

- corporate information;
- product information;
- campaigns;
- online sales to business travellers;
- frequent flyer programme information;
- possibility for corporate clients to track their use of tickets;
- last-minute (*stand-by*) ticket offers (which are also displayed on text TV);
- cargo tracking.

The Finnair website contains all core functions of a booking site - and more - for business class tickets and for last-minute offers: real-time availability, prices, on-line booking and payment by credit card, based on the Amadeus booking engine.

Finnair count the number of hits on their site, as a means of following the development in the use of the site, but not visits. No discounts or other incentives are given for Internet bookings. During the first half of 1998 Finnair received an average of five Internet bookings per week, but no advertising was made for the new booking possibility. Obviously this was but a fraction of a percentage of all scheduled passenger traffic. In the year 2001 Finnair expects to receive between 1% and 2% of its bookings over the net.

Table 3.3 Key statistics of the Finnair website

Period	No. of hits per day	No. of bookings per week (each covering ~two segments)	Percent of all segments booked (2)
All of 1997		-	-
First half of 1998	84 000 (1)	5 bookings (10 segments)	0.01%
Expected, year 2001		~850 bookings (1700 segments)	1-2%

Notes: (1) Low: 30 000 in mid-summer holiday; High: 124 000 during a pilot strike, when information about the situation was provided on the net.

(2) Total number of scheduled passengers (=segments) sold by Finnair was 5.9 million in the financial year 1998/9 (1.4.98-31.3.99), i.e. about three million per half year. On top of this come 1.5 million charter passengers p.a. Average revenue per segment, for all channels and all ticket types is about FIM 1000 (\$187), which of course is higher for business class tickets, which initially are the only types of tickets bookable on the Finnair website.

Tourist class tickets, with their restrictions are considered to be more complex than business class tickets to sell over the net. In future, electronic ticketing is expected to boost Internet bookings.

Finnair does not believe it received any additional orders in 1998 because of its website. No cost savings were gained, and therefore break-even has not been reached.

Future plans include:

- Campaign products.
- Tourist class tickets.
- The possibility for frequent fliers to book tickets using their accumulated air miles.
- Booking of serial tickets (e-tickets).
- Self-service ticket and check-in kiosks.
- Connectivity from webbased information to mobile phones and text TV.
- Possibly Internet-based travel shopping malls in association with other travel service providers (shipping lines, train operators) and travel agents.

In Finland - like in Europe in general - Internet sales of airtickets have just started. Travel agencies play an important role in the distribution of airtickets in Finland now and in the foreseeable future.

The advent of electronic ticketing will fuel Internet sales of airtickets. An inhibitor of electronic ticketing is the current lack of technical compatibility between airlines (within alliances) in this field.

3.6 Braathens, Norway

Braathens is the largest airline in Norway with a market share of 50%. The main shareholders are the Braathens family (38%) and KLM (30%), and Braathens is a partner in the KLM/Northwest alliance. Braathens carried almost seven million passengers in 1998 (5.7 million excluding Swedish routes and charters, which are not relevant in connection with Braathens' Internet sales in the Norwegian market).

More than 70% of Braathens' ticket sales revenue currently comes from travel agents. According to Braathens' annual report 1998, technological improvements will gradually lead to increased direct sales, especially in the holiday- and leisure market, but travel agents will remain Braathens' most important distribution channel. However, the technology will increasingly offer further direct distribution, both for business travellers and the holiday- and leisure market. The e-pass is Braathens concept for ticketless travel. The e-pass has been developed in co-operation between Braathens and its largest customers and is expected to reach a broad acceptance and utilisation in the market.⁶³

63 Braathens Annual Report 1998, p. 10. Author's translation from Norwegian.

Table 3.4 Overall passenger revenue and Internet revenue for Braathens, 1998

Year: 1998	Revenue NOK million	Revenue \$ million	Passengers (segments) X 1000	Price in \$ per segment	NOK mill. Internet revenue	\$ mill. Internet revenue	Internet revenue (%)
Norwegian routes	3571	473	5104	93			
Foreign routes	678	90	558	161			
To/from Norway	4249	563	5662	99	6.5	0.9	0.15
Swedish routes	821	109	991	110			
Charter	361	48	320	149			
Passenger transport	5431	<u>719</u>	<u>6973</u>	<u>103</u>			
<u>Other revenue</u>	<u>951</u>						
Total revenue	6382						

Source: Based on Braathens' annual accounts 1998 supplemented with data from Braathens' Commercial Systems Department.

In 1998 Braathens achieved Internet sales of NOK 6.5 million, corresponding to just under \$0.9 million.⁶⁴ Seen in relation to Braathens' total revenue from domestic and international passenger traffic, which was NOK 4.25 billion in 1998 according to the annual accounts, the NOK 6.5 million in Internet sales corresponds to 0.15%. (For local comparison, Ving Norway reached about 0.8% in 1998 and Ving Sweden 2.5%).

Among scheduled airlines in Europe, no single airline has published Internet sales figures for 1998 which are better than the 0.15% of Braathens. Lufthansa reached just 0.08% in 1998, although the airline had expected to reach 0.26%, cf. Table 3.2. And as mentioned in chapter 2, nine named European airlines achieved *less* than 0.16% of their combined sales in 1998 via the net. (It is not known how much less). So, although Braathens itself is humble about its Internet sales achievement for 1998, the 0.15% is one of the best among European scheduled airlines in 1998 - and in fact the best result known by the writer, who has asked and searched hard and long for published data about this. Lufthansa has been courageous enough to come forward with their Internet sales figures, whereas others such as British Airways, SAS and KLM have not. KLM has stated though, that in the spring of 1998 it had 9000 daily website visitors, mostly seeking information. KLM in Europe gets much fewer Internet bookings than its partner Northwest.⁶⁵ So, if any European airline did better than the 0.15% (in own direct Internet sales as a percentage of scheduled passenger revenue) in 1998, it has not come forward with the data to prove it.

64 The writer has estimated Ving Norway's Internet revenue in 1998 at \$1.3 million, so Braathens in all probability took second place in the Norwegian travel and tourism market in 1998.

65 Ligerman, Hugo, 1998, 24 March, www.firstconf.com/c48/hugo.html.

For Braathens, it seems that on-line sales of airtickets are really taking off from 1999, following the introduction of ticketless travel for all members of its bonus programme, called WINGS. Thus Braathens achieved sales of NOK 10 million during the first three months of 1999, corresponding to roughly 0.94% of passenger revenue from routes to/from and in Norway. Based on this first encouraging quarter of 1999, Braathens could reach sales of NOK 64 in 1999 (\$5 million ~10 times the 1998 Internet sales), i.e. 1.5% of passenger revenue from routes to/from/in Norway (assuming same general revenue level as in 1998).

Braathens was the first airline to test SET payments for cross-border transactions.⁶⁶ However, the initiative was never taken beyond the test phase. Let us all stop for a moment and memorise the time when we all thought that SET was going to be *the* standard secure payments system for the net. Nevertheless, this comment may be premature, since Braathens is considering SET payments for its next generation Internet booking solution.

3.7 SAS

SAS, Scandinavian Airline System, is number five among the European airlines by number of passengers. It carried 22 million passengers in 1998. SAS was founded in 1946 and was originally owned by the Swedish, Danish and Norwegian states in the proportions 3/7, 2/7 and 2/7, which are still the main shareholders in that proportion. Within the SAS Group there are 27 000 employees, of whom 24 000 work in the core airline business, and 3000 in the hotel business.

In its Annual Report 1998 SAS has devoted a section to information technology - from which the following excerpt is quoted:

As regards distribution of airline product offers, information technology has already led to a minor revolution, since it has enabled radical changes to be made to previous agents' agreements. This means lower costs for the airlines, and makes it easier to reach rational agreements with major purchasers of air travel, i.e. companies and the public sector. Leisure travellers have constant access via the Internet to the airlines' current range of products in relation to destinations, prices and conditions, and are able to book and pay directly via the net.

At the beginning of 1999 SAS enabled booking of business class tickets on its website - in addition to the previous possibilities of booking weekend offers, tickets for those under 26, EuroBonus award trips and preordering tax-free purchases.

Only few statements about SAS' Internet sales have been published. In 1997 SAS sold 80% of its tickets through travel agents - 20% directly. At that time it was the expectation

66 Press release, 18 April 1997, www.equant.com/relation/news/pr/1997/setdemo.html - and www.europe.ibm.com/nc/customer/case18x.html.

that about 33% of all trips would be sold directly to the consumer via telephone and especially via the Internet within the next four years (2001).⁶⁷

In 1999, according to a newspaper, SAS is experiencing an explosive growth in the firm's own sales of airtickets. Since the airline more than halved the commission paid to travel agencies at the beginning of 1999 sales via its own sales offices and the Internet have increased by almost 50%.⁶⁸

In the first half of 1999 SAS has increased the number of employees in its ticket-sales department by 25% in order to keep up with the growth of direct sales. In 1999 the situation is that between 25% and 30% of the tickets are sold directly. SAS' target is that 50% of all tickets in the course of three years (i.e. by 2002) should be sold via SAS's own ticket office or via the Internet.⁶⁹

3.8 LOT, the Polish Airlines

Just on the borders of Western Europe, LOT, the Polish Airlines, offers a booking facility on their redesigned website for the US and Polish markets.⁷⁰ LOT offers extra bonus miles for Internet bookings, and from the end of 1998 LOT has several offers only found on the Internet.

For tickets bought in the US, LOT's offer is to Buy One Get One Free (before a certain day). Also, for LOT tickets bought in the US, travellers are offered 5% off if payment is made by MasterCard. And finally, for trips originating in Poland, the offer is to *Celebrate LOT's 70th Anniversary and pay 70% of the fare value*.

The LOT site includes the possibility of booking hotels and rental cars as well. LOT has partnered with Microsoft® Expedia to establish this facility.

67 Tranberg, Pernille, 1997, Travelwar on the Internet (in Danish), *Politiken*, 7 August, 1st section page one and in the Computer supplement (*Book Travel over the Net and save money*). But *self-booked tickets can be more expensive*, as mentioned by Njor, John, 1999, Ticketprices: Do-it-yourself can become expensive (in Danish), *Politiken*, 6 March, Lørdagsliv section p. 54. - The example Njor gives is that booking tickets directly with the airlines may not give the customers the cheapest price. Some price examples are quoted by one of the business travel bureaux, DanTransport, which has a system called PriceBuster (www.pricebuster.dk), which checks 480 airlines and about 50 million prices, thanks to Amadeus. The mentioned site comes both in Danish and English. Unfortunately time does not allow the writher to go into detail about the Amadeus solution for travel agencies.

68 Rasmussen, Jens Erik, 1999, SAS success with [direct] sales of tickets (in Danish), *Jyllands-Posten*, 7 May, pp. 3 (and 1) in Erhverv & Økonomi section.

69 Ibid.

70 www.lot.com and www.lot.com.pl. LOT carried 2.3 million passengers in 1997. This is only a third of the number of passengers carried by the smallest airline in the rest of the world included in Table 3.1. See also LOT, 1998, *LOT Polish Airlines upgrades its website*, www.lot.com/news/1998/100698.html.

4. European railways on the Web

4.1 Overview - Railways on the Web

In this chapter the focus is entirely on passenger traffic by rail (not the freight traffic side) with respect to sales and distribution via the Internet. Since 1997 the International Union of Railways (UIC) - and many of its 139 members over five continents - have been well aware of the challenges and opportunities for rail transport posed by *the explosion of the Internet phenomenon across the world*.⁷¹ For example, it is held by the UIC Internet Club that *railways should develop their [Internet] sales tools rapidly* and that electronic commerce via Internet is a *unique opportunity for railway companies*, most of which are already currently represented in more or less advanced form on the net.

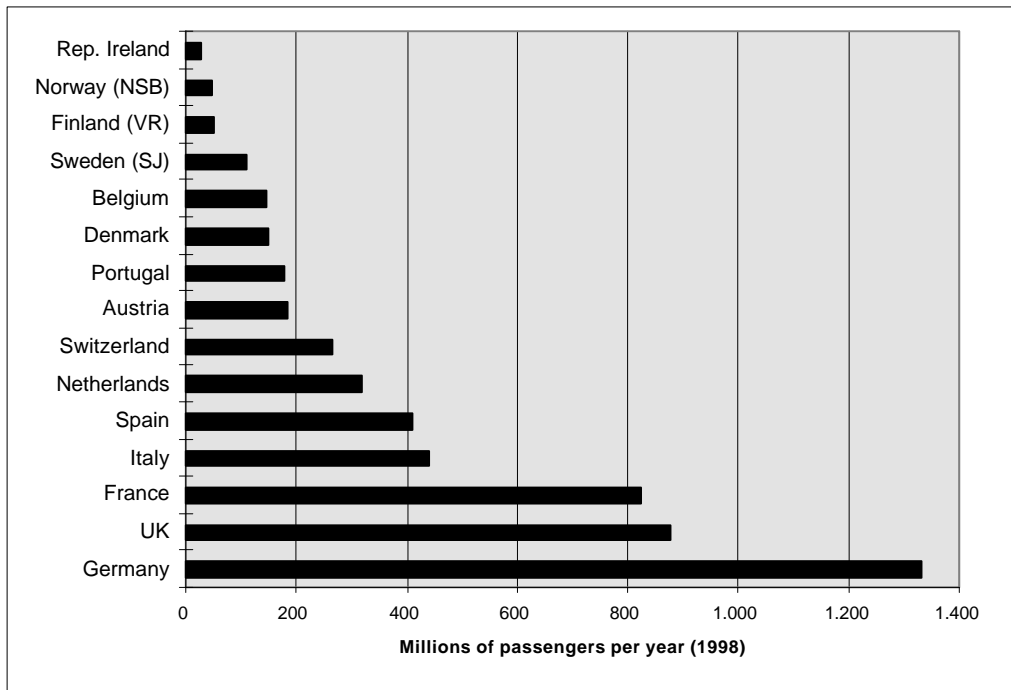
Most recently it has been stated by UIC that *passengers want to have easy access to details of timetables, seat availability, fares (including international tariffs), connections with other transport modes and ancillary services and be able to book or pay using new technologies such as Internet (from the home or office) or smart cards*.⁷²

Figure 4.1 shows the total number of passengers, i.e. the number of trips, for each of the national railways. However, maybe only between 10% and 15% of all railway trips are long enough to make it relevant - or possible - to make a reservation and buy the ticket beforehand over the Internet.

71 www.uic.asso.fr/uk/news/ - Press release 1 October 1998, and *Panorama*, No. 10 1998, pp. 2-3.

72 *Ibid.* Press release 15 June 1999, announcing an international seminar in Stockholm, 5-7 July 1999.

Figure 4.1 Passengers per year for national Western European railways (1998)



Sources: International Union of Railways (<http://www.uic.asso.fr>), *Rail Traffic statistics of the UIC European Railways*.

Note: The ranking is somewhat different when looking at passenger km instead of just the number of journeys. For example, the number of passenger km is slightly higher for France than for Germany, greater for Italy than for the UK, and greater for Belgium and Sweden than for Denmark and Portugal.

Table 4.1 European railways - and a few others - on the net

Country	No. of employees (1996)	Website address	Query-response time-schedules for all city pairs	Prices shown?	Booking via net?	Seat availability and instant confirmation	Payment on-line?	Delays in arrivals shown?
Germany	256,700	www.db.de	Yes	Yes	Yes		Yes	
France	177,900	www.sncf.fr	Yes	Yes	Yes	Yes	Yes	
UK	100,000	www.rail.co.uk	Yes					
- Virgin (Private)		virgintrains.co.uk/ thetrainline.com	Yes	Yes	Yes	Yes	Yes	
- Eurotunnel	[3,114]	.eurostar.com	Simple tables	Yes				
Italy	123,400	.fs-on-line.com	Yes					
Spain	37,400	www.renfe.es	Curtains	Yes				
Netherlands	24,000	www.ns.nl	Yes					
Switzerland	30,000	www.ssb.ch	Yes	Yes	Yes		Yes	
Austria	57,000	www.oebb.at	Yes	Yes	Yes		Yes	
Portugal	13,000	www.cp.pt	Yes					
Belgium	41,100	www.b-rail.be	Curtains	Yes	Yes			
Denmark	15,600	www.dsb.dk	Yes	Some	Yes	Yes		Yes
Sweden	13,700	www.sj.se	Yes	Yes	Yes	Yes	Yes	
Finland	14,800	www.vr.fi	Simple tables					
Norway	9,700	www.nsb.no	Yes	Yes	Yes	Yes	Yes	Yes
Rep. Ireland	4,900	www.irishrail.ie	Curtains					
Greece	11,700	www.ose.gr	Simple tables					
Luxembourg	3,200	www.cfl.lu	Link to DB					
West.Europe	-935,000	////////////////////////////////////	////////////////////////////////////	////////////////////////////////////	////////////////////////////////////	////////////////////////////////////	////////////////////////////////////	////////////////////////////////////
Russian Fed. (unofficial)	1,590,300	pavel.physics.sunysb.edu:8080/5/	Yes					
Poland	227,000	Walden.MO.NET:80/~jdobek/pkptrav.html	Link to DB					
Czech+Slovak	101k+52k	idos.datis.cdail.cz	Yes	Roughly				
Romania	137,200	www.cfr.ro	Yes					
Hungary	57,000	elvira.mavinformatika.hu	Yes					
Bulgaria	48,700	www.bg400.bg						
USA (Amtrak)	23,300	amtrak.com	Only direct	Yes	Yes	Yes	Yes	Yes
Canada	3,000	www.viarail.ca	Curtains	Yes	Yes		Yes	
China (unofficial)	1,927,000	http://severn.dmu.ac.uk/~mlp/crsg.html	No					
India	1,586,400	www.indianrailway.com/	Curtains					
Japan	190,200	www.jreast.co.jp/jehome.htm & .westjr.co.jp/	No	Yes				

Sources: UIC Member railway statistics - Synopsis 1996 (No. of employees) + the respective websites.

Note: British Rail was privatised and split up into 25 train operating units + Eurostar during the 1990s. The number of employees for UK railways are from 1997, based on www.semagroup.com/, *British Railways: key dates and statistics*. Recent operating statistics of the UK train operating units are provided in Appendix 4.1. Only *Yes* have been written explicitly. Empty cells in the above table mean *No*. *Curtains* is short for *drop down curtains* with lists of stations from which to choose. After separating the rail infrastructure part from Danish Rail from the beginning of 1997 and other reductions, there are now about 11,000 employees with Danish Rail.

The number of employees for the railways of some countries, such as Sweden, excludes people employed in building and maintaining the basic rail infrastructure. Other railways, such as German Rail, handle the basic rail infrastructure themselves (some 65 000 people), and also employ many people (45 000) in subsidiaries. The average length of a rail

trip varies between countries, and so does the relative importance of freight transport.⁷³ Therefore the number of employ per railway organisation cannot be compared without further analysis.⁷⁴

Many of the railways in Western Europe have been reducing their numbers of employees during recent years, by an average of 6.4% from 1995 to 1996 (and 3.5% in Eastern Europe).⁷⁵ There have been reductions in the number of employees by between 1% and 4% for each of the other major railway countries shown in Table 4.1. That trend will most likely continue, not only in Western Europe, but also in the rest of the world.

In Eastern Europe, the railways have a relatively high number of employees in relation to the number of passengers, passenger kilometres and ton kilometres worked, compared to the railways in Western Europe, so some major reductions in the number of employees by the railways there can be foreseen. And in fact in the Czech Republic a reform project includes, among other things, a proposal for lowering the number of employees with Czech Railways by 17 000 from January 1999, which would correspond to a decrease of 17%.⁷⁶ In terms of Internet use, there seems to be nothing to learn from the railways in Eastern Europe, as they include only a few features, as indicated in Table 4.1. Two of the last three major railway nations shown in Table 4.1 seem to be lacking an interactive website.

It is possible to find time-schedules on the net for each Western European railway as indicated in the above table - at least by a link to another site where that information can be found. The only exception for the time being is Greek Railways. And even for this organisation it has previously been possible to access the timetable directly from the web pages; however, the Greek server is currently not active.

The largest railways tend to have free-form query-response style timetables, where the traveller just needs to fill in the departure and arrival stations, and the departure or arrival date and time. For some of the medium-sized railways the preferred interactive timetable

73 Amtrak of the US (the National Railroad Passenger Corporation) only carries passengers, whereas freight is handled by the members of the Association of North American Railroads (AAR) (with a total of 182 000 employees). Together the members of AAR constitute the largest freight carrier in the world (by ton km), but freight is not the topic of this chapter.

74 Some of the reasons why Russian Railways, which carry about the same number of passengers as German Rail, have 70% more employees than all the Western European ones together are that the average trip is more than twice as long as in Western Europe, and about four times as much freight is carried in Russia than in all of Western Europe. For timetables covering the railways of the former Soviet Republics, such as Ukraine (408 600 employees), Kazakhstan (158 900 employees), Bielarussia (77 800 employees) and Uzbekistan (77 300 employees), and the three small Baltic countries, see the site mentioned under the Russian Federation.

75 During the same period there was an increase in passenger kilometers of 3.4% and a decrease in freight ton kilometers of 1.2%.

76 www.questeconomics.com/pages/sample/aspsamp.htm.

style seems to be that the traveller has to select the departure and arrival stations from a list of stations, as a *curtain*. In a couple of instances only static timetables - as in the paper format - are shown. This is the case for the Eurostar train, but that is the result of the few stations served, which leaves Finnish Rail as the only national railway in Western Europe with only static timetables on the net.⁷⁷ In Eastern Europe and Russia/CIS/Baltics several railways have interactive timetables on the net, the Polish one - like that of Luxembourg - only by a link to the timetable of German Rail, DB, which has a very good international timetable, cf. separate section below about DB.

Norwegian Rail, Danish Rail and two of the regional railway companies in the UK were the only ones with a *delayed arrival notice* facility in 1998 in Europe, and outside Europe only Amtrak of the US had this facility. Norwegian Rail (NSB) started taking Internet bookings in November 1998. The NSB concern is serious about applying the Internet in different parts of the organisation (passenger transport, freight, travel agency).⁷⁸

At the Belgian rail site it is possible to book international rail tickets - including the Eurostar and Thalys high speed train - by a filling-in-the-blanks type of form, and sending it (off-line) as an e-mail. Confirmation of seat availability must then be awaited from the telephone booking centre, which handles the e-mailed booking requests manually.

At the moment, there are no other European railways than those mentioned in Table 4.1 which have any Internet booking facility on their website. Of the European railway sites, only four gives access to seat availability data, and therefore only four are able to give instant confirmation of the booking. Outside Europe, only the two North American railways have seat availability data and the associated instant booking confirmation, as far as the writer has been able to establish.

HaCon Ingenieurgesellschaft mbH, Hannover, has supplied solutions to the national railways in the following European countries - which all have up-and-running websites: Germany, Switzerland, Austria, Netherlands, Luxembourg.

At the moment Polish Rail, which is the largest national railway in Eastern Europe apart from those of Ukraine and the Russian Federation, only provides information in Polish at its website (www.pkp.com.pl), which is a slight drawback, if its objective is also to attract foreign tourists.

77 On the other hand it is noteworthy that Finnish State Railways launched timetable information services as GSM text messages (for mobile phones) in the middle of 1998. (www.tagish.ltd.uk/ethos/news/lit1/100c2.htm).

78 www.nsb.no, *NSB annual report 1998* (in pdf-format).

4.2 German Rail on the net

The history of railways in Germany dates back to 1835.⁷⁹ DB (Deutsche Bahn) AG was founded rather recently, namely at the beginning of 1994, and based on an amalgamation of the former railways of West and East Germany. By the end of 1998 there were 203 000 employees in DB AG (which was a reduction of about 9% compared to 1997), with an additional 50 000 in subsidiaries of the DB Concern. From the beginning of 1999 DB AG has been split up into five separate companies:

1.	DB Regio (short distance traffic)	56 083 employees
2.	<i>DB Travel & Tourism (long distance traffic)</i>	35 938 -
3.	DB Cargo	44 544 -
4.	DB Station & Service (railway stations)	5 629 -
5.	DB Network (rail infrastructure). ⁸⁰	71 830 -

The new company which is relevant in connection with Internet and passenger transport is DB Travel & Tourism. In the following we will be dealing with the core rail business of the former DB AG only. A third of the employees of DB AG work on building and maintaining the basic rail infrastructure - unlike in Sweden, Denmark and the UK, for example where this field is handled by separate organisations.

The DB website was established in the middle of 1996 and comprises two main parts: one with company information and a description of the various service offers (with three million page views per month during 1998) and another with timetables (with eight million page views per month during 1998). With a total of 11 million page views per month the DB site is certainly one of the most visited in Germany, and according to DB *the* most visited travel site in Germany. The number of page views per month in all of 1999 is set to reach 25 million - since the number of page views per month during the first three months of 1999 was more than twice as high as for the first three months of 1998. At the very least there will be 20 million page views per month in 1999.

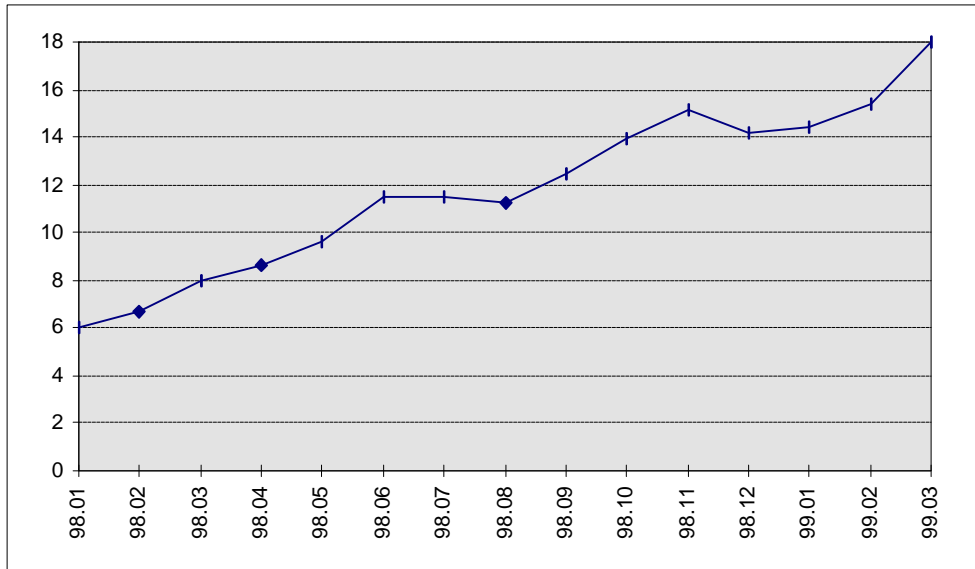
The *day of the week* where the greatest number of page views are counted is Tuesday - which is also the case for several other travel and tourism sites. On Saturdays and Sundays the number of page views are about half the level of normal weekdays. As to *time of day*, 56% of the page views (for time-table information) lie within normal working hours, i.e. the eight hours from 09.00 to 16.59.

79 The first steam train in Germany made the journey from Nürnberg to the neighbour city Fürth on 7 December 1835, according to www.vmn.nuernberg.de/gesch_e.htm.

80 Press release from DB, 2.12.98 and the DB Geschäftsbericht 1998 on the Web. - The number of employees for DB in total mentioned above (203k), does not quite fit with the sum for No. 1-5 (214k), which must be the result of some classification difference which the writer is unable to comprehend.

The DB timetables on the net are probably the most used timetables in the entire Internet world.⁸¹ On *peak days* more than a million connections per day were provided in response to almost 300 000 connection enquiries (Anfragen) in the last quarter of 1998 and the first quarter of 1999.

Figure 4.2 Number of page views for www.bahn.de per month, Jan. 98 - March 99

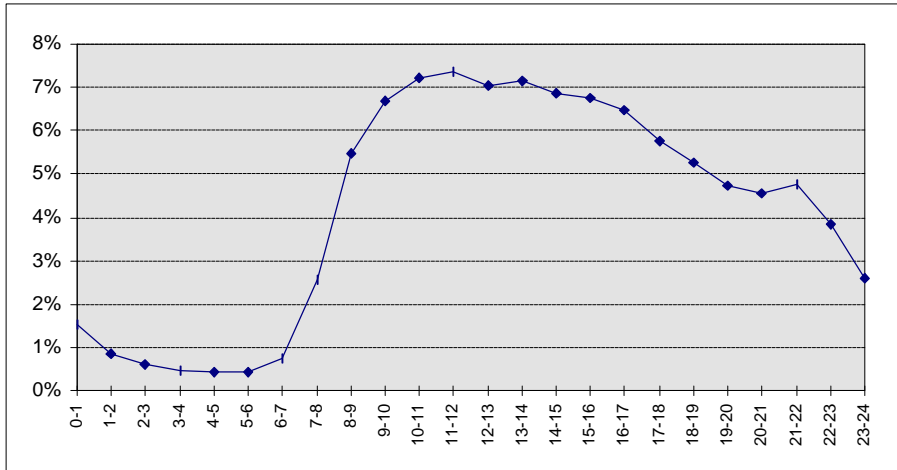


Source: Based on graph published by DB in double-page advertisement in *Handelsblatt* in May 1999 according to www.hacon.de/hafas/dbanzeige.html.

A revamped version of the timetable part of the site was opened in April 1999.

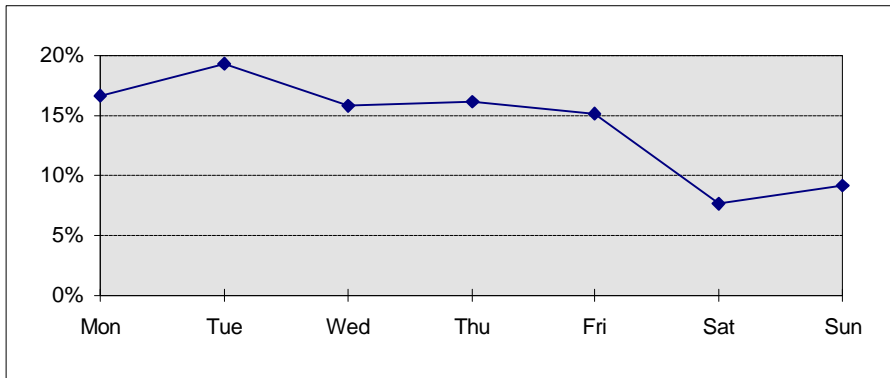
81 *Erfolg mit HAFAS im Internet*, www.hacon.de/hafas/dbanzeige.html, beginning of June 1999. The Lufthansa site is another much visited site, cf. www.100hot.com/travel, where LH was ranked as no. 12 in August 1999 - just after Travelocity(11) - and ahead of for example Amtrak (23), TIScover of Austria (14) and TISS of Germany (91). Expedia topped the list, in which DB is unfortunately not included. But it is a fact that Travelocity of the US counted 55 million page views per month in 1998, when DB counted 11 million per month.

Figure 4.3 DB timetable searches by time of day



Source: HaCon, Hanover, www.hacon.de - for the DB timetables at <http://bahn.hafas.de/>

Figure 4.4 DB timetable searches by day of week



Source: HaCon, Hanover, www.hacon.de - for the DB timetables at <http://bahn.hafas.de/>

The DB on-line timetables are not only good for finding train connections within Germany but are also the best on the Web for international rail connections in Europe.⁸² This is also acknowledged by other national train operating organisations, such as Danish Rail, which refers to the DB site for international connections. The online schedules are updated several times a month and offer the same data as the host computer of DB AG in Frankfurt.

82 For example the schedule from Narvik in northern Norway to Palermo in Sicily, southern Italy (70 hours, six changes), or from Lisbon in the west to Moscow in the east (83 hours, three changes), or from Inverness in the north-west to Istanbul in the south-east (72 hours, four changes).

When clicking on *Graph* one gets a simple map showing the departure city and time, arrival city and time, and the cities along the route where changes have to be made. By clicking on an enlargement bottom (+) some of the additional stops on the route are shown. The different connections may be seen in three different levels of detail.⁸³

Normal prices for first and standard class domestic tickets are shown along with the different connections. Prices for specific international connections are not provided, since this would involve the searching of databases in other countries. However, fixed prices for trips between Germany and any of 11 other European countries - irrespective of the specific stations travelled to and from - are provided as special offers (with certain restrictions as to travel dates).

Currently it is not possible to check if there are available seats for the selected connections, but DB is working on implementing this facility (for domestic connections). Seat reservations and train tickets may be ordered over the net by filling in a form on the website, and sending it either as an e-mail or it may be printed and sent as a fax. For domestic trips orders must be placed three working days before the beginning of the trip, and for tickets which are to be sent abroad the order must be placed at least eight working days before departure. Payment for orders placed via Internet can either be by DB Direct charge (which is for registered users only) or by credit card (American Express, Diners Club, Euro-/MasterCard, Visa). The amount is then drawn subsequently. The security standard used for order messages (to protect the credit card details) is SSL.

No discounts or other incentives - apart from convenience - are given for orders placed over the net. DB consider their Internet booking facility to be in an embryonic stage. On the other hand, another online booking channel for DB rail tickets, among other things, T-Online (formerly known as Bildschirmtext, Btx) has existed for many years. And if Internet bookings and T-Online bookings are considered as one, the number of rail tickets sold through these two on-line channels is significant. For DB, the future development of end-consumer oriented on-line services will be for the Internet rather than T-Online.

DB think that rail tickets lend themselves particularly well to being sold over the Internet. Research has shown that consumers are willing to buy products which are in the price range of typical (long distance) rail tickets (DM 100-150).

83 At the first level there is just one line per connection, the next level (overview) also shows where to change on the way, and the third level (detail) shows all the stops on the route (although this third level of detail may not be of interest for most travellers).

The complexity of selling rail tickets over the Internet - seen from the point of view of the rail transport company - is high. Security aspects (SSL vs. SET) are adding to this complexity. DB are using SSL, but are also looking into SET.

DB do not believe that they have made any extra sales because of their website. DB do not think - or at least they are not convinced - that they are saving money when customers are using information from the website (such as the timetables), since they have not researched this. And in any case, the most important thing for DB is to give better service by means of their website, not to save money. DB also believe that among the many people who are looking up train times and other DB information, there are many who would not have come to the counters or made a phone call to DB (*surfers*).⁸⁴

Research into this aspect could be done by analysing the nationalities of the website users, both timetables and corporate/product information (from the server statistics), by analysing which connections are being looked up (this data may also be collected automatically), and by analysing demographic profiles, their frequency of use, and their reasons for using, say, the timetables.⁸⁵

A statement in the outlook section of the Travel and Tourism part of the DB annual report of 1998 does seem to indicate an acknowledgement of efficiency gains for DB when customers use the Internet: call centre and Internet offers automatise business routines and provide employees with (extra) time to advise those customers who need to make complex travel plans.⁸⁶

DB have not reached the break-even point for their Internet investment. DB is testing an Internet kiosk in the ICE (Inter City Express) trains Hamburg-Basle and Hamburg-Stuttgart from which passengers can surf on the net for free.⁸⁷ In the near future DB will develop their website with more content and more product (service) offers.

Discussion - DB

84 Also, some of the people who are planning their international European railway trip, which may not begin or end in or even pass through Germany can with great benefit for themselves use the DB site to get the information they need. And what do DB gain from this? Maybe nothing except publicity and an enhanced image among Internet using travellers, travel agents who are using (or should be using) the net, and among other national railway companies/organisations.

85 The latter could be collected by a self-selection questionnaire along the lines of that of Railtrack in the UK. In fact UK research findings published on the net show that users of the UK timetable information service are in fact older than UK Internet users in general, which may be taken as an indication of seriousness among the users, and that they are using the information for planning actual rail trips. The UK findings will be reviewed in a subsequent separate section.

86 *Call Center und Internet-Angebote automatisieren geschäftliche Routine und verschaffen den Mitarbeitern neue Spielräume, um die Kunden bei der umfassenden Reiseplanung gezielt zu beraten.* DB Geschäftsbericht 1998.

87 www.fvw.de/archive/member/news/data/news.912695981.20325.html, Deutsche Bahn: On-line-Kiosk im ICE.

The tremendous number of page views on the www.bahn.de site, the underlying great number of visits to the site and in particular user sessions in the timetables part of the site, with its integrated possibilities of ordering tickets and making seat reservations, are bound to result in a good deal of revenue via the Internet for DB, at least from 1999 onwards.

With at least 20 million page views per month in 1999, which *Figure 4.2 seems to confirm*, there will certainly be 240 million page views on the DB site for all of 1999. With about 10 page views per user session there will be 24 million Internet user sessions for all of 1999. These sessions will mainly be in the timetable section, where there is the opportunity to buy tickets and to make reservations. If just one in every 240 of the user sessions results in a purchase,⁸⁸ this would result in 100 000 purchases (bookings). There are about 1.5 single trips per purchase (maybe slightly more). This means that about 150 000 single long DB trips will be booked via the Internet in 1999.

For 1998 DB Internet sales are bound to have been *negligible*, i.e. below 0.1% of long trips. DB had 1332 million passengers in 1998 (1388 million in 1997). Of these 6% or 77 million travelled by the long distance trains ICE or IC/EC (262 km per single trip), which are those of relevance in connection with Internet bookings.⁸⁹ This means that in 1999 DB is set to get about 0.2% of its sales of long (ICE and IC/EC) trips via the Internet.

An average single trip by ICE or IC/EC costs about DM 50,⁹⁰ which means that an Internet booking is worth DM 75 (\$43). The DB Internet revenue in 1999 is thus estimated at DM 7.5 million (\$4.3 million). This is obviously an uncertain - but relatively conservative - estimate. DB may have to wait until 2000 to get into the two-digit \$ million Internet sales bracket, but DB should have a very good chance of being there by that year.

4.3 Swiss Federal Railways on the net

SBB, the Swiss Federal Railways organisation, celebrated its 150th anniversary in 1997. The number of employees was reduced from 32 000 to under 30 000 in 1997. There are 120 IT developers and 60 IT project managers/workers within SBB. These 180 IT people undertake about half of the software development of SBB. The other half is outsourced. About 20 of the IT people work with the Internet and especially Intranet applications, for which Java is now used. Three of the 20 people have been recruited for Intranet and Internet work from a pool of people from the railway stations, who have been made redundant.

88 This is a conservative guess, since in Scandinavia the railway operators get one booking per no more than 100-125 visits (in 1998). On the other hand there are other players whose visits-to-bookings ratio is less favourable.

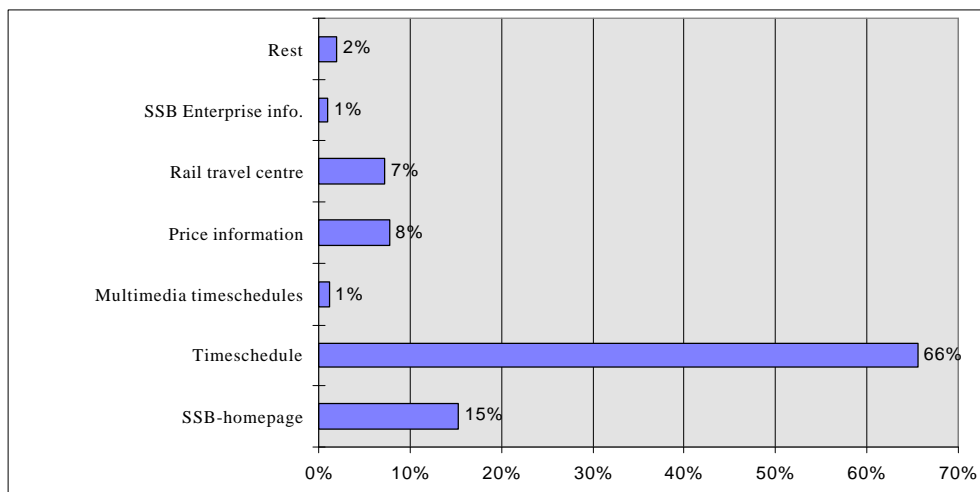
89 Another 7% travelled by IR trains (or D or ICNight trains), with an average length of 153 km (1997 data from DB Daten und Fakten 1997/98, p. 10). There was in fact a 3% increase in ICE/IC/IR trips from 1997 to 1998 (according to DB Geschäftsbericht 1998, but here the 1997 data from Daten und Fakten 1997/98 are used.

90 Currently about DM 48 per passenger (single trip or segment) by ICE or IC/EC trains back in 1997. This is the writer's estimate based on data in DB Daten und Fakten 1997/98, p. 10. IR is thus not included in the estimate.

Previously the programming languages C and C++ were used. In the Intranet, Applets of Java are used, whereas ordinary html-programming is used for the Internet pages.⁹¹ Transactions on the Intranet as well as on the Internet are carried out on the host computer, for example the pricing part. A ticketing system has been developed for automatic ticket kiosks, and this is also used both on the Intranet and on the public Internet site.

The SBB website was first established in November 1995. About 80% of the information on the SBB site is maintained in four languages, which is a labour intensive task. Sixty percent of visitors chose the German language, 19% French, 19% English and 2% Italian.

Figure 4.5 Distribution of 14 million page views on the SBB website in 1998



Currently it contains a passenger transport section (timetables, etc.), a cargo section, corporate information, SBB real estate information, job offers, operations management (current situation and statistics, etc.) and information about open access (to the tracks). There are interactive search functions, prices can be found, it is possible to place orders (for domestic tickets), and to give payment card information via the website (electronic ticketing, e-commerce). It is *not* possible to check seat availability on the site, and orders placed on the site are not confirmed immediately, since the website is not integrated with the internal booking system. No discounts or other incentives are given for orders placed via the website. Timetables account for two thirds of the page views.

91 <http://www.sun.com/java/platform.jhtml>; <http://www.disordered.org/Java-QA.html>;
<http://www.apl.jhu.edu/~hall/java/>

Domestic rail tickets lend themselves very well to being sold over the net, but not international tickets, and at the moment only tickets for travel in Switzerland are sold over the net. The buyers are mainly Swiss people, but are also other nationalities such as Britons, Americans and Germans. In 1998 about 40 orders were received per week. The average order size was SFr 76, and therefore the weekly Internet revenue was about SFr 3000, corresponding to about SFr 160 000 for the full year.⁹² SBB has about 400 railway stations with manned ticket offices and/or automatic ticket machines, so it is very easy to purchase the ticket just before travelling, which is one explanation of the insignificant level of sales of tickets over the Internet. But lots of information, especially about travel connections (timeschedules) is provided over the net, cf. Figure 4.5. Internet orders for tickets (to be mailed to addresses within Switzerland) must be placed at least three working days before the beginning of the journey.

It is fairly complicated to sell rail tickets over the net for SBB. SBB do not believe that they have received any additional orders because of their website. The tickets for Swiss Rail would have been sold anyway, although perhaps not by SBB themselves, but for example by a foreign agent such as a train operating company or a travel agent in the traveller's home country. Therefore, in a few instances the sales commission to a foreign agent is saved when orders are placed via the Internet, but it is a marginal saving only. SBB save costs when customers use the on-line timetables, but the main rationale behind the Web presence of SBB is to provide a better service. Also it is of benefit to SBB that the know-how and experience gained from Internet development can be applied in connection with the internal SBB Intranet, which covers head office and 400 stations. The Intranet and Internet applications are placed on six web-servers each costing about SFr 5000, but this cost is considered low. The main cost element is for staff.

In the near future SBB is not planning to make any big changes on their website apart from installing new timetables. Within two, three or four years, SBB will start selling international rail tickets on the website. SBB do not think that a simple information-only website will do today. SBB was the first railway in the world to start accepting payments on the web. It is not using the SET standard, but rather the SLL standard, although it was originally invited to take part in SET pilot tests by IBM in Zurich.⁹³ SBB had some difficulties in convincing the American SSL approval body that SBB is a solid company, since they are a state owned organisation, not a private company, and therefore SBB do not have

92 \$115 000 - or DKK 735 000. The weekly average is based on the first 38 weeks of 1998, which is multiplied by 52 to get an estimate for the year. The number of orders per week (~40) did not appear to be increasing during 1998. Since total turnover for long distance passenger transport by SBB in Switzerland is about SFr 1 billion p.a. according to the annual accounts, clearly Internet sales of rail tickets are very insignificant indeed, corresponding to less than 0.02% of sales. Each time SFr 6300 worth of long distance domestic rail tickets are sold, only one single Swiss franc's of sales is attained through the Internet.

93 <http://domino.www.ibm.com/e-business/casestudies.nsf/homepage/homemain> - Swiss Federal Railway

a company registration number. Today they regard themselves among the leading railways in Europe with respect to Internet sales of tickets.

From 1999 in Switzerland there will be Internet access via cable TV, to which 80% of the Swiss households have access. The access will first be established in Zurich. Initially it will be one-way communication (non-interactive access) only. From the year 2000 or 2001 there will be interactive access to the Web via cable TV. By the last half of 1998 SBB had already started distributing timetable information via mobile phones as SMS messages (Short Message Service).⁹⁴ It is possible to request the connection between any city pairs and get the two next connections (within eight or 10 seconds).

SBB has been a public company (SA) from 1 January 1999.

4.4 Swedish Rail on the net

Swedish Rail (Svenske Jernväger, henceforward SJ) dates back to 1856. In 1998 there were about 11 100 employees in the core rail part of the enterprise, and another 4600 in subsidiaries, i.e. 15 700 in total. The SJ Group reduced the number of employees by 5% from 1997 to 1998, corresponding to 820 people. The reduction in the number of employees is set to continue: it is estimated that SJ's personnel requirement will fall by 15% over the next three years.⁹⁵

When comparing the number of employees of SJ with that of other railways, it should be noted that SJ does not comprise the rail infrastructure, which has been handled by *Banverket* since 1998.⁹⁶ A similar split is in operation in the UK, and since the beginning of 1997 also in Denmark, and will be implemented in other EU countries.⁹⁷ In general, there is a deregulation process going on in the European railway industry, leading to increasing competition, both nationally and internationally. At the national level SJ holds sole rights to long-distance passenger train transport, but there is competition from other modes of long-distance passenger transport.

SJ Group revenue was SEK 14.8 billion in 1998. Eighteen percent of this was generated by long-distance passenger transport, i.e. SEK 2.7 billion, or \$335 million.⁹⁸ In 1998 SJ car-

94 http://www.swisscom.com/gd/services/mobile_com/natel/pilot-en.html.

95 The SJ Group Annual Report 1998.

96 Banverket had about 7000 employees in 1998, but in October 1998 it was announced, that Banverket has 700 employees (10%) in surplus in certain divisions. A hundred of them can be moved to other divisions, but 600 will have to be laid off (www.banverket.se).

97 *ØresundsMagasinet*, November 1998, p. 13.

98 For comparison, SAS carried 4.3 million passengers on domestic Swedish routes, which generated about SEK 3.6 billion (~46% of the SEK 7.7 billion domestic passenger revenue in each of the three Scandinavian countries). And Braathens (Malmö Aviation) carried one million passengers on Swedish routes, generating about NOK 821 (SEK 864 mill., \$109 mill.).

ried 111 million passengers by train in total, of which about 8%, or 8.5 million were long-distance, i.e. over 100 km.⁹⁹

In connection with Internet sales of rail tickets, it is these long-distance trips which are of relevance. They represent the potential for rail ticket sales via the Internet, so to speak. In Sweden, the train has about 13% market share of trips over 100 km (vs 72% for cars, 8% for air, and 6% for long-distance coaches). Of total trips by long distance trains, 60% are undertaken by leisure/private travellers, 40% by business travellers.

The SJ Group is organised into five market-oriented sectors (SJ Passenger Traffic, SJ Cargo Group, SJ Ferry Traffic, SJ Real Estate, and SJ Engineering), support units (SJ IT Division, and SJ Cleaning Services) and Group Functions.

In 1998 there were 234 employees in the SJ IT Division, and turnover is almost SEK 400 million. Among other things, the SJ IT Division handles the technology behind the booking of 150 000 tickets per day, some of which are booked through the Internet (see below). A group of eight people within the SJ IT Division handles the technical side of the Internet.

The SJ website was established in March 1997, and a booking function was established at the site from October 1997. The site includes interactive timetables; prices are shown; it is possible to check seat availability when making bookings; and secure payments can be made in two main ways:

1. Either on SJ's site using the *SET* standard.
2. Or through *Torget* (= the Market, www.torget.se/sj).

SET is a standard for Secure Economic Transactions. One disadvantage of SET for the traveller is that special software has to be installed on the particular computer by which purchases are made.

On *Torget*, private persons over 18 can become members and have the right to make purchases, for example in the SJ shop. Payments can be settled in two different ways:

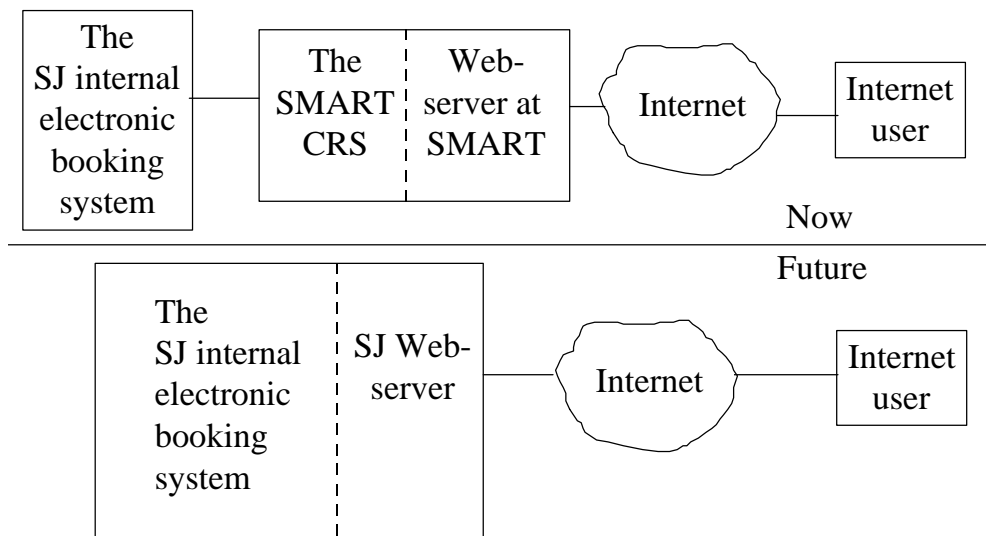
- a) By payment card account (bank card, Visacard, MasterCard, Eurocard, etc.).
- b) By post giro account.

⁹⁹ SAS+Braathens carried 4.3+1=5.3 million passengers on Swedish domestic flights. If there were no other domestic air-carriers, these 5.3 million would then correspond to the 8% share for aircraft passenger transport mentioned by SJ, and the 13% for trains mentioned by SJ would then correspond to 8.5 million passengers. This in turn means that 8.5/111 million = 8% of all rail-trips sold by SJ are long-distance, i.e. over at least 100 km. For DB 6% of the single trips were by IC or ICE trains (with an average length of 262 km). For *all* SJ train trips (short and long) the average length (53 km) is a bit longer than for DB (47 km) - and much longer than for DSB (32 km).

If there is not enough money on the giro account when the post office try to debit the account, an invoice will be sent instead, in which instance an invoice fee will be added. Since the post office acts much like a bank (it can administrate deposit accounts although it cannot lend money out), the difference between a and b seems rather insignificant.

At the moment the Internet booking solution used by SJ is based on an existing data communication line between SJ and SMART (Amadeus in Scandinavia). But the Internet users actually access the train times and make the bookings through the web server SMART.

Figure 4.6 The SJ Web connection



SJ is working on a solution for the first half of 1999 which means that in future Internet users will be accessing SJ's own web server.

No discounts or other incentives are given for orders places over the Internet. In the autumn of 1998 there were 24 000 visits per week within the passenger transport sector of SJ's website, i.e. about 1.3 million visits p.a. For comparison, SJ's five geographic telephone booking centres (which is a single virtual call centre) handled nine million calls in 1998. Seventy-five percent of the website visitors look up train times.¹⁰⁰ SJ states in its

¹⁰⁰ SJ Annual Report 1998. According to the same source the remaining 25% of visitors look up fares. However, there must be some visitors who neither look up train times nor prices. A minority may be interested just in corporate information and news.

annual report 1998 that *booking and payment is now possible on the Internet* [specifically it has been possible for more than two full years since the beginning of 1997], *but this has not yet had a major impact among its customers*. The website visits (24k) resulted in about 200 bookings via the net per week in 1998 (probably each containing an order for about 1.6 single trips on average), i.e. about 120 visits per booking.¹⁰¹ Another comparison which can be made is the number of trips sold over the net in relation to the total number of long trips sold. This percentage was 0.2% for SJ in 1998.¹⁰²

Today, when bookings are made via the Internet the ticket can be conveyed to the traveller in several different ways. Only for the last of these ways, is anything sent to the traveller:

1. The ticket (and the seat reservation) can be picked up at a railway station.
2. It can be picked up at a travel agency.
3. It can be picked up at one of the 2000 horse-betting agencies in Sweden (called ATG, www.torget.se/atg/). Horse-betting is the largest type of gambling in the country.
4. It can be retrieved from an automatic ticket machine.
5. It can be sent by mail to the traveller - against a fee of SEK 20.

When *ticketless travel* becomes a reality one could imagine that the traveller will print out his/her seat reservation and ticket number when making the booking via the net, and then use that as travel documentation. SJ is co-operating with Telia to develop mobile phones as ticket carriers.

SJ do *not* believe that they have received any additional orders because of their website. They *do* believe, however, that there are great cost savings to be made when customers are using the website instead of making phone calls or inquiries in person to the SJ counter staff.

SJ had intended to add a function on their website which would inform users of delays before the end of 1998, but this function did not seem to have been implemented by the middle of 1999.

Running updates and improvements of the site will be undertaken. For example, the booking procedure may be improved so that it becomes seat-specific. Also, in future it will become possible for potential passengers to get visual impressions of the station, the plat-

101 For comparison, during the same period (1998), DSB (Danish Rail), counted 100 000 visits per week, resulting in about 1000 orders per week, where each order covered 1.5 trips. The 5.2 million website visits per year for Danish Rail exceed the number of telephone calls handled by the telephone booking centres of Danish Rail.

102 It is assumed that 8% (i.e. 8.5 million) of the trips sold by SJ are long-distance ones on trains such as Intercity or the special Swedish high speed train X2000, i.e. 8.5 million. The 0.2% for 1998 is calculated as follows: $(200 \times 52 \times 1.6) \sim 17\,000$ single trips sold via the Internet out of 8.5 million long-distance single trips in total = 0.2% sold via Internet in 1998.

forms, the wagons, the positions of the individual seats in the wagons and views from the individual seats. This will be by still photos and diagrams rather than virtual reality, where the viewer can steer a camera around dynamically, since applications should not be too much ahead of the technological level of the users.

SJ do not believe that a basic information-only website is enough (to achieve a competitive advantage). The travel industry is leading the way in commerce over the Internet. SJ think they currently have a good position with their website, also compared with air transport in Scandinavia. SJ expect that, as a distribution channel for travel services such as transport, the Internet will gain dramatically in importance. Expected improvements in the areas of payment and security, as well as greater simplicity, will lead to a great increase in travel bookings via the Internet. In the payments field, SJ see SET as the only acceptable standard. SSL is only seen as good enough for encrypting messages which are not directly payment related.

SJ IT believes that for the year 2001, *15% of its bookings will come from the net*. SJ modifies its prediction by mentioning that there are many factors of uncertainty, for example how much the Internet booking options will be promoted and developments in the payment field. This must be interpreted as 15% of (the 8.5 million) long-distance trips only p.a. (by Intercity or X2000 trains), i.e. 1.3 million in 2001 - up from 17 000 in 1998 - and perhaps about 30 000 in 1999.

Furthermore, according to the SJ Group Annual Report 1998, SJ believes that *by the end of 2002, between one third and one half of all sales within SJ Passenger Traffic will take place through IT-aided, self-service systems*.

By the end of September 1999 SJ's new Web-site for ticket booking will be launched. It will be based on a piece of Internet relationship management software called StoryServer.¹⁰³ It logs which destinations the Internet users searches in the train travel planning process and suggests destinations next time the user logs in based on the stored history of the user. The user can also specify which sorts of trips are of particular interest. Thus there will be targeted offers to the Web user based on the choices of the user. Finally the user will be able to click on different stations via a product called MapInfo.¹⁰⁴

Discussion - SJ

The percentage of long-distance trips, which is booked through the Internet with SJ, is currently rather small, albeit the corresponding percentage for most other transport organisations in Europe within rail or air with transactional websites is probably even

103 www.vignette.com

104 www.mapinfo.com

smaller. Actually, few other passenger transport organisations have been willing to mention specific numbers. This general reluctance to provide the actual number of Internet bookings by any European passenger transport organisation must at least partly be interpreted as suggesting that *the number of Internet bookings are very, very low at the moment, certainly far less than one percent*. Most passenger transport organisations in Europe asked about this do in fact admit that *the number of Internet bookings is very low at the moment*.

Whereas the percentage of bookings taken via the Internet by SJ is currently small - the lookers-to-bookers ratio (or rather visits to bookings ratio) with SJ is not bad compared to other (European) transactional tourism/travel sites: 24 000 visits per week resulting in 200 bookings, which corresponds to a lookers-to-bookers ratio of 120:1. One explanation for this ratio of more than 100:1 may be that on many trains seat availability is not so much of a problem. Normally there are seats free on given trains. The problem - in the writer's own experience - is in the first instance to find several suitable connections, and then, when it is certain that a given trip has to be made, a booking may be made for certain long journeys. Also the fact that payment has to be made on the net (unless via Torget and the post office) penalises the ratio of visits to bookings.

For comparison, TUI gave a ratio of 1200:1 in January 1997 (at ENTER'97) (see chapter 7.3), and dansommer's lookers-to-bookers ratio is about 64:1 for the domestic market, and 143:1 for the German market (see chapter 6.5.2).

SJ estimate that 15% of the price of a ticket is connected with the handling of the booking and ticket issuing. A certain part of this, maybe two-thirds, can be saved by Internet use. If a (long-distance) rail ticket costs SEK 300, and 10% of this can be saved, this results in a saving of SEK 30 per ticket booked via the Internet. With $200 \times 52 = 10\,400$ bookings/tickets corresponding to 15-17 000 trips per year booked through the Internet, obviously this saving is only about SEK 0.4 million p.a.

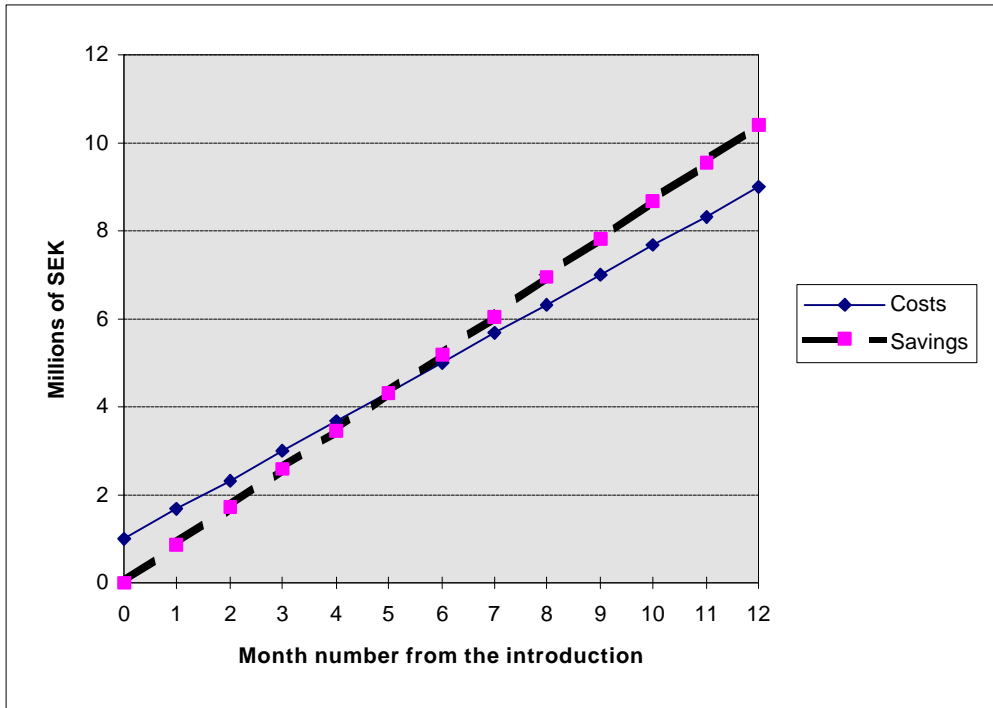
But, very importantly, to this should be added a saving for the 24 000 users (user sessions) per week. Each enquiry may cost, say, SEK 8. (For comparison DSB put the savings per user session on the net at about DKK 15 ~ SEK 18). $24\,000 \times 52 \text{ weeks} \times \text{SEK } 8 \text{ per user session} = \text{SEK } 10 \text{ million p.a.}$ When adding the aforementioned saving of 0.4 million, total savings are SEK 10.4 million p.a. Obviously, with the current level of Internet bookings, the savings are many times (i.e. about 25 times) greater in the time schedule use than in the booking field.

SJ mention that their initial investment was as little as SEK 1 million! This obviously does not include the costs of the eight people within the SJ IT Division who work directly with

the Internet. The costs of each of these eight people could be about SEK 1 million, i.e. SEK 8 million p.a.

Here are some arguments for using SEK 1 million as the costs of a person p.a. in the Internet department of the SJ IT Division: revenue generated by 234-300 people within the SJ IT Division is almost SEK 400 million, according to www.sj.se/koncern/datadiv.html. So, each employee within SJ IT is generating about SEK 1.5 million p.a. The salary of a computer programmer is hardly more than half a million SEK, but in order to arrive at the real costs of any employee an allowance of overhead should be made. All in all this means that SEK 1 million p.a. would seem a likely opportunity cost or actual total cost of a computer person within SJ IT for Internet applications.

Figure 4.7 Costs and savings of the SJ website - A rough break-even chart



Source: Writer's rough estimates - based on statements by SJ IT Division.

Note: In the diagram, break-even is reached in five months (based on the activity level in autumn of 1998). With a given number of user sessions per week or month, the savings per user session determine the break-even point. If the savings per user session are put at only SEK 6 rather than SEK 8, break-even will *never* be reached with the current (1998) activity level.

So, all the costs of developing and running SJ's Internet activities seem to be very well justified just by savings made, primarily by customers making time schedule enquiries over the net - even if the savings per user session is put as low as SEK 8 each.

When interpreting SJ's forecast that 15% of tickets will be sold through the Internet in the year 2001 it is assumed that SJ means 15% of *long distance train tickets*, since these are typically the type of tickets bought over the net. Fifteen percent of about 8.5 million long-distance single trips equals about 1.3 million SJ single trips sold over the Internet - com-

pared to about 17 000 single trips (0.2%) in the year 1998.¹⁰⁵ To achieve this target a growth rate of 320% p.a. is required for three consecutive years. If the growth rate from 1998-1999 looks as if it is going to be about 100%, clearly it is hardly achievable to reach the 15% by the year 2001.

Ways to evaluate how realistic it is to assume such high growth rates for SJ would be to compare the above 320% with the increases from 1997 to 1998, since the booking facility was established in early 1997 - as well as with the increase from 1998 to 1999. Also comparisons can be made with other forecasts for annual increases in Internet sales in other countries with fairly high Internet penetration (like Sweden), and in other industries. In the US, which is a relatively mature Internet market, the projected growth rate for travel products in general is 67% per year in the period 1998 to 2000, according to Forrester Research (vs a somewhat higher growth rate from 1996-98, i.e. 112% p.a.). This indicates that sustained growth rates in Internet sales of more than 100% per year are unusual in relatively mature markets. However, a number of successful European players in travel and tourism are set to reach an average growth rate of 180% from 1998 to 1999, and this is above the average growth rate of 100% p.a. for all travel and tourism services sold over the Internet from 1998 to 2002 predicted by this writer.

As discussed above, SJ planned to implement a delay information function, which Norwegian Rail (NSB, www.nsb.no), Danish Rail (through Banestyrelsen at www.bane.dk), and two regional train operating companies in England have already got at their sites, as has Amtrak in the US. It could be argued, however, that any delay information function should certainly be implemented for mobile phones simultaneously with implementing it on the net, since by the time people need the delay information they might be on their way to the station. A delay information service seems somewhat more relevant for airlines than for rail companies, since delays are generally much greater and occur relatively more frequently for passenger transport by air than by rail. On-time arrivals, i.e. arrival within five minutes after schedule, for SJ passenger trains excluding local trains was 88% in 1998.

105 The average length of a trip sold by SJ is 63 km vs about 42 km in Germany (and only 32 km in Denmark). This indicates a somewhat larger proportion of long trips in Sweden than in Germany. In Germany, only about one in every 10 trips with DB are made by long distance trains (ICE, IC/EC, IR/D/ICNight). - Each rail ticket / each booking probably covers between 1.5 and 1.7 trips.

4.5 Danish Rail on the net

The first railway in Denmark was opened more than 150 years ago, in 1847. Currently there are about 11 000 employees with Danish Rail (DSB) the national railway (or rather train) operating company.¹⁰⁶ Within DSB, there are about 200 people employed in the Data Division. In addition to this there are six people working with the DSB Internet website. These are placed in the Intercity Division, not in the Data Division. This group is called DSB InterNet, but could also be called DSB InterActive, since they define their function broadly to include the application of other new communication technologies as well (e.g. mobile communications).

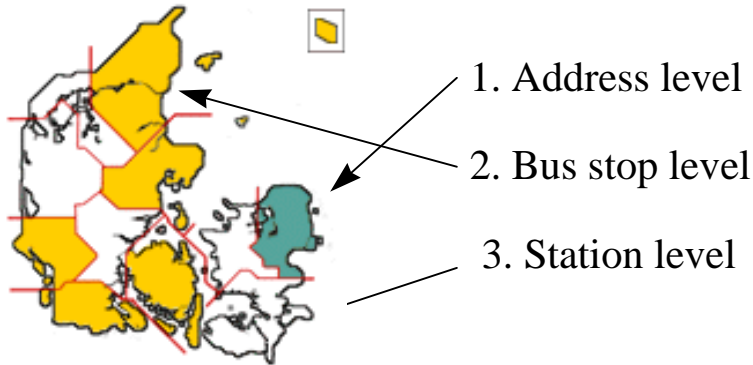
Most DSB sales are transacted with Danes. In 1998, DSB sold 150 million train trips (segments), of which about 1% were for international trains, 6% for long-distance domestic trains, 30% for regional trains and the remaining 63% for rapid transit in the metropolitan area. According to DSB, for the time being it is only the 6% of domestic long-distance trips (nine million p.a.) which are of relevance in connection with Internet bookings. In principle it should be possible and relevant to sell tickets for international trains over the Internet to Danes, but this is not done at the moment.

The DSB website contains a travel planner section, which is the most visited part of the site. The travel planner is interactive, like that of many other railways, since it is possible just to key in departure and destination city, and then get the connection. It is possible to plan not only the train travel part of the trip, but the entire trip, including other forms of public transport, such as ferries and local buses.

1. For the metropolitan area (with north-east Sealand) the level of detail goes down to the specific address, which means that even the walking time required to reach the nearest bus stop is included.
2. In about half of the rest of the country bus stops and ferry harbours can be keyed in.
3. Finally, at the remaining districts only railway stations can be keyed in (see white areas in figure 4.8).

¹⁰⁶ This does not include building and maintenance of the basic rail infrastructure, which is now handled by another organisation, which has a further 3300 employees. Bus and ferry transport has been separated from DSB as well.

Figure 4.8 Three levels of detail in the travel planner part of the DSB (Danish Rail) site



Source: www.dsb.dk.

Note: Status middle of 1999.

There is no search facility in the corporate part of the site, however. Approximate prices between main stations can be found on the site, but the prices are not provided directly for the connections looked up in the timetable. To/from stations or main stations close to these connections have to be keyed in again subsequently, but further developments are being undertaken in this and other fields.

The travel planner does not include any foreign stations. The DSB site does include descriptions of 46 destinations in continental Europe and the other Nordic countries, with best buy rail offers to them. For international connections in general, reference is made to the German Rail site (by link), since DSB is one of the smaller national railway operators in Europe. But as far as sales of railway tickets over the Internet is concerned, certainly in relative terms and most likely even in absolute numbers, DSB leads in Europe. Thus in 1998 DSB sold 0.8% of their nine million long-distance domestic trips via the Internet, i.e. 70 000 trips in 1998, generating DKK 20 million in revenue (\$3 million). This is set to double to 140 000 trips in 1999.¹⁰⁷

From April 1999 it became possible to *check seat availability* and to *make reservations* on domestic IC trains as little as half an hour before departure. These data are real-time, i.e. completely current. Also it is possible to purchase *domestic tickets* on-line, provided departure is at least 24 hours ahead. The ticket can either be mailed to the traveller or be retrieved from an electronic ticket and information kiosk at one of 22 major stations. As is

¹⁰⁷ With 1.5 trips sold per Internet booking that corresponds to about 47 000 orders (bookings) for all of 1998 or just under 1000 orders per week (125 orders per day). In the middle of 1999 DSB received 150 orders per day, still with an average of 1.5 trips (segments) sold per order.

the case for telephone ordering/sales of railway tickets, there is no fee for getting the tickets sent by ordinary mail. If tickets ordered over the net are sent by mail, an invoice and a giro card will be included. DSB says that its losses from non-payments in this instance are very limited. If tickets are retrieved from one of the kiosks, payment is undertaken by bank card or credit card.

All the orders which DSB receives over the net, are placed by Danes. The booking facility is available in Danish only, and in fact no part of the site is currently in English, although the travel planner part was available in an English version (before the revamping of the site in April 1999).¹⁰⁸ DSB does not give any discounts or other incentives - apart from convenience - for ticket orders placed over the Internet. The information provided about seat availability and the possibility of making reservations up to the last 30 minutes is certainly very convenient.

Like other rail operators, DSB believes that rail tickets lend themselves well to selling over the net. The products are fairly standardised, and they are not physical. Even the ticket, the proof that payment for the trip has actually been made, does not have to be physical. In future, the ticket may just be a short message on the display of a mobile phone (see Table 4.5 below for penetration of mobile phones). Even today, tickets do not have to be sent to the traveller, since they can be retrieved from one of the automatic ticket kiosks. Furthermore, rail transport - like air transport - is a product (service), which is fairly easy to describe unambiguously - even without the personal contact - by different classes and seat preferences. Seat reservations - for trains which are frequently full - lend themselves even better than rail tickets to being ordered over the net. And payment for the seat reservation can be made just before departure, at which time the tickets can also be bought, for example in one of the automatic kiosks. On the booking form it is thus possible to order either:

- a) seat reservations only;
- b) travel tickets only (without the seat reservation);
- c) both travel tickets and seat reservations.

Additionally, it is possible to renew season tickets on the site.

Technically, it is rather complex for DSB to make the Internet server communicate with the underlying internal systems for reservation and ticket issuing such as the electronic kiosks. But for the user it is very simple to buy DSB rail tickets.

108 One would guess that it is just a matter of time before the new version of the travel planner becomes available in English.

DSB believes that it has achieved extra sales because of its website, although it has not yet made any studies itself, which support this assumption. Investigations from other countries show that the more accessible any product is, the more it is sold. From its telephone sales department, which has longer opening hours than the stations, DSB knows that there are a number of calls which do not lead to conversions, and therefore sales. But on the net it is always possible to place orders. DSB believes that it is saving money each time customers use its timetables at its website.

Initially there was no automatic processing of the orders received over the net. Orders were received off-line and had to be manually entered into the legacy systems (internal systems). But from April 1999 the processing of Internet orders has been automated. Orders received through the website are now automatically entered into the legacy systems. Therefore DSB is now saving costs when orders are received via the Internet.¹⁰⁹

Also, from April 1999 – and this is unique among train operators - it has been possible to find best-buy international airtickets, and book them on the net on a request basis. At the same time a number of other new features and content directed towards the different target DSB groups were implemented, mostly in a place called Memphis Station, which is an area containing information for and about (1) commuters, (2) trainspotting, (3) school group trips, (4) young people (including an online game), and (5) InterRail (which will include daily updates of descriptions by three InterRailer teams, who compete over how to make the most interesting train trip around Europe).

DSB believes that it has reached break-even. Not because of Internet orders, but because of the time-schedule use, and the savings associated with this. DSB thinks that the time required to reach break-even point was a number of months, and not years (see Table 4.2 and Figure 4.9 in the discussion below).

In three (or four) years time DSB expects that as much as 30% to 40% of long domestic trips will be ordered through the Internet. With the current level of long-distance traffic, this would correspond to between 2.5 and 3.3 million trips. For comparison, after many years of existence, telephone sales currently account for 10% of DSB's sales (of long-distance domestic and international tickets).

109 In 1998 about 125 orders were received per day, with an average of 1.5 trips sold per order.

Electronic trade and marketing on the Internet has five advantages for DSB.¹¹⁰

1. DSB is promoted.
2. Extra sales are generated via easier re-ordering.
3. Increased loyalty is created, especially in the business-to-business market.
4. New products are possible via the Internet.
5. Internet traffic can be utilised (*net gains*).

The vision of DSB's Internet presence is the following:

1. To support its commercial objectives.
2. To interact with other forms of market communication.
3. To create value for its customers, be well structured and well designed.
4. To provide the possibility for interactivity/quick feed back.
5. To inspire confidence (stimulate trade).
6. To be run economically and effectively.
7. To be well anchored in the organisation.

Some of the future plans of DSB InterNet are the following:

- DSB sees itself as a potential hub of sales of railway tickets as well as tickets for supplementary tourism, travel and leisure activities. DSB wants to sell experiences, not merely trips.
- DSB will be suppliers of how-to-get-there information to strategic partners such as attractions. On these partner sites, DSB will keep a low profile, but still be the organisation which supplies the travel information and sells the travel tickets.
- Other strategic partnerships will be formed with publishers of What's On calendars, etc., e.g. for the Copenhagen area (www.aok.dk).
- DSB will supplement its current Internet-based delay information with distribution of the same information to mobile phones as SMS messages. In this way the inconvenience for the traveller associated with trains running late can be reduced (and thereby more customers can be retained).¹¹¹
- DSB wants to expose potential travellers to relevant offers, based on the more or less limited information which it has about these travellers, for example travel plans and other information such as age and sex.¹¹²

110 Birnbacher, 1998.

111 In July 1999 it was announced that this function had been implemented for the customers of one of the mobile phone operators in Denmark, but the service would be extended to all operators in the country after a three month test period until 11 October 1999, cf. www.bane.dk/toginfo/toginfo.htm and Andersen, Jesper T. 1999, *Traininfo to the mobile phones of pendlers* (in Danish), www.computerworld.dk, 12 July, also in printed Danish version of Computerworld, 16 July, p. 5.

112 There are some general legal constraints to observe with respect to data which a company is allowed to keep about customers. It may be time to introduce some kind of *plastic (intelligent) card* for all rail travellers or for the frequent travellers, as many airlines are doing, and which VIA Rail of Canada has become first railway operator to do.

- In the more distant future, it may become possible to talk to the website, for example via mobile phones with mini-screens and Internet access.

Discussion - Danish Rail on the net

The net saving per visitor using the time-schedule is estimated to be DKK 15. In this estimate, according to DSB, it has already taken into account the fact that customers tend to make more enquiries when they can be easily undertaken. In the table below the saving of DKK 15 per user session is considered a maximum. Along with this a more conservative assumption about the savings made per Internet time-table user session is shown (DKK 10 each), since the extra number of enquiries made because of the convenience of the Internet-based timetables may be greater than assumed in the 15 DKK estimate.

Table 4.2 Investment (costs) and savings from usage of the DSB online timetable

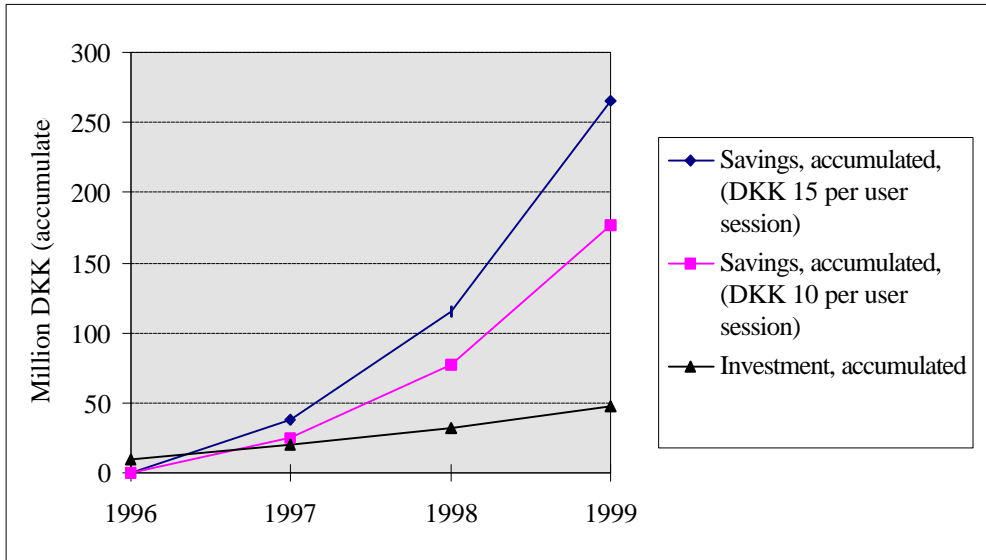
Year	Investment (costs), DKK million p.a.	Costs, accumulated DKK million	Number of timetable user sessions (million)	Savings per user session, maximum (DKK)	Savings per user session, minimum (DKK)	Savings mill. p.a., minimum (DKK).	Savings, accumulated, minimum (DKK)	Net effect, accumulated DKK million minimum
1996	10	10	0	15	10	0	0	-10
1997	10	20	2.5	15	10	25	25	5
1998	12	32	5.2	15	10	52	77	45
1999	15	47	10	15	10	100	177	130

Note: DSB assumes a saving of DKK 15 per timetable user session. Using a more conservative number for the savings (DKK 10 per timetable user session) is the writer's own choice. The reason is given above and below.

In April 1999 it was stated that the DSB site was visited by almost a million users per month, which must have been the number for March 1999, of whom 80% were using the travel planner part, i.e. $0.9 \times 80\% \sim 0.7$ million time-table user sessions per month in the first half of 1999. In the second half of 1999 it seems fair to assume at least $1.2 \times 80\% \sim 1$ million time-table user sessions per month, i.e. about 10 million time-table user sessions for all of 1999.

It remains to be proven by thorough analyses that the *net* saving is actually as high as DKK 15, although this amount is only half of what may be the full cost of a telephone or personal time-schedule enquiry (which cost DSB DKK 30 each). The writer believes that it may very well be that less than half – maybe for example only a third - of the timetable user sessions are actually substituting telephone or personal enquiries.

Figure 4.9 A break-even chart for DSB InterNet



Source: Table 4.2

The graph shows that by the end of 1999, DSB will have made gross savings of at least DKK 177 million (or more, optimistically) from an investment of DKK 47 million. So, the net savings for DSB over the period 1996-1999, both years included, could be DKK 130 million (almost \$20 million), even as a *somewhat* (but not necessarily *very*) conservative estimate. In any case, accumulated net savings seem certain to exceed DKK 100 million by the end of 1999, and the website has been a tremendous success for DSB in this respect. Additionally, there has certainly been and still is an unquantifiable value of the image boost, which DSB has been given by being in the forefront of the Internet commerce field in Denmark.

The net savings estimate is totally dependent on the assumed saving per Internet timetable user session. Whether one in two of these sessions substitutes a telephone call (and the saving is therefore $\text{DKK } 30/2 = \text{DKK } 15$ per session), or it is one in three ($\text{DKK } 30/3 = \text{DKK } 10$) or it is less than that (e.g. $\text{DKK } 30/4 = \text{DKK } 7.50$) directly determines the assumed accumulated net savings. Since the resulting total numbers in terms of accumulated net savings are so large, this issue (determination of a more precise savings figure per Internet timetable user session) easily justifies deeper research and analyses.

DSB is one of the very few online players within travel and tourism and indeed almost any other industry to believe that Internet sales, albeit for a limited part of its product portfolio, could reach a level of about 35% within three years. This would correspond to about three million trips sold over the net out of a total of about nine million long-distance domestic trips, which is more than 40 times the 1998-level.

From a starting point of less than 1% this writer believes that is too optimistic to expect to be able to sell about 35% of long-distance trips in only three years. Certainly, the matter deserves some really thorough analysis and there could be many reasons why Internet sales of long-distance tickets will remain far below the 30% mark for many years to come.

Some of these reasons are the following:

- The still limited number of frequent Internet users, even in the foreseeable future.
- The fact that it is also rather convenient to go to the counter at the railway station and buy your ticket just before you travel, since in most instances there are free seats available.
- Many travellers may in fact not find it particularly convenient to reserve a seat and purchase a ticket by computer several days ahead of the trip, either because they do not want to purchase anything via computer or because their travel plans are made only a short time ahead.
- There are many more telephone users than Internet users (i.e. penetration of stationary and mobile phones is much higher than penetration of the Internet). Telephone sales of rail tickets has existed for many year, and currently accounts for 10% of long-distance domestic (and international trips). It seems unrealistic to expect that Internet sales can reach a level which is three or four times that of telephone sales in just three or four years, although Internet as a communication medium give the uses some advantages compared to the telephone, such as not having to wait in a cue.

The writer believes that it would be more realistic to hope to sell between 15% and 20% of long-distance domestic rail tickets via the Internet, not in three years by 2001, but in four years by 2002. With the current level of traffic this would correspond to about 1.5 million trips in the year 2002.¹¹³ And it would be a great achievement to reach this target.

113 With a possible increase in long-distance traffic from the 1997 level of 8.7 million trips to perhaps 10 million long-distance domestic trips in the year 2002, the mentioned percentages would correspond to expected sales of 1.5 to two million trips. With 1.5 trips sold per booking that would translate to at least one million bookings via the net, which would also be a dramatic increase compared to the 1998 level of just under 50 000 bookings. A 20-fold increase in four years seems achievable.

4.6 UK railways on the net

4.6.1 Railtrack

Railtrack PLC has 11 000 employees and owns the basic rail infrastructure in the UK and is responsible for building and maintaining it. Railtrack hosts an Internet-based timetable covering the whole of the UK.¹¹⁴ The various train operating companies in the UK then link to the Railtrack timetable from their respective websites.

A survey shows that during the period October 1997 to June 1998, *the users of the Rail-track site tend to be slightly older than the average Internet user*, which may indicate that the travel information is being used to plan actual trips, and is not just being retrieved for fun.

As for other international connections, connections from, e.g. Paris or Brussels, can be found to all destinations in the UK. But the cities served by Eurostar seem to be the only ones on the continent which the Railtrack Internet timetable information service covers. Therefore, it is not surprising that more than 80% of its users are from the UK. The rest must be made up of those foreigners who are planning a trip to the UK.

Eighty percent of the users of the on-line timetable are men, reflecting the fact that men generally predominate among Internet users; men may also be travelling somewhat more than women. Almost half of the users have found the Railtrack site via a search engine. Eighty percent of the visitors found the timetable service to be either good or excellent. About half of the timetable users look at the timetable once a month. Information about fares is the most important missing feature, whereas a booking feature is not on the top 10 list of improvements desired by the users.

Sema Group provides the rail information web services of railtrack.co.uk. In 1998, this web site serviced 40 million international train journey enquiries on the UK timetable.¹¹⁵ (This is eight times as many enquiries as Danish Rail received during 1998 on their site).

4.6.2 North Western Trains

North Western Trains is one of 25 Train Operating Units in the UK (see Appendix 4.1).¹¹⁶ It carries 2% of the train passengers in the UK, and works 3% of the passenger-kilometres. The average rail trip on North Western is too short to justify seat reservations. But it was

114 <http://timetables.railtrack.co.uk>.

115 UIC, 1998, Second Worldwide UIC Internet Club meeting on 22-23 October, CD-ROM.

116 www.railinfo.freemove.co.uk/privatisation/summary.html.

the first railway website in the UK to offer real-time information on train running.¹¹⁷ In the first five months since its launch, the North Western Trains Internet web site <http://nwt.rail.co.uk> was visited 200 000 times.

4.6.3 TheTrainLine - in association with Virgin Trains

The two Virgin Train operating companies, West Coast and Cross Country, carry 3.3% of UK passengers and work 15.4% of the passenger-revenue-km.¹¹⁸ The average length of trips by Virgin trains is relatively long (almost 200 km), seat reservations are possible, strongly recommended, and free of charge when purchasing a ticket for one of Virgin's trains. Given the length of trips and Virgin's share of passenger-km in the UK, Virgin's interest in entering the online rail ticket field is easy to understand, and in fact no other group of train operating units in the UK seems better suited to enter this field, except perhaps Eurostar, in which both Virgin and National Express have stakes.

As the only bidder in connection with rail operating privatisation in the UK, West Coast Trains had as one of its Franchise Plan Commitments the introduction of a facility to reserve or purchase tickets via the Internet by 30 Sept 1998. Due to technical difficulties, a derogation was granted until 30 Sept 1999 for full implementation.¹¹⁹ However, in February 1999 it actually became possible for the first time to make online *bookings* of tickets and seats, not only of tickets for trains operated by Virgin, but of tickets for *any train operator in mainland UK*. On TrainLine it is possible to book any kind of train travel, whether business or leisure, except Sleeper, Motorail, Eurostar and ferry services. TheTrainLine offers only tickets which are available at the time of the enquiry. Payment is by credit card via Internet (SSL encrypted) - or by phone. Tickets are posted (within the UK only) or can be collected at one of 22 Virgin Train stations. Virgin receives a 9% commission from the other train operators when selling tickets for their services on-line.¹²⁰

The Virgin Group as a whole (with a total of 20 000 employees) is investing heavily in Internet commerce: £50 million, including TheTrainLine site. A big investment has also

117 Hot News Article. Article Ref: Submitted: 11:17:39 30/1/98. Rail Web Site Hit: 200,000 Times!

118 And - less flatteringly - receive 30.5% of written complaints, cf. Appendix 4.1. The announcement of the new Internet train ticket service came on the same day (in late February 1999) that train companies were expecting a dressing-down for their poor performance from the government at a rail summit, according to the BBC Online Network, 25 February 1999. Supplementary information about Virgin Trains: www.railinfo.freereserve.co.uk/companies/virgin.html

119 http://www.opraf.gov.uk/docs/bulletin/10/West%20Coast/west_coast_trains.htm

120 Price example: Edinburgh-Paignton, one-way. By train, £89 (standard open). Comparison: By National Express coach, £42 less 10% for Internet bookings (economy single).

been made in a train ticket telesales project.¹²¹ For comparison, British Airways is also talking of a figure of tens of millions of pounds for its Internet investment (see above).¹²²

4.6.4 Eurostar

Currently it is not possible to book tickets via the Eurostar website. But it would be a very relevant function to establish, since trips by Eurostar are fairly long,¹²³ and tickets are typically bought well in advance with a seat reservation. For Eurostar UK the Internet is thought to have *limited scope in the short term* - and is given only third priority after GDS sales and corporate Intranet capability.¹²⁴

In Belgium Eurostar tickets (like those for other trains) can be booked off-line by e-mail on the Belgium Rail site (www.b-rail.be). Booking requests are handled by a call centre. In France, Eurostar tickets can (probably?) be booked on the SNCF (French Rail) site, but only by French people.

4.6.5 National Express - trains

National Express Group PLC has franchised five of the 25 UK train operating units, and has a stake in Eurostar UK. Total sales were \$1.87 billion in 1997, and the Group has 15 200 employees. Its train service accounts for 67% of its sales; buses 15%; *express coaches* 15%, and airports 3%.¹²⁵ One of the train operating units of the National Express Group is Midland Mainline, which became only the second UK train company to offer real-time train running information on the web, and the *first* to give details of both departures and arrivals at every station on the route. This information is updated every 60 seconds. Midland Mainline carries 1% of the train passengers in the UK, and works 2% of the passenger-km. The modest share of passengers makes it hard to justify any big investments in Web booking solutions for Midland Mainland alone, and the rest of the UK train operating units of National Express perform mainly rather short trips, which do not lend themselves to pre-bookings via the Internet or other channels.

121 http://news.bbc.co.uk/hi/english/sci/tech/newsid_285000/285300.stm

122 Machlis, Sharon, 1999, *British Airways plans more on-line sales*, On-line News, 03/08/99, www.computerworld.com/.

123 About 420 km on average: 360 km from London to Brussels or 480 km to Paris.

124 Tomlin, Paul (Eurostar UK), 1998, *GDS technology for rail*, www.firstconf.com/c48/paul.html, March.

125 www.opraf.gov.uk and www.industrystandard.net/

4.7 North American railway websites

4.7.1 Amtrak, USA

According to www.100hot.com/travel, the Amtrak website gets many page views, since Amtrak ranks as number 23 on this particular travel hit list (18th August 1999).

The Amtrak timetable does not give connections between all city pairs, such as between Kennedy Airport, which appears on an alphabetic list of stations, and Miami: *The service you have requested for your first city pair cannot be booked through Amtrak Reservations online*. But six connections between New York-Pennsylvania (NYP) and Miami were found.

It is possible to check arrival information for trains, which have already left. For example, the train which left NYP *yesterday* at 7:45AM was to arrive at Miami at 12:07PM *today*. But according to the train arrival information given on the Web that particular train was running 3 hours late. This information is certainly relevant for anyone who is going to pick somebody else up at the station.

Normally one would of course look for times of trains leaving sometime in the future. For example, one may see that three of the trains from NYP to Miami later today and tomorrow are sold out, some direct and some via Washington DC. Registered users may check prices. For example on the leg from Washington DC to Miami the basic rail ticket costs \$102, but the associated accommodation in a standard bedroom costs twice that amount, namely \$203, i.e. \$305 in total for a one-way trip. Europeans would probably expect the price of the sleeping place to be a lot cheaper than the basic ticket itself, but that is of course a commercial, not a technical matter.

More complex connections, for example a three leg trip from New York to San Francisco, can also be found in the Amtrak timetables. The technical solution is developed by Equant, who have also made the solution for Canadian Rail and for the Eurostar service through the Channel tunnel. The website of the latter has no booking function, however.

Late in 1998 Amtrak started giving incentives for placing orders over the net, namely in the form of discounts. Amtrak was most probably the first train operating company in the world to start giving incentives for Internet bookings, and to the writer's knowledge no other railway has followed Amtrak's example.¹²⁶ The initiative is obviously inspired by some of the airlines in America.

126 Press release, 5 November 1998, www.amtrak.com/news/pr/.

4.7.2 VIA Rail, Canada

The Canadian national railway company is VIA Rail, which claims to have been *the world's first railway company to provide interactive on-line access to its timetables and fares, followed by ticket reservation and payment* - as does Swiss Rail. VIA Rail has been updating its *interactive VIA Resernet system*. It has replaced its main reservation system, and therefore had to re-develop VIA Resernet.

VIA Rail has introduced a Frequent Traveller Program, with an associated card (VIA Preference), with which it is possible to earn bonus points for every dollar spent on VIA Rail tickets, not necessarily bought through the Internet. The points can be spent for free travel throughout Canada. VIA Rail is to the writer's knowledge the first and so far only railway in the world to introduce the FTPs known from airlines into rail travel. No extra points are given by VIA Rail for Internet bookings, but this is of course a possibility now that the card has been introduced. In future more functions may be added, such as choosing the seat, reserving sleeping-car accommodation, customer profile, etc.

In August 1998 VIA Rail counted 66 000 user sessions on its website all in all, whereas 40 000 or 60% of the user sessions were counted within the fields of timetables and bookings, which in fact led to 2300 bookings (tickets issued). The number of timetable user sessions in relation to the number of bookings was as impressive as only 17:1 (or 29:1 if bookings are seen in relation to the total number of user sessions on the site). Forty-two percent of the users were Canadians, and average user session length was about 10 minutes.

4.8 Some other railway sites of the world

Most other railways of the world either have more or less interactive timetables or at least some simple timetables on the web. Interactive timetables can be found for example in the CIS, the Baltic States and Taiwan.¹²⁷ Those of Australia, New Zealand, China, India, and Japan (whose Shinkansen *bullet trains* currently hold the world speed record¹²⁸) are non-interactive, but they are there. For the latter two countries only a few connections are shown, though.

And what about Trans-Siberian time schedules? Yes, several possibilities are open here. You can buy a package trip of more than three weeks, one-way from Moscow to Beijing.¹²⁹

127 <http://gamayun.physics.sunysb.edu:8080/5/> (former USSR);
<http://www.railway.gov.tw/taiwan/tai4ae-2.html>.

128 <http://www.railgaz.co.uk/archive/speed.htm>.

129 <http://www.trans-siberian.co.uk/> for a package. Prices range from £275 for a nine-day package to £1850 for a 22-day package. On the CIS Rail site mentioned in the previous note, schedules for the direct train may easily be found.

Or you can plan the trip yourself by using the *CIS Rail* timetables mentioned above. For example you can go directly from Moscow to Vladivostok, which will last a little more than six days for the 9300 km. The only problem is what to do there, so maybe one should rather take the direct train to Beijing via Mongolia instead (7661 km, five and a half days) to which could be added the trip from Berlin to Moscow (1912 km, one and a half days of travel time unless you fly that bit). And then after a few days' break one could take the *high speed* train from Beijing to Hong Kong (which will take three days - 2370 km),¹³⁰ and then fly back via London. The booking of the Trans-Siberian package can be made by filling in a form on the web, and then sending it as an e-mail to the organiser. If arranging your own itinerary you would buy the trip from a travel agent with a good knowledge of both Russia and China - and there would probably be a few questions you would like to ask the travel agent before making the booking.

4.9 Final discussion

In terms of actual Internet sales (for the year 1998) there is little to say about most of the European railway operators. So, in the table below Danish Rail is shown along with the two North American passenger railway operators, Amtrak and VIA Rail.

130 <http://minyos.its.rmit.edu.au/~tbmlc/btchina/> - <http://severn.dmu.ac.uk/~mlp/beikow.html>

Table 4.3 Internet bookings with three railway companies (1998)

	DSB, Denmark	Amtrak, USA	VIA Rail, Canada
Internet bookings per month	3900	7000 (FY'98)	2000
Web visits per month (in timetable/reservation part only)	420 000	?	46 000
No. of timetable user sessions per Internet-booking	107	?	18
Internet bookings per year	46 700	84 000	23 500
No. of segments per Internet booking	1.5	3.0 (or 1.7?)	1.7
Segments (trips) booked via net per year	70 000	253 000 (or 143 000?)	40 000
Internet sales per year, \$ (1998)	3.1 mill. (DKK 20 mill.)	12 million (FY'98)	1.32 million (CAD 2 mill)
Value per Internet booking	\$67 (DKK 429)	\$143	\$56
Value per segment (single trip) booked over the net	\$45 (DKK 286)	\$47.40 (or \$84 ?)	\$33
Long-distance single trips p.a. (all channels)	8.3 million (long domestic)	21.1 million (All trips are long)	3.8 million (All trips are long)
Percentage of long-distance trips sold via net (1998)	0.8	1.2 (or 0.7 ?)	1.15
Total turnover (all channels)		\$1 billion (FY'98)	\$126 mill.
Average price/trip (all channels)		\$47.40	\$33
Internet \$ sales as percentage of whole		1.2	1.15

Sources: Interview with DSB and published 1998 data (by month or full year) from/about Amtrak (press release, 16 September 1998) and VIA Rail (UIC Internet Club meeting, Paris, October 1998 + e-mail correspondence re. no. of segments per booking).

According to its press release of 16 September 1998, Amtrak got an average of 7000 Internet bookings generating \$1 million in revenue per month, i.e. as much as \$143 per Internet booking. The average price of a single trip (segment) sold by Amtrak was \$47.40 in FY'98. This means, that if the average overall segment price applies to Internet bookings, then three segments are sold per Internet booking (which is a lot more than for VIA Rail in Canada, which sells only 1.7 segments per Internet booking). The other possible explanation is that the \$143 per Internet booking covers only 1.7 segments on average, costing as much as \$84 per segment.

These considerations mean that the share of the Internet for Amtrak measured on number of segments sold may be either 0.7% or 1.2% (or something in between) - depending on which of the above two explanations is right. But in any case, the Internet dollar sales as a percentage of all Amtrak passenger revenue (1.2% for fiscal year ending 30 September 1998) cannot be questioned.¹³¹

The number of Internet bookings received by Amtrak is almost twice the number received by DSB (Danish Rail) - which is probably the railway in Europe which received the great-

131 And furthermore, Internet bookings with Amtrak will be somewhat higher in the calendar year 1998 than in the fiscal year 1998.

est number of bookings via the net in 1998, and certainly the greatest percentage of Internet bookings. Furthermore, the average value of each net booking is twice as high for Amtrak than for DSB. Thus the Internet sales value is about four times greater for Amtrak than for DSB.

All three railways in Table 4.3 sold about one percent of all their (long) trips via the net in 1998.¹³² The Internet sales percentage of German Rail is not known, but it is most likely considerably less than 0.1% (of long trips) in 1998. For Swedish Rail the Internet sales percentage was about 0.1% (of long trips), and for Swiss Rail much smaller.

So, as far as direct sales of railways tickets over the net are concerned, Amtrak is leading both in absolute and relative terms (i.e. percentage of passenger revenue generated through the Internet). DSB was number two in absolute terms, and VIA Rail number two in relative terms. In 1998 the railways in Table 4.3 probably constituted the top three world-wide as to Internet sales of rail tickets, both in absolute and relative terms.

Table 4.4 Internet websites as ways to gain competitive advantage - via cost savings or positive differentiation (more orders)?

	Additional orders	No additional orders
Cost savings, break-even reached	DSB, Denmark	(Maybe SJ, according to writer)
Cost savings, not break-even		SJ, Sweden SBB, Switzerland
No cost savings		DB, Germany

Mobile phones have a very high penetration - as does the Internet - in all the Nordic countries (see Table 4.5). For comparison the Internet penetration for each of the European and a few other countries is also shown in the same table. The correlation between mobile phone and Internet penetration is highly significant.

132 For Amtrak and VIA Rail all trips are assumed to be long-distance - and relevant in connection with Internet bookings. Since the average length per trip with Amtrak is as long as 414 kilometers, and 378 km for VIA Rail, this seems a very fair assumption.

Table 4.5 Penetration of mobile phones by total population, 1996 and 1998 - supplemented with Internet penetration figures for 1998

Country	Mobile 1996	Mobile 1998	Index ('96=100)	Internet 1998	Country	Mobile 1996	Mobile 1998	Index ('96=100)	Internet 1998
Finland	29%	46%	159	35%	Switzerland	9%	17%	189	12%
Norway	29%	41%	141	14%?	UK	12%	16%	133	16%
Sweden	28%	41%	146	27%	Ireland	7%	16%	229	11%
Denmark	27%	31%	115	22%	Netherlands	7%	13%	186	8.3%
Iceland	18%	N.A.		45%?	Spain	8%	12%	150	6.6%
Italy	11%	24%	218	4,1%	Germany	7%	12%	171	8.7%
Luxembourg	11%	19%	173	N.A.	Belgium	5%	12%	240	4-14%?
Portugal	7%	18%	257	1.9%	France	4%	12%	300	5.2%
Austria	7%	18%	257	5.5%	Greece	5%	9%	180	1.0%
USA	16%	~26%	~163	28%	Australia				23%
Canada	7%	~21%	~300	26%	New Zealand				16%
Japan	15%	~31%	~207	9.6%	Singapore				15%

Source: <http://www.eto.org.uk/eustats/penetr.htm#mobiles> (for mobile phones).

http://www.nua.ie/surveys/how_many_on-line/ (Internet penetration figures as available end of 1998).

Note: The Internet penetration figure for Norway seems too low, and the one for Iceland too high. Published figures for Internet penetration in Belgium vary.

Given the data in the table it is easy to understand that both Danish Rail, Swedish Rail, Swiss Rail, German Rail and other railways (Finnish, US) as well as airline-related organisations in several European countries (e.g. TISS of Germany¹³³) are thinking of how to utilise both these communication media as different channels for distributing the same data. In Switzerland cable TV will also be utilised as an information distribution medium by the railway operator.

133 www.tiss.com (Travel Information Software Systems GmbH, Mr. R. Weissmann). TISS is further described in www.europe.ibm.com/nc/customer/case17x.html.

5. Booking road and sea transport services over the net: Express coach tickets and car rentals - with deep discounts - and booking the ferry

One thing car rentals and express coach transport have in common is that both sectors are road based. But they operate in entirely different parts of the market. Car rentals are air-transport related and up-market, whereas coach transport is at the other end of the price spectrum, even below rail transport. As far as the Internet is concerned, car rentals and express coach tickets are some of the few travel and tourism products which can be bought on the Internet directly from the principals, with a discount.

5.1 Long distance scheduled express coaches

5.1.1 Introduction to long distance express coaches

As is the case for train travel only long journeys are of relevance for Internet reservations, and international trips are of particular relevance. Therefore operators of local transport (buses, subways, commuter trains), in and around cities need not be considered here.¹³⁴ In Europe - and in the rest of the world - few scheduled coach operators offer Internet reservations, be it for national or international trips.

The total bus and coach travel market in Europe is huge (more than £20 billion, \$33 billion)¹³⁵ - some state up to \$44 billion (probably for 1998), and it is estimated to grow by 4% p.a. until 2002.¹³⁶ However, in Europe only a small part of bus and coach revenue (between 2.4% and 3.4%, i.e. about 3%, vs about 8% in the US (see Appendix 5.1) is generated by long-distance scheduled express coaches. Furthermore, only part of the trips by long-distance scheduled coaches is bookable at all. In many instances, especially where domestic trips account for the majority of long-distance coach trips, places are (sometimes officially) secured anyway.

134 Examples: London Transport (www.londontransport.co.uk), Greater Stockholm Local Transport - with 1200 buses operating which makes it the third largest bus operator in Sweden (Storstockholms Lokaltrafik AB, SL, www.sl.se), or the Berlin public transport company BVG (www.bvg.de/en/index.htm).

135 Arriva plc, 1999, *The European Bus Market*, www.arriva.co.uk/passenger/index.htm. - For comparison, the US bus and coach market is worth about US\$ 19 billion p.a., about 8% of which is accounted for by long distance scheduled coaches, cf. Appendix 2.1.

136 Linjebuss AB, 1999, *Ideas for the future*, p. 6 of 10, in pdf-format at www.linjebuss.com/lbweb/home.nsf.

Some of the major private sector players in the increasingly deregulated and privatised public European bus (and train) travel market are:

- CGEA Transport, owned by Vivindi, France (11 000 buses, 2500 train carriages, 28 000 employees, 600 million passengers);
- Via-GTI, another (large) French private operator of public transport (owned by Paribas, www.paribas.com);
- Stagecoach plc (12 000 buses, 5000 railway units, 32 000 employees);
- National Express plc (15 400 employees, but just 12% of revenue - or £164 million (\$272 million) - is from the continuing long-distance coach operations, cf. Figure 5.1),¹³⁷
- Arriva plc (8800 buses, 20 000 employees);
- Go-Ahead plc (2400 buses, 8500 employees, 400 million passengers);
- Metroline plc, based in London (900 buses in total - including Scottish Citylink with 75 vehicles, 2500 employees, 150 million passengers p.a.).¹³⁸

5.1.2 Long distance scheduled coaches in Sweden: Svenska Buss

In Sweden there are 13 000-15 000 buses, carrying about 625 million passengers p.a. on scheduled routes (part-trips, segments). Revenue generated was SEK 8.5 billion on scheduled routes (68%) - including SEK 300 million on long-distance scheduled routes (\$38 million, 2.4%) - plus SEK 2 billion by non-scheduled tourist buses (16%), and SEK 2 billion by non-scheduled school bus traffic (16%), i.e. SEK 12.5 billion in total (\$1.6 billion).

Long-distance scheduled buses in Sweden carried about three million passengers on about 75 routes in 1997 and generated SEK 300 million in revenue. This means that only 0.5% or *one* in every 200 scheduled bus trips are long-distance (at least 100 km - whereas 5%-10% of rail trips are long-distance). However, the long-distance trips (100 km+) generated 3.5% of the revenue generated by *scheduled* buses in Sweden in 1997 (vs typically about 50% for train operators) - or 2.4% of *total bus revenue*. This situation - with the vast majority of bus trips being short and therefore not of relevance for Internet reservations - is

137 www.hemscott.com/EQUITIES/company/cd02380.htm. Scottish Citylink, which was sold to Metroline generated £14 million in 1997. This largely corresponds to Scottish Citylink, which had £12 million in revenue in the financial year to 31 December 1997, according to www.metroline.co.uk.

138 Some revenue figures of the major private sector players involved in buses and trains are presented in Appendix 5.2.

no doubt also true for bus trips in other European countries.¹³⁹ Furthermore, most long distance trips by scheduled buses are *domestic*, which is no doubt also true for other countries.¹⁴⁰ This also contributes to limiting the scope for Internet reservations for bus travel, since pre-booking is more often required for international scheduled bus trips than for national ones.

In Sweden, which is a country of great geographic extent, with fully deregulated express coach traffic as of 1 January 1999,¹⁴¹ and with tremendous Internet penetration, there is only one player which offers Internet reservations, Svenska Buss.

Table 5.1 Some bus operators in Sweden - with long-distance routes - and their websites

Name	Owner	Buses in Sweden	Employees in Sweden	Website	Booking
Swebus	Stagecoach, UK	3046	6200	www.swebus.se and express.swebus.se	No
Svenska Buss	Swedish consortium			svenskabuss.se	Yes
Ybuss AB	Swedish owned			www.ybuss.se	Not yet
Eurolines Sweden	Swedish owned			www.eurolines.se	No
<i>Not long lines:</i>					
Linjebuss (CGEA Transport AB)	CGEA, France (www.vivendi.fr)	1800	3500	www.linjebuss.com	No
Total in Sweden		13-15000	30 000, total 25 000, in man-years		

Relatively few of the buses are operating on long-distance scheduled routes, probably about 200 on average over the week, i.e. 1.5% of the buses, and these generate about 2.4% of the total revenue generated by buses in scheduled and non-scheduled traffic in Sweden.

139 www.bussbranschen.se/statistik.htm, *Statistics about the Swedish Bus Industry 1998* (in Swedish, 21 pp.), published in pdf-format by the The Swedish Bus and Coach Federation (BR). According to a national Swedish travel habit survey (RVU), also referred to by BR, the shares of various means of transport for 59.2 million long trips of at least 100 km were as follows in 1997: car 72%, train 8% (~4.7 million 'trips', which - perhaps due to differences in definitions of a trip - is considerably less than the no doubt accurate 14% share mentioned by SJ in its annual accounts 1998), bus 7% (4.3 million, scheduled and non-scheduled), scheduled flights 7%, charter flights 2%, sea travel 3%, other means of transport 1%.

140 Of 8 million long-distance *international* trips made by Swedes p.a. (by any means of transport), 0.8 million are made by bus. Clearly many of these international bus trips were undertaken by non-scheduled tourist buses - leaving relatively few for international scheduled buses.

141 www.bussbranschen.se/press281298.html, press release from The Swedish Bus and Coach Federation (BR) on 28 December, 1998.

Comments to Table 5.1:

1. With Swebus it is not possible to make reservations, but places in the bus are guaranteed anyway.
2. With Svenska Buss, which operates in middle and southern Sweden, reservation is mandatory, at least on some routes. Svenska Buss has a booking request function (as a form on the web, which can be submitted and retrieved as an e-mail).
3. With Ybuss, which operates in northern Sweden, reservations can be undertaken, but not (yet) via the Internet.
4. With Eurolines Sweden booking is mandatory, but cannot be undertaken via the net!

Svenska Buss is a consortium of seven Swedish coach companies. Svenska Buss runs services for 9 of the 75 long routes in Sweden (by an average over the week of about 24 coaches), i.e. about 12%, which approximately corresponds to its market share of the total market value of SEK 300 million p.a. (\$38 million). The number of passengers is 1.6 million p.a. for the market of which Svenska Buss carries about 200 000 (12.7%). Since the average price is about \$24 per single trip, the estimated total sales of Svenska Buss are \$4.8 million.

Svenska Buss started its Internet booking request function in 1997. In 1998 Svenska Buss received reservations for about 1.5% of its passengers via the net, and in 1999 about 3%. About 10 booking requests are received per day (by e-mail to a single/central e-mail-box), and the requests are normally also confirmed by e-mail.

The Internet revenue of Svenska Buss was about \$70 000 in 1998 (1.5%), and will be about \$140 000 million in 1999 (3%).¹⁴² A *real-time* online booking function is not planned for the near future.

5.1.3 Long distance scheduled coaches in Norway

In Norway the members of Norwegian Transport Operators (TL), which represent 90% of the market, have among them about 6800 buses, carry 350 million passengers p.a., employ 16 300 people, and have revenue of NOK 8 billion (90% of the market = \$1.1 billion; 100%=\$1.2billion). Six groups of bus operators run 6100 buses in Norway, and employ a total of 10 900 people.¹⁴³

In Norway booking is mandatory with Nor-Way Bussekspress on international routes, but the booking cannot be undertaken via the Internet! On national routes no booking is re-

142 This number can be verified or calculated as follows: For example 8-10 Internet bookings per day (1999), 1.8 segments per booking, 365 days per year, \$24 per segment (single trip) ~ \$140 000.

143 www3.nho.no/transport/fakta/tabell4.htm.

quired, but places are guaranteed anyway. Nor-Way Bussekspress (www.nbe.no) co-operates with Eurolines in the field of advance bookings on international routes.

Links to 20 functioning bus operator sites in Norway may be found.¹⁴⁴ On only a single one of these can reservations be undertaken for scheduled routes, namely for the Express 2000 service, which with its 2000 km (in 31 hours) is Europe's longest combined passenger and cargo bus route, going from Oslo via Sweden and Finland to Nordkapp.¹⁴⁵ Already in 1998 3%-4% of the bookings for this route were received via the Internet, but unfortunately it will not be sold in 1999, since for part of the year (1999) the Internet-booking function had been out of order. This has been fixed now, and it may be considered to give the Internet-booking facility a more prominent position on the site, i.e. already on the entry page.

Apart from this route a couple of non-scheduled services can be booked on the net with other Norwegian bus operators.

5.1.4 Long distance scheduled coaches in Denmark and Finland

In Denmark there is just one operator, apart from the Eurolines representative (see Table 5.2) offering Internet reservations on a single one of its routes, actually the only route where reservation is required to secure a seat. For this single route, actually running between Copenhagen and the island of Bornholm (via southern Sweden) two or three reservations are received via the Internet per day.¹⁴⁶

In Finland there is an organisation called ExpressBus, which is a consortium of 30 express bus companies. ExpressBus has about 1000 employees and 200 buses. It has a website (www.expressbus.com) with timetables, but no Internet reservations can be undertaken, not even on the route Turku-Helsinki-St. Petersburg. On that route reservations are recommended, but have to be made by phone or fax. ExpressBus co-operates with Eurolines, since ExpressBus refers to Eurolines offices for reservations made from Western Europe.

With another Finnish bus operator, Onni Vilkas Ltd. (FIM40 million in total revenue p.a. ~ \$7.5 million, about 140 employees), reservations for the route Helsinki-St. Petersburg can be requested via the site www.onnivilkas.planet.fi/. Payment cannot be undertaken online. So far Onnivilkas receives very few Internet bookings (just one or two per day in 1999), but the number is increasing. Much of the travel on the route are by groups, and most of the reservations are received via travel agents, who typically provide the list of passengers to Onni Vilkas by fax. In future greater efforts will be put into Internet mar-

144 <http://kvasir.sol.no/no/biz/branch/trans/bus/>.

145 <http://sarah.trollnet.no/express2000/>. Prices provided in pdf-format (NOK2800, return).

146 www.graahundbus.dk/bestil.htm - Graahundbus is actually a direct translation of Greyhound.

keting, including design and basic things like getting the site registered in all relevant search engines, etc.

No other bus operator in Finland offers Internet reservations.¹⁴⁷

5.1.5 The UK and Germany

In the UK, National Express (Eurolines UK) is the only operator of long-distance national and international coach trips which can be booked via the net (see chapter 5.1.7).¹⁴⁸

However:

- www.speedlink.co.uk (actually also run by National Express) has a special Internet offer: pay £15 instead of £17 if you book your Heathrow-Gatwick or Gatwick-Heathrow trip on the web. Payment is by credit card. Internet bookings have to be undertaken four days before the trip to receive the coach tickets by mail in time within the UK, 11 days before elsewhere.
- www.airbus.co.uk offer Internet reservations of the Airbus *hotel* shuttle, with payment by credit card.

Furthermore:

- www.busabout.com/ offers passes for unlimited travel between 60 European cities and towns. These can be booked on the net, and paid for by credit card.
- www.m-line.co.uk offers holiday packages from Scotland to Disneyland Paris, which can be booked via the net, but obviously this is not a standard scheduled international coach service.

In Germany there appears to be no other international scheduled bus operator (on the net) than the Eurolines member mentioned in Table 5.2, and this operator does not offer Internet bookings.¹⁴⁹

5.1.6 The Eurolines organisation

Eurolines is *Europe's largest and best-connected scheduled coach operator*. It connects over 500 cities in 25 Western and Eastern European countries. The Eurolines organisation consists of more than 35 European bus operators, which work independently of each other towards a common goal: one European bus route network - with high quality and low prices. The concept is similar to that of Greyhound in the US, which is a single corpora-

147 www.evreka.com/c/biz/branch/trans/bus/; www.annells.demon.co.uk/busstn.htm (links by country world-wide, e.g. Finland).

148 <http://travel.world.co.uk/coaches.htm> and www.pti.org.uk/docs/coach.htm. None of the members of the large UK-based Stagecoach group offers Internet bookings. Neither does Scottish Citylink Coaches.

149 www.deutsche-touring.com, cf. www.tii.de/index-oj.html (Busreisen) and www.annells.demon.co.uk/busstn.htm (Germany).

tion, however. The members of the Eurolines organisation carries 3.5 million passengers per year.¹⁵⁰ It must be assumed that this number mainly comprises international (single) trips, i.e. trips which are of relevance in connection with Internet reservations.

One would expect the Eurolines representatives to be at the forefront in Europe with respect to the possibilities of making Internet reservations, since in many countries the national Eurolines members seems to be the main - or at least one of the main - long distance (international) scheduled coach operators. All the national sites of Eurolines have been visited to check if reservations can be made at any of the national sites.

Table 5.2 National websites of the Eurolines organisation

Country	Website	Timetables	Reservations	Payment
1. UK	www.eurolines.co.uk or .nationalexpress.co.uk	Yes	Yes	Yes
2. France	www.eurolines.fr	Yes	Yes	
3. Denmark	.thinggaard-rejser.dk/	Yes	Yes	
4. Austria	www.eurolines.at	Yes		
5. Germany	.deutsche-touring.com	Yes		
6. Ireland	www.buseireann.ie	Yes		
7. Italy	www.eurolines.it	Yes		
8. Spain	www.eurolines.es	Yes		
	www.enatcar.es	Yes		
9. Sweden	www.eurolines.se	Yes		
10. Switzerland	.eurolines-schweiz.ch	Yes		
11. Netherlands	www.eurolines.nl	Only some		
12. Belgium	Only e-mail box			
13. Portugal	No site, no e-mail box			
W. Europe in total	11 of 13	10 of 13	3 of 13	1 of 13
+ 12 East European countries and Turkey	5 of 12 in Eastern Europe have functioning websites.	4 of 12	1 of 12	None

Note: In the case of Spain there are two members of the Eurolines organisation. The general site for the Eurolines organisation is www.eurolines.com, from which there are links to the national sites.

In 11 of 13 countries in Western Europe the Eurolines representative has a website. In all cases except one this comprises timetables. Only on three of these national Eurolines sites is it possible to make reservations. And only in one instance is it possible to make payments on-line.

About the Eastern European Eurolines sites:

- 1) The Polish Eurolines site includes interactive timetables. No booking function as such, but with the possibility to submit a relatively free-format enquiry from the website.
- 2) The Czech Eurolines site includes timetables. No booking function.

150 www.eurolines-schweiz.ch.

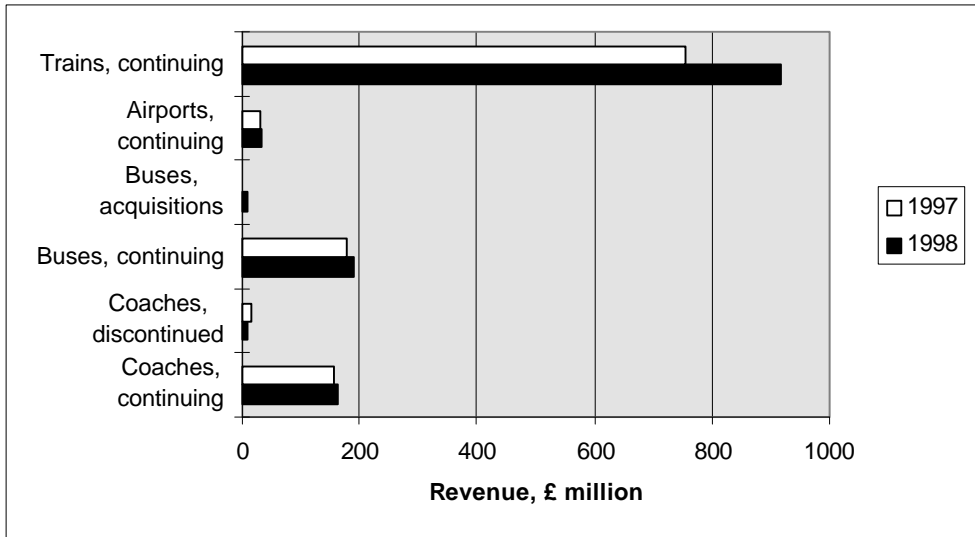
- 3) The Croatian site includes timetables (and it also includes Bosnian destinations), with chosen routes appearing on an interactive map. No booking function.
- 4) It appears to be possible to submit reservation requests on the Bosnian Eurolines site, but there appear to be no time schedules!
- 5) The Estonian Eurolines site includes some static timetables. No booking function.
- 6-7-8) The Latvian, Slovakian, and Yugoslavian Eurolines sites do not function.
- 9-10-11) Eurolines in Hungary, Romania and Turkey have no websites, but do have an e-mail box.
- 12) Eurolines in Bulgaria has no website, and no e-mail box.

Outside the auspices of the Eurolines organisation few other European bus operators offer Internet reservations, namely one major player in Sweden, a single (cross-border) route in Denmark, one (cross-border) in Finland, one in Norway (also cross-border), two airbuses in the London area (one of which is owned by National Express), and none in Germany. Given the high Internet penetration in the Nordic countries, Eurolines in Sweden and the associates of Eurolines in Norway and Finland ought to establish Internet reservation facilities as soon as possible. It would be convenient for those planning multi-destination international trips by Eurolines if there were an Internet-based timetable covering all the European countries and destinations serviced by Eurolines, not least since it is possible to buy a ticket (the Eurolines Pass) which is valid for a certain number of days covering all the countries. For a start the proposed timetable should cover the 48 cities in the 21 countries for which the pass is valid. Since the number of cities included is fairly limited, it should be quite simple to construct such an Internet-based timetable. It should of course be possible to buy the Pass as well as individual tickets as an integrated part of the proposed Europe-wide timetables.

5.1.7 National Express/Eurolines UK - coaches

The National Express Group PLC had 15 427 employees in 1997, and revenue was £1.13 billion (\$2.2 billion), which increased to £1.32 billion in 1998; 1) 69% of which was generated by train services; 2) 2.5% by airport services; 3) 15% by buses; and 4) 13% by express coach services.

Figure 5.1 Revenue structure of the National Express Group PLC



Source: Based on the annual accounts of the Group, 1998, www.hemscott.com/equities/.

National Express runs the UK's only national bus and coach travel network. Tickets can be booked on the site www.nationalexpress.co.uk, which is at the same time Eurolines UK. National Express has offered booking on its site at least since 1996, where it received the BT Award for Innovation in Electronic Commerce in the Internet category.¹⁵¹ Since then there has been a real-time link to the National Express Reservations System and the bank for credit card authorisations.

An additional remarkable fact to mention here is that from November 1998 to April 1999 National Express offered 10% off the price of coach tickets booked on the net for travel to/from or within the UK. The promotion started as a Christmas offer (in 1998) but was extended until further notice, and was still valid in April 1999. National Express/Eurolines UK is one of the very few passenger transport companies in the world (and perhaps the only one - apart from rental car firms, cf. below) which have ever given such great and direct incentives for Internet bookings. Example: Coach Copenhagen-London, no changes, one adult, open return, normal price £99. Web booking discounted fare £87.30 (~DKK 788).¹⁵² Payment is by credit card, the data of which are encrypted using the SSL standard for secure credit card transactions. Tickets have to be ordered one week

¹⁵¹ www.syncordia.bt.com/press/pr33.htm.

¹⁵² The same ticket Copenhagen-London return bought on the Danish Eurolines site (www.eurolines.dk), would cost as much as DKK 1045 (£116)! + DKK 100 for a sleeping place each way.

before departure for airmail from the UK to continental Europe. The route network of Eurolines covers much of Europe and seems to be an up-front competitor to rail travel.

As an additional promotion, from January to March 1999, those over 50 could travel anywhere around Britain on the National Express network with an Advantage 50 Coachcard (sold at £8 p.a.) for just £9.99 return - less 10% for Internet bookings. There is only one other European example from the passenger transport sector of discounts given for orders placed over the net. This is Europcar, which will be discussed in 5.2.2.

National Express (Eurolines UK) is set to reach £1 million in Internet sales in 1999 (\$1.6 million), up from £300 000 (\$500 000) in 1998.¹⁵³ The Internet investment of National Express was minimal, and had paid for itself several times by the middle of 1999.

5.1.8 Greyhound Lines, USA, Greyhound Canada - and Greyhound Pioneer Australia

A low cost competitor of Amtrak in the US is Greyhound Lines (the only nationwide provider of scheduled intercity bus services in the country). It has about the same number of passengers (single trips) per year as Amtrak, namely 22.6 million (1998), with an average length per trip of 540 km (vs only 414 for Amtrak) at a lower average price per trip (\$32 per bus trip vs \$47 per train trip). Greyhound Lines thus carries many more passengers p.a. than the entire Eurolines organisation (21 million vs only 3.5 million). The typical Greyhound passenger travels to visit friends and relatives. Greyhound Lines is based in Dallas, Texas and has 13 400 employees in the US and Canada, runs 2700 buses, and generated total operating revenues of \$846 million in 1998.

For comparison the continuing coach operation of National Express of the UK was £164 million (\$272 million), i.e. about a third as much as for Greyhounds Lines, and Scottish Citylink, the discontinued coach business of National Express, generated another £12 million (\$20 million) in the full year 1997. National Express + Scottish Citylink thus generated almost \$300 million in revenue p.a., which is 35% of Greyhound Lines. Since the population of the UK (59 million) only correspond to 22% of the population of the USA (267 million), it appears that the market leaders in the UK have a relatively strong grip of the travellers in their markets, even stronger than Greyhound Lines in the US.

The Greyhound site contains convenient interactive timetables. From May 1999 it has been possible to buy Ameripasses online (for a certain number of days: 7, 15, 30, 60) which are valid on Greyhound Lines. Online orders must be placed not later than two

153 The 1999 Internet revenue figure corresponds to about 0.22% of the total coach service revenue of National Express Group PLC. Two thirds of the revenue of the Group is generated by train services, and the remaining third by coaches.

weeks before the first day of travelling, and paid for by credit card.¹⁵⁴ By August 1999 Greyhound Lines had not yet started selling ordinary tickets via the net. The explanation could be that the typical Greyhound passenger has a relatively low income, and some are not Internet users. Students, who also have low incomes, are Internet users, but they may not have a credit card. And *The majority of Greyhound Lines' customers usually make the decision to take a trip only a short time before actually travelling and, for the most part, pay cash for their tickets on the day of departure.*¹⁵⁵ Greyhound plans to start selling point-to-point tickets through the Internet during the last months of 1999.¹⁵⁶

On March 16, 1999, the shareholders of Greyhound Lines, Inc. approved a merger of the company with Laidlaw, Inc. As a result, Greyhound is now a wholly owned subsidiary of Laidlaw Inc., Burlington, Ontario, Canada. Laidlaw had already acquired Greyhound Canada Transportation Corporation in 1997. Greyhound of the US and Greyhound Canada are thus different companies, but with the same owner. Greyhound Canada, is Canada's largest inter-city bus company, with 1750 employees, nearly 400 coaches, carrying more than 2 million passengers p.a., revenue of CAD 140 (US\$ 90 million) and has a website of its own with interactive timetables and associated prices, but with no possibility to buy passes or point-to-point tickets.

Down under totally outside the auspices of Greyhound Lines or Laidlaw there is a company called Greyhound Pioneer Australia Ltd which is the country's only national coach company. It has been operating since 1905, which is longer than Greyhound Lines in the US. Revenue for Greyhound Pioneer was AUD71.2 million (US\$ 44 million) in 1998. Greyhound Pioneer has recently split its operations into three divisions, one of which is e-Tourism Pty Ltd, which among other things will conduct the group's rapidly growing Internet retail business.¹⁵⁷ Greyhound Pioneer has a booking request form on its site.¹⁵⁸ The facility was not available in 1998 and has only been functional since the re-launch of Greyhound Pioneer Australia's new site in February 1999. The booking page receives on average over 1500 hits per month (1999), which varies by season, but the resulting number of Internet bookings is not tracked at the moment. At this stage Greyhound Pioneer Australia does not offer real-time booking facilities but will be able to offer this facility to its users in the near future. When the real-time booking facility is introduced, Greyhound Pioneer will be able to track revenue generated via the Internet more accurately.¹⁵⁹

154 Greyhound press release, 21 May 1999.

155 <http://www.greyhound.com/Company/reports.html> - 1997 10K Report.

156 Greyhound Today, July 1999, www.greyhound.com/Company/GHToday/1999/Jul99/index.htm.

157 McCarthy, John, 1999, *Greyhound streamlines*, Courier Mail (newspaper), 12 May, www.greyhound.com.au/mediareleases.htm. - In the spring of 1999 Greyhound Pioneer commissioned a new AUD2.5 million IT system called GYRO, the first application of which will be for seat reservations (cf. press release dated 30 March, www.greyhound.com.au/gyrolive.htm).

158 www.greyhound.com.au/bookingform.htm.

159 Mr. Aldwin Quizon, Market Research Officer, Greyhound Pioneer Australia.

5.1.9 Summary: Status and outlook in Europe and elsewhere for sales of tickets for and reservation of long-distance coaches on the net

The market value for travel by long distance scheduled coaches may be about \$1.4 billion in Western Europe (1998) with significant market growth expected. In the US and Canada, where the market for these services is at least as large as in Europe, sales via the Internet of this service were nil in 1998, since the market leaders had not yet started selling via the net, but the one in Australia had.¹⁶⁰ In Europe National Express in the UK did achieve some Internet sales already in 1998 (\$0.5 million), which will triple in 1999. To this can be added Internet sales of other European long-distance scheduled coach operators such as Svenska Buss in Sweden (almost \$0.1 million in 1998), Eurolines in France and Denmark and a few individual cross-border lines in the Nordic countries, i.e. about \$1 million in total.

Among those few players anywhere in the world in the field of long-distance scheduled coach travel by August 1999, National Express in the UK was still the one who had made a real-time link to internal reservation system. But before the end of 1999 Greyhound Lines in the US will have implemented a solution for point-to-point tickets, which one must assume will be fully integrated as well, and Greyhound Pioneer Australia will also be implementing an online real-time booking function in the near future. Internet sales in percentage of the total European market for long-distance scheduled coach travel were quite insignificant in 1998 (probably not much more than 0.05%, i.e. practically nothing), will remain rather small in 1999, perhaps staying below 1% for many years to come, in spite of the increases by players such as National Express and Svenska Buss, and a few operators of international coach routes in Europe (most likely from the Nordic countries). However, two qualifications should be made:

- 1) If looking at Internet bookings for *International* coach routes only, the Internet sales percentage would of course look much more favourable.
- 2) And if looking at all Internet bookings for national and international coach trips, it would be fairer to put them in relation to the *pre-booked* long-distance coach trips only, since the national long-distance coach trips (which account for most long-distance coach trips) are frequently not pre-booked (if pre-booking is at all possible or necessary).

160 <http://magellan.excite.com/travel/transportation/bus> and www.prairienet.org/~scruffy/bus.htm. - One regional scheduled coach service operator in Eastern Canada (SMT Bus) does have a ticket order facility on its site, www.smtbus.com/. - In the US tour coach market, the National Motorcoach Network does have a *request for coach charter quote* form on its site.

5.2 Car rentals

5.2.1 Brief introduction to the car rental industry

World-wide the car rental industry is heavily dominated by about 10 major US brands, cf. the following two diagrams and further details in Appendix 5.2.

Figure 5.2 Market shares by value in the \$16.4 billion US car rental market (1997)

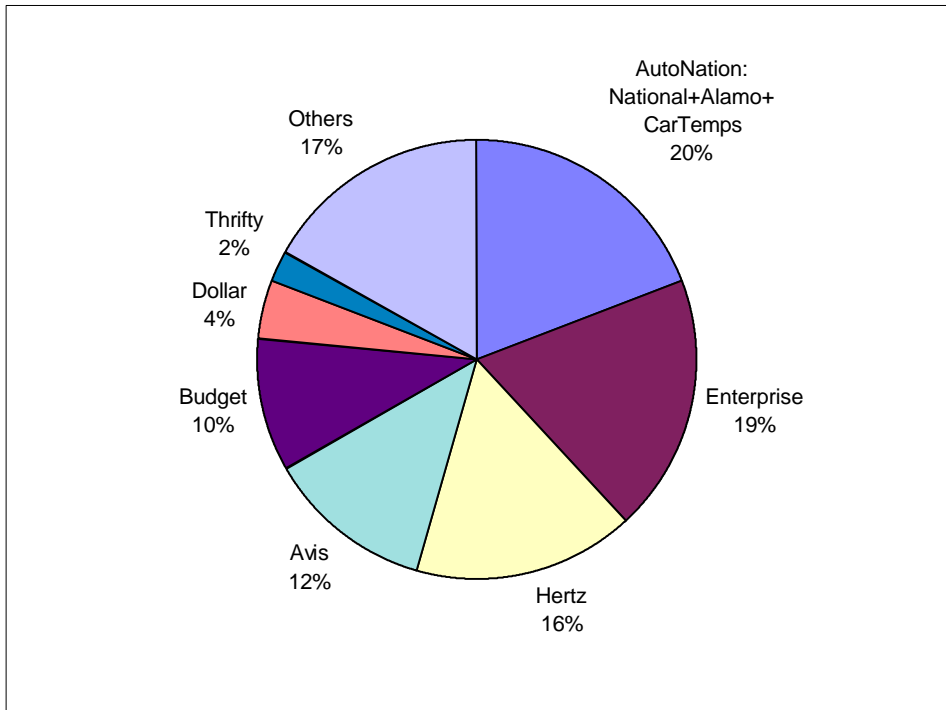
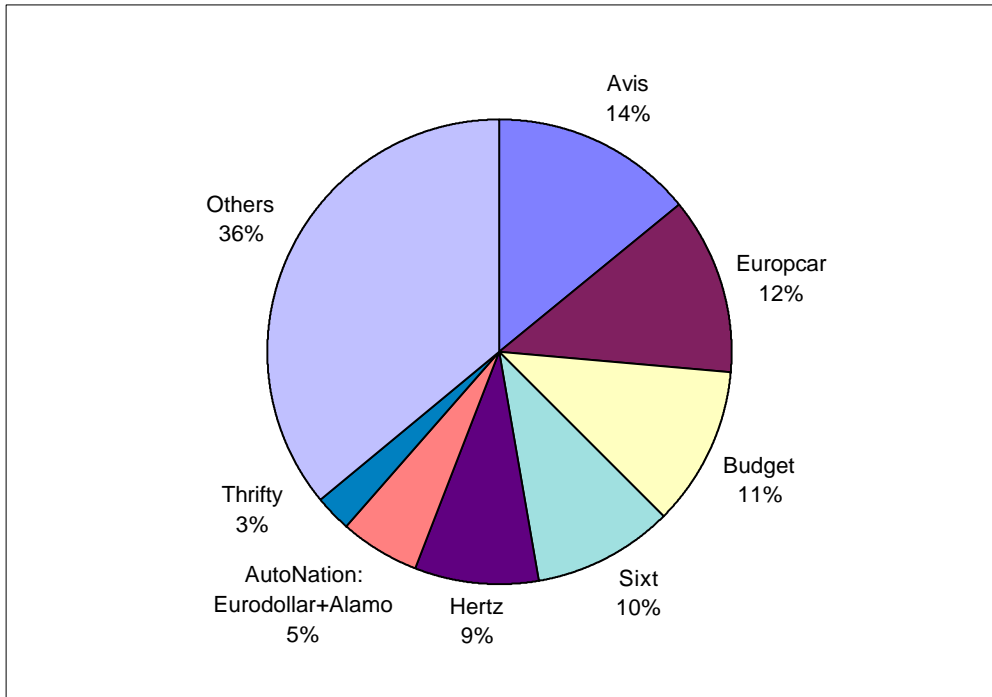


Figure 5.3 Approximate shares of the \$6 billion European car rental market (1997)



The car rental industry is closely related to air transport, about two thirds of the revenue being airport related. Since air transport (e.g. measured by passengers carried) is very important in the US, the car rental business is huge in the US, worth \$16.4 billion in 1997, of which Hertz holds a share of about 16%. Hertz is the No. 1 car rental company in the US and world-wide.

Hertz had car rental revenue of \$3.4 billion in 1997, globally. About 75% of this is from the US (\$2.56 billion), and 25% for international car rentals, with Europe accounting for the majority, perhaps 20% (up to 4/5 of the 25%), i.e. about \$684 million in car rental revenue in Europe in 1997. This makes Hertz number three in Europe. Avis Europe and Europcar are number 1 and 2 in Europe (with \$850 million and \$740 million in car rental revenue in 1997, respectively). Hertz, which gets 80% of its car rental revenue from the important airport-related rental business, claims to have a leading (30%) share of airport-based car rentals both in the US and Europe, but has provided no geographic breakdown of its global revenue. However, according to its own statement: *Hertz is the third largest equipment rental company in France*. In any case, the top three car rental companies in

Europe had car rental revenue of \$2.27 billion in 1997, i.e. 28% of the assumed market size of \$8 billion, which is certainly a maximum.

In the US the following car rental companies offer 20% off for Internet bookings:

- Hertz www.hertz.com
- Dollar www.dollar.com
- Alamo www.bnm.com/alamo.htm - www.goalamo.com

5.2.2 Europcar International - emphasising Europcar Germany

Europcar offers all-round car rental services. Europcar International, including Europcar Germany, is owned jointly by Accor of France and Volkswagen of Germany. Accor states that Europcar holds the number two position in the European car rental market.¹⁶¹ This confirms what was written in the previous section and shown in Figure 5.3 for the year 1997. It is Europcar's aim to become number one in Europe and it did make two acquisitions in 1998, namely British Car Rental and Trade Car AS in Norway.¹⁶²

The history of Europcar Germany (Europcar Autovermietung GmbH) goes back to 1927, which is longer than Europcar France which was founded in 1949. Europcar Germany has 1513 employees. With 420 stations in Germany (June 1999: 491) - out of a total of 2400 Europcar stations in Europe (+Africa and the Middle East) - Europcar has the tightest service network among the car rental firms in Germany.¹⁶³ Europcar Germany has about 26 000 vehicles (1998).¹⁶⁴ This great number of vehicles - seen in relation to the total number of vehicles (in 1997 and 1998) - as well as the fact that Europcar has more stations in Germany than it has in any other country, shows the importance of the German market for Europcar. Of all Europcar stations 80% are in Western Europe (Germany 20%, France 15%), 6% in Eastern Europe and Turkey, and about 14% in the rest of the world (Africa, Middle East/India).

The number of leased vehicles (i.e. the number of renting contracts or reservations) increased by 19% from 1997 to 1998 (from 3.7 to 4.4 million), and revenue increased by 15% (fww). The fleet now comprises 116 000 cars and trucks (up from 78 000 in 1997).

161 www.accor.com/finance/le_groupe/activities.htm (Profile and Car Rental).

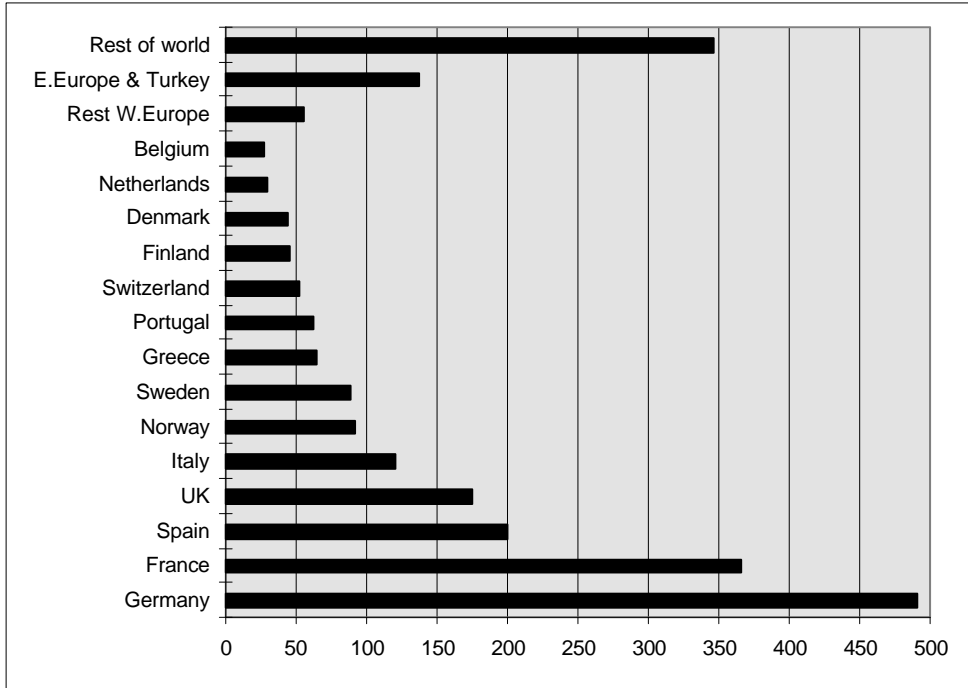
162 www.accor.com/.

163 For comparison, Sixt has 360 stations in Germany. Sixt appears to be Europcar's greatest competitor on the German market. Sixt claims to have the following market share in Germany, probably measured by car rental revenue: 1996: 4%; 1997: 29%; 1998: 31% (www.sixt.com). By this measure Sixt believes it is leading in Germany. According to www.fvw.de/ - 29 April 1999 - Avis holds a market share in Germany of 12.4%. Obviously Avis is a main competitors to Europcar, also in Germany. According to the fww source, Avis is developing a German website for direct Internet bookings.

164 www.sinner-schrader.de/proj_europcar_main.html.

Europcar is currently affiliated with Dollar Rent a Car in the US.¹⁶⁵ Europcar's largest markets in Europe, also by rental revenue, are Germany and France.

Figure 5.4 Number of Europcar rental stations by country (1999)



Source: Based on www.europcar.com, June 1999.

Europcar International has an integrated electronic reservations system called Greenway, which is linked to all the major GDSs (Amadeus, Galileo, Sabre and Worldspan) used by

¹⁶⁵ The agreement came into effect on 1 February 1998 (www.accor.com/ACCOR/english/3.htm). However, according to www.fvw.de, it appears that the agreement will end on 1 March 2000, and therefore Europcar is now looking for another US partner: (www.fvw.de/archive/member/news/data/news.924020931.8282.html; FVW, Autovermieter: Dollar wechselt zu Sixt).

travel agents and airlines.¹⁶⁶ Cap Gemini will be further developing the reservations system of Europcar International during the next five years (according to fvw).

The europcar.de site was opened in July 1998. It functions exclusively in German. It is possible to make reservations for cars with pick-up and return within Germany, but the site can of course also be used by non-Germans - provided they speak a bit of German - to make car reservations for their visit to Germany.

Europcar Germany gives up to 46% discount for Internet bookings. This is the deepest Internet discount known to the writer. Currently, there are very few examples of discounts for Internet bookings anywhere in the passenger transport sector in Europe or in the US. The 10% discount which the long distance coach operator National Express of the UK gives for Internet bookings is the only other European example from the passenger transport sector known to the writer. None of the top 20 North American airlines or train or coach operators (Amtrak, Via Rail, Greyhound) gives up front discounts for Internet bookings. *But two of the top three car rental companies (Hertz and Budget, but not Avis) did offer 20% discount for Internet reservations in North America.*¹⁶⁷

Apart from the discount mentioned above, Europcar Germany offers extra frequent flyer miles as an incentive for making Internet bookings. This is done in co-operation between Europcar and the Lufthansa Miles & More Frequent Traveller Programme. The initiative started on 1 April 1999.¹⁶⁸ From time to time extra miles will be given for Europcar Internet reservations. Furthermore, co-operation between German Rail and Europcar will be intensified. From the summer of 1999 the new commuter trains between Hamburg and Cologne will be fitted with Europcar reservation terminals (according to www.fvw.de). One would guess that this will be Internet-based in some way.

An Internet user who wants to rent a car in Germany can actually do this in one of two different ways: either by going through the general Europcar site, www.europcar.com, or by going to the separate German site, www.europcar.de. Let us try to make a reservation

166 www.europcar.com/english/is_email.htm. More about Greenway can be read at: www.sequent.com/customers/profiles/europcar.html (*Europcar. Sequent's NUMACenter Platform Streamline Operational Functions*, 13 April 1999: The resulting implementation is one of the largest centralised Oracle client/server database sites in the world, supporting more than 4000 workstations and 3000 concurrent users. It includes three distinct solutions: a revenue management system, a proprietary application known as Greenway, and an Oracle Financials migration). Some earlier material can be found at www.oracle.com.sg/corporate/press/html/europcar.html (3 April 1995, from a meeting in Italy of the European Oracle Users Group).

167 www.hertz.com; www.drivebudget.com; www.avis.com; www.avis-europe.com.

168 Press release from Europcar Germany, 7 March 1999, www.europcar.com/english/ps_e03n1.htm. This is a general initiative, not only relating to Internet reservations. Europcar International does have a Loyalty Programme for frequent drivers of its own, which is currently available to Belgian, French, Spanish and UK residents.

for *tomorrow* (Friday) for 24 hours from 9.00 a.m., pickup and return of the car in central Hamburg. First we try the europcar.com site, giving a variety of different countries of residence, and afterwards we try out the europcar.de site (the German one).

1) First the Europcar International site: to say the very least it makes a lot of difference what country of residence one states on the europcar.com rate information and reservation procedure, ranging from a high of DM 203 to a low of DM 113 for identical offers (see Appendix 5.4). While we keep wondering why there is such great difference in price for the same offer (data, car type, pick-up and return stations) to people from different countries of residence, let us go on to the europcar.de site.

2) Now the Europcar Germany site: the cheapest offer made by the europcar.de site is DM 54 for an Opel Corsa at EasyDrive rate + DM 43 for full hull insurance (collision damage waiver, CDW), i.e. *DM 97 in total* - for exactly the same car type (two-door economy, i.e. the Opel Corsa), same period and same pick-up and return station as above.¹⁶⁹ None of the above attempts on the europcar.com site gave as low a price. Those who access the europcar.de site can be confident that they are getting at least as low or lower rates as those who access the europcar.com site for Europcar rentals in Germany.

For the Opel Corsa it was stated on the euopcar.de site that it was not necessary to check availability. This is also the case for most other car types - irrespective of pick-up and return station.¹⁷⁰ But for two of the luxury cars types, availability has to be checked by Europcar Germany, who subsequently report back to the Internet user - irrespective of stations.¹⁷¹ This shows that the Europcar Germany Webserver is not directly linked to the Europcar Germany or Europcar International central computerised reservation system (Greenway). Internet reservations with Europcar Germany are on-line in the sense that they are undertaken via the Internet, but these Internet reservations are not preceded by a real-time check of the availability data (in Greenway).

Europcar Germany does gain a lot of new business via the Internet. The clients save time and money, and so does Europcar. Today customers expect a lot more from a car rental (or other travel) website than just a basic information-only site.

169 The next cheapest rate is DM 71 for a VW Polo + DM 43 for full insurance, i.e. *DM 114 in total*.

170 Including the first of thee types in the luxury class, the Mercedes E 240: *Für dieses Fahrzeug ist keine Prüfung der Verfügbarkeit notwendig*.

171 For the Mercedes E 290 TD and the Mercedes S 320: *Bitte haben Sie Verständnis, daß wir prüfen müssen, ob dieses Fahrzeug gemäß Ihrem Wunsch zur Verfügung gestellt werden kann. Wir werden uns in Kürze bei Ihnen melden*.

In future Europcar in Germany expects to receive 15% of its bookings via the net.¹⁷² The year in which Europcar hopes to achieve this is not specified - but one would guess that the goal is for around 2002 (plus or minus one year). Europcar Germany regards the Internet as something which is becoming *more important than anything else* within the European car rental industry.

5.3 European international ferry lines

5.3.1 Overview of European international ferry lines on the net

There are many European ferry lines with websites, of which we shall concentrate on 21 - all of which had already established websites in 1998.¹⁷³ In 1998 eight of these (38%) had implemented some kind of Internet-based booking facilities on their sites, typically on a request basis. Only two lines (10%) had online availability data for ferry reservations for cars on their sites in 1998.¹⁷⁴ This was Stena Line (on their Scandinavian routes, not those around the British Isles) and Scandlines A/S (Denmark). In the middle of 1999 13 (62%) had implemented Internet booking facilities, and five (24%) now offer real-time availability data on their sites. In 1998 none of the ferry operators offered payments online, but in the middle of 1999 four (19%) do, all by taking credit card details via the SSL encrypted part of their sites.

172 www.fvw.de, Europcar: Buchung via Internet (April 1999), and www.sinner-schrader.de/proj_europcar_main.html, (May 1999). In some sources the goal is even stated as 15%-20% in the next few years.

173 A more comprehensive list can be found at www.budgettravel.com/eurofery.htm.

174 In addition to this it can be mentioned that BornholmsTrafikken has established a booking request function for their package tours to the island of Bornholm in the Baltic Sea.

Table 5.3 European international ferry lines on the net and their booking functionality (if any)

	Ferry line	Website address	Real-time availability	Internet booking	Payment on-line
1	Stena Line, Sweden	www.stenaline.com (one site in six versions)	Yes	Yes	No: 5 Yes: 1 ('99)
2	Scandlines A/S, DK	www.scandlines.dk	Yes	Yes	No
3	Scandlines, Germany & Sweden	www.scandlines.de + .se	Yes ('99)	Yes ('99)	No
4	Irish Ferries, Rep. Ireland	www.irishferries.ie	Yes ('99)	Yes ('99)	Yes ('99)
5	Corsica-Elba-Sadinia, France	www.corsicaferries.com	Yes ('99)	Yes ('99)	Yes ('99)
6	Condor Ferries, UK	www.condorferries.co.uk		Yes ('99)	Yes ('99)
7	Superfast Ferries, Greece	www.superfast.com		Yes ('99)	No
8	BornholmsTrafikken, DK	www.bornholmsferries.dk		Yes	No
9	Brittany Ferries, France	www.brittany-ferries.fr		Yes *	No
10	Color Line, Norway	www.colorline.no		Yes	No
11	Hover Speed Ferries	www.hoverspeed.co.uk		Yes	No
12	Minoan, Greece	www.minoan.gr		Yes	No
13	P&O European Ferries	www.poef.com		Yes	No
14	Caledonian Macbrayne	www.calmac.co.uk			
15	Caremar, Italy	http://saremar.gestelnet.it/ caremar.html			
16	Ferrimaroc	www.ferrimaroc.com			
17	Fjord Line, Norway	hanstholmhavn.dk/fjordline			
18	Polferries	www.polferries.com.pl			
19	Scandinavian Seaways (DFDS)	www.scanseas.com			
20	Silja Line, Finland	www.silja.fi			
21	Smyril Line, Faroe Islands	www.smyril-line.fo			

Note: * Also a free telephone call back service (send an e-mail requesting a call).

The starting point in identifying the above *international* ferry websites was a list of 22 selected European ferry companies' websites in a Masters Thesis by Fink (1998). However, Irish Ferries was not on Fink's list (search undertaken in May 1998), but has been added by the writer (which makes 23), and the real-time availability column has been added as well. On the other hand two sites were no longer in operation.¹⁷⁵ This leaves 21 on the list, which is not a ranking per se. Clearly, the advantages of using a 1998-list as the starting point is the possibility of documenting the swift development which has taken place in this field.

In 1998 it was not possible to make a booking for the Corsica-Sardinia ferries. But from 1999 it is:

175 Isnase (Spain) has been omitted, since the server www.isnase.es could not be located by the browser. The same goes for Deutsche Seerederei (www.de.rostock.de), which now only exists as a trade name since the line was taken over by Reederei F. Laeisz of Hamburg as of 1 January 1999 and a new website has not yet been established.

Welcome to the Online Booking System! You can book now your journey by the SSL security system (secure socket layer), which encrypts all credit card payments over the web.

Condor Ferries has recently implemented a booking *request* function:

You have now entered the Condor Ferries Secure Socket Layer. All information you enter in your browser will be encrypted using *Stronghold Secure SSL*. Click on: BOOK NOW. Note: When we receive your completed form, we will contact you to arrange payment details (if you are paying by cash or cheque) and to confirm that there are seats available for your required sailing. Credit Card details are sent via a Secure Server (SSL).

Superfast Ferries, which is an operator sailing between Italy and Greece, currently only has a booking request form at its site, but is working on establishing real-time Internet bookings, according to information provided on the site.

5.3.2 Stena Line, Sweden (Scandinavia and the British Isles)

Stena Line is one of the world's largest ferry companies. It has 12 ferry routes in Scandinavia and around the UK. Stena has a 40% proprietary share of P&O Stena Line (including the routes Dover-Calais and Newhaven-Dieppe in the English Channel). Revenue, excluding English Channel Operations, was SEK 7.55 billion in 1998 (\$950 million). There were 6554 employees in the Stena Line Group on average during 1998 (excl. English Channel routes). In 1998 Stena carried five million passengers in Scandinavia, and another five million around the UK (excl. 0.5 million on the Channel routes). In 1998 Stena Line also carried 833 000 passenger cars on Scandinavian routes, and additionally 948 000 on routes around the UK (excl. Channel routes), i.e. 1.8 million in total. We will assume the same numbers for 1999.

Figure 5.5 Interactive route map of Stena Line



Source: www.stenaline.se/.

Stena Line Sweden opened the first version of its website in March 1996. In the beginning it just provided information, but it has become increasingly commercial. A booking function for cars was implemented in June 1998. The site also includes destination information among other things. The booking dialogue is interactive but there are no general search functions on the site. Payment is settled off-line (by invoice) on all language versions of the site except on the British version, where payment is by credit card. So, technically it is obviously no problem to enable payment by credit card via the net.

On the entry page of www.stenaline.com/ the Internet user gets a choice between one of six languages. From the beginning of 1999 it became possible to make reservations from all the six versions of the site. However, Scandinavians can only make Internet reservations on routes on the right hand side of Figure 5.5, Britons only for those on the left hand side, but for Germans and Dutch it is possible to make car reservations on all the Stena Line routes shown in Figure 5.5.

For 1998, there were about 100 reservations per week for 30 active weeks = 3000 Internet-reservations. Sixty-five percent of these were car reservations, and the rest for passengers only. There were about 1.8 car crossings per Internet reservation. And twice this number for passenger-only reservations, since the average party is about two.

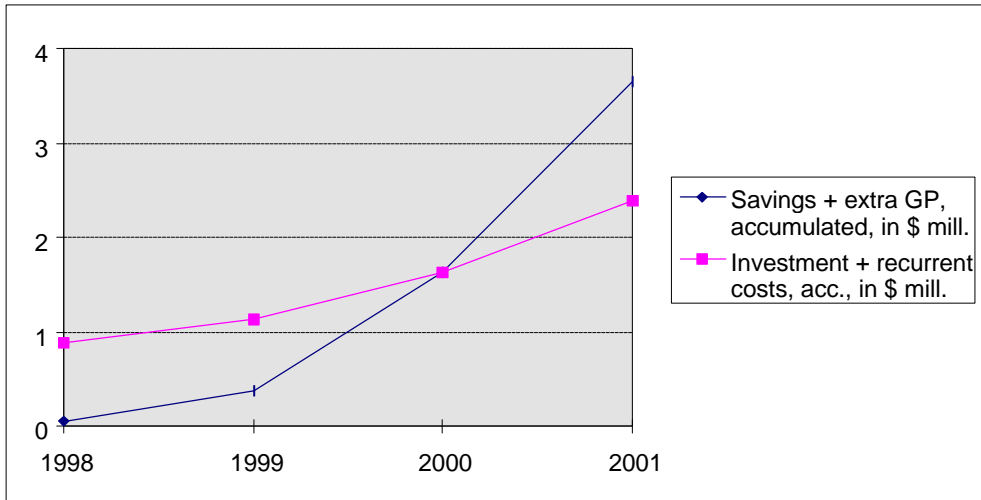
From the beginning of 1999 all the different language versions of the booking site were active. During the first six months of 1999, which is the period the UK version of the Stena booking site was opened, there were steady and big increases in interest from UK market for making Internet reservations.

In June 1999 Stena Line received a record high number of car ferry reservations via the net: 500 reservations, typically return trips. More than half of these were made by Swedes. It would probably be too optimistic to use that record week as an estimate of the average for 1999, so let us guess at 400 reservations per week as an average for all of 1999. A conservative estimate for 1999 is the following: 400 reservations per week x 52 weeks = 20 800 Internet-reservations, 65% of which are for cars. This will correspond to about 1.5% of all those car reservations which are made.

For the year 2001 Stena Line predicts that it will receive 10% of its car reservations via the net. So, for the year 2000 we must assume that it will be about 6%.

As with other modes of transport, ferry reservations are considered well suited to the Internet medium. Stena Line has received *additional orders* because of its site, and is *saving costs* when customers use the site. The marginal costs in connection with taking an Internet booking are practically zero. The cost of taking a reservation over the phone is not known by Stena. The writer's guess is that it could be SEK 40 (\$5), which then equals the savings per Internet reservation. Stena Line has *not* reached break-even for its Internet investment, as shown below. The initial investment with establishing the booking function alone was about SEK 3.5 million (almost SEK 0.5 million). To this should be added the costs of establishing all the rest of the site (mainly text-based), but these costs are not known (writer's guess: another SEK 3.5 million). The annual maintenance costs are about SEK 2 million for the time being, but as the site is extended and is being considered a more mainstream part of the general marketing mix, the annual costs could rise to as much as SEK 10 million. Based on these statements and additional assumptions, as stated in Appendix 5.5, a break-even chart can be drafted. As can be seen from the graph, if the predictions hold true, Stena Line will reach break-even for its Internet investment by the end of the year 2000.

Figure 5.6 Break-even chart of Stena Line's Internet investment (in \$ mill.)

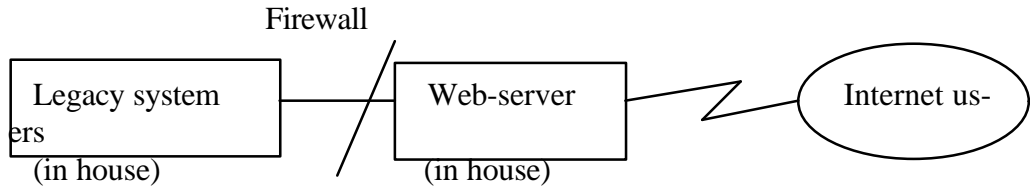


Note: Based on data, estimates, assumptions and forecasts as outlined in Appendix 5.5. Interest has not been taken into account.

Stena Line currently gives no discount or other incentives for Internet reservations, but relies on the convenience benefit for the Internet user. Later, when Stena Line has introduced its loyalty programme, there may be extra sea-miles for Internet reservations. But no up-front discounts for net bookings will be offered in the foreseeable future.

The internal reservation system (legacy system) of Stena Line dates from 1985, and is a traditional mainframe-based system. The Web server runs in a Microsoft environment, and is connected (integrated) with the internal reservation system (via a fire-wall between them). The basic elements of an in-house-based Internet booking system like that of Stena is shown in the diagram below. A more detailed version, specifically for Stena, is shown in Appendix 5.6.

Figure 5.7 Basic elements of an in-house based Internet booking system



Planned extensions for the near future include:

- 1) A booking function of agents.
- 2) Adapting the loyalty programme to Internet reservations.
- 3) General updating and refreshing of the site.

In the more distant future the following will be undertaken:

- 4) Extension of the freight booking part of the site.
- 5) Adoption of the concept of relationship marketing.¹⁷⁶

Stena Line considers itself to be among the top five or 10 travel and tourism firms in Sweden in terms of Internet sales (both in 1998 and in 1999).

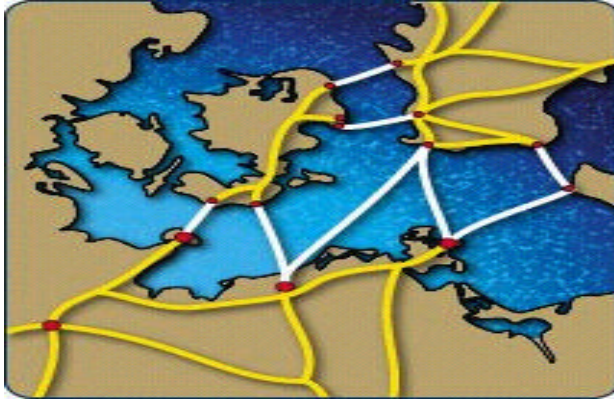
5.3.3 Scandlines AG

The history of the Danish Scandlines A/S goes back to 1872, when the Danish State Railways (DSB) opened a short ferry route between Jutland and the island of Funen. In 1995 Scandlines A/S was separated from DSB into a limited company, with the Danish Ministry of Traffic as the sole shareholder. After the bridge/tunnel between Funen and Sealand was opened in 1998, the Danish state had no longer a strategic interest in Scandlines. The present Scandlines AG was founded in the middle of 1998, through an amalgamation between Scandlines A/S in Denmark and DFO, Deutsche Fähreresellschaft Ostsee GmbH (DFO) in Germany, renamed Scandlines Deutschland GmbH. The former owners of the two companies, German Rail and the Danish Ministry of Traffic, each own 50% of the new firm Scandlines AG. When a second major bridge, the one between the Danish island of Sealand and Sweden, is opened in 2000, and tax-free sales have been discontinued, the number of employees in Scandlines AG is expected to stabilise around 2600. In 1998 Scandlines AG had 195 000 departures and carried 29.4 million passengers, 5.8 million cars and one million lorries. Revenue was about DM 1.13 billion (\$643 million). Scan-

176 Gummesson, 1998.

dlines AG has 43 ferries, which service 20 ferry routes. Scandlines is one of the largest and most high-frequency ferry operators in the world.

Figure 5.8 Scandlines routes (Germany-Denmark-Sweden)



Source: www.scandlines.dk.

In April 1997 it was decided to supplement Scandlines existing text TV information system with an Internet version, which was opened two months later. In the first instance it was information only, but soon later it became possible to make reservations for cars on ferries via the net. Since the founding of Scandlines AG, the previous DFO has implemented the Internet reservation facility for its routes as well, mainly from Rostock and Sassnitz. The Internet reservation facility has been implemented on all three language versions of the Scandlines site (Danish, German, Swedish). Currently reservations can be made for passenger cars, but the Internet reservation system is constantly being further developed and it will shortly become possible to book other Scandlines products as well via the net.

Before the Internet booking system of Scandlines was implemented, there was a push-button automatic telephone reservation system, and the Internet booking system gets its data the same way.¹⁷⁷ Some of the reservations (for passenger cars) which would have been made by push-button telephone are now being made via the Internet. The Internet booking system works as follows: first the Internet user selects route, then date and time from a drop-down curtain of choices, then he/she writes number of persons and telephone number, clicks on *reservation*, and that is all. A message appear on the screen that the

177 Scandlines-Digital Web, a customer story (in Danish) dated 30 March 1998, previously found at www.digital.dk/, but it is no longer there. Instead there is a new customer story (also in Danish), at this Web-address: www.elk.dk/ref_scandlines.htm.

booking is confirmed, a booking number is given along with the departure details. It is then possible to exit the site, to cancel the booking or to book the return car ferry trip.

The Internet reservation application - which comes in a Danish, German, and Swedish version - runs on a 64bit Digital AlphaServer with Digital UNIX and Oracle RDBMS (relational database management systems) and has on-line transaction based integration to Scandlines' existing ticket and reservation system.¹⁷⁸ Both the pre-existing reservation system and the Internet server are placed in facility management with Digital in the Copenhagen area.

In 1998 about 8,000 reservations were made over the Internet per month.

Assumed average price per Internet reservation in 1998: DKK 410 (for about 1.5 car-crossing-segments on average per reservation), i.e. Internet revenue in 1998 was roughly DKK 39 million (\$5.9 million - at an exchange rate of DKK 6.70 per \$). Of 5.8 million car crossings, about 144 000 (8000 x 1.5 x 12) or 2.5% were booked via the Internet in 1998.

In 1999 about 10,000 bookings per month are received via Internet.

Assumed average price per Internet reservation in 1999: DKK 430 (for about 1.5 car-crossing-segments per reservation). This means that Scandlines is set to receive Internet revenue of DKK 52 million in 1999 (\$7.2 million - at an exchange rate of DKK 7.17 per \$). In volume terms about 3.8% of the car crossings will be booked via the Internet in 1999.¹⁷⁹

5.3.4 Irish Ferries

Irish Ferries is Ireland's largest shipping company. It carried 1.6 million passengers in 1998, of whom 1.4 million on Irish Sea routes, and 0.2 million on the Ireland/France route. Irish Ferries is owned by the Irish Continental Group PLC, which is an operator of *passenger* and *freight* ferry services. The Group had 1125 employees in 1998, and total turnover of I£168 (\$239 million). Apart from Irish Ferries, the Group comprises four other divisions, all involved in *container* sea transport activities.

178 www.elk.dk/ref_scandlines.htm - and Greenspun, Philip, 1997, *Building Relational Database-Backed Web Sites*, for the Web Tools Review, <http://photo.net/wtr/rdbms-backed.html>.

179 (10 000 x 1.5 x 12)/4.7 million = 3.8 percent. This is the writer's estimate.

Figure 5.9 The Irish Ferries route map



Source: www.irishferries.ie.

Irish Ferries opened its online reservation service during the spring of 1999. It is now possible to book and pay by credit card online (SSL). It is possible to check for availability and prices on the preferred sailings on the Irish Sea crossings.

On the Irish Ferries site, availability can be checked online for both foot passengers and those travelling by car. When availability has been checked (for example for an ordinary car including two adults and an infant), full address details should be filled into a form, and the payment method must be selected (i.e. by credit card only). Tickets can either be collected on departure or they can be posted.

Irish Ferries states that *the volume of bookings has been increasing steadily since the service was introduced and has matched the firm's expectations*. Following a scheduled interim review of the effectiveness of the site and the booking facility, changes will be made during the second half of 1999.

Irish Ferries is working on its online reservations service for Ireland/France sailings. But in the middle of 1999 bookings for these services had to be done by contacting one of the Irish Ferries offices and agents, which are listed on the site. It is hoped that the booking facility for Ireland and France will be available in the autumn of 1999, but the design is complex because of the multiple cabin types.

6. Distribution of European accommodation services via the net

6.1 Introduction to booking of accommodation through the net

Half of all Europeans go away on holiday each year, some several times. About 58% of European holiday-makers stay in their home country. For European business travellers who invariably stay at hotels, the percentage of nationals is higher. For business and leisure under one, let us guess that 2/3 of accommodation guests are nationals, and 1/3 foreigners.

As a basis for looking at the possibilities of distributing accommodation services through the net it is appropriate to know something about the booking pattern in general. Data for Danes who take their holiday in their home country indicate that intermediaries are not commonly involved in connection with the booking of holidays in the home country, i.e. 66% book directly with the place of accommodation, 23% do not book in advance, which leaves about 11% to intermediaries such as cottage letting agencies, travel agencies and local tourist bureaux.¹⁸⁰ Among those nationals who do make pre-bookings, six out of seven book directly.

For those 42% of holiday-makers who go abroad the most common thing is to go to another European country.¹⁸¹ Information on how those Europeans who take holidays in a country than their home country book their accommodation.

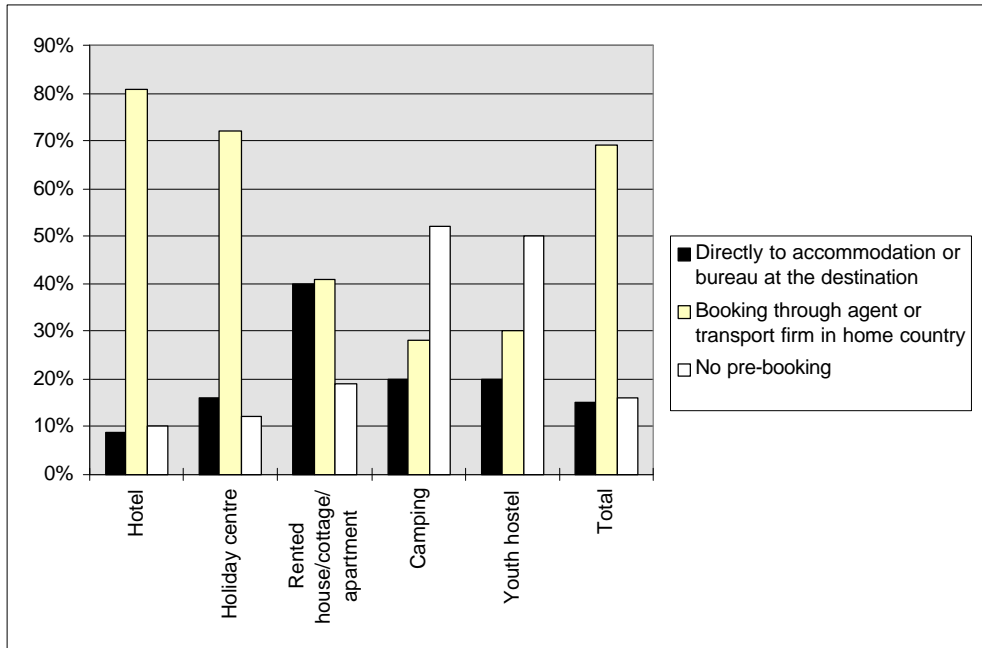
Youth hostels and camping are the two forms of accommodation with the highest proportion of no pre-booking. On the other hand, those Europeans who go on holiday abroad and stay at hotels or similar (holiday centres) typically book through an agent in their home country.

Currently only 15% of the bookings among those Europeans who holiday abroad are made directly with the place of accommodation in the foreign country or through an intermediary at the destination.

180 Source as Figure 6.1, p. 167.

181 EC DG 23, 1998.

Figure 6.1 The booking pattern for Europeans who go abroad for their holidays



Source: Based on European screening data from Danish Tourist Board 1997, according to Marcussen, 1998, p. 36.

Note: These markets (international holiday-makers from the following countries) are included: Germany, Sweden, Norway, Netherlands, the UK and Italy, weighted according to their relative importance. The total is the weighted average for all the types of accommodation shown (Hotels: 48%; Holiday Centres: 33%; Rented: 6%; Camping: 9%; Youth hostels: 4%). B&B, for example, is thus not included, but its booking pattern is somewhat like youth hostels.

We will disregard those who make no pre-booking. With respect to Internet bookings - directly with the place of accommodation or through intermediary (at the destination or a global one) by nationals or foreigners - interpretations of the booking patterns are shown in Table 6.1.

Table 6.1 Opportunities for Internet bookings of European accommodation services

	Internet bookings directly with the accommodation (without availability data) Market potential, in volume: 57+5=62%	Internet bookings through an intermediary * (with availability data) Market potential, in volume: 10+28=38%
Nationals: ~67%	Market potential: $\sim 6/7$ of 67% = 57% Good opportunities of getting many visitors to site, who will mainly just look up basic information, and in a few instances for making direct bookings by traditional communication channels (phone, fax) or in some instances via ordinary e-mail. Technical assessment: <i>A hopeless scenario.</i> Therefore the market potential cannot be exploited.	Market potential: $1/7$ of 67% = 10% There are good opportunities for traditional intermediaries to shift <i>nationals</i> from the phone to the Internet, thus saving costs. Also there are opportunities for 100% new online players to create a totally new strictly Internet-based business (= a risk for the traditional players)
Foreigners: ~33%	Market potential: $1/6$ of 33% = 5% Small sales potential only. But the home-page should be home language + English (+ possibly German and/or French). Technical assessment: <i>A hopeless scenario.</i>	Market potential: $5/6$ of 33% = 28% Great volume/sales potential, both for cost savings. Technical assessment: <i>A very fine scenario</i> (as above)

Note: * This may be a hotel chain, a destination-based reservation organisation, or a more or less global intermediary for hotels or other forms of accommodation. The percentages in this table are rough indications only, based on EC DG 23, 1998 (the assumed split between nationals and foreign leisure and business tourists). As far as foreigners are concerned, Figure 6.1 indicates that they mainly book through intermediaries, whereas nationals tend to book directly to the accommodation. This is certainly true for Danes (Danish Tourist Board, cf. Marcussen 1998, p. 167, in Danish), and is undoubtedly also true in other countries.

6.2 Hotels

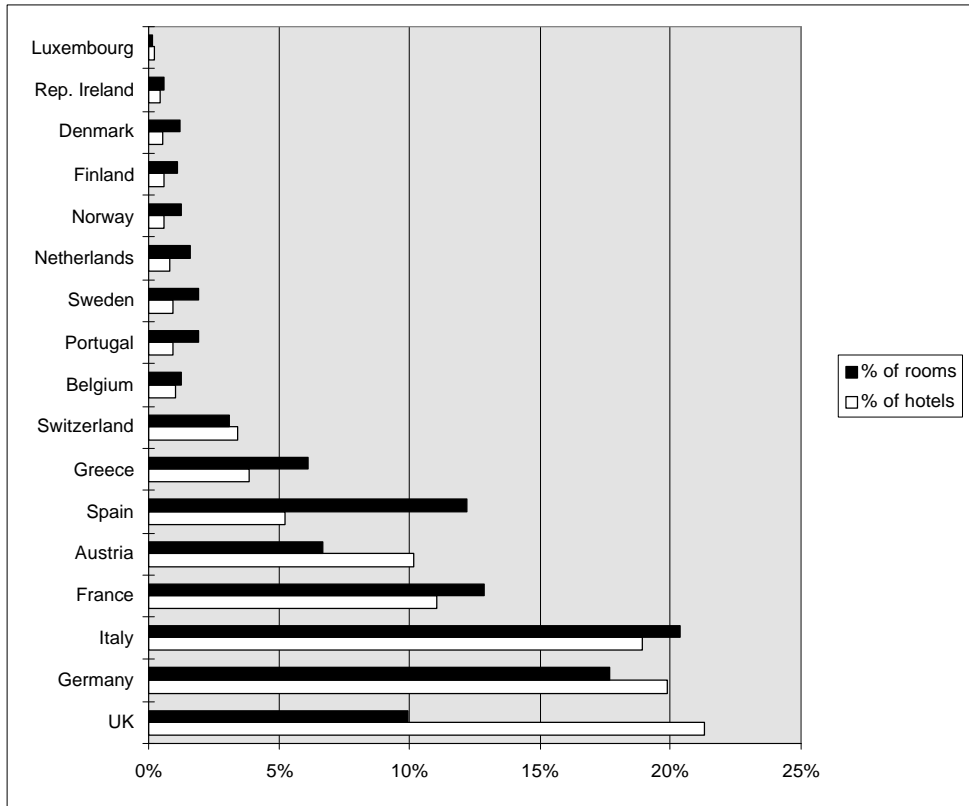
6.2.1 An overview of hotels in Europe

Compared to North America, the European hotel industry is very fragmented, i.e. characterised by *many* relatively *small* hotels and similar establishments (cf. Appendix 6.1) many of which are *not* a member of any form of hotel chain.¹⁸² As to chains it is a fact that most of the 50 largest hotel chains in the world (cf. Appendix 6.1), which are typically US-owned and with most of their properties in the US, have little or no presence in Europe.

The total number of hotels and similar properties in Western Europe is about 188 000 - with a total of about 4.64 million rooms, i.e. 25 rooms per hotel on average. The corresponding number for the US is 49 000 hotels with 3.8 million rooms, i.e. 78 rooms per hotel on average. This shows that there are many relatively small hotels in Europe.

182 Cf. Cornell, 1999.

Figure 6.2 Countries' share of hotel properties in Western Europe (%)



Sources: As Appendix 6.1.

Note: Total No. of hotels: 188 000. Total No. of rooms: 4.9 million.

6.2.2 The *Bookings NL* on-line hotel reservation system, Netherlands - and Europe

The firm behind the www.bookings.org site, *Bookings NL (Boekingspunt Nederland BV)*, and the site itself were established in 1997. The sole activity of the firm is on-line hotel reservations. There are nine employees. Currently, the platform covers the following countries: Austria, Belgium, France, Germany, Ireland, the Netherlands and the United Kingdom.

Table 6.2 The *Bookings NL* on-line hotel reservation system, Netherlands - and Europe

Country	No. of hotels in the country	% in system	No. of hotels in the system	No. with rooms available <i>tonight</i>	With special offers
Netherlands	1500	12	181	129	6
Germany	37 000	0.2	91	64	9
UK	40 000	0.2	63	58	11
Austria	19 000	0.3	61	57	5
Belgium	1900	3	60	43	3
France	21 000	0.2	47	33	5
Ireland	900	3	25	24	16
Seven countries	120 000	0.4	528	408	55

Source: Appendix 6.1 and www.bookings.org, Tuesday, 4 May 1999 (in the morning).

The hotel booking system and the associated website includes interactive search functions, prices, room availability data and a booking function. It is not possible to make payments on-line, but payments are guaranteed by credit card. The guest settles the bill at the hotel.

Hotels can update their availability data by fax, phone, e-mail or Internet. The updating frequency depends on the hotels, but it is at least once a week, with once a day as the average. During the high season (spring) only about 10% of the hotels show special offers on the site, (see Table 6.2). But during the low season more than 50% of the hotels show special offers. Other incentives given by the hotels to the end-users for placing orders over the net include things such as special Internet package offers, free drinks and free maps.

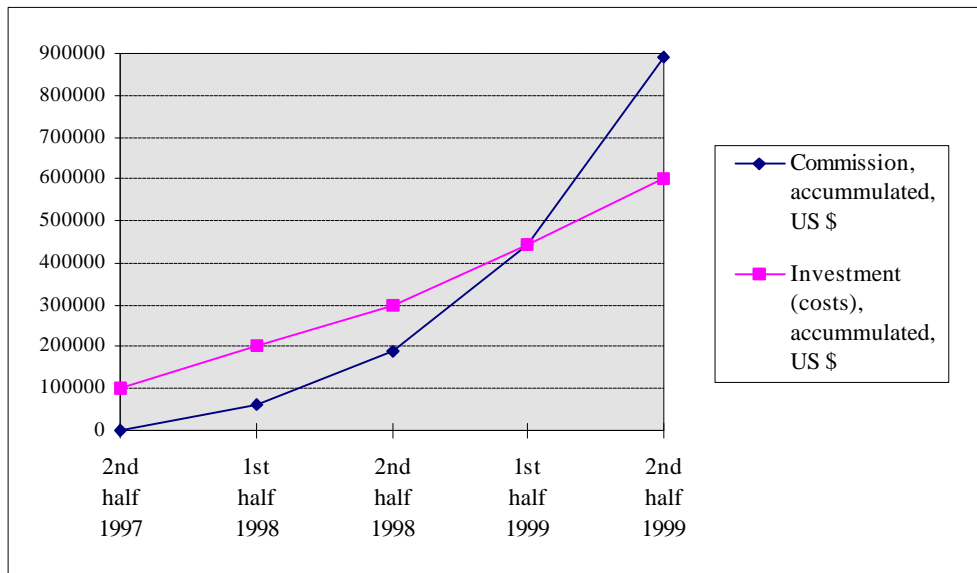
There are about 2500 unique visitors per day on the site, resulting in about 75 bookings per day, which means that the unique visitors-to-booking ratio is as good as 33:1 (some visitors may make more than one visit per day). There are about 10 page views - and 50 hits - per visitor. In 1998 there were 400 000 visitors on the www.bookings.org platform (i.e. about 1100 unique visitors per day). They made a total of 8000 bookings, covering 15 000 room nights. The average accommodation revenue per room night was about \$125.

Table 6.3 Summary of key statistics for the www.bookings.org site

Period	No. of visitors	Room nights	No. of bookings	Room nights per booking	Visitors per booking	Revenue per room night, \$	Revenue generated, \$
1997			0				0
1998	400 000	15 000	8000	1.88	50	125	1 875 000
Per day, all of 1998	1096	41	22	1.88	50	125	5137
Per day, May 1999	2000	141	75	1.88	33	125	17 578
1999, predicted	1 million	56 250	30 000	1.88	33	125	~7 million

All hotels participate in the same way, i.e. by paying commission on reservations, in the range of 8% - 12%. Bookings NL BV does not ask for any fixed fees. The investment (all costs) was \$100 000 in 1997, and \$200 000 in 1998. In May 1999 it was stated that break-even had been reached. This is confirmed by the chart below, which is the writer's free fantasy, but based on facts stated by Bookings NL BV.

Figure 6.3 Break-even chart for Bookings NL BV



Bookings NL considers itself to be number one in the Netherlands in terms of Internet hotel bookings, and believes it is about number 10 in Europe for Internet hotel bookings overall.

The Dutch market accounts for 10% of bookings. The largest market is the US, which accounts for 25% of the bookings. The system for handling the hotel and availability data is self-designed and runs off four PC servers in total, with the Linux operating system.

Although hotel room nights are well suited to being sold over the Internet, technically it is considered to be a relatively complex task to offer on-line bookings. Bookings are received through the Internet only, which is considered to be a cost-effective way of receiving a booking.

In the near future the www.bookings.org on-line hotel reservation system will be extended to cover Italy, Spain, Denmark, Sweden, Czech Republic and Switzerland as well. In the second half of 1999 Bookings NL BV will set up *Bookings USA* and *Bookings ASIA*. It is the vision to make a world-wide hotel directory.

The firm will continue to distribute exclusively through the Internet. As to new functions and features on the site, hotel videos are being considered. The Internet is considered to be an increasingly important distribution channel for hotels in general, *a major selling point*, partly replacing travel agencies.

6.2.3 Hotel Reservation Service, HRS, Germany

HRS is a world-wide hotel reservation system, founded in 1972 by Robert Ragge. There are 50 employees. Currently it is possible to book 30 000 hotels online with instant confirmation through the Internet with HRS, 75% of which are shown with photos. About 11 000 (37%) of the hotels are located in Germany. About 50% of the bookings come from Germans. Other Europeans account for roughly a third, and the rest of the world 15%-20%.

HRS got its first internal electronic (stand alone) hotel booking system back in 1982. HRS started computerised online hotel booking in 1991 through what was then called Btx, a German Videotex system run by Deutsche Telekom, one of the predecessors of the Internet, which is now called T-online. T-online subscribers have been able to access the Internet since 1997.

HRS established its website in the very early days of the World Wide Web, in 1994. On the HRS site, Internet users will only see hotels which are bookable with instant confirmation in the second of access. One can get available hotel rooms for given dates in for example Helsinki or Frankfurt - unless one happens to pick a date when there is a trade fair and everything is booked out or the hotels decide not to sell the hotel rooms on-line, since they are able to get higher prices off-line - which is a yield management consideration, i.e. a management decision taken to maximise revenue. The rates - which are special HRS rates

- are updated frequently. So it is possible to search for hotels, see photos, see prices, and make bookings with instant confirmation. Payment is settled at the hotel. HRS's aim is to give the customers the best price they can get anywhere, which HRS believes it does in at least 90% of cases. The hotels do not pay any participation fee. HRS lives from commissions. HRS is thus able to be a distributor of all sorts of hotels anywhere in the world to customers anywhere. The same - competitive - prices are given both on the Internet and for telephone bookings to the HRS call centre, and no other special incentives are given for Internet hotel bookings. In addition to the Internet and the call centre HRS also take bookings through Swiss Online, Minitel in France and T-Online (Videotex systems), on-line services such as AOL, Compuserve, MSN and multiple other online services. In addition HRS is an exclusive partner of German mobile telecom companies. HRS has a special department for trade fair reservations, group arrangements, conventions, meetings etc.

HRS has a wide range of companies which have direct access to the hotel database. This means that companies which have been able to negotiate rates which may be lower than the HRS rates, are able to book at this rate - or according to the best-buy principle (i.e. to book at whichever rate is lowest). Companies which have made such volume-based deals with hotels directly, and then entered their special rates into the HRS system, include VIAG.¹⁸³ To remember how to access the system, companies (travel management) and frequent bookers get a personal HRS card with their customer number.

The traffic to the HRS website is monitored by www.hitbox.com. HRS was ranked as number nine out of 2132 sites which had chosen to be included in the category *Tourism*. This category was changed to *Travel* with several sub-categories, one of which is *Hotel-Lodging*. HRS now ranks as number *one* out of 218 sites, which have chosen to be included in this category. During 1999 the average number of unique visitors per day was 4025, up from an average of 1950 during the summer/autumn of 1998, indicating a traffic increase of more than 100% in less than 12 months.¹⁸⁴

HRS considers itself to be among the leaders in Europe in terms of hotel booking received via the Internet. According to HRS the geographic distribution of Internet sales is the same as for all HRS bookings in general: 1) Germany 2) Rest of Europe 3) Rest of the world.¹⁸⁵

183 www.viag.de; With sales of approximately DM 50 billion and about 85 000 employees, VIAG Aktiengesellschaft is one of Germany's leading industrial corporations. In addition to the core business areas of energy, packaging, aluminium and chemicals, VIAG is also active in the fast-growing telecommunications market (mobile telecom network).

184 The two periods mentioned are specifically these: 6 July – 3 November 1998 and 30 March - 25 August 1999. During the first of the two periods mentioned the peak day was a Tuesday in October, and the peak hour was 3 p.m.

185 One would expect that customers from the rest of the World, specifically from the US, account for a significantly greater proportion of HRS' Internet bookers than of its bookings in general.

HRS gets many bookings via the net, and some of these can be considered to be additional booking which HRS would not have received if it had not had its website. HRS also saves costs when people make Internet bookings, since fewer staff are required in the call centre. HRS has reached break-even for its Internet investment.

During 1999 hotels at the site will get the opportunity to update their own information (rates, rooms available, etc.) themselves via the Internet. Access will be protected by key-word and password. Since March 1999 customers can get alternative hotels within a certain radius, if there are no hotel rooms available in the preferred city, and it will become possible to find hotels which are located within 50 km of an attraction or other place of interest. HRS tries to sell to both business and leisure travellers. For hotels in Europe there will be city maps, so that hotels can be located. For the hotels in German cities and the European capitals this facility has already been established.

HRS gets a steadily increasing number of bookings through the Internet. In general, HRS believes that the Internet will become a significant distribution channel for hotels in future. Those suppliers who are able to offer the customer real online bookings (with all basic data, photos, good rates, availability data, and instant confirmation) stand the best chance in the future. Customers will not be prepared to send an e-mail and wait for an answer which may never arrive.

6.3 Brief introduction to destination-based reservation systems

It was not the intention of the writer to include destination based Web reservation systems in this publications, cf. Table 1.1. But since it has turned out that one of them, TIScover.at or TIScover.com of Tyrol in Austria has already done very well in 1998 in terms of revenue generated for the properties involved, a short note will be made about this category of systems.

There is a bulk of literature about IT supported destination-based information and reservation systems, most of which was written before the Internet became a significant distribution channel.¹⁸⁶ So, from a practical point of view there is good reason to reconsider the functionality of these breeds of systems, both those which do and those which currently do not comprise reservation functions, and to reconsider theoretical aspects and managerial implications in light of the most current Internet and Internet commerce developments.

186 For example Archdale, 1993, pp. 3-14; Archdale, 1994, pp. 246-25; Buhalis, 1993, pp. 366-378; Sheldon, 1993, pp. 633-649; Sussman and Baker, 1996, pp. 99-112 (including further references).

6.3.1 TICcover - revenue generated by online bookings

TIScover has been described in depth by Pröll et.al. (1998), and by Werthner and Klein 1999 to which readers are referred for details.¹⁸⁷ In 1997, which was its first complete year of operation, over 23 000 transactions were made through TIScover, generating about \$8 million in revenue.¹⁸⁸

In 1998 TIScover.at generated accommodation revenue of about \$20 million, which is set to increase to about \$55 million in 1999. It is hoped that break-even for the TIScover Internet investment will be reached in 1999.¹⁸⁹

From 1998 until the middle of 1999, in Austria, England, Scotland, Ireland (Frew and O'Conner, 1999, p 404), and Denmark (Marcussen and Skjoldager, 1998), and the rest of Europe as far as the writer knows, TIScover is the only or at least the most comprehensive destination-based booking system which offers online bookings via the Internet (if you like, Destination Management System, DMS, with internet booking functionality) and certainly the one which generates most revenue.¹⁹⁰

6.3.2 Gulliver, Ireland: Moving towards online bookings

In Ireland there is a system called Gulliver, which is Ireland's most advanced and most comprehensive tourism database. Since July 1997 Gulliver Infore Services Ltd. has been jointly owned by FEXCO (74%), Bord Failte (Irish Tourist Board) and the Northern Ireland Tourist Board (26%). FEXCO paid I£3.2 million for the stake in Gulliver, and planned to spend I£2-£3 million revamping and expanding the system.¹⁹¹ From mid-1999 (specifically from the end of September) it should be possible to make bookings via the Internet through the Bord Failte website, with instant confirmation, thanks to the avail-

187 Cf. also Pröll et.al., 1999. An additional description in English can be found in O'Connor, 1998 (pp. 81-86). Earlier descriptions were made in Danish by Marcussen, 1996, pp. 29-37 and in German by Ebner, 1994 and Werthner, 1993. Originally it was an information-only system without booking facilities, like one of its fore-runners, the Danish dandata (Marcussen, 1996, pp. 19-28 and Marcussen and Skjoldager, 1998).

188 Werthner and Klein, 1999, p. 207.

189 The amount for 1998 has been estimated as follows: almost 87 000 reservations and booking enquiries, 75% of which are assumed to lead to actual stays, each generating \$307 in revenue. For 1999 about 200 000 reservations and booking enquiries are expected, 75% of which are assumed to lead to actual stays, each generating \$364 in revenue.

190 The TIScover system has been licensed to www.deutschlandreise.de (the marketing and sales platform in the Internet for tourism to and in Germany of START Media Plus GmbH, a subsidiary of START Amadeus), cf. Werthner and Klein, 1999, pp. 207-210. - And in the Bodensee region in Switzerland there is a system called Electronic Mall Bodensee (www.emb.net), which is described by Werthner and Klein, 1999, pp. 211-216.

191 Canniffe, Mary, 1997 in the Irish Times 9 July, www.fexco.com/, media, press release archive.

ability data of Gulliver.¹⁹² Thus there will be an additional European player in the destination-based web reservation system category.

6.4 Youth hostels

6.4.1 Hostelling International - World-wide and in Europe - and IBN

Hostelling International is a brand name of youth hostels across the world. Its logo is a blue triangle, hut and tree. The International Youth Hostel Federation (IYHF) is the umbrella organisation for the national youth hostel organisations. World-wide there are some 4500 hostels in more than 60 countries providing over 31 million overnight stays per year.¹⁹³ 51% of these youth hostels and about 75% of the overnight stays are within youth hostels in Western Europe, so we can say that hostelling is a typically European phenomenon.

Youth hostels as a whole are a much smaller business in Europe than hotels. In Western Europe there is a total of about 2300 youth hostels, with a total of about 23 million overnight stays per year. Remember there is a total of 188 000 hotels in Western Europe. And furthermore, the average price per overnight stay is much less for youth hostels than for hotels. Nevertheless, since youth hostels have a high proportion of students, who are heavy Internet users among their guests, the Internet is clearly a potentially interesting medium for information provision about youth hostels and possibly also for bookings, except for the fact that credit cards will have a low penetration among the typical youth hostel guest. But if payment can be settled off-line, it should work fine with Internet bookings, providing no-show for Internet bookings is not a much greater problem than in connection with telephone (or fax) bookings.

Out of 20 national Hostelling International organisations in Western Europe 80% have active websites. Only for Norway can booking request forms be transmitted from the web - by e-mail or by fax via the association - to individual hostels without any manual intervention. In addition to this Austria and Scotland appear to run a booking centre to which the customer can send a booking enquiry (see Appendix 6.4). None of the national youth hostel associations provides any availability data (for their member hostels) on the national hostel site. But the international system IBN does.

192 www.gulliver.ie/WhatIsGullNet.htm (last modified 20 February 1999, as read on 12 July 1999). Gulliver is described by O'Connor, 1999, pp. 87-97, and by O'Connor & Rafferty, 1997. Cf. also Frew and O'Connor, 1999a and 1999b; and Werthner and Klein, 1999, (pp. 210-211).

193 www.iyhf.org/iyhf/whatis.html

Table 6.4 Hostels in IYHF, and in the IBN system

	Total IYHF	No. in IBN	% in IBN
Western Europe	2315	180	8
ROW	2185	93	4
Total	4500	273	6

Source: Mainly based on data from www.iyhf.org, cf. Appendix 6.3.

World-wide there are 273 major youth hostels bookable through the International Booking Network (IBN) system, which is run by IYHF in London. It has been in operation since 1992. Currently the system can only be accessed by the national youth hostel associations and by the member hostels, so it is not open to the general Internet user, and not based on web technology.

It seems high time to transfer the IBN system to the Internet, open it up for Internet bookings from the general public and to take credit card payments or deposits. This was in fact suggested to IYHF by the writer as early as June 1997.¹⁹⁴ At that time it was stated that it was the intention to offer bed availability (for the 273 hostels in IBN) on the Web by the middle of 1998. Two to four years ahead, i.e. by 2000-2002, (!) it was the intention to offer Internet bookings.

In Appendix 6.5 the current considerations of IYHF as to why the hostels in IBN cannot be booked via the net for the time being are stated.

6.4.2 Hostelling International Norway (HIN)

We shall now focus on Norway. Four percent of the IYHF hostels in Europe are located in Norway, accounting for 1.7% of the overnight stays, so obviously the Norwegian hostels are relatively small.

The Association of Youth Hostels in Norway (Hostelling International Norway, HIN) was founded in 1930, and is the Norwegian branch of Hostelling International. There are currently 92 members of HIN, whose joint administration in Oslo has six employees. Its main function is to market its members, nationally and internationally. Other functions include handling the classification of the Norwegian hostels, producing statistics, providing information to members and customers.

194 26 June 1997 by telephone to Mr. R. Lau, Secretary General, IYHF, London. Cf. Marcussen, 1998a, p. 149.

Table 6.5 Comparing hotels and youth hostels in Norway

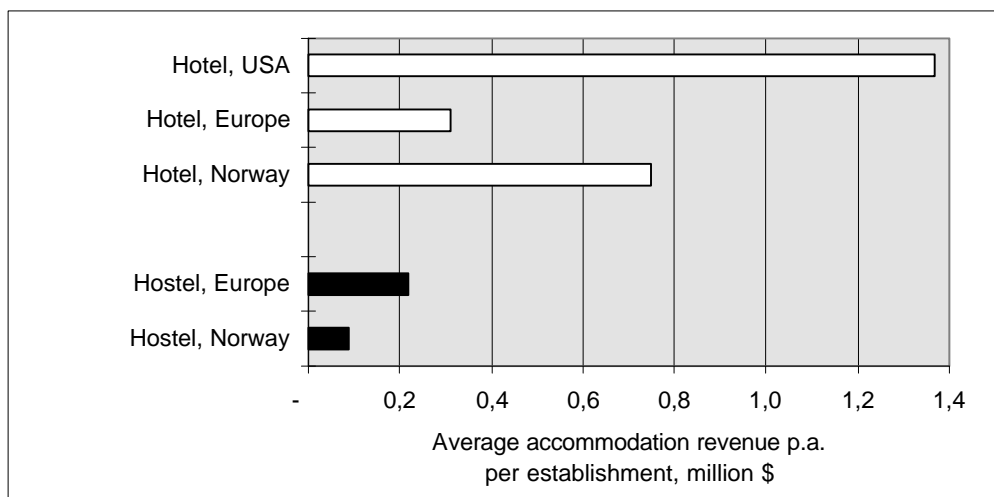
1998	Hotels, Norway	Youth hostels, Norway
Average accommodation revenue per room night	\$85	N.A.
Average price per guest night	~\$55	\$20
Guest nights per establishment	13,700	4,350
Average accommodation revenue per establishment p.a.	\$747,000	\$86,000
No. of establishments	1200	92
Total No. of guest nights p.a.	16.4 million	0.4 million
Total accommodation revenue p.a., all establishments	\$ 0.9 billion	\$ 8 million

Sources: Hotel data from the Norwegian Statistics Office, and youth hostel data from HIN.

Note: There are about four million camping guest nights in Norway per year, which is 10 times more than for hostels.

In Norway there were 400 000 overnight stays in 1998 at the 92 youth hostels within HIN, at an average price per night of NOK 150 (\$20). The average accommodation revenue for a youth hostel is less than \$90 000 - vs about \$750 000 for an average Norwegian hotel. (Accommodation revenue for an American hotel is as high as \$1.4 million). The *average number of guest nights per youth hostel per year* in Norway is among the lowest out of the 20 national youth hostel associations in Western Europe. So, both compared with *hotels* in Norway and with youth hostels in *other* European countries, a typical Norwegian youth hostel is a very small accommodation business indeed.

Figure 6.4 Average accommodation revenue per establishment - hostels and hotels



Note: Number of establishments: Hostels, Norway: 92; Hostels, Europe: 2134.
 Hotels, Norway: 1200; Hotels, Europe 188 000; Hotels, USA: 49 000.
 Prices applied, 1998 (or '97): Hostels in Norway and Europe, per *guest* night: \$20.
 Hotels, price per *room* night: Norway: \$85 (known, 1998); Europe \$80 (assumed); USA \$75 (known, 1997).

In spite of the small revenue basis for the individual Norwegian youth hostels, some of which are only open during the summer season, there are many of them, and together they make hostelling a relatively important form of accommodation in Norway (since Norway has a larger share of European hostel nights than of European hotel nights (1.2% vs 1.7%). The interesting thing to mention here is that HIN, on behalf of its 92 member hostels, has implemented a relatively cheap, uniform, well functioning and successful direct booking request system based on the Internet and supplemented with fax.

HIN opened a basic website in May 1997, whereas the Internet booking request system was opened at the beginning of May 1998. During the period of the basic site there were only 17 000 visitors to the site, but during the following 12 months, the number of visits exploded (see Table 6.6), not least because of the extended content and booking request functionality of the site.

Table 6.6 Internet statistics and analysis - Hostelling International Norway

12 month period:	98.05-99.04
Total guest nights	400,000
Hits on website	2,600,000
Hits per visit	5.8
No. of visits to site	425,350
No. of Internet bookings, 1 st year	3,500
Visits per booking	122
Guests per booking	2.6
Length per stay	<u>1.79</u>
Guest nights per booking	4.65
Room nights sold through net	16,275
Internet booked guest nights in %	4.1%

Note: Based on data provided by HIN.

With respect to the number of accommodation bookings received through the net for stays in Norway, HIN believes it is number one in the country. HIN even claims slightly more visits to its site than the Norwegian National Tourism Board, NORTRA, www.nortra.no.

The way the system functions is the following: all the 92 hostels are described in a completely standardised manner, by text, photos and symbols. By means of interactive search functions (by region, name, stars, amenities etc.) the Internet user finds an appropriate hostel, fills in the booking request form, and submits it through the net. HIN receives the request and transmits it automatically within seconds on to the appropriate hostel either by e-mail or - in those instances where the hostel has no e-mail box - by fax.¹⁹⁵ Only one single hostel in the north of the country has neither e-mail nor a fax, and in that single instance HIN phones or mails the request.

195 HIN keeps a copy of the request - and tracks how many of them turn into actual stays - for statistical purposes.

Figure 6.5 The Web, e-mail, and fax- based booking request system of HIN, Norway

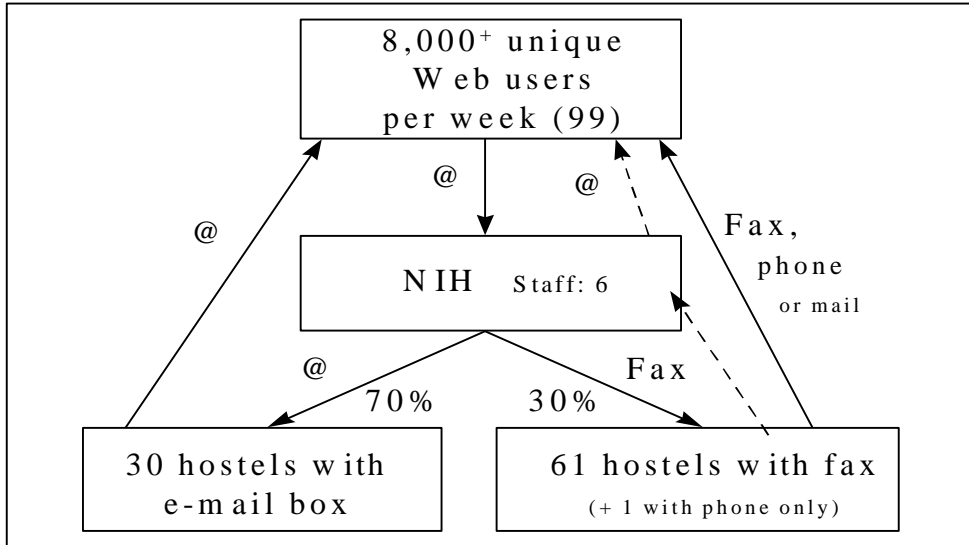


Table 6.7 E-mail penetration among Norwegian youth hostels, May 1999

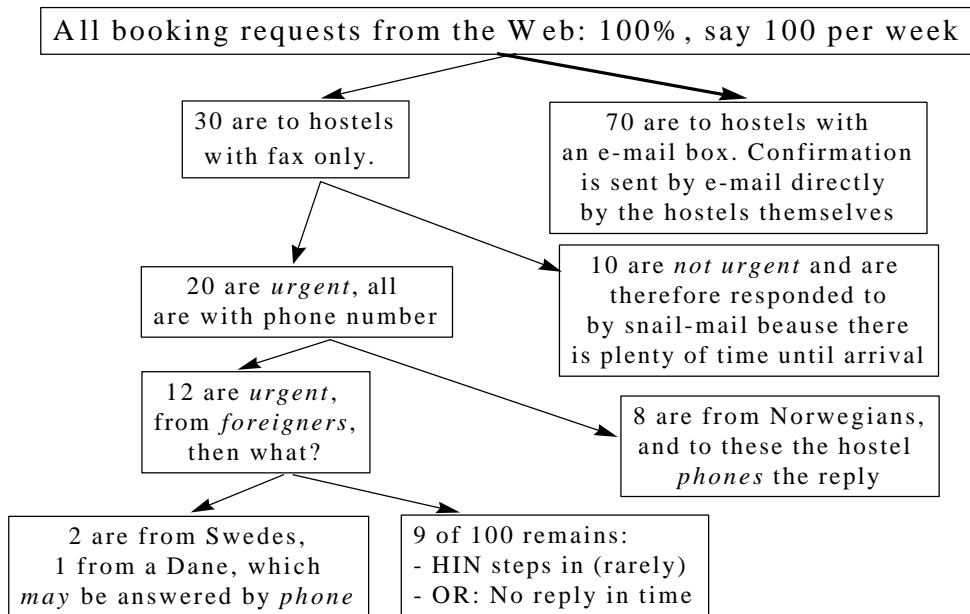
(A) Hostels	North	West	East	Total
1 *	8	6	5	19
2 **	13	18	22	53
3 ***	2	4	14	20
Total	23	28	41	92
(B) with @	North	West	East	Total
1 *	0	3	1	4
2 **	2	11	5	18
3 ***	0	2	6	8
Total	2	16	12	30
(C) % @	North	West	East	Total
1 *	0%	50%	20%	21%
2 **	15%	61%	23%	34%
3 ***	0%	50%	43%	40%
Total	9%	57%	29%	33%

Source: Based on counting from www.vandrerhjem.no.

Note: It is somewhat surprising that e-mail penetration is higher in the western region than in the east (which includes the metropolitan area). But it is expected that penetration is highest among 3-star hostels, and lowest among 1-star.

A third of the hostels has an e-mail box, although fewer in the north, and among the one star hostels, which at the same time are the smallest. Therefore a lot more than a third - namely 70% - of booking requests can be forwarded by e-mail, and therefore also answered by e-mail. It is the policy of Hostelling International Norway that e-mails should be answered within 24 hours, which is quality checked from time to time, but many hostels reply within 20 minutes. HIN claims that even those hostels which have a dial-up connection to their e-mail box check it every half an hour, from their reception desk. Many hostels stay on-line all the time, and therefore receive e-mails immediately. The explanation is that the rate for local telephone calls, such as for Internet access, is only NOK 0.36 per hour ~ (\$0.05).

Figure 6.6 Responding to booking requests to Norwegian hostels



Feed-back goes directly from the hostels to the Internet user by e-mail, or if the hostel has a fax machine (but not an e-mail box) the reply is faxed. If there is plenty of time until arrival, and if no fax-number is written on the request, the hostel sends a confirmation by snail-mail. If there is no fax-number, and the request is urgent, the hostel phones the confirmation to the customer if the request is from within Norway, and perhaps also if it is from Sweden or Denmark.

A hostel (without an e-mail box) is not likely to be willing to confirm by phone outside of Scandinavia, even if the customer has stated his/her phone number, which has to be stated

in all instances, otherwise the booking request cannot be sent from the booking form on the website in the first place.

In the relatively few remaining instances (nine out of 100) there are two possibilities left for the hostel to reply:

- a) By faxing/phoning HIN, and asking them if they would please e-mail a reply to the customer;
- b) Or - if everything else fails - as a non-desirable quasi solution by default outside of the system - the customer may just show up at the time stated on the request, and hope that the hostel has reserved a place as requested.¹⁹⁶

The Internet bookings contain more guest nights than hostel bookings in general. This means that the Internet's share of guest nights is greater than its share of bookings. After only 12 months of operation the Internet booking request solution on HIN must be said to have turned out to be a tremendous success, since it reached the level of about 4% (~16 000) of the guest nights sold.

For comparison with these 16 000 guest nights (4%) sold through the Internet, it can be mentioned that only 2000 guest nights (0.5%) were booked at Norwegian hostels through the IBN closed-user-group-systems - which as mentioned have been in operation since 1995.

To be fair it should be added that only two hostels in Norway can be booked through IBN, albeit two of the very largest ones. In fact these two large hostels get twice as many bookings through the Internet via the HIN site than via the IBN system.

Table 6.8 IBN vs Internet - the case of Norway

Hostel	IBN	Internet
Oslo Haraldsheim ***	1200	2500
Bergen Montana ***	800	1500
Total No. of overnights per channel	2000	4000

Source: Based on data provided by HIN.

Note: The numbers are numbers of overnights booked through each of the two channels. Period: 05.98-04.99.
The writer can, incidentally, recommend both hostels.

196 The writer has never been turned away by any youth hostel in the Nordic countries - even in the high season, not even by a major one like Montana in Bergen, although when phoning the day before the planned arrival it was stated that there were no places left. But anyone planning to stay at any of the busiest city hostels in Europe (London, Paris, Oslo, Bergen, and up to a few hundred others) would certainly *like* to book ahead, not only via IBN but also via the net, and so would 2-3-4 person families planning to stay at *any* hostel anywhere, since supply of private rooms is limited.

Not only from a sales point of view but also economically the solution has been very successful, with a pay-back period of five months at an optimistic estimate, or a little more than six months using conservative assumptions.

Table 6.9 Internet investment appraisal - hostelling International Norway (in NOK and \$)

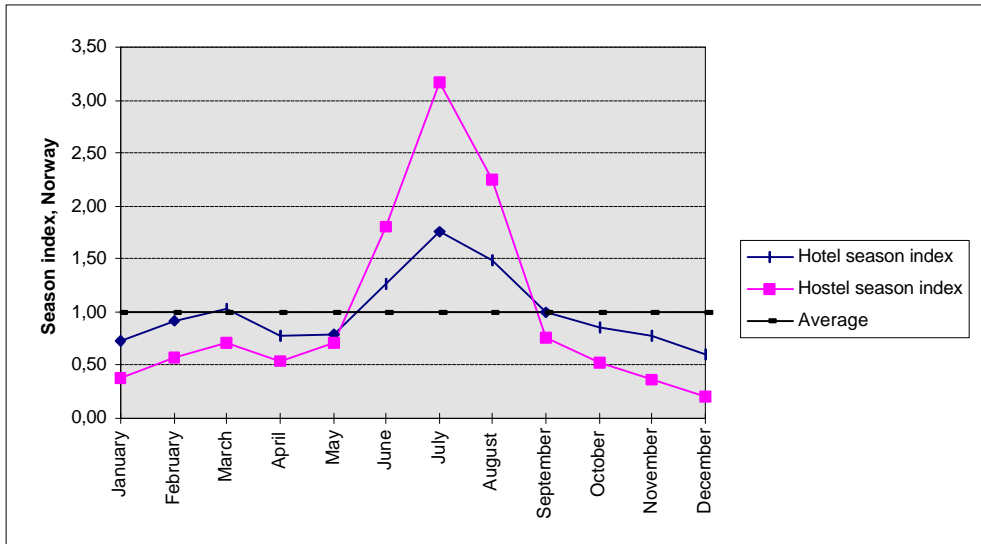
Exchange rate: 13.24 per NOK 100	In	NOK	In	\$
Price per guest night	150	NOK	20	\$
+ Food	30	NOK	4	\$
=Total revenue per guest night	180	NOK	24	\$
Guest nights per booking	4.65		4.65	
Total revenue per booking	837	NOK	111	\$
Of which <i>additional</i> revenue: 50% =	419	NOK	55	\$
Additional GP per booking: 80% =	335	NOK	44	\$
The Internet investment was:	0.24	NOK mill.	0.03	\$ mill.
No. of bookings required to break-even	717			
Average No. of bookings per month 1 st year:	292			
a) No. of months required to break even	2.5	months		
As (a), but adjusted for seasonal pattern:				
b) No. of months, adjusted, <i>optimistic</i>	~5	months		
c) No. of months, adjusted, <i>conservative</i>	~6	months		

Break-even for the Internet investment was reached after five or six months, as shown (see also Figure 6.8).

If the number of Internet bookings were the same throughout the first 12 months after the introduction of the Internet booking facility, it would have taken only two and a half months to reach break-even.

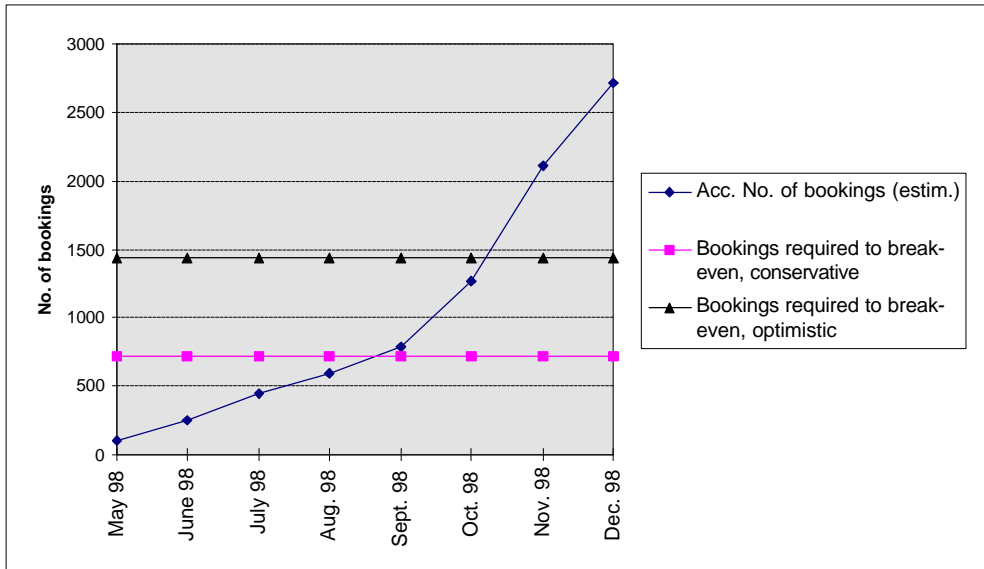
Obviously one would assume that: 1) the number of bookings per months would increase month over month after the introduction, *ceteris paribus* but 2) the season affects the number of bookings. Taking both of these factors into account, one would assume that break-even was reached in the first five months after the introduction at the beginning of May 1998, i.e. by the end of September 98. The season for Norwegian hostels - and for hotels for comparison - is shown in Figure 6.7. The implications are two-fold. Firstly, in general the season for hostel nights is relatively more concentrated in the summer months than for hotels. Thus the season is relatively short, and the revenue basis limited. Secondly, the seasonal pattern affects the assumed Internet sales via the net per month shown in Figure 6.8.

Figure 6.7 Seasonal pattern for overnight stays at hotels and at hostels in Norway



Finally, it should be noted that the assumption stated by HIN that as many as *50% of the Internet bookings can be considered additional* appears to be optimistic. If, for example only 25% of the Internet bookings were additional, then of course it would take twice as many Internet bookings to reach break-even (1434 instead of 717). It took a little more than six months to reach this number of Internet bookings, as shown in Figure 6.8.

Figure 6.8 Break-even chart for the Internet investment of Hostelling International Norway



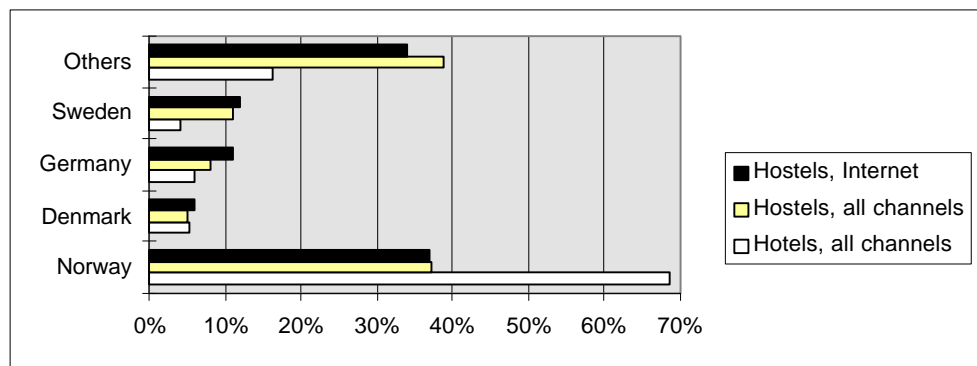
Source: Based on data and analysis from previous table.

Note: The number of bookings per month is estimated only. HIN is currently extending its statistics facilities. Some readers may happily detect something which looks to them like a well-known S-shaped curve. However, the accumulated sales is actually assumed to have increased steadily (like a straight line - since there is no data to support making other shapes), only adjusted for the seasonal pattern shown in Figure 6.7.

HIN regards the Internet as a cost-effective marketing and sales channel. Hostels have a greater share of guests from distant markets than hotels, but a smaller share of Norwegians. On the other hand, when comparing a breakdown of all hostel nights by market, with a breakdown of Internet bookings for hostels, it turns out that there is hardly any difference, cf. Figure 6.9. This means that in the case of Norwegian hostels the data shows that the Internet channel *does not* attract a greater proportion of guests from distant markets (i.e. from markets other than Scandinavia and Germany).

Germans, Swedes and Danes book relatively frequently through the net. As far as Swedes and Danes are concerned, this can be explained by a high penetration of Web use in Sweden and Denmark. As far as Germans are concerned, we must assume that their relatively high preference for making Internet bookings at Norwegian hostels is because German customers perceive the language barrier to be smaller when booking through the net than when booking by phone, fax or letter.

Figure 6.9 Breakdown of guest nights by market (i.e. guests' home country) for hotels, for hostels in general and for Internet bookings of hostels (1998)



Source: Based on data from the Norwegian Statistical Office and HIN.

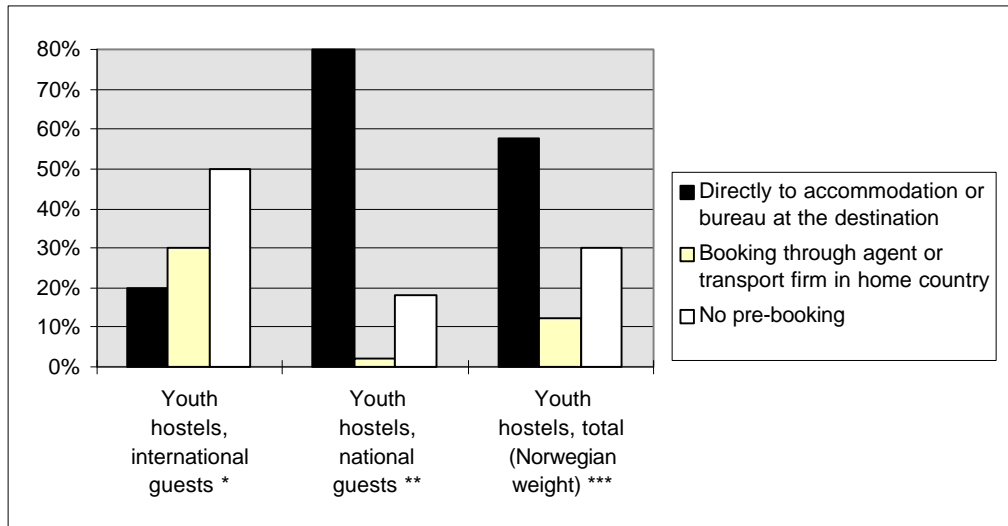
HIN expects to receive a minimum 5% of its bookings - covering about 7% of overnight stays - in the year 2001 through the Internet. Since the corresponding figures for the 12-month period to end of April 1999 were 3% of bookings and 4% of overnight stays, the 2001 expectation is quite conservative. The hope is for up to 7-8% of bookings, i.e. 10% of the overnight stays, but HIN officially aims at 5% of bookings (7% of stays) via the net in 2001.

Table 6.10 Realised and predicted Internet sales for Hostels International Norway

Internet %	% of overnights	% of bookings
1998 (8 months)	3.2	2.4
98.05-99.04 (12 months)	4.1	3.1
1999 (12 months)	~5	3.8
2000 (12 months)	~6	4.5
2001, target	6.7	5
2001, hope	10	7.5
Maximum potential	58	44

The maximum potential for the HIN Web booking request site is not 100%, though, but probably less than 60% (~58%), since based on European data it must be estimated that 30% of the guest nights at Norwegian hostels are not pre-booked (i.e. walk-in), whereas 12% are booked by international guests through an intermediary in their home country as shown in Figure 6.10.

Figure 6.10 Booking pattern for international hostel guests, for national hostel guests, and hostel guests in total



Source: Based on European screening data from Danish Tourist Board 1997, according to Marcussen, 1998, p. 36 for the International data, and Marcussen, 1998, p. 167 for the national data.

Notes: * Basis: Youth hostel guests from six European countries who stay at a youth hostel in a country other than their home country.

** These data actually only cover Danes staying at youth hostels in Denmark - but because there is no other data available these data are assumed to be similar to the booking pattern of other Europeans staying at youth hostels in their home country, for example Norwegians staying at a Norwegian youth hostel.

*** Using the mix between national (37%) and international guests (63%) in Norway as weight.

Future plans of HIN include the establishment of links to transport partners, with how to get there functions, and general links to/from ferry lines (Color Line, DFDS, etc.), trains and buses. Also, HIN would like to put more visual material on its site, showing the interiors, so that people who have not stayed at youth hostels before can form an impression of their appearance. Many people think that youth hostels are just sleeping in large dormitories. But in Norway the maximum number of beds per room is now only four. So photos of the rooms would help.

How could the 9-12 unsatisfactory outcomes out of each 100 Internet booking enquiries be minimised (Figure 6.6) On one the hand, it could be made mandatory to write fax reply numbers into the booking enquiry form, which the Swiss hostel association has done. Another possibility is to make the filling in of the fax number mandatory if and only if the chosen hostel has no e-mail box, and the enquiry is from abroad, and there is less than a certain number of days until arrival. Alternatively, under the same conditions a standard

message could appear on the screen, which the customer could be required to accept having read by checking a box:

Dear customer, Your booking enquiry has been forwarded to your chosen hotel by fax. You have not stated any fax reply number on your booking enquiry, and there is too little time until your chosen arrival for a booking confirmation to reach you by mail. Therefore you are required to phone the hostel at your earliest convenience (now or when you get to Norway), in order to get your booking confirmed.

Other more or less intelligent solutions to this issue could of course be developed.

What are the factors which have led to the success of the HIN Internet booking request system?

- High penetration of e-mail among the accommodation (here: hostels).
- An almost complete penetration of fax machines among the (remaining) accommodation.
- High penetration of Web use in the home market and a couple of other nearby markets.
- Especially high penetration of Web use among the young population, a key customer group.
- A well-known brand name.
- An easily understandable classification scheme.
- Link to an internationally well-known site (www.iyhf.org).
- Central quality control of time taken to respond to booking requests and enquiries.
- The existence of a well-established national as well as international marketing organisation for the brand.

Clearly the HIN Internet booking request solution has implications for other youth hostel associations as well as for associations and groups of other types of small accommodation establishments such as small leisure hotels, B&B, camping etc.

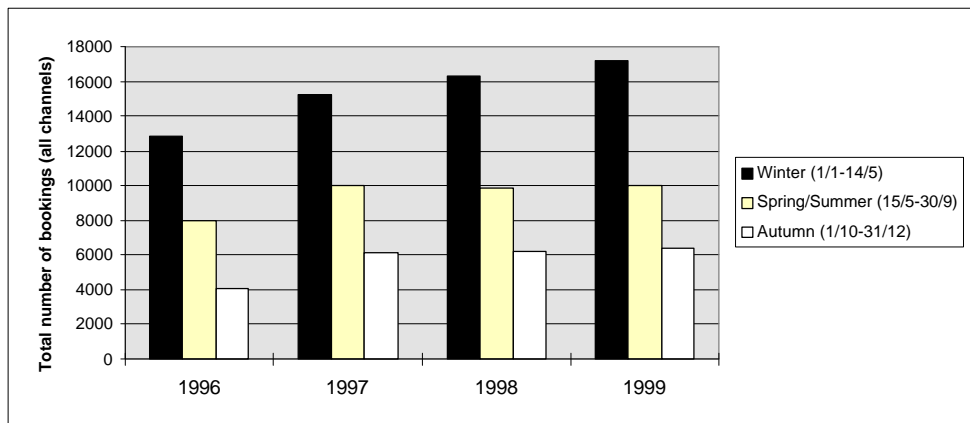
6.5 Holiday cottages

6.5.1 The online cottage reservation system of Matka-Ruka Oy, Kuusamo, Finland

Ruka is Finland's most popular skiing resort, which is located next to the town of Kuusamo, close to the Arctic circle.¹⁹⁷ The Matka-Ruka travel and cottage letting agency was founded in 1988 and is situated in Kuusamo (*Matka* means travel agency). There are 10 people employed at the agency during the winter and eight during the summer. Of these, up to four people work with the booking of cottages, two work with incentives and conferences and about three with general travel.

The Finnish market accounts for about 64% of Matka-Ruka's cottage letting revenue. The eastern countries (Russia and the three small Baltic countries) account for 12% and other foreign markets for 24%. Winter is the high season for Matka-Ruka, and accounts for about half of all bookings. In 1998 a total of 32 400 bookings were received, which, based on the bookings realised for the Winter season, can be expected to increase by more than 1000 in 1999.

Figure 6.11 Total no. of bookings (all channels) received by Matka-Ruka per season 1996-99



Source: Matka-Ruka Oy, Kuusamo, Finland.

Note: Summer and autumn bookings 1999 are predictions (by the writer).

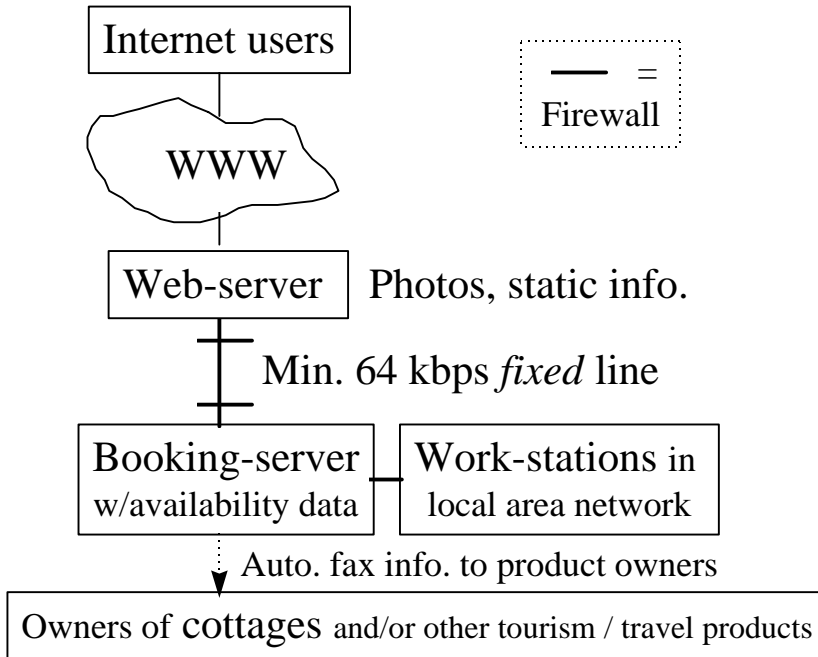
¹⁹⁷ Kuusamo is reachable by direct flight from Helsinki, which is the convenient way of getting there and back (www.finnair.fi), or for example by night train from Helsinki to Kajaani (www.vr.fi), and then four hours by a morning coach from there to Kuusamo (254 km), which is the scenic way of getting there (not mentioned on any website). Local buses then go several times a day the last 26 km from Kuusamo to Ruka (not mentioned on any website either).

Matka-Ruka in Kuusamo had an internal (stand-alone) electronic booking system for cottages from the very beginning in 1988. A text based DOS version of the current booking system was installed at Matka-Ruka in 1992. The booking system was developed by the software house Pehmo Oy, which is also based in Kuusamo in north Finland and has about 22 employees. The booking system now comes in a Windows-based version, which Matka-Ruka has installed. The booking server may be connected with a Web server through a so-called Internet bridge, which was first implemented for Matka-Ruka. The Internet bridge was developed jointly by Pehmo Oy and the Internet Service Provider JSOP Interactive Oy in Kuopio in the middle of Finland, which has about 20 employees. The booking system itself works with the languages Finnish, Swedish, English and German, between which different users are able to switch as or if needed. Additionally a Spanish language version of the system exist, and a Russian version is being made.¹⁹⁸ There are about 20 regions in Finland that use the Pehmo Travel Booking System, which is about a third of the regions, most of which use the system on a stand-alone basis only, i.e. not connected with the Internet. The system can be used for many different tourism and travel products, but here we focus on cottages. The system can run on a normal Pentium PC, or a mini-computer, as server, and then work-stations with standard Windows 95 or 98 operating systems. The preferred operating system for the server is Linux - and a MySQL database. Whenever a booking is made, a fax message is automatically sent to the product owner, i.e. the cottage owner or the hotel owner.¹⁹⁹

198 To develop a new language version merely involves the translation of 1400 words, which would probably take about two or three weeks, and for this procedure there is an application in the system. As a matter of curiosity a trainee from Spain made the Spanish version in six weeks, based on the existing list of the 1400 words in English.

199 The product owner (who may have 10 identical cottages or a certain number of identical hotel rooms) may also inform the booking centre by a partly precoded fax page of changes in availability, which can be read automatically 24 hours a day at the booking centre by means of Optical Character Reading (OCR) technology. The fax system is being implemented, and is currently being used by Kuusamon Tropiikki (a leisure spa), where it is working fine.

Figure 6.12 Basic components of an Internet based booking system - e.g. for cottages



The website of Matka-Ruka²⁰⁰ was established in January 1996 and was the first website in Europe where it became possible to book holiday cottages in real-time.²⁰¹ The site includes all the functions of an Internet based booking system - except payment, but this is planned. By filling in a form the Internet can get a list of the available cottages for a selected period (starting at least one week ahead), in one of five sub-regions (if any preferences) sorted by price, standard or size.²⁰² The availability data of the cottage booking system is in real-time, extracted directly from the website. Only cottages which are available at the chosen times are presented to the Internet user.

In 1998 Matka-Ruka received about 2000 Internet bookings and telephone bookings made on a special telephone number only mentioned on the Internet, corresponding to about 6% of all bookings. Many customers prefer to make the actual booking by phone. The number of pure Internet bookings - completed booking forms received by e-mail - was about three

200 www.matkaruka.com/ or www.ruka.fi/ or www.travel.fi/int/Ruka/ (+ click On-line reservation system).

201 In the airline part of the travel and tourism industry British Midland was earlier, November 1995, and its solution included payment from the beginning.

202 The booking instructions can be found at <http://linux.travel.fi/int/Kuusamo/reservation/ohjeita.html>.

per day in 1998, i.e. about 1000 for the year. This is one of the finest results seen for any travel and tourism related website in Europe in 1998. In the winter season (first four and a half months) of 1998, the Internet percentage was 6%, and in the winter season of 1999 this had increased to 9%. For the whole year 1999 the Internet percentage may reach 12%, corresponding to about 4000 bookings.²⁰³ The average number of days per letting contract is four days for the whole year, a little longer during the winter season.

Table 6.11 Internet bookings for Matka-Ruka 1996-1999

Year	1996	1997	1998	est. 1999
Total no. of cottages and similar units			750	750
of which in catalogue and on Web			163	163
Average no. of days per booking			5 days	5 days
Available five day periods in total ~			52 500	52 500
of which for cottages on the Web			11 410	11 410
Available weeks in total (~50 weeks)			37 500	37 500
of which for cottages on the Web			8150	8150
Total no. of bookings	25000	31400	32 400	33 600
Occupancy rate, of five day periods			62%	64%*
Occupancy rate, of available weeks			86%	90%*
Internet bookings in % of all bookings	1	2	6	12
Internet bookings ~	250	625	1950	4025
Internet bookings in % of:				
- available five day periods on the Web			17	35
- available weeks on the Web			24	49
Value per booking, FIM	1800	1900	2000	2100
Internet revenue, FIM mill.	0,5	1,2	3,9	8,5
Internet revenue, \$ mill.	0,1	0,2	0,7	1,6

Source: Matka-Ruka Oy, Kuusamo according to JSOP Interactive Oy, Kuopio.

* Note: The average occupancy rate for hotel rooms in Finland is 48%.

There are 163 cottages (or similar units) in the Ruka/Kuusamo region in the printed catalogue of Matka-Ruka, which comprise most of the cottages which are also in the Internet based booking system, in which one can find up to 103 available cottages in the low season. Each available cottage is described by one to three photos and a ground plan of the building, and there is information on mentioning of distances, the location, facilities of the cottage (14 tick boxes) and its surroundings (fishing, hunting, beach). However, not all the

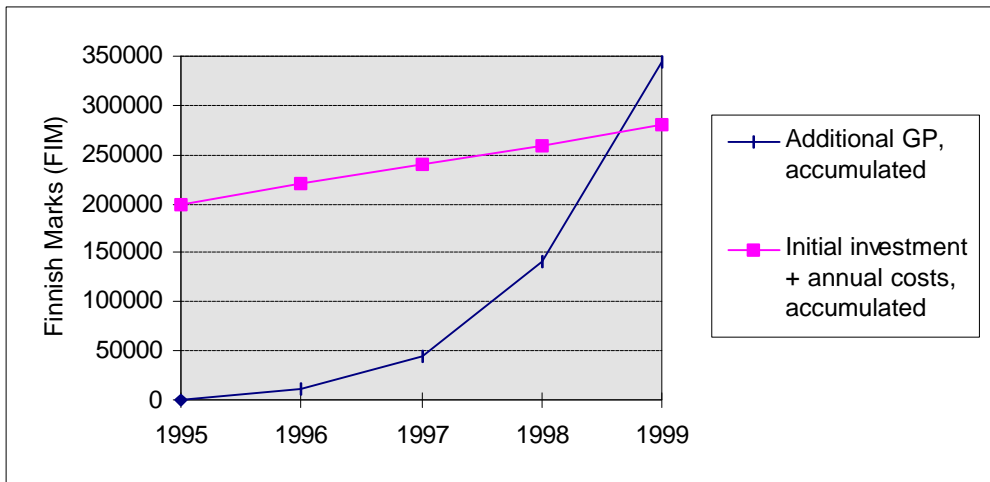
203 Matka-Ruka itself actually mentions 14% as a target for all of 1999, but that is hardly achievable in light of the 1999 winter season, which accounts for about a year's bookings.

cottages are in the printed catalogue or on the net, since as many as about 750 cottages are let out by Matka-Ruka at least at some time during the year.

Skiers are typically young people who are heavy Internet users. The Internet is therefore considered to be well suited as a sales/distribution channel for (winter) holiday cottages.

In 1998 break-even had not been reached by Matka-Ruka, but if the projected number of Internet bookings are realised, break-even may be reached in 1999, as shown in Figure 6.13. The straight line represents the initial investment (assumed to have been undertaken by the end of 1995) plus an annual fixed recurrent cost for the Internet Service Provider. The curved line has been generated by multiplying an approximate additional gross profit per Internet booking of 50 FIM with the number of Internet bookings per year mentioned in Table 6.11 for further explanation (see Appendix 6.7).

Figure 6.13 Break-even chart for the Matka-Ruka Internet booking system



Note: Interest, which would impact the above investment negatively, has not been taken into account. If an interest rate of about 8% p.a. had been taken into account the Net Present Value of the investment would have been zero by the end of 1999. Graphically this would mean that the two lines in the above diagram would intersect not during the year 1999, but by the end of 1999.

An Internet booking system similar to that of Matka-Ruka has also been implemented in two other regions in Finland, namely Tahko and Pirkanmaa. Tahko appears to comprise just as many cottages as Matku-Ruka, since it also returns up to about 100 available cottages for searches in the low season, and Pirkanmaa, which returns up to about 20 available cottages. In North Sweden (Ammarnäs in the Västerbotten region), the booking form

has also been put up on a site, but this site returns no matches - irrespective of the search criteria used.²⁰⁴

Future visions - seen from the point of view of Pehmo - for the Internet based booking system implemented by Matka-Ruka, Tahko, and Pirkanmaa in Finland - include the implementation of the following possibilities:

1. Booking activities, such as ski lift cards, fishing trips, etc.
2. Booking tickets for events - on a real-time basis.
3. Booking of self-designed packages - including transport.
4. Booking of round trips, with overnight stays at cottages and/or hotels in different places in Finland, which would require the establishment of the systems in more places in Finland.
5. Implementing systems internationally - more in Sweden, Russia, other countries.

The reasons for its success - as reflected in the high percentage of Internet bookings for the Kuusamo cottage booking system at Matka-Ruka - include the following:

- A significant incentive for making Internet bookings (FIM 60 ~3% for Finns, FIM 180 ~9% for foreigners).
- A world record high Internet penetration in Finland in general (30%+), and even higher among the young - skiing - population of Helsinki (from where the Finnair flight to Kuusamo leaves).
- And certainly: a super product and a well-functioning website - with no requirement for payment online.

6.5.2 Danish holiday cottages - A general overview

Holiday cottages play an important role for tourism to and in Denmark. Out of about 44 million tourist nights p.a., holiday cottages accounted for 16.6 million in 1998. The geographic distribution of person-nights in Danish holiday cottages was as follows in 1998: Germans 80%, Danes 11%, Norwegians 4%, Swedes 2%, Dutch 2%, Others 1%.

The number of let out cottage-weeks by *Danish agencies* was 522 000 in 1998. In full-week equivalents it was exactly half a million. The number of contracts, i.e. bookings, was 343 000. This means that each booking (contract) was for one and a half weeks on average. Germans typically book two weeks, Danes typically one week.

There are about 124 cottage letting agencies in Denmark, which have a total of about 35 000 cottages in their main catalogues. Four big cottage letting agencies have about 63% of these cottages: DanCenter 8000 (after the take-over of Larsen Ferienhäuser with 2000 cottages late in 1997), dansommer 5000, Novasol 5000, and Sol & Strand 4000, i.e.

204 For links to all these four sites, please see www.travel.fi. 75% of the visitors to this domain are from Finland.

22 000 in total (which leaves some 13 000 for the remaining 120 small and medium-sized agencies). The four large agencies probably account for about 2/3 of the let out weeks and most likely at least 2/3 of revenue.

Additionally 10 000 Danish cottages are let out for at least some periods of the year, i.e. 2000 were too late for the catalogue but are let out by Danish agencies anyway, some are let out by foreign agencies (such as Wolters, 1000), and some are let out privately (7000). All in all about 45 000 Danish cottages are let out at least some periods of the year, whereas the rest of 194 000 holiday cottages in Denmark are for private use only.

Two of four large Danish cottage letting agencies started letting out via the Internet in the spring of 1998, namely dansommer, which came first with its booking site at the beginning of March; by the end of April 1998, Sol & Strand followed. dansommer (always written with a lower case *d*) marked the establishment of this function by a full-page advertisement in a Danish national paper. It was too late for dansommer to mention function in the catalogue for the 1998 season, which goes to print early. Sol & Strand did not make any special efforts to make the new function known.

The two other large letting agencies DanCenter and Novasol opened their Internet booking sites at the beginning of 1999. All the solutions are with real-time availability data,²⁰⁵ interactive search functions (which return only the available cottages for given periods), prices and reservation functions. None of the solutions comprise on-line payments. The explanation is that holidays (certainly in cottages) are typically booked a long time (4-5 months) ahead and therefore there is plenty of time to settle payment by traditional means.²⁰⁶ And in general, certainly in Europe, holiday-makers and travellers are to some extent reluctant to pass their credit card details across the net.²⁰⁷ For last minute bookings (defined by dansommer as the last two weeks), preliminary reservations which are valid for three days can be made. Within this specified period of time the customer must contact a travel agency or the letting agency directly to arrange for payment.

The four large Danish cottage letting agencies have different sales strategies. Sol & Strand only sells directly, whereas the other three exclusively or mainly sell through travel agents, for example on the main market, which is Germany. Therefore Sol & Strand is not

205 Or practically real-time. Sol & Strand updates its availability data every two minutes, according to Internet developer Orla Mortensen, Sol & Strand, June 1999. Earlier on it was every five minutes, cf. Marcussen, January 1999.

206 Additionally, the Internet payment situation as far as the Danish market is concerned was unsettled until change of the Law of Payment Cards by the Danish parliament in April 1999, cf. Appendix 2.6.

207 In the UK it has been found that more people are willing to purchase holidays on the net if they do not have to give credit card details on the net (www.euinus.com/320.html, 1998 Consumer Survey Summary), cf. also chapter 2.5. On top of the resistance against Internet payments on the part of the consumers, there is a cost involved on the part of the supplier for receiving credit card payments of around 1%-2% (going into the pockets of third parties), which in the last resort would have to be paid by the consumer as well.

bookable through the travel agent booking system Start, whereas the three others are. In effect Danish cottages are distributed in practically the same way as tour packages. And in fact dansommer and other large Danish cottage letting agencies are ranked high on the list of top tour operators in Germany - and in Europe - both by revenue and (especially) by number of participants.²⁰⁸

This sales/distribution strategy is also reflected in the booking solution implemented on the dansommer website as well as on those of DanCenter, Novasol and many tour operators in the German market, from which reservations can only be made after the Internet user has chosen a travel agent to fulfil the purchase (issuing of documents and collection of payment partly or in full, depending on how long there is until the start of the holiday). In 1998 dansommer got more bookings than Sol & Strand through the Internet, whereas DanCenter and Novasol had not started yet in 1998.²⁰⁹

6.5.3 dansommer - A Danish cottage letting agency

In 1998 dansommer was the number one Danish cottage letting agency in terms of the number of bookings received. dansommer is keeping a relatively high profile in the Internet field, for example via a banner ad on the website of the German travel trade magazine fvw. The writer therefore holds that it can be taken for granted that dansommer is maintaining its leading position in terms of Internet bookings received in 1999.

208 Revenue per participant (i.e. not per booking) is relatively low for holiday cottages. DanCenter, which took over the number five in the market in 1997 (Larsen Ferienhäuser) has a greater number of holiday cottages in Denmark than any other letting agency, but has traditionally not contributed data to the annual listings of German and European tour operators in the fvw magazine. Novasol, contrary to the other three major Danish cottage letting agencies, has more cottages outside Denmark than in it (as detailed in table 6.2 in a book in Danish by Marcussen, 1998, p. 99).

209 cf. Rørth, Charlotte, 1998, Succes med udlejning via Nettet, article in Danish in the national newspaper *Jyllands-Posten*, Digitalt section, 24 June, p. 2.

Table 6.12 Internet bookings for dansommer - realised and expected

Booking year	Total No. let out weeks	% of all weeks booked via Internet	No. of Internet booked weeks	Internet revenue per week DKK	Internet revenue, mill. DKK	Internet revenue, mill. \$	Weeks per Internet booking	No. of Internet bookings, approx.
1997		-	0		0	-		0
1998		0.8	700	4200	3	0.4	1.4	500
1999	80 000	7.5	6000	4400	26	3.9	1.5	4000
2000		15	12 000	4500	54	8.1	1.5	8000
2001		25	20 000	4600	92	13.7	1.5	13 300

Source: Based on dansommer statements (% columns and no. of booked weeks).

Note: For the purposes of this case study the writer has assumed that the no. of weeks let out remains constant at 80 000. This is 16% of the full-week-equivalents let out by all Danish cottage letting agencies (500 000), generated via about 14% of the cottages let out by the Danish agencies (i.e. by about 5000 of 35 000 cottages in main catalogues).

In the booking year 1998, dansommer received about 600 bookings for a total of 700 weeks, generating revenue of DKK 3 million (\$0.4 million; 1\$ = DKK 6.7 in 1998). This in turn corresponded to about 0.8% of dansommer's total revenue for the booking year 1998.²¹⁰ The booking year is somewhat earlier than the calendar year, running from about October to September. The dansommer site was opened *late* in the booking year 1998, which effectively only comprised a few Internet sales months, and therefore the 1998 and 1999 booking year data cannot be compared directly. But for the booking year 1999 (the first full booking year) the expectation is that a total of 6000 weeks will be booked through the Net (~4000 bookings), corresponding to about 7.5% of total number of weeks as well as of revenue. For the booking year 2000, the Internet is expected to account for 15%, and in the year 2001 for about 25%-28% (interpreted by the writer as 25%) of dansommer's bookings (as measured by number of weeks and revenue). How high the percentage will be will to a great extent be determined by how quickly the penetration of the Internet will increase amongst the German population, and the willingness of Germans to make reservations for holidays on the net.

dansommer has no intention of deviating from its traditional distribution strategy - as reflected in its current Internet booking procedure for the German market²¹¹ with its fine meshed net of agents - as long as sales through travel agents continue to give satisfactory results.

210 In other words, total revenue for the dansommer group per year on all markets is around DKK 400 million (~ DM 100 million), which is confirmed in the annual listings by the fvw magazine, Europäische Veranstalter in Zahlen, and Deutsche Veranstalter in Zahlen.

211 cf. the aforementioned procedure of selecting a travel agent to fulfil the Internet booking.

Table 6.13 shows the great importance of the Internet for dansommer, certainly from 1999 and onwards, by market. The importance of the Internet increases so quickly that the Internet percentage is markedly greater for the *calendar* year 1999 (to date) than for the *booking* year 1999, which includes three (slow) months from 1998, cf. the aforementioned 7.5% for the booking year 1998 vs the 10% for the first five months of the calendar year 1999. Let us call this result by its right name: a world-class result, only challenged by one other cottage letting agency in Europe in relative terms (Matka-Ruka in Northern Finland as described elsewhere), and in absolute terms dansommer looks set to become the number one cottage letting agency in Europe in terms of Internet revenue in 1999 - and beyond the millennium.²¹² It is noteworthy that the Internet accounts for a marginally larger percentage of revenue than of the booked number of weeks. This means that the Internet - in the case of the dansommer product - is not just used by the customers to search for and to make reservations for bargain holidays.

Table 6.13 The importance of the Internet for dansommer as a distribution channel - for the booking period January-May, 1999

Market	Currency (1)	% of all weeks via Internet per market	% of value via Internet per market	Approx. weight, an educated guess (2)
Germany	DM	6.9	7.0	77.5%
Denmark	DKK	21.9	22.5	13.5%
Norway	NOK	22.1	22.8	4%
Netherlands	NLF	6.9	7.6	2%
Sweden	SEK	NA [~22]	NA [~22.5]	2%
Others	-	NA [~22]	NA [~22.5]	1%
Total		10.0	10.2	100%

Source: dansommer, for Germany, Denmark, Norway, NL and the total.

The weight per market is the writer's assumption, as is the importance of the Internet for Sweden and others.

Notes: (1) Strictly speaking, the percentages of weeks and value are per currency, not per market. For dansommer part of its sales in DKK, based on the Danish language catalogue etc. is to non-Danes. For all practical purposes the currencies and the markets can be equalled as shown. Because of this detail, Denmark (dansommer sales in Danish currency) carries a slightly higher weight for dansommer than one should otherwise assume - for example based on the general market statistics (for number of registered overnights by nationality). (2) This is the percentage-distribution of the total number of tourist nights registered by all Danish cottage letting agencies (i.e. not alone for dansommer) in 1998 according to Denmark's Statistical Office, as already mentioned in the beginning of this case study, +2.5% for Denmark (DKK), and -2.5% DM, which makes the totals fit.

During the first few months after the implementation of the booking function in 1998, the home market generated more Internet revenue than the main market. But in 1999 the

212 The Internet revenue of dansommer for 1998 (which was short for dansommer, especially if we look at the booking year) was surpassed by the Matka-Ruka (winter) cottage letting agency in northern Finland. dansommer and Matka-Ruka are about equal in relative terms during the first half of 1999. But in absolute terms, dansommer is generally a much larger business than Matka-Ruka.

situation was reversed. Although Danes (and Norwegians) in *relative* terms generate three times more Internet revenue than Germans, in absolute terms Germans generate the greatest Internet revenue.²¹³ The Internet has led to some, albeit few, bookings from markets which are not covered by dansommer's general sales organisation, such as Switzerland, so in this sense the Internet has given distribution access to *new markets*.

dansommer has used one page - in its thick-as-a-brick (865 pages!) printed catalogue to explain to (potential) customers how to make bookings via the net. This, together with advertising and word-of-mouth, has meant that potential customers have become much more aware of the Internet booking possibility in the first half of 1999 than they were in 1998, and during the same time web use in general has increased. German travel agents invariably make bookings for dansommer cottages via their START work-stations (so obviously they value their time more than the START booking fee), whereas a few of the Danish tourist bureaux, which have a relatively low volume of bookings for dansommer cottages, use the net when booking dansommer cottages.

Disregarding businesses which are exclusively Internet based (and therefore by definition get all their revenue through the net), and looking across all kinds of travel and tourism products in Europe, it is perhaps no coincidence that one finds the highest proportion of Internet bookings among holiday cottage agencies. Three of the very highest Internet booking percentages among traditional travel and tourism businesses in Europe (in 1998 and in the first part of 1999) are all found within the holiday cottage category. How can this be explained? There is a great proportion of repeat visitors among those who book Danish (and probably also Finnish) holiday cottages. The question is, is part of the tremendous success (everybody will have to agree that this is an appropriate way for the writer to describe the results demonstrated for the first part of 1999) of the medium for dansommer (as well as for Sol & Strand and for Matka Ruka) partly due to the fact that the guests know the product and perhaps even the individual cottage in advance from previous visits? By doing research among their customers dansommer itself could find a precise answer to this question.

Reasons for success - certainly in the first half of the calendar year 1999 - for dansommer:

- A high proportion of repeat visitors, perhaps even down to the individual cottage level. Therefore many customers feel that they know the product quite well in advance.
- A well-known brand, a classification system - and furthermore many luxury cottages.
- A high penetration of web-use in Scandinavia.

213 This is evident when multiplying the percentages in the two columns to the right in Table 6.13, although the weights are only approximate.

- Mention of the Internet booking function in the printed catalogue, which comes out in multiple languages, in high volumes, as well as mention in many other forms of market communication broadly defined.
- High awareness among potential customers of the Internet booking function (cf. above).
- Possibly the tying-in of the travel agent link on the main market, which can reassure the customer of the good choice of holiday and the specific holiday cottage.
- Payment off-line, by traditional means.

6.5.4 Sol & Strand - A Danish cottage letting agency

From May 1998 to end of May 1999 Sol & Strand received bookings for 3200 cottage weeks via the net. During the first five months of 1999 alone, bookings for 2200 weeks were received via the net, corresponding to 10% of all weeks booked during this period! There are about 1.5 weeks per booking.

A technical piece of information worth mentioning here is that Sol & Strand has implemented a Virtual Reality function on their site cottages. This means that the Internet user can get a 360 degrees Virtual Reality (VR) view inside the cottage as well as of its surroundings. In the first instance the function has been implemented for 12 cottages (all with outside and two with inside panoramas). The aim is to implement the function for as many as 10% of the cottages from June to September or October 1999 (i.e. for 400 cottages).²¹⁴ This must be interpreted as outside panoramas, since obviously it is relatively easy to make the outside recordings without disturbing anyone.

The investment in the necessary software was only \$60 which Sol & Strand undertook after the firm's Internet developer had participated in a cheap one-day course. Obviously there are considerably more costs involved in having two photographers or cameramen driving around the country (for about four months) to make the digital panoramas. Within the firm the danger of demystifying the holiday experience has been considered. But the main thing for Sol & Strand has been to make the customers as well informed as possible beforehand. The development within the Internet field will potentially be able to make a large part of the normal marketing via catalogues superfluous. But the traditional catalogue, of which Sol & Strand prints 240 000 copies p.a. (650 pp., 1.3 kilos each!) will be maintained for many years to come in spite of the Internet booking and VR functions, according to Messrs. Kaj Frederiksen, MD, and Internet developer Orla Mortensen, Sol & Strand.

214 Norhagen, Poul, 1999, Kig ind på ferien (in Danish, meaning: Have a look into the holiday), *Jyllands-Posten*, Digitalt section, 2 June 1999.

There may be some savings in the field of catalogue use because of the Internet. But normally the printed catalogue is used in conjunction with the electronic catalogue on the Web. Often customers go to the website and search for available cottages before they phone the sales agents. It takes time to change customer behaviour towards less use of printed catalogue and to complete the booking via the net. But the change will come. An increasing number of people use the electronic catalogue either for looking or looking and booking. Therefore the Internet shop is being extensively developed with regards to functionality and visual presentation, whereas the printed catalogue remains as it is. The signal to the customers is clear: *If you want to know more, then use the electronic catalogue in the self service shop.*

6.6 Camping

6.6.1 Camping in Europe - An overview

As shown in Appendix 2.1, camping is a popular form of holiday among Europeans, especially for holidays within the holiday-makers' home country. Every sub-sector - and every major company - in every industry from manufacturing to tourism seems to be able to define themselves in such a way that they become number one or two. This also goes for camping as a form of accommodation in Europe:

*The camping/caravanning sector provides some 10.8 million tourist beds in Europe. It is therefore the largest single tourism reception network in Europe and in terms of provision, comes ahead of traditional hotel business with 8.7 million beds.*²¹⁵

Let us check with Appendix 6.1 as to number of beds: independently of the above, the writer has estimated and/or found almost exactly the same number of *hotel* beds in Europe, at least in 1995 where there were 8.9 million hotel beds in W.Europe, although this had increased to 9.4 million in 1997. This serves to verify both the above quote and the numbers in Appendix 6.1. Also this cross-check serves to give confidence in the number of 10.8 million tourist beds in the camping/caravanning sector in (Western) Europe - although many holiday-makers in this sector bring their own bed, so to speak.

The European Federation of Campingsite Organisations (EFCO) represents an industry of some 20 000 holiday parks within the EU - plus Croatia, Hungary, Norway and Switzerland. EFCO claims that *European Commission research indicates that the sector receives no less than 22% of all holiday makers in Europe, on average each year.*²¹⁶ This claim, however, does not fit with another piece of EC research referred to by this writer in Ap-

215 www.camping-europe.com/ (EFCO's website).

216 The precise reference has been requested from EFCO.

pendix 2.1, namely the pie chart which showed that 14% of Western European holiday-makers used camping as their form of accommodation in 1997-8.²¹⁷

Now we can begin to understand the 10.8 million tourist beds given for European camp sites: with 20 000 sites there are 540 tourist beds at each (in tents, caravans, mobile homes, etc.). About *German* camping sites we also know that there are some 3000 of them – two-thirds of which have less than 250 camping spots, with 100-200 as the most common number, and 234 the average. This means that camp site owners frequently need a second job to make a living.²¹⁸ Since the average number of spaces at each camp site for Europe as a whole is probably about 200 (i.e. a little below the average for Germany), this means that it appears to have been assumed that there are $540/200=2.7$ tourist beds per camping space (=the average party size), which seems a fair assumption (since few camp alone, and many bring children).

It should be noted, that camping is characterised by:

- a very short season (in Denmark, for example, 79% of camping tourist nights were counted in June, July and August, with 44% in July alone);
- low revenue per visitor;
- few employees per camp site (including the owner), and camp sites are generally very small businesses in terms of average annual revenue;
- camp sites presumably have a similar or lower IT-level than youth hostels (where the fax-machine is the most advanced piece of IT and telecom hardware installed);
- camp sites places are often not booked in advance.

These typical characteristics of camp sites mean that sophisticated solutions will have little chance of reaching any significant degree of acceptance among the proprietors in this sector. Today the majority of camp sites have a fax-machine. In Denmark fax machine penetration among the 500+ camping sites is 99%, but this is partly because the presence of a fax machine is one of the criteria used by the national classification authority in the country. For comparison, fax machine penetration is *only* about 80% among German camp sites, which can probably be considered a maximum percentage for European camp sites on average.

From the descriptions of rental mobile homes and the facilities at camp sites provided on the web, it is quite obvious that a camping holiday can be both a comfortable, affordable and child-friendly way of taking a holiday.

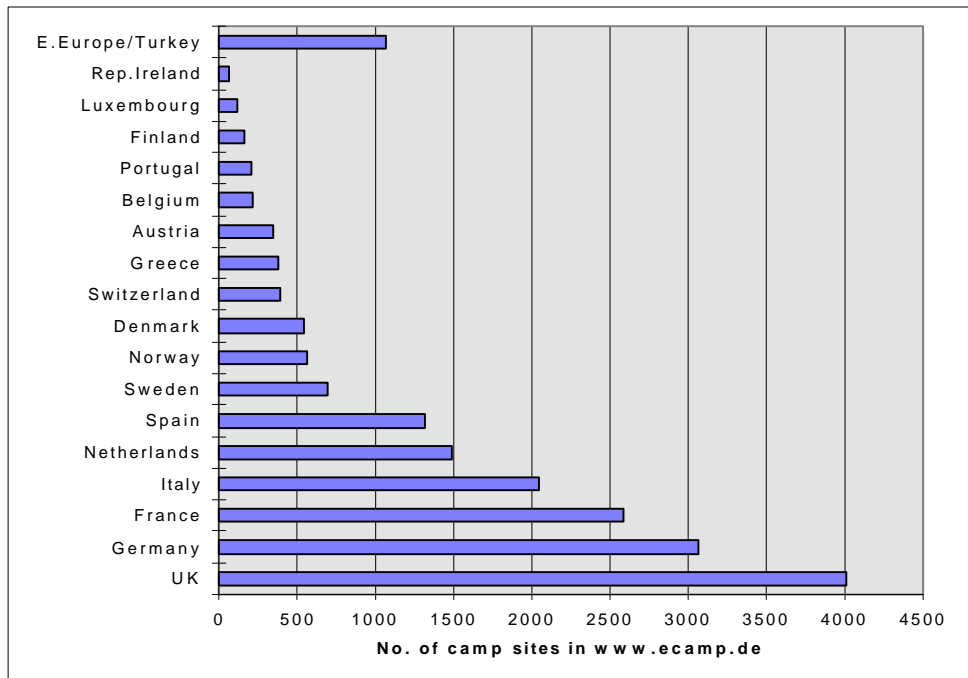
217 EC DG 23, *Facts and Figures on the Europeans on Holidays, 1997-1998*, Executive Summary, March 1998, A Eurobarometer survey carried out on behalf of the European Commission Directorate General XXIII.

218 www.ecamp.com/d/camparc/campppa5f.htm - *Eine Strukturanalyse der deutschen Campingplätze*.

6.6.2 eCamp, SASS GmbH, Germany

We shall now focus on eCamp of SASS Unternehmensberatung GmbH, Hamburg. The firm was founded in 1986, currently has 12 employees, and develops guest management systems for camping sites.²¹⁹ The eCamp website was opened in March 1997 and comprises a directory of practically all the camp sites in Europe. Currently 19 500 camp sites from all across Europe are included in the database.²²⁰ The Internet user can choose between six languages.

Figure 6.14 No. of camp sites per country on the eCamp website



Note: The total for the countries and regions shown is in fact about 19 300, as of June 1999.

In France there should be a grand total of at least 6000 camp sites, of which only 2500 are included in eCamp. In Finland only 160 of 600 are included. In Turkey there should be 300, none of which is included. Further out around the Mediterranean, Israel, with about 125 sites is not included. In general there is the issue of defining exactly what a camp site is. There should at least be a telephone, otherwise it is hardly contactable. But what about auto camper parking places, of which eCamp has 3500 addresses which are *not* included above?

219 Its main product remains the CAMPDAT system, www.sass.de/produkte/index.htm. The address of the eCamp website is www.ecamp.com (and several synonyms).

220 The number of camp sites listed by eCamp almost equals the total number of camp sites mentioned by EFCO, but the EFCO number is largely for Western Europe only, whereas the eCamp website also includes many Eastern European countries.

One important thing (in an Internet distribution/sales/booking context) to mention here is that it is possible to send booking enquiries as well as requests for general information from the website via e-mail to the firm SASS GmbH in Hamburg, which in turn transmits the message via an automatic fax to e-mail translation mechanism on to the camp site chosen by the Internet user. Those camp sites with no fax machine will receive the enquiry by ordinary mail. Camp site owners are charged ECU 1.50 (DM 3.00) per fax-enquiry, but only those relatively few sites which have signed an advertising contract with eCamp, so most are free riders in the eCamp system. In the long run eCamp hopes on some return on investment via such things as making its name known through this service, and subsequent sales of web advertising and products such as its (stand-alone) booking system for individual camp sites.

For a fee it is possible for camp site owners to participate in eCamp in more visual ways than the basic free listing. Thus at the moment 83 camp sites (0.4%) have chosen by buy more or less comprehensive electronic advertisements (home-pages) under the auspices of eCamp, of which 56 are German. About 10 camp sites show last minute offers on the eCamp website.

Another important thing to mention is that 30 camp sites provide *availability data* on-line - in addition to all the basic details about the camp sites, including photos and prices. The availability data reside at an internal electronic bookings system running on a PC (which in turn is connected with the eCamp Web server). The frequency of updating the availability varies between the 30 on-line bookable sites, since this is up to the individual camp site managers. It is possible to make these camp sites' website return available offers for given periods, and then to submit a booking request for one of these, but the booking is not valid until the camp site owner has confirmed the request!²²¹

Table 6.14 Some statistics on the eCamp website

Year	Web visits per day	No. of e-mail to fax enquiries per day (to one of all the 19,500 camps)	No. of Internet bookings per day (to one of 30 on-line bookable camps)
1997	100	~10	0
1998	300	16	2
1999 (first 5 months)	1250	33	3
1999 (predicted)	~1250	33	3

221 Example: www.wulfenerhals.de, named by ADAC as one of nine super camp sites Germany, and one of 54 top camp sites in Europe. Occasionally there seem to be some problems with making the site return available offers, irrespective of choices. But on 1 June the writer managed to make the site return 54 available offers for the period 10 to 12 June (mainly spaces for caravans at DM 78 for two nights, but also mobile homes at DM 128 or up to DM 168). Other top German camp sites with booking websites include: www.wallnau.de, also on the Isle of Femern.

eCamp considers itself to be the number one camping website in Europe - in terms of Internet-generated sales on behalf of the camp sites involved (i.e. via the e-mail to fax service and via the on-line booking function). The writer has found no reason to call this into question.²²²

The revenue generated for the firm SASS itself, which owns the eCamp website, has not been enough to reach break-even for its initial Internet and recurrent annual cost. All in all the costs have been about DM 250 000. The initial development costs were about DM 100 000, traffic (telecom) costs are about DM 40 000 per year (~1998), and the annual costs of updating and revising the website are about DM 25 000.

As to the outlook for eCamp for the year 2001 Mr. Sass has become very sceptical! Mr. Sass regards the application of the Internet by camp sites in Europe in general - as a promotion tool and sales channel - as being in a very embryonic stage in the middle of 1999. In spite of his scepticism about the relatively near future (until and including 2001), Mr. Sass does believe that the Internet will become a more important platform for selling camping holidays in general.

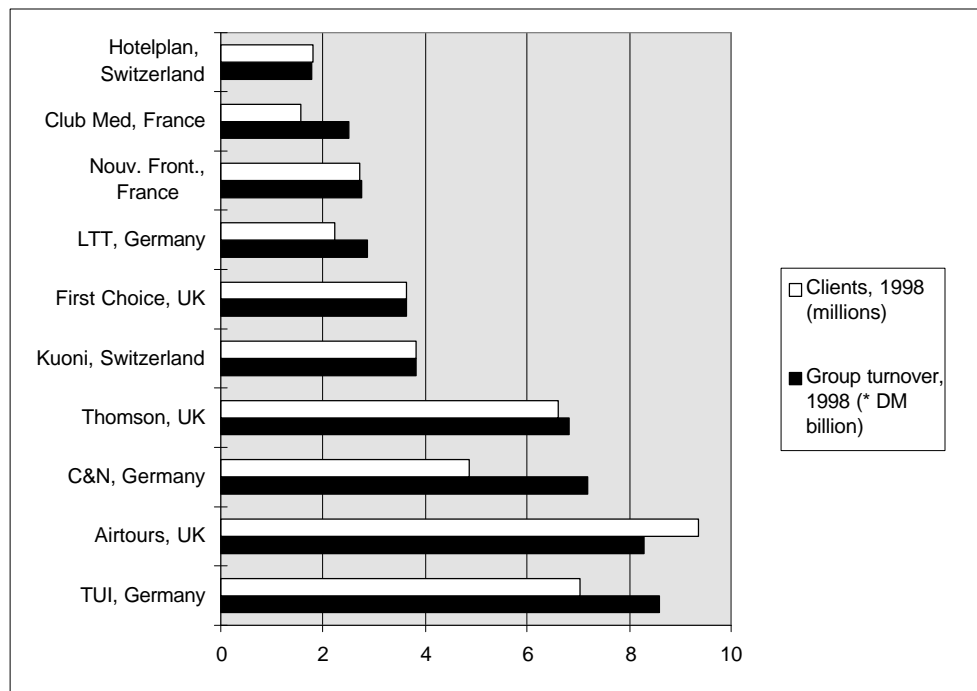
222 For example www.eurocamp.co.uk (of Holidaybreak plc, formerly Eurocamp plc) does not offer Internet bookings for its over 200 sites in 11 countries. Neither does www.keycamp.co.uk/ (also of Holidaybreak plc), but it does offer an availability checking service for its 115 sites in eight countries. Group revenue of Holidaybreak plc was £114 million and the group had over a million participants in 1997/8, including Eurocamp UK which had revenue of £48 million, and 260 000 participants in 1997/8 (fvw 13/99 pp. 14-15). Although Holidaybreak plc (with Eurocamp and Keycamp) is huge within camping in general there is no camp site booking function on the net under its auspices.

7. Distributing European package tours on the net

7.1 Introduction to European tour operators on the net - A market overview

Revenue and participant numbers for each of the major European tour operators develop all the time. The major players generally grow faster than the market average. Mergers and acquisitions take place nationally as well as across borders, and each of the travel groups is frequently being restructured, and ownership changes. For the financial year 1998 (running from late 1997 to late 1998), the situation was as shown below.

Figure 7.1 The top 10 tour operators in Europe (financial year 1998)



Source: fvw - Europäische Veranstalter in Zahlen, Dokumentation 1997/98, 28 May 1999 (fvw 13/99).

Note: The revenue and participant (client) numbers include not only the home market, but also foreign markets. For Thomson, Kuoni and First Choice, the participant numbers are estimates only.

Now to the situation per market in UK, Germany, Switzerland and the Nordic countries. The following is largely based on fvw - Europäische Veranstalter in Zahlen, Dokumentation 1997/98 (and 1996/97).

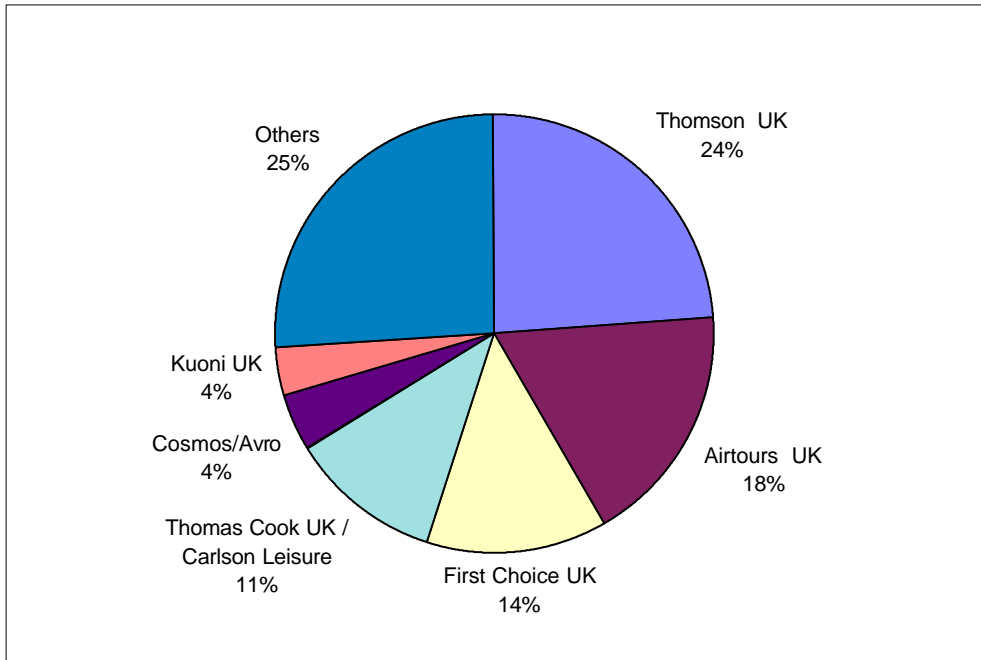
7.1.1 The UK

When looking at the corresponding situation in some of the major markets, specifically the UK, there is at least one difference in the rankings, because the operators differ as to the degree to which they get their revenue from their home market. Thus on the UK market, Thomson ranks ahead of Airtours, although for all markets under one, Airtours' revenue is greater than that of Thomson. Airtours PLC states in its 1998 annual accounts and on its website that it is *the largest package holiday company in the world*. This is by number of participants (not by revenue).²²³

The total package tour market in the UK should be 18 million participants per year (airbased), according to the CAA (fvw 13/98 pp. 5 and 22). Assuming that the air-based tours account for 80% of all packages, the total was about 22.4 million packages. The total value of the UK package tour market was about DM 22 billion (£7.4 billion or \$12 billion). The average price on the UK market was about DM 962 in 1998 (£330 or \$547).

223 According to fvw 13/99 p. 13, the Airtours Group sold 9.4 million package tours in 1998 worldwide, which tops the 8.5 million mentioned in its annual accounts of 1998, where it states that it is *the world's largest provider of air inclusive holidays*. The TUI Group had greater revenue in 1998 than the Airtours Group, cf. Figure 7.1, but the Airtours Group had more clients than the TUI Group.

Figure 7.2 Market shares among tour operators in the British market (by value, 1998)



Source: Based on data from fvw 13/99 supplemented with own estimates for Thomas Cook, Carlson, and others.

Note: Thomas Cook and Carlson Leisure Group UK have merged. After the merger the UK company carries over 2.5 million package holidaymakers a year (was stated by www.hotel-on-line.com, 4 Oct. 1998, and is repeated at the Thomas Cook Web-site). According to CAA, the Civil Aviation Authority in the UK (cf. fvw 14/98), Carlson Leisure Group UK was licensed to carry 0.4 million participants, and assuming it did that, this means that Thomas Cook carries 2.1 million. Assuming prices close to the market average, the revenue figure and corresponding percentages for Thomas Cook and Carlson Leisure in the above figure have been estimated.

Thomson Travel Group is the market leader in the UK - meaning it sends more Britons on package holiday tours than any other tour operator.²²⁴ Thomson Travel Group was floated on the London Stock Exchange in May 1998. Before then it was part of The Thomson Corporation, Canada. Thomson Travel comprises the tour operators Thomson Holidays, Skytours, Portland Direct and Crystal.²²⁵ Holiday Cottages Group (with 9000 cottages in the UK, Rep. Ireland, and France), the travel agents Lunn Poly (with about 800 outlets), Budget Travel of Dublin (with another 50 outlets), and the charter airline Britannia Air

224 4.7 million from the UK in 1997, fvw 24/98, p. 70.

225 www.thomson-holidays.com/. Crystal is Britain's No. 1 Ski Specialist Tour Operator, and was acquired by Thomson Travel in 1998. Crystal should have over a thousand employees (www.crystalholidays.co.uk/).

(the world's biggest holiday airline - with 41 planes) are also included in the group. In December 1997 Thomson bought Fritidsresor, Sweden's and Scandinavia's second biggest operator, which includes a wholly-owned Danish subsidiary, Star Tour. (Scandinavian Leisure Group - with Ving and several other brands - is the largest). The Fritidsresor Group in Scandinavia has 1.3 million participants per year. In the Thomson Travel Group there are a total of 10 333 employees (1998).²²⁶

Airtours is number two in the British package tour market, but internationally, Airtours is larger than Thomson. In the Airtours Group there were over 20 000 employees in 1998. Over 50% of the 8.5 million Airtours holidays in 1998 were sold outside the UK.²²⁷

7.1.2 Germany

In the German market each of the top six tour operators has a turnover of more than DM 1.2 billion *and* more than 1.2 million participants each in 1997/1998. The DER group, which ranks as number four on the German tour operator market, and is one of the top 20 tour operators in Europe (by revenue), only gets a limited part of its revenue from the tour operating business, its main business being travel retailing. Thus, when looking at all travel related business under one roof (tour operating plus retail, etc.), DER is one of the very largest travel groups in Europe.²²⁸

In 1997/1998 the top six tour operators in the German market had almost 17 million participants per year, the top 10 had 19 million participants (of which about 70% were air-based tours), and the top 55 have 24 million participants (of which 65% were airbased tours), and DM 25 billion in revenue.²²⁹ The total market back in 1997 was about 28 million package tours (Veranstalterreisen), which increased about 5% during 1998.²³⁰ Germany is the largest tour operating market of the world. For TUI the average price per participant was DM 1296 in 1997/1998. For the top six operators, the average price was DM 1096; and for the whole German market the average price was DM 1046.

226 With 6000 employees, Lunn Poly, the UK's No. 1 travel agent - with around 800 Holiday Shops throughout the UK, is a major contributor to the total number of employees in the Thomson Travel Group (www.lunn-poly.co.uk).

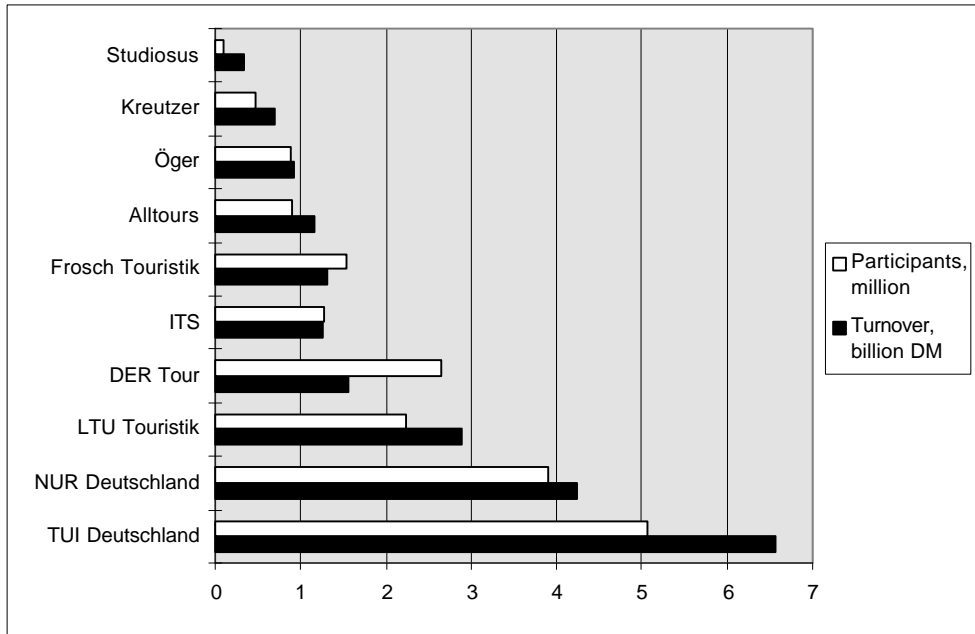
227 Airtours Annual Report & Accounts 98.

228 In fact only second to TUI by revenue in 1996/1997.

229 fvw 28/98, p. 3 and fvw 28/97, pp. 3 and 11.

230 Graph by shown by www.driv.de, based on Urlaub & Reisen '98.

Figure 7.3 The top 10 tour operators in the German market 1997/1998

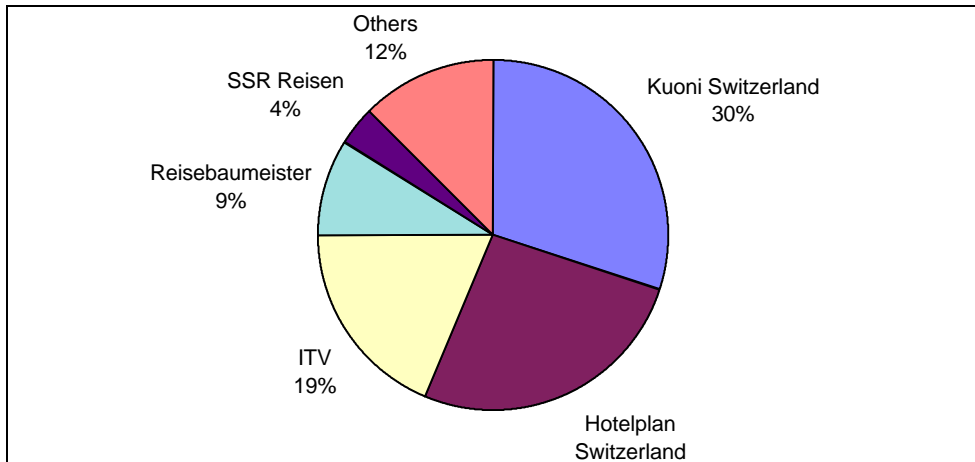


Source: fvw 28/98, p. 3.

7.1.3 Switzerland

The total Swiss package tour market was worth DM 3.6 billion (SFr 3 billion), and had just under 3 million participants (clients) in 1998, and an average package price above the European average. In Switzerland, the top three package tour operators (Kuoni, Hotelplan, and ITV) account for about 75% of the market. Another 13% is held by number four and five, leaving 12% to the rest.

Figure 7.4 Distribution of the Swiss package tour market (by value, 1998)



Source: Based on fwv 13/99, p. 12.

ITV, which is a new player on the Swiss market formed in 1997, consists of Imholz, the direct seller Vögele and TUI Switzerland. Initially TUI only had a minority stake in ITV, but organisationally ITV is associated with TUI Germany. From June 1998 TUI's share in ITV was 60%. The new number three in the Swiss package tour market, ITV, is already a significant player, and was not particularly welcomed by the number one and two in the market, to say the very least.

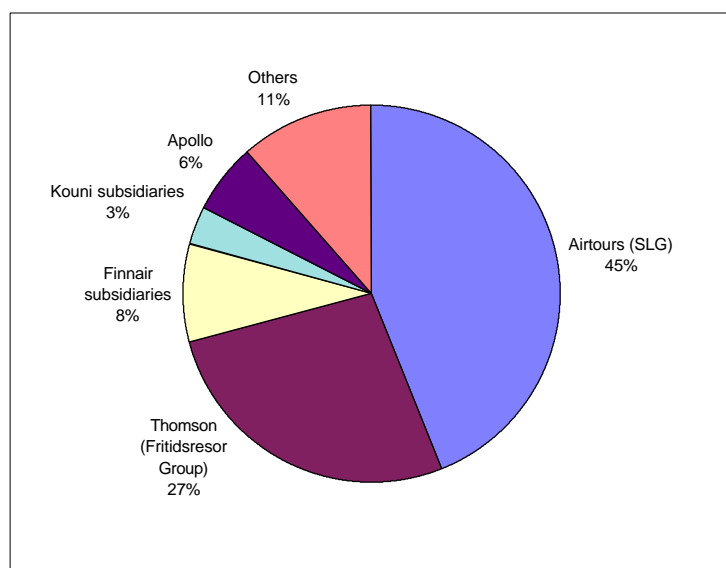
However, in June 1999 it was announced that ITV and Kuoni from then on will be cooperating in a number of fields in the Swiss package tour market. At the same time with retrospective effect from October 1998, it was agreed between Jelmoli, TUI and Vögele, the owners of ITV AG (the tour operator) and IVG AG (retail), that all shares of ITV/IVG are taken over by TUI Suisse AG. TUI Suisse AG in turn is 100% owned by the Hapag Touristik Union (HTU). Finally, until the end of 1999 Kuoni Reisen Holding has the option to acquire 49% of the shares in ITV/IVG.²³¹

231 www.tui-presse.com, press release, Hannover, 17 June, 1999, cd. also fwv 15/99, pp. 1 and 16-17.

7.1.4 The Nordic countries: Sweden, Denmark, Norway, Finland

The Nordic market (here defined as the three Scandinavian countries plus Finland), the volume of which is about 5.0 million packages p.a., is dominated by two British players, which hold 69% of the market. Airtours owns the Scandinavian Leisure Group, which had just over 2 million participants in 1997/8 (40% market share).²³² Thomson owns the Fritidsresor Group, which had 1.45 million participants (29% market share). And with effect from 2 October 1998, Kuoni Travel Holding, acquired a group of three Danish operators, with had 148 000 participants p.a. in total.²³³ This gives Kuoni a 3% share of the Nordic market, but if looking at the Danish market only, the volume of which is about 1.2 million packages p.a., their share is 13%. So, now 72% of the Nordic package tour market is in foreign hands. Locally owned operators lead in the Finnish market (0.95 million participants p.a.).²³⁴

Figure 7.5 Distribution of the Nordic market for package tours by owners (1997/1998-volumes)



Source: Based on published data: The Association of Tour operators in Denmark according to Rasmussen (1999); fw 13/98; www.aftenposten.no, 23 April 1998 (Holm, Per Annar, *Loyalty program for charter holidays*); www.ving.se; Airtours Annual Report & Accounts 98. For details see Appendix 7.1.

Note: The total volume was about 5.0 million packages.

232 Cf. Appendix 7.1.

233 The largest one of these was Larsen Rejser, which had 59 000 participants in 1998. Simons Charter and Herning Rejser had about 45 000 participants each, according to the Association of Tour Operators in Denmark (JP 17/4 99).

234 www.aurinkomatkat.fi/ and www.finnmatkat.fi, owned by Finnair.

7.2 Tour operator packages on the Internet

The relevance of the Internet as a direct sales channel from the tour operators to the consumers depends on whether or not direct sales are included in the sales strategy of each of the tour operators at all, and to what extent direct sales are considered a relevant strategy now or in the near future.

In the UK and Germany, the traditional sales channel for package tours is through travel agents. In the UK currently 90% of package tour sales go via travel agents (according to the Monopolies and Mergers Commission (MMC), as well as statements by several tour operators). But all the tour operators have call centres or a direct sales subsidiary. For example, Thomson has a direct sales operation called Portland Direct, and Airtours has recently acquired the Glasgow-based Direct Holidays. This will take Airtours into direct selling for the first time. First Choice has got the direct sales brand Eclipse. Finally, the last of the big four in the UK package tour market, Thomas Cook, has two large call centres each employing 500 people, which should make it the largest in the UK in this field. Kuoni UK formed a call centre in 1997 with 50 employees.

The 10% direct sales in the UK market corresponds to about 2.2 million package tours p.a. Of these, Direct Holidays accounts for 200 000 (7% of Airtours packages); Eclipse accounts for just as many, i.e. another 200 000 (9% of Airtours' packages); Portland Direct for just as many as the first two together, i.e. 400 000 (9% of Thomson's packages) - Clearly, Thomas Cook can only be the leader in the field of direct sales through call centres if it sells more than 400 000 package tours p.a. through that channel. But if Thomas Cook sells more than this number of packages through its call centres (its own brand + others, probably in the ratio 4:6), it is hardly much more. Portland Direct itself states on its website that it is *the UK's No.1 direct holiday company*. As one of the arguments for buying directly, Portland promises *lower prices because you book direct, since you'll never pay a penny in travel agent's commission*. Correspondingly Direct Holidays is even more explicit on its website: *We cut out the travel agent and all of his commission. We can save you around 19 percent.* - If this is true for call centre-based travel businesses there seems to be no reason why it should not apply to Internet-based travel businesses. Of course it would also be an obvious solution to let the call centres, which all the major tour operators have, handle Internet bookings, if any manual checking and intervention is required.

In Germany hardly any on the top 10 list of tour operators state any direct sales at all.²³⁵ And during the last couple of years, practically all tour operators and similar (such as cottage letting agencies) in the German market have stated repeatedly that they support the

235 The only exception is Frosch, which has some direct sales through the Franchise system Flugbörse, cf. FVW 28/97, p. 21), issued 19 December 1997.

traditional sales channel, in spite of the new possibilities for direct sales which are being opened up by the advent of the Internet. Actually, many of the players, who have made Internet sales solutions have either partly or fully tied the traditional sales channel, the travel agents, into this solution (cf. the TUI case in this chapter, and the dansommer case in chapter 6.5.2). So, in light of this we would not expect many (if any) on the top 10 list of German tour operators to have established a website for direct bookings only.

The situation with respect to direct distribution on the smaller markets of Switzerland and especially the Nordic countries, is completely opposite to the one in the UK and in Germany. Thus in the Nordic countries direct sales by the tour operators are the rule rather than the exception. In Switzerland each of the top three groups own travel agency chains, and none of the tour operators seems to have any policy of only selling through travel agents.

In the UK, the number of packages sold directly is relatively small at the moment, about 2.2 million. The Internet currently plays a quite insignificant role in connection with direct sales of package tours in the UK. In the Nordic countries, at least half of the 4.5 million packages p.a. are sold directly (in fact for SLG there are 70% direct sales, according to Airtours). This means that at the moment the direct sales market in the Nordic countries as a whole is probably greater than in the UK. However, in the UK there are great expectations of increases in the direct sales proportion, primarily via telephone sales through call centres, and only secondarily via the Internet (cf. fvw 24/98, p. 78). Estimates go as high as to 25% direct sales for the year 2003.²³⁶ There seems to be no doubt about the trend towards increased direct sales in the UK market: *Buying a holiday directly from the tour operator, rather than through travel agents, is a fast-growing trend in the UK for air-inclusive tours.*²³⁷ But the speed at which this change will take place may have been overestimated. And as mentioned, most of the increase will be by phone via call centres rather than the Internet. Thomson, incidentally, is implementing webbased availability and booking facilities oriented towards its travel agents.²³⁸

We will now list all the tour operators mentioned so far, by market, and see:

1. if they have a website at all;
2. if availability is shown (and how frequently it is being updated);
3. if bookings can be made on the website (and if there is instant confirmation);
4. if payment can be undertaken via the net (as one of possibly several options);
and additionally, see

236 According to Nigel Hards, MD, Thomas Cook, fvw 24/98, p. 73.

237 Airtours - Annual Report & Accounts 98, p. 10.

238 www.commercenet.org.uk/press/pr100898.html - *UK's leading Tour Operator targets Web version of availability and booking systems for travel agents.*

- if any incentives seem to be given for Internet bookings, and/or
- if there are any offers presented on the website, which cannot be found elsewhere.

7.2.1 German tour operators on the net

Table 7.1 The websites of the top 10 tour operators in Germany

Operator	Web-site?	Availability?	Net-booking?	Net-payment?
1. TUI	www.tui.de (and www.tui.com)	Yes	Yes, to agent or directly	Yes, optional (TUI warns of risk)
2. NUR	www.neckermann-reisen.de	Yes	Yes?	?
3. LTU Touristik	www.ltu.de	Yes (flights)	Yes (flights)	Yes, optional
4. DER Tour	www.dertour.de	No	No	No
5. ITS	www.its.de	Yes, last minute	Yes, to agent	No
6. Frosch Touristik	No - except www.lal.de. (Corporate site is planned)	No	No	No
7. Alltours	www.alltours.de → www.reisecenteralltours.de	Yes	Yes	Yes
8. Öger Tours	www.oeger.de	Yes, last minute	Yes, to agent	No
9. Kreuzer	www.kreuzer.de/ (basic)	No	No	No
10. Studiosus	www.studiosus.de/ (basic)	No	No	No
11. Fischer	www.fischer.de/ (basic)	No	No	No

Practically all the top 10 tour operators in the German market have an Internet presence, although one of them only for a subsidiary, but a corporate site is planned, and two of them only have very basic sites, which at least one of them plan to extend.

1) TUI has a website, which will be described in some detail separately (in section 7.3).

2) NUR (Neckermann Reisen) is part of the C&N Touristic AG (Condor & NUR). The site was in a pilot phase in the first months of 1999, but was fully operational in August 1999, although the writer did not manage to finish the booking procedure after several attempts (because of an *unforeseen failure situation* occurring at a certain point in the process). Therefore it is not possible to tell exactly how the fulfilment takes place, but in the fully operational version of the site, the Internet user will probably be able to choose between contacting a travel agent (based on a post code-based search facility, which did not seem to be functioning in the pilot phase), or send an enquiry to the Internet-Communication-Center of C&N Touristic.

3) In November 1998 LTU (Lufttransport-Union) became the first leisure airline in Germany to offer a fully automated ticket booking facility via the Internet for ordinary and last minute tickets to holiday destinations. Once a week there is a ticket auction. And finally,

the chances of getting on the LTU shuttle from Düsseldorf to Palma de Majorca on a stand-by ticket for DM 98 each per way are mentioned on the site, i.e. either a) very good chances (*tomorrow*), b) good chances, c) a few places left, or d) fully booked.²³⁹ The Internet booking solution was developed in association with Amadeus, the GDS. As an incentive, the LTU Card was offered to the first 500 Internet bookers. Payment can, as an option, be undertaken by credit card via the net. Although there are at least seven package tour brands within the LTU Group (Jahn Reisen, Tjaereborg, Meier's Weltreisen, HTR Tours, Smile & Fly, Marlboro Reisen, and f6 kult) these are not searchable or bookable on the LTU site, neither in *one go* or at the home-pages of each of these brands (which are probably all stored at the LTU server, although they have individual www-addresses). For most of the brands a top offer is mentioned, and for several brands catalogues can be ordered via the net. All brands encourage the Internet user to contact a travel agent to receive advice and to make bookings.

4) On the tour operator site www.dertour.de there is only availability data, and for bookings the Internet user has to contact a travel agent. On the travel agency site www.der.de, there is for instance a button for last minute offers, but that part of the site was being reworked in early 1999. So, obviously that facility had been there before, and will be established again. Standard holiday packages are not presented on the site www.der.de. It is possible to book flights and hotels, which is a business traveller-oriented facility.

5) A top offer of the week is shown on the entry page. But the main content of the ITS site is last-minute offers. The availability of given offers has to be checked, but those listed generally turn out to be available. It is stated on the site that *as something new there is supplementary text and photo information for every offer*.²⁴⁰ Internet bookings have to go via a travel agent of the user's choice. There is a function for finding an ITS travel agent, e.g. nearby one's home address.

6) Frosch Touristik (FTI) is the only tour operator among the top 10 in Germany - perhaps apart from Kreuzer and Fischer - which does not have a website. LAL language trips within the FTI Group does have a site though (www.lal.de), which includes information about the FTI Group in general, e.g. press releases and job announcements. And as a matter of fact FTI is looking for an Internet person, whose responsibility it will be to establish

239 Hotels may be found at the site www.hvsl.es/.

240 But an error message shows up when the button *detail information* is clicked This is probably a temporary problem, since at an earlier visit at the site in some but not all instances there was a small photo of the hotel - or of nature in the surrounding area (!) - along with a brief text about the rooms.

and extend the Internet presence of FTI! The FTI Group website address will probably be www.fti.de.²⁴¹

7) The tour operator site www.alltours.de is still at the planning stage only. However, the Internet user is being transferred to the on-line (retail) travelcenter of Alltours, and may find tours from several other major tour operators such as Neckermann, Kreutzer Reisen and Tjaereborg Allkauf, as well as many speciality operators. Reiscener alltours GmbH is an independent travel agency chain with over 90 outlets all across Germany belonging to the alltours group. On one day in the early spring of 1999, there were almost 90 000 offers, i.e. flight only, last and first minute package tours and accommodation only offers, and on a day in August 1999 there was a similar number of offers. The first or last minute offers may be found using either a step-wise procedure or a search engine.

8) Öger Tours has a D-base with 6000-10 000 last minute offers. Booking enquiries are routed to a travel agent of the choice of the traveller.

9) Kreutzer does not have any information on its current single-page site, but is planning to open a comprehensive website (was working on it in the spring of 1999, and is still working on it in August 1999).

10) Studiosus does have a website, but only for catalogue ordering. A travel retailer, the virtual travel agency reise@flugcenter, does have a booking request form from Studiosus trips on its site.²⁴²

11) Fischer, which was in the top ten in 1996/1997, only mentions a few offers on a single-page site.

FTI, then, is building a corporate site, and so it seems is Kreutzer. After that hardly any of the top 10 German tour operators does not have a website.

The following pieces of information show the status of Internet booking with German tour operators by (the end of) 1998 - based on Com!Online 2/99, pp. 70-83.

- Only 4.4% of German holiday-makers use the Internet as one of several sources of information in connection with planning their holiday (according to FUR, cf. Com!Online 2/99, p. 71).

241 Furthermore the FTI PR agency provides some general information about the group on the agency's site, cf. www.wilde.de/html-en/cp/index.html. Airtours acquired a 29% stake in FTI in May 1998, with the option to buy the rest of the group in 2002, according to www.ukbusinesspark.co.uk/airtours.htm and Airtours' Annual Report & Accounts 98.

242 www.flugcenter.de/formularstudi.htm

- In general the German tour operators stress that provision of information about their package tours via the Internet is the main function of the medium. Taking booking via the Internet hardly plays any role at the moment. German holiday makers like to check offers on-line, but they prefer to go to a travel agent to make the actual booking.

As to the number and share of bookings of package tours via the Internet, the following serves to illustrate that the Internet is in its infancy in the German market:

1a) According to TUI's press officer, Gerd Rimele, at the moment on-line booking is not generating much business. TUI received 80 bookings in the six weeks before Christmas 1998 (i.e. about 54 per month), of which 30 went directly to TUI, and 50 went via travel agents.²⁴³

Comment: TUI receives about 53 bookings via the net per month. With two packages sold per booking that corresponds to just over 100 packages per month. The six weeks up to Christmas must be a low season for TUI, since, as we shall see in the following case study, the average number of bookings per month in 1998 was about 450, corresponding to 900 packages per month.

1b) The retail travel chain TUI Travelcenter's Internet site called Travelland has received 1000 bookings in almost two years (1997 and 1998). Obviously this is too little to justify big investments.

Comment: Assuming a doubling from the first to the second year, that corresponds to 667 bookings, i.e. about 1330 packages in 1998.

1c) L'TUR (now taken over by TUI): online sales are a few packages per thousand.

Comment: If we interpret that as maybe 0.2% - of half a million tours p.a. - that translates to about 1000 packages p.a. - a third of the packages which L'TUR sells are TUI packages, two thirds are from more than 100 other brands.

2) Neckerman (NUR) expects that the Internet booking business will initially cost a lot more in computer centres than what is saved in travel agency commission. Nobody knows how many online bookers there will be in future. However, the Internet is one tool in the battle for increased market share. The big tour operators are too scared of the travel agent lobby to offer direct bookings up front, although Neckermann signs say: tourists can also come to us through the Internet.

243 Com!Online 2/99, p. 78. Full reference: Mardelli, Michael, 1999, *www.Tr@umurlaub.de*, Com!Online 2/99, pp. 70-83 (*www.com-online.de*).

3) LTU considers the Internet to be *too immature for real business*. E-commerce has just started. LTU received about 100 bookings during the first four weeks of its booking facility's existence.

Comment: From the site it appears that each booking is for one flight-only return ticket. For a full year (~1998) that probably translates into at least 2000 return tickets. LTU carries seven million passengers p.a., corresponding to 3.5 million return-trips. So, for a start we are talking about 0.06% of the trips which are booked via the Internet. Although this is but a fraction of a percentage, it is not surprising that the fraction is greater than that of TUI for packages, since those who buy flight only tickets are no doubt more organised than those who buy complete packages.

4) Dertour has a strong distribution net, and considers on-line bookings to be both unnecessary and too complicated for the Internet user (e.g. when connecting flights etc. are needed). However, Dertour will not disregard those few tourists who will book without a travel agent.

7.2.2 Major UK tour operators - and associated retail operations - on the net

Table 7.2 Tour operators on the net - The UK market Part I (Thomson)

Thomson Travel Group PLC	Websites	Availability?	Net-booking?	Net-payment?
Corporate	www.thomson-holidays.com/ contacts/home.htm	No	No	No
Thomson Holidays, UK	www.thomson-holidays.com/ book/home.htm	No	No	No
Thomson Breakaway, UK	www.thomson-breakaway.co.uk/ (Ski and snowboarding)	Yes (weekly up- dating)	No (telephone)	No
Crystal Int. Travel Group	www.crystalholidays.co.uk/	No	Yes, on request basis	No
Portland Direct, UK	www.portland-holidays.co.uk/	No	No	No
Holiday Cottages Group	www.country-holidays.co.uk/ and www.cheznous.com/	No	Yes, on request basis	No
Lunn Poly	www.lunn-poly.co.uk/	No	No, booking directly to owner	No

The availability offers on the Thomson Ski & Snowboarding site is normally updated once a week (Monday or Tuesday). Enquiries and bookings are taken by telephone. Last minute skiing holidays seem to be very well suited to the Web medium, both because of the prod-

uct's immediacy and because there is a good overlap between the demographic profile of the product's target group and the typical Internet user. For Crystal Holidays, the Internet user can e-mail a booking request. Crystal then phones back within 24 hours and advises if the booking can be confirmed. For Country Holidays it has previously been possible to search for those cottages which are available, but thanks *to demand* (of course from the cottage owners) *all properties that fit the location and facilities will be shown whether they are actually available for the chosen date or not.* (We dealt with letting of holiday cottages over the net in chapter 6.8 and 6.9). None of the UK websites of the Thomson Travel Group have *both* real-time availability data *and* online (real-time) booking facilities. The Thomson-owned Fritidsresor Group in Scandinavia will be reviewed separately at the end of this section.

Table 7.3 Tour operators on the net - The UK market Part II (Airtours)

	Websites	Availability?	Net booking?	Net payment?
Airtours PLC				
Airtours Group	www.airtours.com/			
Airtours Holidays, UK	www.airtours.co.uk/	No	No	No
EuroSites, UK	www.eurosites.co.uk/	No	No	No
Bridge Travel, UK	www.bridge-travel.co.uk/	No	No	No
Cresta, UK	sub-domain under airtours	No	No	No
Panorama, UK	www.panoramaholidays.co.uk/	Yes, list of last minute	No	No
Direct Holidays, UK	www.direct-holidays.co.uk/	Yes	Yes	Yes
Going Places, UK	www.going-places.co.uk/	No	No	No

Airtours' corporate website was opened in the middle of February 1999, and it looks very neat. - By the middle of August 1999, Direct Holidays became the first sub-site of Airtours in the UK to offer availability data and booking facilities online for their packages, both early and late offers. Payment is by credit card on the site (SSL encrypted). No discounts are given for Internet bookings, but there is a lower deposit than for telephone bookings (£40 instead of £100 per person). If the holiday-maker cancels the booking, the deposit is lost. The Airtours-owned SLG will be reviewed separately at the end of this section.

Table 7.4 Tour operators on the net - The UK market Part III (Other majors)

The numbers three to six among the tour operators on the UK market - and a few more

Supplier:	Websites	Availability?	Net booking?	Net pay?
First Choice	www.first-choice.com	Late offers are listed, but are <i>subject to availability</i> (updated weekly only!)	No (booking by phone)	No
Thomas Cook	www.thomascook.co.uk	Yes, late offers can be found by interactive search, but are <i>subject to alteration</i> (updated every morning)	No (but a call-back concerning the chosen holiday can be requested - or booking by phone)	No
Cosmos/Avro Kuoni UK	No public site yet www.kuoni.co.uk	- Yes, updating of a good selection of <i>available</i> offers is undertaken several times a day	- Yes	- Yes
Voyages Jules Verne (Kuoni)	www.vjv.co.uk/	No	Yes	Yes
Bargainholidays.com (online retail agent)	www.bargainholidays.com / or ...co.uk/ (28 different brands)	Yes (conditional)	Yes, booking enquiries can be e-mailed. Availability of offer will then be confirmed	No

First Choice shows late offers, which are updated once a week only. Subsequent booking is by phone.

On the Thomas Cook site early as well as late package holiday offers, which are updated each morning, can be found. Bookings cannot be undertaken on the site, but a request for a call-back from a Thomas Cook agent at a time chosen by the holiday-maker can be requested. Alternatively bookings of holidays, flights, and late offers can be undertaken by phone or in a Thomas Cook branch. Also Sunworld sailing-holidays packages (with late offers updated weekly), and point-to-point flights can be found on the site, both with phone booking only. In an earlier version the Thomas Cook website won the Enter '99 award in the tour operator category ahead of TUI of Germany and Kuoni of Switzerland!

Cosmos/Avro do not have a public website yet, but have registered at least six different domain addresses. A seventh address is already in use, but access is restricted by ID and password.²⁴⁴

On the Kuoni UK site there is a good selection of available holidays, which are updated throughout the day. The offers can be searched by destination, price or date. Booking and

244 The domains www.cosmosair.co.uk/, www.cosmosair.com/, www.cosmoscoach.co.uk/, www.cosmoscoach.com/, www.avro-plc.co.uk/, and www.avro-plc.com are all registered. And access to the site www.avro.co.uk/ is restricted by user ID and password.

payment (SSL encrypted) can be undertaken online. - Kuoni acquired the direct sales operation Voyages Jules Verne, at the end of 1998, which has also got an Internet presence. There are general descriptions of the tours and there is a booking request form with credit card payment fields.²⁴⁵

Bookings cannot be made on websites of the runners-up among the UK tour operators. In fact there do not seem to be any significant players among the UK tour operators, who have a website for the UK market with both real-time availability data, on-line booking facility, and payment on the net. It would seem well justified to assume that sales/distribution of package tours via the Internet, either directly from the tour operators or through retail agents, is a very limited phenomenon indeed at the moment.

All in all by the middle of August 1999 there is just a single brand of one of the major tour operators on the UK market which has a website with both real-time availability data and online booking facilities (Direct Holidays of Airtours). However, on the sites of two additional tour operators available holiday offers, which are updated at least once a day (Thomas Cook and Kuoni UK), can be found by interactive search functions.

There is a retailer site called Bargainholidays.com operated by EMAP Online (i.e. not run by a tour operator), which has a leading position in the UK. The data used for Bargainholidays.com are supplied by Comtec (Europe), and ticket sales are handled by Holiday Express (UK) Ltd. The site was opened in July 1997 and should be Britain's largest online holiday store featuring holidays from every major tour operator in the UK. EMAP Online has also the sites 1ski, A2Btravel, A2bAirports, A2bEurope, Aloud and whatson.com.

245 According to a press release of 15.12.1998 Kuoni expects that *the acquisition of Voyages Jules Verne, which has a strong Internet presence (<http://www.vjv.co.uk>) and a highly efficient processing system for direct bookings, will furnish impulses for the development of direct selling in the United Kingdom and for the entire Group.*

7.2.3 Tour operators in the Swiss market on the net

Table 7.5 Tour operators in the Swiss market - and their websites

Brand	Website	Availability?	Net booking?	Net payment?
1) Kuoni, in Switzerland	www.kuoni.ch	Yes, last minute	Yes	Yes, optional
2) Hotelplan, in Switzerland	www.hotelplan.ch	Yes, last minute	Yes	Yes, optional
3) ITV:				
3a) Imholz Reisen / TUI Switzerland	www.imholz.ch/ or www.tui.ch/	Yes, last minute	Yes, conditionally	Yes, optional
3b) Vögele	reisemarkt.ch/voegele/	Only via Reisemarkt.ch	Yes, request	No
4) Reisebaumeister (*)	No Web-site	-	-	-
5) SSR Reisen	www.ssr.ch	Yes, flights	Yes, request	No

Note: (*) Falcon Travel AG, Eurotrek, Sierra Mar; Opus Tours, Wettstein Reisen, Skytours, Carib Tours, Selina Tours. None of these brands appear to have Web-sites.

Four of the top five tour operators in the Swiss market have an Internet presence.

1) Kuoni shows, among other things, available last minute tours, with photos and information about the facilities. Payment is by mailed invoice or credit card.

2) Hotelplan shows available last minute tours, but with no photos or information about the facilities (except as indicated by number of stars). These can be booked on the net. Payment is by mailed invoice or credit card.

3a) Imholz Reisen / TUI Switzerland state that confirmation of availability has to be awaited.²⁴⁶

3b) Available tours from Vögele, and eight other medium sized and small tour operators (i.e. not from Kuoni, Hotelplan or Imholz), can be found at the retail site Reisemarkt Schweiz, and booking requests can be made. Updating takes place once a day, just after midnight.

In general, in the Swiss market the tour operators sell directly to the consumers as well as through travel agents. The top three brands have established direct distribution via the net but only for last minute offers as far as package tours are concerned. And availability data of a fourth major brand - as well a number of minor brands - may be found on the net via an online travel agent.

All in all, Switzerland must be said to have developed quite far with respect to making package tours available either directly from the major operators, and many of the smaller brands are also on the net with availability data, etc. via an online travel agent. Contrary

246 Reservation vorbehältlich Verfügbarkeit, bzw. definitiver Bestätigung durch unsere Ferienberaterinnen.

to the German market there is no attempts among tour operators to try to tie the travel agents into the Internet sales process. Each of the top three operators, which account for about 75% of the Swiss package tour market, offers last minute tours on the net, and these can be booked via the net, and the bookings go directly to the operators.

7.2.4 Tour operators in Scandinavia and Finland on the net

Table 7.6 SLG (Airtours)

Brand	Clients x1000 (F'97/8)	Web site	Availability?	Net booking?	Net payment?
1) Ving (S, N, DK)	500 240 136	www.ving.se www.ving.no www.ving.dk	Yes Yes Yes	Yes Yes Yes	No No No
2) Always (Sweden)	230	www.always.se	Yes	Yes	No
3) Saga (Norway)	200	www.saga.solreiser.no	No	Yes, request	No
4) Spies (DK, S, Finland)	215 125 75	www.spies.dk www.spies.se www.spies.fi	Yes Yes Yes	Yes Yes Yes	No No No (?)
5) Tjaereborg (DK, Finland)	183 76	www.tjaereborg.dk www.tjaereborg.fi	No Yes	No Yes	No No (?)
SLG, total	1980	Yes, in all instances	~Yes	~Yes	No

1) There is a separate in-depth review of the Ving site(s) in chapter 7.5.

2) On the Always site, packages with departure at least one week ahead can be booked. The site also includes basic information about last minute offers. If less than five seats are left, the number left is mentioned.

3) Saga's newly established site is much like looking through a catalogue. Prices only come up half way through the booking procedure. The procedure can only be finished by giving one's ID and password. The booking confirmation is sent to the Internet user by ordinary mail. Payment is by traditional methods (bank transfer or post giro).

4) Spies has ordinary as well as last minute offers on the three different language/market versions of its site. The last minute offers are only described by the most basic data, but they are updated several times during the day. If only a few seats are left this is indicated by showing the price in red digits. Supplementary information about the last minute offers is provided by phone. There are separate versions of the site for the Danish, Swedish and Finnish markets. Prices show up half-way through the booking procedure, which can only be finished by mentioning ID and password. Payment on the Danish version of the site is by bank transfer or in one of Spies' bureaux. Payment, certainly at the Swedish version and probably also at the Finnish version of the site, is by post giro.

5) The Danish version of the Tjaereborg site contains last minute offers, and general descriptions of the main types of holidays. It does not comprise any booking facilities, although the Finnish version does. As for several other of the sites already mentioned, prices show up only half way through the booking procedure, which can only be finished by giving one's ID and password. Payment on the Finnish version of the Tjaereborg site is probably by traditional means.

Table 7.7 Fritidsresor Group (Thomson)

Brand and market	Clients x 1000	Website	Availability?	Booking?	Payment?
1) Fritidsresor (Sweden)	460	www.fritidsresor.se	Yes	Yes	No
2) Star Tour (Norway)	300	www.startour.no	Yes	Yes	No
3) Star Tour (Denmark)	193	www.startour.dk	Yes, for last minute (daily update)	No	No
4) Fritidsresor (Finland)	140	No (*)	-	-	-
5) Royal Tours (Sweden)	120	No	-	-	-
6) Hasse (Finland)	80	No	-	-	-
Other brands	137				
Fritidsresor Group, total	1450	The large: Yes The small: No			

Note: (*) Last minute offers from Fritidsresor are mentioned on the site <http://www.lomalle.com/lfr.htm>, updated weekly. Lomalle is a general travel agent carrying many of the major brands. Other brands include Atlas Resor, Grand Cruises, Temarejser and Sportsrejser.

1) Fritidsresor in Sweden and Finland shows the normal available packages. For many of the hotels there are photos and key pieces of information. Last minute offers are also listed, but with only a minimum of information. The list of last minute offers is updated daily. Only normal offers with departure at least three weeks ahead can be booked on the site. In order to make a booking the Internet user must be registered with Fritidsresor. Payment is by post giro (i.e. traditional means). As is the case with offers from the competitors within the SLG group, prices are hidden until step three of a seven-step booking procedure. This makes it somewhat cumbersome to compare prices, and there is no direct way of searching for offers by cheapest price.

2) Star Tour in Norway and Denmark has sites in both countries. Star Tour Norway opened for booking of all offers - with departure at least four weeks ahead - via its site in the spring of 1999.

3) Star Tour Denmark's site comprises a list of last minute offers which is updated (almost) daily but does not comprise normal offers, and there is no booking function.

4, 5, 6) The three smallest brands within the Fritidsresor Group do not have websites.

Table 7.8 Finnair Travel Services (Finnish market only)

Brand	Clients (x1000)	Website	Availability?	Net booking?	Net payment?
1) Aurinkomatkat - Suntours	283	www.aurinkomatkat.fi	Yes, last minute	Yes, on request basis (but <i>not</i> for last minute)	No
2) Finnmatkat	<u>142</u>	www.finnmatkat.fi	No	No	No
Total	425				

The two operators within the Finnair Group both have fine websites, but being in Finnish it is a little difficult to determine their functionality. With Aurinkomatkat it seems that booking requests for tours at least six weeks ahead can be made. There is no way of paying on-line. Also there is a list of last minute tours. These must probably be ordered through a travel agent, which may be found on the site, listed by towns.

Table 7.9 Apollo, Scandinavia (1998)

Brand	Clients (x1000)	Website	Availability?	Net booking?	Net payment?
Apollo Sweden	300	www.apollo.se	Yes	Yes, online for all trips	No
Apollo Denmark	48	www.apollorejser.dk	Yes	Yes, online for all trips	No
Apollo Norway	<u>2</u>	www.apollo.no	Yes	Yes, online for all trips	No
Apollo	350				

Source: The Apollo Sweden site for the total, and the Association of tour operators in Denmark, according to Rasmussen (1999), for Apollo DK. The total is from fv 13/99 and is for F'97. The Apollo Sweden figure is from www.apollo.se.

Note: Apollo Norway was established in the autumn of 1998, with a programme for the summer of 1999.

There is a separate in-depth review of the Apollo site(s) in chapter 7.6.

Table 7.10 Kuoni - in the Danish market: Alletiders Group (1998)

Brand	Clients (x1000)	Website	Availability?	Net booking?	Net payment?
Larsen Rejser + Herning Charter and <u>Simons Charter</u> =	59 45 <u>44</u>	www.larsen-rejser.dk www.herningcharter.dk or www.alletiders-rejser.dk	Yes, last minute	Yes, on request basis (subject to availability)	No
Alletiders Group =	148				

Source: The Association of tour operators in Denmark, according to Rasmussen (1999) in *Jyllands-Posten*, 17 April 1999.

The new Danish Kuoni group is now marketed under the Alletiders (Alletiders Rejser, Great Tours) brand name. The site functions much the same way as the Aurinkomatkat site. The destinations and hotels are described. Prices may be found. Tours at least eight weeks ahead may be booked on request basis, i.e. subject to availability. And there is a list of last minute offers, which cannot be booked on the site (but by phone).

7.2.5 Rest of Europe - remaining players on the top 10 list of European tour operators

Table 7.11 Leading tour operators in the rest of Europe: Little website functionality

Others (in top 10 - and just below)	Clients (x1000)	Website	Availability?	Net booking (for general public)?	Net payment?
Nouvelles Frontières, France	2,190	www.nouvelles-frontieres.com	No (only general descriptions)	Only brochure ordering and free-format enquiries.	No
Club Med, France	~600	www.clubmed.com	No (only general descriptions)	Yes (but on request basis only)	No
Alpitour, Italy	760	www.alpitour.it	Yes (from '99)	No	No
TUI, Netherlands	1,200	www.arke.nl	No (only general descriptions)	No	No
JetAir (50% TUI) <i>No. 1 in Belgium</i>	519	www.jetair.be/	Yes (from '99) last minute	No: Booking through travel agency	No
GTT (Gulet Touropa Touristik), Austria	~500	No Web-site! (34% market share)	-	-	-
Spain, top four:	~1,500	(~75% of the market)			
Mundicolor (partly Iberia-owned)		www.mundicolor.es	No	No	No
Soltour		www.v-soltour.es	Yes	No, but agents can (ID and password)	No
Iberojet		www.bdr.es/iberHTM/	No, but agents can (but only to Cuba)	No, but agents can (ID and password)	No
Travelplan		c/o www.g-air-europa.es	No	No	No

All the largest tour operators in the rest of Western Europe have websites, except the leader in Austria, GTT Gulet Touropa Touristik.²⁴⁷ However none of them has availability data on its site, except Soltour of Spain. On the Soltour site only agents can make bookings. Mundicolor and Soltour both claim the number one place in Spain, but Mundicolor is the largest by revenue.²⁴⁸

So, let us conclude this review of the Web presence of the main tour operators in Europe: The vast majority of the major tour operators have websites.

²⁴⁷ The address <http://www.austria.eu.net/customer/customers-t.htm> includes a link to www.touropa-austria.at/touropa, which is under construction and leads directly on to the Austrian Airlines site www.aua.com/, which holds 50% of the shares in GTT, according to <http://www.aua.com/GB97/1997e.htm> (Highlights 1997 from the annual report - December 20, 1997: Establishment of Gulet Touropa Touristik, with Austrian Airlines holding 50 % of the shares in Austria's largest tour operator.)

²⁴⁸ According to fwv 13/98, p. 15. Quotes from the respective sites: *Mundicolor*, *Spain's leading [international] tour operator*. AND: *SOLTOUR*, *primer touroperador español en vuelos charter* The explanation may be that Soltour is more focused on the tours within Spain.

Table 7.12 Functionality of major tour operator websites in Europe: The general picture

	Total tours	Checked per market	% of tours	Availability?	Net booking?	Net payment?
Germany	28 mill.	Top 10 operators	63	Yes, for most of the large players	Yes, via agent - or directly	Yes, as an option
Switzerland	3 mill.	Top 5 groups	85	Yes, for last minute tours	Yes, directly	Yes, as an option
Nordic countries	5 mill.	Top 5 groups	88	Yes, for the largest	Yes, directly	No
The UK	22 mill. (max)	Top 7 groups	64	Not real-time, if any at all	No, except on request basis.	In some instances
Rest of Europe	22 mill.	10 large operators	33	Eight: No Two: Yes	No	No
Total	80 mill. (air/other)	36 groups (~operators)	57			

7.3 TUI, Germany, on the net

In 1996/97 the TUI Group was the largest tour operator in Europe measured by turnover, and it maintained this position in 1997/98 (fww 13/99), cf. Figure 7.1. In 1996/97 the TUI Group employed almost 9375 people, of whom 4443 (or 47%) within the tour operating business which is the focus here; 1635 in incoming agencies at the destinations; 1851 in hotels; and 1446 in travel agencies. Only a third of the employees work within Germany. In 1997/98 the number of employees in the Group had increased to 9812. Group revenue was DM 8.9 billion (\$5.1 billion) in 1997/98. The shareholders of the TUI Group are the following: Hapag Touristik Union (HTU) 50.1%; West LB-Gruppe 24.9%; Preussag AG 25%. There were seven million participants in 1997/98 within the TUI Group, of which 5.1 million for TUI Germany. The latter is the important number in connection with Internet bookings. The main brand for TUI Germany is TUI Schöne Ferien, with about four million participants per year.

Before we turn to the TUI website, it can be noted that TUI has issued four CD-ROMs, two for 1997 and two for 1998, for TUI Schöne Ferien (mostly Mediterranean destinations), and for the Robinson brand (distant destinations). TUI has not issued any new CD-ROMs for the 1999 season, since in future TUI will be using the Web for its interactive promotion and on-line booking facilities. The reasons are that web-based information may be updated frequently and at relatively low costs. Any future CD-ROMs from TUI will be fun-oriented.

TUI opened the first version of its website in 1996. The content has been gradually extended. Last minute offers were present from the beginning, among other things. Also at an early stage it became possible to make real-time bookings at the TUI site. In connection with ITB in March 1999, a revamped site was introduced (TUI press release, 5 March

1999). The categories on the www.tui.de site are the following: Last Minute & More, On-line Catalogue, Destination Information, Meeting Point, and Service plus Corporate Information.

This means that the site should now be more service oriented, be faster, and contain more information. TUI needs the travel agent just like the travel agent needs TUI. Therefore, at the same time as revamping the site, TUI introduced a new Internet presence offer to their travel agents, which means that TUI will support travel agents in setting up websites.²⁴⁹

The prices for the consumer are the same on the Internet as in shops, and there are no price differences between ordering via Internet from a travel agent or from TUI directly. Payment is by bank transfer, TUI Card or Visa Card: *We will treat your payment data confidentially, but we remind you that at the moment payment with credit card over the Internet is still not completely secure.* Travel documents are sent by ordinary mail, unless the Internet user chooses to fulfil the transaction at a travel agent.

In 1998 TUI counted 2.2 million page impressions per month and received 600 000 visits to its site per month (1998). This resulted in about 450 bookings per month via Internet, i.e. about 900 packages per month, i.e. 10 000-12 000 packages sold over the Internet in 1998. For TUI it takes between 1200 and 1500 visits to get one Internet booking.²⁵⁰ This remarkably high number of visits per Internet booking received indicates that many of those who visit the TUI site make their bookings in travel agencies - since those who visit tour operator sites must be assumed to have a fairly genuine interest in buying a package tour. And as a matter of fact the main objective of TUI's Internet presence is to provide information, not to generate a lot of Internet bookings.

Since TUI sells some 5.1 million packages per year in the German market, this means that about 0.2% of TUI Germany's packages were sold via the net in 1998. Early in 1999 the number of page views had increased to over 2.8 million per month (TUI press release, 5 March 1999).

249 Cf. TUI press release, 9 March 1999.

250 Already at the beginning of 1997 (at ENTER'97 in January) it was stated that the lookers-to-bookers ratio of TUI was about 1200:1. Since then the ratio has slipped down to 1500:1 as the number of visits have increased faster than the bookings, but it was again about 1200:1 by the end of 1998.

Table 7.13 Some statistics on www.tui.de: Visits, bookings, revenue and forecast

	Per month 1998	All of 1998	Per month, 1st quarter, 1999	All of 2003
Page views, million	2.2		2.8	
Page views per visit	3.7			
Visits	600 000			
No. of visits per booking	1333			
Bookings via net	450	5400		130 000
Packages per booking	2	2		2
Packages via net	900	10 800		260 000
Total no. of packages		5.1 mill.		~5.2 mill.
% of packages via net		0.2%		5%
Revenue per package, DM	1000	1000		
Internet revenue, DM mill.	0.9	10.8		
Exchange rate, \$ per DM	0.5687	0.5687		
Internet revenue, \$ mill.	0.5	6.1		
Of which fulfilment via agents	50%	50%		

Travel agents are somewhat concerned about tour operators selling direct via the Internet, not least about TUI, being the market leader. But clearly, with 10 000-12 000 packages booked via the Internet in 1998, and half of these fulfilled by travel agents, the Internet as a booking channel has certainly not taken much business from travel agents. Perhaps on the contrary: if only a small percentage of all those hundreds of thousands of people who visit the TUI website every month subsequently go to a travel agent and book their TUI package, the travel agents win in two ways: they get commission, and those Internet users who book at a travel agent are well informed, and therefore very likely to take up less of the travel agents' time.

In future it is TUI's intention to have every catalogue on the Web. Also in future some look-around, quick-time Virtual Reality functions may be introduced. When the transmission speed improves videos and sound files may be introduced to the site.

The Internet activities of TUI are split between TUI Infotec, and TUI New Media. TUI Infotec is now one of five divisions within TUI, and has 200 employees. About six of these work with Internet programming. TUI New Media employs 10 people, whose responsibility it is working out new concepts, marketing and handling the back office functions for Internet bookings.

By 2003 TUI expects that perhaps 5% of its bookings will come via the Internet.²⁵¹ This includes both those Internet bookings which are fulfilled via travel agents and those which are fulfilled by TUI's Internet Service Center. Obviously agents will remain highly important channel for TUI for the foreseeable future.

To reach the 5% development must proceed roughly, as shown in Table 7.14 (percentage via Internet):

Table 7.14 Stepping-stones for TUI to reach 5% via Internet in the year 2003

1997	~0
1998	0.2%
1999	1%
2000	2%
2001	3%
2002	4%
2003	5%

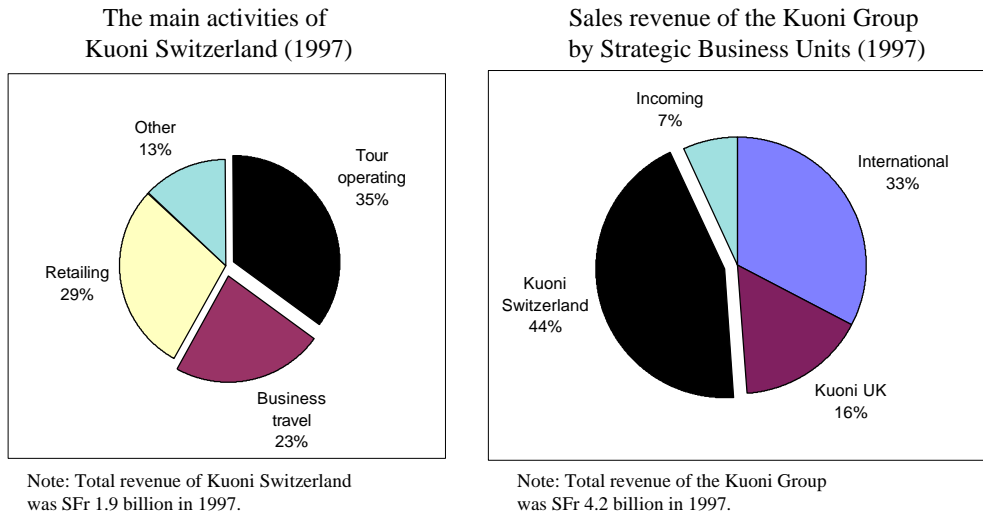
7.4 Kuoni, Switzerland, on the net

Kuoni was founded as early as 1906. In Switzerland alone it has 2000 employees. Kuoni Switzerland's main activities are tour operating, business (+individual leisure) travel services, and retailing. Thus Kuoni owns 155 retail travel agencies in Switzerland, and in addition to this the Kuoni brand is sold through 1000 agents in the country.²⁵²

251 According to the TUI press officer Gerd Rimele, com!Online 2/99, p. 78.

252 Based on telephone interview with Mr. Andreas Waldis, Head of marketing services/New media and advertising, Kuoni Travel Ltd., Switzerland, April 1999, supplemented with published statements and information from the Kuoni website, www.kuoni.ch.

Figure 7.6 The activities of Kuoni at a glance (1997 data)



Back in 1997, 44% of the total sales of the Kuoni Group was accounted for by Kuoni Switzerland. With effect from the beginning of 1998 Kuoni took over the large (DM 1.07 billion/SFr 0.9 billion) business travel agent chain Euro Lloyd of Germany. In October 1998 Kuoni took over three minor tour operators in Denmark, which were then merged. The 1998 revenue of the Kuoni Group was SFr 5.3 billion.

In March 1999 Kuoni was to be merged with the British major UK tour operator First Choice, which had revenue of £1.24 billion (SFr 2.9 billion) in 1998. The intention was that the Kuoni shareholders should hold 53% of the shares in the new Kuoni Holdings PLC. However, the merger was called off since it did not receive sufficient support from the shareholders of First Choice (fww 18/99 p. 23).

Kuoni is number one in Switzerland, both in the overall tour package market and with respect to sales of tour packages over the net in Switzerland. Kuoni has a good functionality and among Swiss tour operators it has been on the web the longest. All the sales on the Kuoni Switzerland site comes from the Swiss market.

Kuoni Switzerland's website was first opened in December 1995, so by the spring of 1999 it has already been in operation for three full years. The current features of the Kuoni Switzerland website are:

- Last minute sales of tour packages;
- Special offers;
- Scheduled airline tickets - at different special fares;
- Catalogue ordering facility - for all the catalogues throughout the Kuoni Group;
- Electronic travel guide - containing information about different destinations (in progress);
- Currency converter;
- Company information - annual reports, press releases, job openings.

The Kuoni site comprises all the (necessary) functions for Internet commerce: it has interactive search functions, prices are shown, availability can be checked, bookings and payments can be undertaken on the site.

As to payment the customer is given three choices:

1. On-line using the SSL security standard.
2. On-line using the SET security standard.
3. Offline, by paying a mailed invoice.

The availability data provided to the Web users is completely real-time, extracted from the central computer reservation system (D-base), especially for the last minute package offers and the airline tickets. No discounts are given for orders placed over the website. There is a slightly reduced reservation fee for Internet bookings, SFr 25 instead of SFr 50.

In the year 2001 Kuoni Switzerland expect to get 1% - or 1.5% (optimistically) - of their bookings over the net.

Despite the ease of buying a holiday over the net, many customers use the phone although they can book directly over the net. So, the customers perceive some complexities. It may be both because they are reluctant to place orders over the net and because they are not sure about how to do it. Kuoni has received additional orders because of its website, especially thanks to its opening hours (24-hours a day). If the customers do not have any questions in connection with the booking process (including payment) net booking saves money for Kuoni, although this is difficult to quantify. Kuoni believe it has (just about) reached break-even for its Internet investment. There are three people within Kuoni Switzerland working with developing and maintaining the website, and additionally one external person.

Kuoni does not believe that it is enough to have a basic information-only site to differentiate one supplier positively from its competitors - as far as tour packages are concerned - and neither do practically any other tourism and travel services suppliers.

In the near future Kuoni wants to do the following:

- Improve the convenience and speed of the airline ticket booking function.
- Improve the speed of the availability check of the last minute and special offers.
- Install a destination travel guide (currently in progress).
- Implement a destination weather guide.
- Make some existing features of the site interactive (via D-bases), such as job opportunities and press releases.
- The site is currently in German language only. French is planned as a second language for the site.

Furthermore, Kuoni is planning to put all its regular catalogue products onto the site, i.e. not only last minute and special offers. Finally, a call-back function is planned, connected to the existing direct sales call centre.

7.5 Ving, Scandinavia, on the net

Ving was founded in 1956 in Sweden, where it remains the number one package tour brand in terms of sales. Ving's sole activity is tour operating. Ving sells a wide range of tour packages, and is the largest brand within the Scandinavian Leisure Group, SLG. In turn, SLG is the largest tour operator group in each of three Scandinavian markets, Sweden, Norway and Denmark.

Table 7.15 Estimated market shares for the Ving brand and major tour operator groups in the four Nordic markets

Market shares	A	B	C	D	ABCD
(%)	Sweden	Norway	Denmark	Finland	4 Nordic
Ving (within SLG)	26	25	12	0	18
SLG Group (owned by Airtours)	45	46	46	16	40
Fritidsresor Group (Thomson)	34	35	19	25	29
Finnair Travel Group	-	-	-	45	9
Apollo	16	0	4	0	7
Alltidars Group (Kuoni)	-	-	13	-	3
Top five groups	99	82	81	86	88
All others	5	18	19	14	12
Total (%)	100	100	100	100	100
Market volume (x1000)	1900	950	1172	950	4972
Typical market price per tour \$	616	695	569		
Exchange rates: \$ per 100 units	12.58	13.24	14.93		

Source: Based on published data: The Association of Tour operators in Denmark, according to Rasmussen (1999); fvw 13/98 and fvw 13/99; www.aftenposten.no, 23 April 1998 (Holm, Per Annar, *Loyalty program for charter holidays*); www.ving.se; Airtours Annual Report & Accounts 98. For details see Appendix 7.1.

Note: For the purposes of this case study these typical market prices will be assumed to apply for the Ving brand also, both in general and for Internet sales. The European average is about DM 1000 per package (\$569).

In the financial year 1998 SLG had revenue of £848 million (\$1.4 billion), up 1.6% from the year before.²⁵³ SLG has about 3000 employees, and is owned by Airtours PLC of the UK. Airtours has over eight million participants per year, which makes it *the world's largest provider of air inclusive holidays*.²⁵⁴

SLG had over two million participants in the financial year 1998²⁵⁵ (up from 1.8 million in F'97). In Scandinavia the overall share of all the SLG brands together is 45%, slightly lower if Finland is included (40%), and a bit lower still if Poland is included (37%). In 1997 the Ving brand counted 825 000 participants, which increased to about 866 000 in 1998.²⁵⁶ In 1998 Ving Sweden alone sold 500 000 tours - in a market which approaches two million package tours per year. Norway is the second largest market for the Ving brand, since Ving holds a 25% share of the 950 000 Norwegian charter tour market, i.e.

253 Airtours Annual Report & Accounts 98. 1£ = \$1.6565. Cf. also Appendix 7.1.

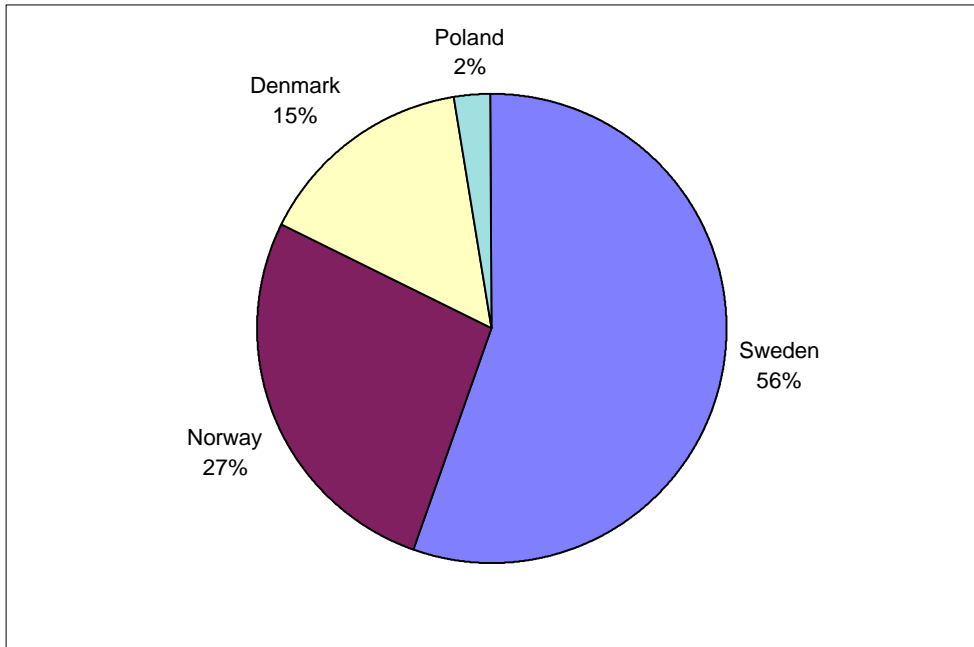
254 Ibid.

255 Ving Sweden press release (e.g. 8 March 1999). Cf. also Appendix 7.1.

256 The German travel magazine FVW 13/98, p. 10. Europäische Veranstalter in Zahlen + Appendix 7.1.

240 000 tours for Ving Norway.²⁵⁷ Ving Denmark sold 136 000 packages in 1998.²⁵⁸ Ving was introduced to the Polish market in February 1998, with the opening of seven outlets. During the first year Ving captured 3% of the 680 000 Polish market (where the leader Orbis with 272 000 holds a 40% share²⁵⁹). In total Ving employees between 1000 and 1500 people in Scandinavia and Poland.

Figure 7.7 Ving sales by market, in general (1998)



Sources: www.ving.se; www.aftenposten.no, 23 April 1998; The association of tour operators in Denmark, according to the Danish national newspaper *Jyllands-Posten*, 17 April 1999; Airtours Annual Report & Accounts 98.

Note: Total sales volume was about 888 000 packages.

Ving *only sells direct* through 64 wholly owned retail outlets in Sweden (33 outlets), Norway (18), Denmark (6 + three with telephone sales only) and Poland (seven) as well as through the Internet. Sixty-five percent of all Ving tours are sold via telephone, and the share is increasing every year, and so will sales via the Internet to which we will return. Whether the share of telephone sales will continue increasing remains to be seen, since the Internet will mainly capture those customers who used to order by phone. Previously the

257 Holm, 1998. The expectations mentioned in this source are assumed to have been fulfilled. The 950 000 in market size includes 150 000 package tours by scheduled flights (e.g. Prisma Tours).

258 The Association of Tour Operators in Denmark, according to Rasmussen, 1999.

259 fvw 13/99, p. 19.

customers had to wait on the phone if there was no available agent at the outlet to which the customer called. But now a *virtual* call centre has been established. This means that the calls are automatically - and at no extra costs for the customer - channelled to an outlet where there are available sales persons.

The first version of the Ving Sweden website was opened in 1995. The current one is the third version. It contains the following:

- A digital catalogue, which is an adapted version of the printed catalogue, suited to the Internet medium, i.e. less text - but in information style, with few superlatives. Many photos have been retained.
- Last minute tours (updated every two hours).
- A booking function. Currently 80% of the product offerings can be booked via the net. The objective is to reach 90%-100%. The remaining products, combination tours, are complex and therefore difficult to put on the net.
- Catalogue ordering.
- Last minute *information* about trips, which is updated several times a day.
- A customer service function, where the enquiry (fill-in-the-blanks type of form) is sent from the website directly to the appropriate department. The objective is that replies should be sent within two hours, when the enquiry is received on work days between 9.00 and 19.00 hours.

There are interactive search functions. Prices are shown. Availability can be checked. Bookings can be made on the net, after which the customer gets a confirmation on the screen. Payment has to be undertaken by traditional means, though. The customer receives the invoice and travel documents by mail within three days. Only product offers which are actually available are presented to the Internet user. Booking enquiries from the net go directly into the existing booking system. So the availability data is completely real-time. Ving started a Scandinavian payment project at the beginning of 1998 involving banks, also in Britain. Ving feared losing Internet sales if payment could not be made on-line, but that does not actually appear to be a problem (perhaps on the contrary). Thus Ving will let the Internet payment project take as long as needed to find a good solution for the customers. Ving has listed five criteria for a payment solution:

1. It must be simple for the customers.
2. It must be secure for the customers and for Ving.
3. It must require only a limited investment for Ving. (Today many solutions are rather expensive.)
4. The banks must approve (of) the solution.
5. The solution must be usable for a great proportion of the population.

(Credit cards have a high penetration, but payment over the net by credit card payment is currently not accepted by banks in Sweden²⁶⁰).

There are separate but similar websites for Ving in Sweden, Norway and Denmark, respectively. The Polish site was under construction in the first half of 1999. On the Swedish, Norwegian and Danish Ving sites, tours with departure one week or more ahead can be booked. The Internet user must have a special Ving Card in order to make a booking.

The internal booking system (legacy system) dates back to the 1970s, and runs on a Tandem mainframe computer, with terminals attached. It is a stable and secure system with great capacity. Similar systems are frequently used by banks and insurance companies. But there are limitations to the system when it is to be connected with a contemporary communication technology like the Internet. It has not been without problems to couple these two worlds, represented by different departments and people. On one hand there is the internal computer department, with experienced (Cobol) programmers. On the other hand there are the young people from the Web consultants. These two groups of people must communicate and learn to understand each other. So, there have been *cultural* and *technical* barriers to overcome. The coupling of the Internet with internal systems is - or was - an untested route, and there was nobody to ask for advice. Therefore budgets and time schedules were overrun. The process was a frustrating but instructive one.

In Sweden Ving does not give any discount for Internet orders - the argument being that Ving sells its packages direct (via its own shops and the Internet), and already has fair prices. In the summer of 1998 Ving in Norway did give a NOK 150 (\$20) discount per package ordered via the net. But the Scandinavian management group has decided that no discounts will be given for Internet bookings. Ving tries to please its loyal customers. Research among these have shown that they look for high quality and good value-for-money products, which Ving provides, whereas a price difference of \$10-20 is not that important to them. It is questionable if it is worth trying to please those customers who only look at the price ticket.

A number of impressive statements have been published about the Internet sales results of Ving Sweden and Ving Norway and about their expectations of future Internet sales:

- In April 1998 it was the expectation of Ving Sweden that the Internet would account for 3%-4% of sales in all of 1998.²⁶¹ (~17 000 packages, Internet revenue of SEK 84 million, ~\$11 million).

260 For the Internet payment situation in Denmark, see Appendix 7.5.

261 *Dagens Nyheter*, www.dn.se, 15 April 1998. Now the charter holiday can be booked on the net (In Swedish: Charterresan kan du numera också boka på nätet).

- From April 1998 to December 1998 Ving actually achieved sales of SEK 60 million (\$7.5 million) through the Internet²⁶² (\$7.5 million, ~12 300 packages ~2.5% of all the 500 000 packages sold by Ving Sweden in 1998). So, the expectations were fulfilled more than 70%, which is rather impressive by Internet commerce standards.
- In January 1999 the Internet actually accounted for 5% of Ving Sweden's total revenue for the month.²⁶³
- In April 1998 it was the expectation of Ving Sweden that the Internet would account for 6%-8% of sales in all of 1999.²⁶⁴
- The Internet is a strategically important drive for Ving. A great increase within the next three years is expected, and this applies to Ving in all of Scandinavia.²⁶⁵
- During the five months from April to the end of August 1998 Ving Norway sold its first 1000 packages through its website (~ \$0.7 million). This was 50% more than expected for the period (the high season).²⁶⁶
- During all the nine months of 1998 in which the booking site was active, Ving Norway achieved NOK 10 million in Internet sales²⁶⁷ (\$1.3 million ~ 1900 packages).
- In the beginning of 1999 Ving Norway projected Internet sales alone for the first eight months of 1999 of NOK 20-30 million²⁶⁸ (~\$3.3 million, 4800 packages).
- In the long run Ving Norway expect that the Internet will reach 20% of its sales.²⁶⁹

From authoritative published sources it can thus be determined that Ving Sweden achieved Internet sales of \$7.5 million in 1998, and Ving Norway \$1.3 million, i.e. almost \$9 million in total, corresponding to about 14 000 packages. In chapter 2 all Internet travel sales in (Western) Europe were estimated at about \$250 million in 1998, of which tour packages were estimated to account for 18%, i.e. about \$45 million. This means that the Ving brand in Scandinavia accounted for 20% of the value - and 18% of the volume - of all Internet sales of tour packages in Europe in 1998. Ving Sweden alone accounted for about 17% of package tour Internet sales by value. It must be taken for granted that Ving Sweden alone ranks among the top three Internet sellers of packages tours - directly from tour operators or through any Internet travel intermediary - on the European market in 1998.

262 *Veckans Affärer*, 22 February 1999. Special: Electronic commerce - The trading possibilities of the future are already on the net (in Swedish), www.ad.se.

263 Ving Notes, Stockholm, 8 March 1999, www.ving.se.

264 *Dagens Nyheter*, www.dn.se, 15 April, 1998. Now the charter holiday can be booked on the net (In Swedish: Charterresan kan du numera också boka på nätet).

265 Press release from Ving, 12 August 1998 (Eivor Andersson, VP, Ving Sweden), www.ving.se,

266 Press release from Ving Norway, 2 September 1998 (Petter Asperud, MD, Ving Norway), www.ving.no. *Ving Norway gave NOK 100-150 in discount per package for Internet orders placed before 15 September 1998 (2%-3%).*

267 Stated in January 1999 in Oslo, when Ving Norway won first prize in the Internet category among travel and tourism organisations on the Norwegian market, at the annual conference in the Norwegian chapter of the Hospitality Sales & Marketing Association International (HSMIAI), www.hsmiai.no.

268 *Ibid.*

269 Press release from Ving Norway, 25 May 1998 (Petter Asperud, MD, Ving Norway), www.ving.no

Looking beyond the package tour category to European Internet travel service suppliers in general, Ving Scandinavia and Ving Sweden alone also rank highly. For example, the \$7.5 million sales achieved by Ving Sweden is slightly more than Lufthansa, which achieved \$7 million (DM 12.3 million) in 1998, less than a third of expectations.²⁷⁰ Ving cannot claim any of the top three positions among European Internet travel service suppliers overall, at least not if intermediaries are included,²⁷¹ but Ving Sweden alone with its \$7.5 million sales probably ranks in the top five among all suppliers to the \$250 million European Internet travel service market in 1998.

And what appears to be the main reasons why Ving, especially Ving Sweden, has been able to perform so well on the net in 1998?

- Ving is a very well known brand, and is a market leader in its field.
- Ving only sells direct.
- The Internet has a very high penetration in Ving's main markets.
- Payment can be undertaken off-line, by conventional means.

The number of Web users keeps increasing, even in Sweden. This means that the 5% for January is most likely to result in at least 6% of sales via the net for the full year 1999.

270 FVW 6/99, p. 26 (actual) vs ITB, March 1998 (expected).

271 One European travel service supplier (an airticket Internet intermediary, TISS of Germany, www.tiss.com) managed to reach about \$26 million in travel (airticket) sales over the Internet in 1998, a doubling from 1997. And TIScover of Austria (www.tiscover.at), managed to generate hotel reservations worth \$20 million in actual revenue for the hoteliers, cf. Marcussen (1999). Apollo generated about \$15 million in revenue via the Internet in 1998 (cf. chapter 7.6)

Table 7.16 Summary and interpretation of published statements about Ving's package tour sales via Internet - compared with European tour operators in general: percentage of own volume and percentage of own revenue via the net for 1998, 1999 and 2002

Tour operator	1998 (actual)	1999 (predicted)	2002 (predicted)
Ving Sweden	2.5	6	18
Ving Norway	0.8	2	14
Ving Denmark	0.0	1	10
Ving Scandinavia	1.6	4	15
Other European	0.08	0.3	1.7
Europe total	0.10	0.30	1.9

Source: Own estimates based on Ving statements and own estimate and forecasts for Europe, cf. chapter 2, Appendix 7.2 and Appendix 7.3.

Note: In *Veckans Affärer*, 22 February 1999, the SEK 60 million for Ving Sweden in 1998 is mentioned to correspond to 3% of total revenue, which is assumed to have been rounded up from about 2.5% (mentioned in the above table).

Ving has one of the most popular Internet site for travel in Sweden (in terms of sales value), and is in the top 10 among the Swedish Internet shops overall (by value) in 1998.²⁷² In January 1999 www.ving.se counted 142 000 unique visitors. According to IDC there were 2.52 million Web users in Sweden in January 1999 corresponding to 29% of the whole population, cf. Figure 2.3.²⁷³ This degree of Web penetration is only superseded by one other country in Europe, namely Finland. This means one in 18 of the Swedish Web users visited the Ving Sweden site in January 1999. The result of this was that 5% of Ving's total sales in January 1999 went via the Internet, which makes Internet the fifth largest retail outlet for Ving Sweden.

As for lookers to bookers - or the number of visits per booking: the 142 000 unique visitors to the Ving Sweden site in January 1999 covered 200 000 user sessions (visits), and generated about 1000 Internet bookings (with two packages sold per booking, i.e. 2000 packages). The ratio of visits to bookings per booking was thus 200:1. This is a rather impressive ratio, since a booking for a tour normally means two packages at a total price of at

272 The overall ranking for a number of Internet shops in Sweden for 1998 is mentioned in Appendix 7.3. Ving ranks as number nine, according to Faktaruta in *Veckans Affärer* nr 8/99, www.va.se, also referred to in a Ving Sweden press release. Two major travel service players, SAS and Swedish Rail, do not appear on the list even though it goes down to under \$1 million (SEK 5 million). Whether this is because they have chosen not to provide data for the list or because their Internet revenue is less than 1\$ million is not clear. A third major player, certainly in the Internet field, is the tour operator Apollo, which ought to have been on the list.

273 IDC, January 1999, *European Internet Statistics: How many people are on-line in Europe?* www.eurointernet.idc.dk/start.htm. Internet or Web use should not be confused with Internet access which is obviously even higher.

least \$1000 on average, which is a lot more than a simple return ticket for a flight or a long distance return ticket by train, or a couple of nights at a hotel, where ratios slightly better than this can be found. The explanation must lie in the following observation by Ving: it is primarily travellers who know what they want who book via Internet.

Just before Ving started selling package tours over the net it was expected that the majority of Internet sales would be last minute tours, yo-yos (flight only), packages with modest accommodation, trips to Greece, i.e. low budget trips. These types of tours have certainly also been sold over the net, not least last minute offers, but what has sold best, relatively, are the most exclusive tours, called Sunwing, which have accounted for twice as great a percentage of Internet sales than of sales in the shops, i.e. 18% vs 9%. Package tours are considered well suited to be sold over the net, if the explanations are clear.

Ving has definitely received additional orders because of its website. Ving reaches new types of customers. Sometimes customers come into the shops with pages which they have printed from the Ving site, and sometimes they have booked over the net in the last minute, and then walked into an actual shop and paid for the trip, bringing their Internet booking confirmation. The Internet appears as a virtual shop in Ving's statistics with its own number, and it can be seen from the booking number that it is an Internet booking. Therefore the sales agents know that the customer has booked over the net and are able to form an opinion about the typical profile of Internet bookers, i.e. they are relatively highly educated and high income customers.

The Internet drive has been a big investment for Ving, which plans on a three year pay-back period for the Internet investment in the three Scandinavian countries and Poland, i.e. in principle the years 1998-99-2000 (for Sweden and Norway - but the solutions for Denmark and Poland were not implemented in 1998). The actual magnitude of the Internet investment (initial investment and annual running costs) is difficult to estimate, since it involves percentages of the time of a great number of people, in addition to one full-time person, but it is a one-digit number of millions of SEK. Savings *are* made on the individual Internet transaction. Considerations about the magnitude of these cost savings, break-even and pay-back are given in Appendix 7.4.

Those who send e-mail may be three-child families, and for these it is difficult to specify their booking over the net. Eighty percent of e-mails received are about booking. The rest may be about security risks at the destination, or the telephone number of a certain embassy. Ving are happy to respond to these sorts of questions by e-mail instead of customers occupying telephone lines trying to get an answer.

The Internet project has affected the whole organisation. All the information on the website is generated from a number of different databases, some of which are new, while

others existed before. In total there are 60 people employed in Ving's IT department which also overlooks the IT side of SLG's activities on the Finnish market.

Ving has high ambitions and visions for its web activities, and this goes for all the Scandinavian countries. As mentioned, Ving Norway has stated that in the long run it is expected that 20% of Ving tours will be sold over the net. The projection must certainly be assumed to be valid for Ving Sweden - and Ving Denmark also. What is meant by the long run is not defined but it is probably up to five years ahead for Ving Sweden and Ving Norway (since Ving Sweden mention a three year horizon), and slightly longer for Ving Denmark. Counting 1998 as year one for Ving Sweden and Ving Norway, year five would be the year 2002. Ving Denmark will probably be two or three years behind the other Scandinavian countries in reaching the same high percentage of Internet sales, partly because the Internet commerce solution for Ving Denmark has been pending. Another reason why it will take longer to reach the same level in Denmark could be the general reluctance of Danes to place Internet orders over the net in light of the year-long debate in the media about Internet payments. This climate of solid scepticism about the security of the Internet could have a negative impact even on those Internet shops - like Ving Sweden, Ving Norway and several players in the Danish travel and tourism market - even if they do not settle their payment over the net. Many Internet shops have been awaiting the possibility to pay in Danish Internet shops by credit card and international payment card, which came into reality in April 1999 (cf. Appendix 2.6). Therefore, even for Internet shops which do not intend to allow customers to pay via the net, there are competitive reasons to establish themselves in Denmark as soon as possible.

There will be no new functions in the near future on the of Ving Sweden and Ving Norway sites. But there will be running adjustments, updating and maintenance. The next major steps with respect to Ving's Internet drive are to implement a sales solution for Ving Denmark and Ving Poland. A currently limited but increasing part of the Polish population is relatively well educated, with good salaries. When the functionality of all four sub-sites has been pulled up to the same level, new functions may be considered. For this more distant future, things like Virtual Reality is technically a possibility - e.g. taking a look around the hotel room, etc. - but the general technological level of the users - which is modest - must be taken into account. The search tools may be made more intelligent/flexible, e.g. searching by activity of interest for a given period.

7.6 Apollo, Sweden/Scandinavia

Apollo was established as a tour operator in Sweden in 1986, as a specialist in tours to Greece. For this destination it maintains a 50% market share in Sweden, and 25% in Denmark. Apollo Denmark was established in 1994. Apollo claims to be the only Swedish owned tour operator left in the Swedish market.

Apollo has 150 employees in Sweden, 30 in Denmark, and between 70 and 170 seasonally employed travel guides.²⁷⁴ In 1997 Apollo sold 350 000 packages (fvw 13/99, p. 14), which is assumed also to be the level realised for 1998 (in all of Scandinavia). The average price per package is about SEK 4000 (\$503). This means that revenue in 1998 is estimated at SEK 1.4 billion (\$176 million). The average price per package for Apollo is somewhat below the average for the market leader. Half of Apollo's sales are made via a network of 200 retail travel agencies in Sweden and 50 in Denmark, and the rest via Apollo's own shops, telephone and directly to end-consumers via the Internet. Apollo Norway was established in the autumn of 1998, with a programme for the summer of 1999.

Apollo was the first tour operator in Sweden to open an Internet booking site, which took place in January 1998. The Apollo site - in its Swedish, Danish, and Norwegian versions - contains all tours and flight-only offers and last minute offers. The last minute offers on the Apollo Sweden site are updated constantly, and the site is integrated with Apollo's internal reservation system. On the Danish versions of the Apollo site the last minute offers appear to be infrequently updated (every two weeks). On the Norwegian version no last minute offers as such are shown, but there is a list of this week's departures with on-line availability data at least for the flights only. No hotels seems to be available for this week's flight departures on the Norwegian version of the Apollo site.

In the middle of 1999 it was announced that Apollo had sold 100 000 packages (departed passengers) via the Internet since the beginning of 1998, at an average price of \$503 (SEK 4000), i.e. about \$50 million (SEK 400 million) in Internet revenue during the first 18 months!

Table 7.17 Packages sold via Internet by Apollo (mainly www.apollo.se)

Year	No. of packages sold via net	Percent of packages via net
1998	~ 30 000	9% of 350 000
1999	~120 000	34% of about 354 000

Note: The above is the writer's estimate based on the statements published on the Apollo website as quoted above.

Since the beginning there had been steady increases in both the number of visits and the number of bookings, but the *explosion* came in January 1999. March 1999 was a record month with 180 000 visits (user sessions), but the average during the first half of 1999 has been 150 000. Most - if not all - of these visits are to the Apollo Sweden site, which has a better functionality, and constantly updated last-minute offers - unlike Apollo Denmark and Apollo Norway.

Since the very beginning of 1998 Apollo has offered discounts for Internet bookings, namely SEK 50 per participant at the Swedish site, corresponding to \$6.30 or about 1.3%. This may perhaps not be much, but Apollo probably attracts relatively many price conscious holiday-makers in general (cf. above). Apollo's share of package tour sales in Sweden and in Scandinavia in general is much higher than its overall market share. It must be assumed that the Internet discount - together with the constantly updated list of last minute offers on the Apollo Sweden site - is an important reason for the great success of Apollo Sweden in the Internet sales field.

8. Summary, conclusions (accessing the propositions) and reflections

8.1 Summary

8.1.1 The market

By the end of 1998, about 50% of the world's Internet users were from the US - and another 6% from Canada. Twenty-one percent were from Western Europe, and another 2% from Eastern Europe. The focus here is on Western Europe. Within Western Europe, Germany, the UK and the Nordic countries (the three Scandinavian countries and Finland) account for about 63% of Internet users as well as of Internet buyers. These countries were chosen from the beginning, but cases from four or five other European countries have also been included. There were 37-40 million Internet users in Western Europe by the end of 1998, which corresponds to about 10% of the whole Western European population. But in the last quarter of 1998 only one in 10 of the Internet users bought anything via the net (with or without payment on-line). Therefore it is easy to understand that Internet commerce was a limited phenomenon in Western Europe in 1998. But the number of Internet users is set to double or triple by 2002. Internet buyers as a percentage of Internet users will increase from 11% to 24%, and the average amount spent online will increase perhaps five times. Therefore it is also easy to understand that Internet commerce in Western Europe will increase dramatically until 2002 and beyond.

Travel and tourism products lend themselves very well to being sold over the net - and are one of the best sellers on the net measured by its share of business-to-consumer (B-to-C) Internet commerce, certainly in the US, and to some extent also in Western Europe. In 1998 Internet travel sales were about \$250 million in Western Europe, corresponding to just 0.15% of selected and specific major categories of (pre-bookable) travel and tourism services. This was just a tenth of the level in the US in 1998, but the percentage is set to increase to 3% in 2002, i.e. a 20-fold increase in four years. With respect to the mix of Internet travel sales in 1998, airtickets are the main category, both in the US and Europe. Intermediaries played a somewhat less important role for Internet travel sales in Europe than in the US (a third vs half of Internet travel sales), but intermediaries are likely to increase their share in Europe. The main emphasis in this book is on the direct Internet sales opportunities. All examples within the transportation sector and package tours are of principals selling direct via the net, whereas all examples from the accommodation sector involve intermediaries. Clearly intermediaries play a central role in the accommodation sector in aggregating supply into volumes which make it technically and economically feasible to distribute these services on a real-time online basis via the Internet/WWW.

Within the transportation sector - such as for airtickets - intermediaries can help ensure the customer the lowest price from any supplier. Package tours are much more important in the European market in general than in the US, and this is also reflected in package tours accounting for a much larger part of Internet travel and tourism sales in Europe than in the US. Train travel too (here delimited to long trips), is a much more important form of transport in Europe than in the US, and there is some emphasis on train operators - as well as on tour operators - on the net in this book.

In the US payment by credit card is very common in general and on the net. In Europe Internet users tend to prefer to settle payment off-line, which for travel and tourism services (such as package tours or holiday cottages) is unproblematic since these products are typically booked well in advance and then paid for at least partly within a certain number of days. SET is very secure, perhaps unnecessarily so. SET is cumbersome to implement, and it is unlikely that the standard will ever gain widespread acceptance - unlike the less secure but generally accepted standard SSL (now also in Denmark!).

8.1.2 Transportation

Airlines: US airlines carry more than twice as many passengers per year than their Western European counterparts. Almost every airline in the world has a website. However, whereas bookings could be made on 19 of the top 20 US airline sites, this was only the case for 12 of the top 20 European airline sites, and for just four of the sites of the 20 largest airlines in the rest of the world (end of 1998 status). Furthermore, among those airline sites in the different parts of the world where bookings can be made, some kind of extra incentive for Internet bookings are used on more than half of the US sites. None of those in Western Europe offers this, and neither do any of the largest airlines in the rest of the world. No European airline was even close to getting 1% of its passenger revenue via Internet in 1998, but at least one airline is likely to surpass 1% in 1999 (Braathens, ~1.5% of revenue on Norwegian routes in 1999). A number of the largest European airlines expect increased direct sales, also via the Internet. Two are dreaming about the 50% level by 2002 or 2003 (but not merely via the net). By the middle of 1999, status for booking capabilities is as follows: bookings can still be made on 19 of the top 20 US airline sites. Now bookings can be made on 16 of the top 20 European airline sites, and on seven of the sites of the 20 largest airlines in the rest of the world.

Train operators: railways should really be called train operators, since ownership of tracks and trains is being separated. We generally mean train operators, when using the common term railways. German Rail (Deutsche Bahn, DB), is clearly the largest railway by number of passengers, followed by 25 UK train operators together, and French Rail. Most of the world's railways have established websites, and certainly all of the Western European ones have. Bookings can be made on half the sites, partly only on an e-mail request basis. Five

of about 18 offer real-time seat availability information and online booking with instant confirmation. On six of the 18 sites payments or transmission of payment detail are online. Four of 18 offer information about delays in arrivals. In Western Europe only the revamped site of Norwegian Rail, opened in the spring of 1999, offers all features, but contains no international timetables. However, the DB site does. It counts the highest number of page views per month of any European travel and tourism site, namely 18 million, in March 1999. Several railways (train operators) are considering distributing electronic information (which is already on the net) via mobile phones as well. The Nordic countries, which have the highest Internet penetration in Western Europe, are also those with the highest penetration of mobile phones. A website feature matrix, developed for and applied to train operators, could be applied to other transportation service sites, and in modified form to accommodation service sites, etc. The categories of the matrix follow the (a) before-the-purchase (b), before-and-during use (c) after-use/purchase phases and contain the following main sections:

- Timeschedule/route functions (product information);
- Incentives for Internet bookings;
- Booking features and functionality;
- Payment methods;
- Ticket retrieval methods;
- Punctually information;
- Repeat sales promotion.

Coaches, rental cars, and ferry lines: in Western Europe, the only examples of up-front discounts for Internet bookings were found with one coach operator and one car rental firm: National Express (Eurolines UK) and Europcar, Germany. Almost every major international ferry line in Europe already had a website in the spring of 1998. For the ferry lines - which should actually be called ferry operators since one operator typically has many routes (*lines*) - there appears to have been one of two directions into which to move from 1998 to 1999: either off the net (a weak trend)²⁷⁵ or to implement greater functionality such as Internet booking functions, real-time availability information, and on-line payment (a strong trend). Scandlines received reservations for about 2.5% of its 5.8 million car crossings in 1998 via the Internet, and this will probably increase to 3.8% (of a somewhat lower number of car crossings - but with a higher average price) in 1999. Stena Line, is set to get about 2% of the reservations for all its 1.8 million car crossings in 1999 via the Internet.

275 Discontinuation of the firm as such was the explanation in at least one instance.

8.1.3 Accommodation

Technically it is (of course) possible for an individual accommodation property to offer real-time availability data from its internal booking system, but economically it is not feasible. European hotels in general are small properties (frequently chain independent), European youth hostels are generally somewhat smaller than hotels measured by annual revenue, camping sites are smaller than youth hostels - and one holiday cottage generates only a small supplement to the owners' other incomes. The only technically and economically feasible way to offer online booking of practically any form of accommodation goes via an intermediary. The examples given in this book include:

- 1) a completely Internet-based hotel booking firm - which keeps availability data and therefore is able to confirm Internet bookings instantly (break-even reached);
- 2) a traditional hotel booking firm, which does not make use of GDS distribution, but which has supplemented the conventional ways of taking bookings (fax, telephone, letter) with Internet distribution - and which keeps availability data (break-even reached);
- 3) three cottage letting agencies - which all keep availability data (none of the three had reached break-even in 1998) - but in the first half of 1999 all three of them received about 10% (ten percent!) of their bookings via the net;
- 4) a booking request system of a national youth hostel association (break-even reached) - which does *not* keep availability data - and supplements the forwarding of the website generated booking requests by e-mail with fax-forwarding;
- 5) a booking request system of an international camping site directory (break-even not reached) - which does *not* keep availability data - and *only* forwards the website generated booking requests by telefax.

8.1.4 Package tours - tour operators

In Germany half the top 10 tour operators offer availability data and online booking opportunities on their websites. Internet users

- a) either get the choice of making the booking directly with the tour operator or choosing a travel agent for fulfilment;
- b) or get no other option than going through a travel agent for fulfilment.

In Switzerland the top five tour operators offer on-line direct booking of last minute tours. In Scandinavia the largest tour operator brands (UK owned) offer online real-time direct-only booking of most of their programme. In Germany and Switzerland Internet users are given the option to settle payment by transmitting their payment details via the net, where credit card is one of several options, but in the Nordic countries payment is settled offline.

On the websites of the tour operators in the rest of Europe there is no real-time Internet booking functionality.

8.1.5 Overview of case studies

The following 26 examples of innovative websites from 10 European countries have been given, plus a brief mention of one Polish and some North American parallels:

Table 8.1 Overview of case studies

Firm	Product	Principal	Intermediary	Germany	UK	Sweden	Norway	Finland	Denmark	Switzerland	Netherlands	Spain	Rep. Ireland	Poland	USA	Canada	Web address:
- (TISS)	Planes		x	x													www.tiss.com
1 Deutsche Bahn	Trains	x		x													www.bahn.de
2 Lufthansa	Planes	x		x													www.lufthansa.de
3 TUI	Packages	x		x													www.tui.de
4 Europcar	Cars	x		x													www.europcar.de
5 HRS	Hotels		x	x													www.hrs.com
6 eCamp	Camping		x	x													www.ecamp.de
7 British Airways	Planes	x			x												british-airways.com
8 Virgin Trains	Trains	x	(+)	x													.thetrainline.co.uk
9 National Express	Coaches	x			x												.eurolines.co.uk
10 Apollo Sweden	Packages	x				x											www.apollo.se
11 Ving Sweden	Packages	x				x											www.ving.se
12 Swedish Rail	Trains	x				x											www.sj.se
13 Stena Line	Ferries	x				x											www.stena-line.se
- SAS	Planes	x				x											www.sas.se
- (Ving Norway)	Packages	x					x										www.ving.no
14 Braathens	Planes	x					x										www.braathens.no
15 Hostel. Norway	Hostels		x				x										www.vandrerhjem.no
16 Finnair	Planes	x						x									www.finnair.com
17 Matka-Ruka	Cottages		(x)					x									.travel.fi/int/Ruka/
18 Danish Rail	Trains	x	(+)						x								www.dsb.dk
19 Scandlines	Ferries	x							x								www.scandlines.dk
20 dansommer	Cottages		(x)						x								www.dansommer.dk
21 Sol & Strand	Cottages		(x)						x								www.sologstrand.dk
22 Kuoni	Packages	x								x							www.kuoni.ch
23 Swiss Rail	Trains	x								x							www.sbb.ch
24 Bookings NL	Hotels		x								x						www.bookings.org
25 Iberia	Planes	x										x					www.iberia.es
26 Irish Ferries	Ferries	x											x				irishferries.ie
- LOT Polish Air.	Planes	x												x			www.lot.com
- AmTrak	Trains	x													x		www.amtrak.com
- Greyhound	Coaches	x													x		greyhound.com
- Royal Caribbean	Cruising	x													x		royalcaribbean.com
- Carnival	Cruising	x													x		www.carnival.com
- Via Rail	Trains	x														x	www.viarail.ca

Note: The sites of the firms in brackets are hardly described at all in this publication and are not given any number. Firms outside Western Europe are not given any number, and descriptions are brief only. The cottage letting agencies act much like tour operators with respect to distribution and therefore have the sign (x) in the intermediary column.

8.2 Accessing the propositions

Now a series of propositions about the effects of the Internet will be presented, based on findings from the case studies and other findings presented in this book, and their likelihood assessed. Where relevant this will be supplemented with reference to current literature such as printed articles and reports, and especially information published on the Web.

8.2.1 Distribution over the net - and price

P1. Prices to the end-user of the most commodity-like tourist/travel products are - or will be - lower than the same products being sold through traditional distribution channels.

*Prices for many commodities will fall throughout Europe, Jones predicted, because of online commerce and alternative distribution channels enabled by the Internet. He also said the ability to compare prices will drive competition and lower prices further.*²⁷⁶

In general, for the time being - in 1999 - prices are *not* lower than the same products being sold through traditional distribution channels. Up-front discounts are very hard to find. However, early in 1999 two European examples of temporary up-front discounts were found, namely, Europcar in Germany (up to 46% off list prices on a certain car-type, actually a VW, which partly owns Europcar), and National Express coaches of the UK (10% off every fare for net bookings for a period of about three months). None of these offers were available any longer in June 1999. In the US two examples of car rental companies giving discounts for Internet bookings were found (Hertz and Budget, both 20% off in North America). It is perhaps no coincidence that examples of discounts were found precisely within the car rental industry, which is generally known for making company agreements with discounts certainly in excess of 20%.

276 Sanchez-Klein, 1998.

However, one example of a permanent discount for Internet bookings was found, namely the tour operator Apollo in Scandinavia. Apollo, whose main market is Sweden, gives \$6.30 (SEK 50) in discount per participant, corresponding to about 1.3%.

For the time, however, being special discounts are generally *not* given for net bookings. Furthermore, no statements about plans for discounts for net bookings in future were found. P1 as it stands must be clearly rejected. Travel and tourism service providers tend to think that convenience is enough to lure customers to make Internet bookings.

P2. Prices are not commonly reduced for tourist/travel products offered over the Web. This is impeding sales over the net.

It is *definitely* true that prices are not commonly reduced for Web bookings, as noted above. It has also been shown that Internet travel sales, were very limited in Europe in 1998 (0.15% - vs 1.5% in the US), and still low in 1999, although some encouraging examples of growth from 1998 to 1999 were found. Common sense and general price theory tell that of course this impedes sales over the net depending on price elasticity of demand. However, every supplier tends to believe that precisely their service and brand is of a kind where price is not a main selection criteria.

Apollo, as mentioned under P1, is one of the most successful Internet marketers in Europe. It does give a small discount for Internet bookings, and is getting an astonishing percentage of its sales via the Internet. Apollo's customers, especially those buying via the Internet appear to be very price-sensitive. Apollo is getting a much greater share of Internet package tour sales in Sweden than its general market share would suggest. The (small) discount given by Apollo must be considered the main reason for Apollo's tremendous Internet sales success. Clearly, suppliers who serve price-sensitive segments of any market impede their Internet sales by failing to give discounts for Internet orders, discounts which could possibly have been very well justified by cost savings (including e.g. travel agent commission and/or less phone staff time) and gross profit from additional sales.

8.2.2 Distribution over the net - and promotion

P3. Promotion (information provision) and distribution are closely linked.

Hopefully this is true. Typically there are 100 visits to a website per web-booking. The notion that Internet lookers tend to book elsewhere afterwards, although they do not book online, seems to be supported by at least some surveys, cf. the PhocusWright study - which

used frequent flying as one of its respondent selection criteria.²⁷⁷ More research is needed to investigate the degree to which mainstream Internet users who visit booking websites make their booking off-line through traditional channels afterwards, not least in Europe where Internet users appear to be more reluctant to make purchases than in the US. Here only dispersed evidence can be supplied: the sales agents of Sol & Strand, a Danish holiday cottage letting agency whose main sales office lies in Flensburg, Germany, report that *many customers have been on-line to search for available offers before they make a call - to ask further questions and/or to make the booking by telephone.*

P4. As the Internet matures as an advertising medium, reliable and comparable media measurements will be developed as for other media.

There is certainly evidence that the Internet is coming of age. Industry bodies are being formed to set standards for Web traffic measurements, for example in Denmark.²⁷⁸ Obviously, websites which sell, e.g. ads have to demonstrate comparable measurements of exposures.

8.2.3 Distribution over the net - which products?

P5. The more standardised (commodity-like) the product, the more it is being sold over the net.

Airtickets, which are the most commodity-like travel services, account for a greater percentage of Internet travel sales than of the total market value for travel services (irrespective of sales channel). This is true in the US and appears also be true in Western Europe (cf. Figure 2.6 and Appendix 2.1).

P6. In general, the lower the transportation costs, the more likely it is that products will be sold over the net. Services - such as tourism and travel *products* - are ideal for selling over the net, since there are no transportation costs.

277 PhocusWright, 1998. The survey reveals 18% of wired travellers book on-line, press release, 4 November, www.phocuswright.com/WTN0498.HTM: Look-to-Book remains industry issue. The majority of those who use the Internet to look at travel options do not purchase them electronically. Fifty-seven percent of *wired travellers* have *looked, not booked*. Of those, 70% have bought the tickets later from another source, such as a travel agent or airline.

278 www.fakdis.dk; fakdis = The Association of Commercial Danish websites. Irrelevant hits and page impressions (page views) are being filtered away - using the WebTrends Log Analyzer Tool (4.0a build 146). But most recently there have been grumbling about these measurings being 20%-40% too low, among other things because of local document storage at proxy-servers, from which the documents are being retrieved after a document has passed through the proxy-server once. Subsequent readers of the same document are thus not counted. Nielsen, Claus Thor, 1999, Mess in the visit numbers (in Danish: Rod i besøgstallene), *Computerworld DK*, 18 June, p. 8).

Travel services account for a much larger share of Internet commerce than of commerce in general, even within B-to-C markets. In Europe computer hard- and software dominates B-to-C Internet commerce, in the US less so. On the other hand, in the US travel accounts for as much as a fourth of B-to-C Internet commerce, vs roughly 15% in Europe, and obviously this a higher percentage than one would expect from their share of normal household budgets, certainly in the US, but also in Europe.

8.2.4 Distribution/sales over the net - how much?

- P7. The lookers-to-bookers ratio will improve as the willingness of end-users to place orders - and make payments - over the net increases.

*TravelWeb's Wacaser said more and more people are becoming comfortable buying over the Internet, noting that her site's "look-to-book" ratio has improved in the past year. But exact figures are hard to come by because TravelWeb, like Southwest, Internet Travel Network and other sites, declined to quantify how many people bought tickets on their site, claiming that the information is proprietary.*²⁷⁹

TUI found that the number of (Internet) visitors per (Internet) booking actually deteriorated for a year or two after the beginning of 1997, since the number of website visitors increased faster than the number of Internet bookings. Then the ratio started improving again. Ving Sweden mentioned an improving ratio as well. A lot more longitudinal material which could illuminate trends in website visitors and Internet booking, and thereby the ratio, will be collectable after the end of 1999. Forecasts suggest that the percentage increase in Internet buyers is much higher than the percentage increase in Internet users, which is hardly surprising. But the gap in percentage points between Internet users and Internet buyers is bound to increase for the next few years except perhaps in two or three countries in the world with the very highest Internet penetration which are approaching maturity.

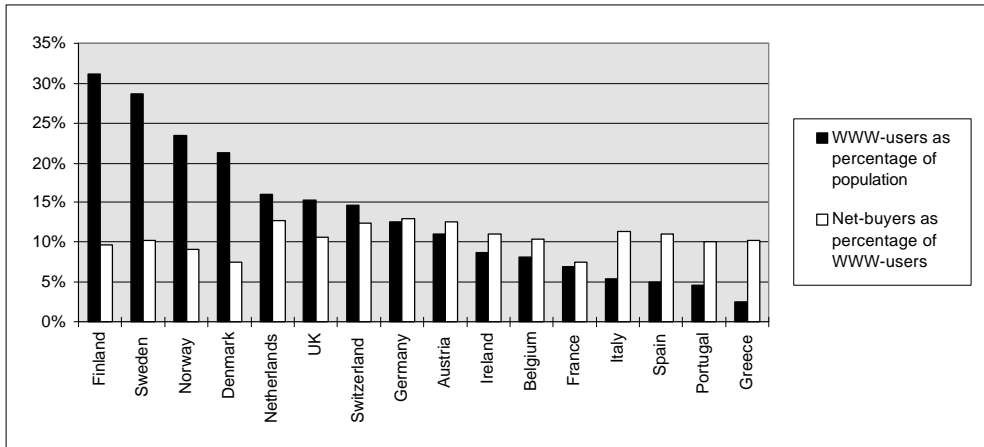
- P8. The willingness of end-users to purchase tourism/travel products over the net is positively correlated with factors such as the penetration of the net (in percentage of the population), and the penetration of international payment cards in different countries.

In Europe about one in 10 Internet users bought anything via the net in 1998, vs one in four in the US. By the end of 1998 Internet penetration in Europe was about 10%, vs about 27% in the US. Penetration of international payment cards, of which the major ones are American, is much higher in the US than in Europe. Within Europe, if P8 were true, those countries with a relatively high Internet penetration would tend to have an even higher

279 Chris Scribner, Chris (Times-Union business writer), 1998, *On-line reservations*, http://www.jacksonville.com/tu-on-line/stories/053198/bus_webtrave.html

percentage of Europe's Internet buyers than of Europe's Internet users. IDC have published data to investigate this. A graph is enough to show that the first part of P8 is false. The percentage of Internet users who are Internet *buyers* lies around 11% - according to IDC - and is totally *independent* of Internet penetration. We can easily see that without making a regression analysis.

Figure 8.1 No correlation between Internet penetration and percentage of users who are buyers



Source: Based on data made public by IDC, *Computerworld DK*, 5 February 1999, p. 21 and www.eurointernet.idc.dk/euinet/stats.htm and, as Figure 2.2 and Figure 2.3, combined with population statistics.

Note: The data relate to end of 1998 and the beginning of 1999.

As can be seen from the graph, Denmark - along with France - is at the bottom in terms of the percentage of Internet users who are Internet buyers, something which caused a lot of ink to be spilled ahead of the change of the Danish Law on Payment Cards in April 1999 mentioned in Appendix 2.6. Now the legislative road is paved for Internet sales from Danish Internet shops, including travel sites. So, as far as Denmark is concerned there is no reason to believe that the (not very) low penetration of International payment cards can explain the low willingness of Internet users to make purchases via the net. Legislation kept Danish Internet users from making payment on-line in Danish Internet shops before April 1999, and article after article was published about the dangers of transmitting credit card detail over the net for purchases in international shops - although the card issuer, not the consumer bears responsibility for losses in case of fraud and misuse of credit card information.

In France the small percentage of Internet buyers among Internet users can perhaps be explained by a preference for making online purchases via the well-known Minitel system

rather than the net. Within Europe international payment cards have probably got the highest penetration in the UK. And are a high percent of British Internet users then making Internet purchases? Not really, Britons conform to the European average in this respect. But in fact many UK Internet travel sites do take credit card details, unlike those in the Nordic countries. So, even before attempting to establish the penetration of international payment cards per country there are several examples which point in the direction of a rejection also of the second part of P8.

8.2.5 Distribution over the net - and its effect on the different types of actors in the distribution chain

P9. Tour operators and other players at the wholesale level in markets which traditionally rely heavily on retail sales through independent travel agents will start opening websites with the possibility of making bookings directly to them - thus bypassing the travel agents.

This is overwhelmingly supported by the facts presented here.

P10. Airlines will start taking bookings for simple return tickets over the net - thus bypassing the travel agents and increasing their percentage of direct sales.

Yes certainly: many European airlines foresee and work in the direction stated in P10. One only needs to look at the annual reports of the airlines published on the net and several other sources such as newspaper articles. Examples: BA, SAS, Braathens, and many others.

*Airlines ponder discounted Web fares: Major airlines may be on the verge of offering their lowest fares to those who book from the airlines' websites.*²⁸⁰ Cf. also P2. Not a single airline, and certainly none in Europe are offering lowest fares (only) to those who book on the airlines' own sites.

8.2.6 The Internet and competitive advantage

P11. Cost savings will only - to any measurable degree - be made by *the big players*.

Almost all the big players interviewed state that they save costs when customers use the website of the given firm instead of contacting the firm in person or by phone - but so do most of the smaller players interviewed. On the other hand, only players of a certain significance in the Internet travel sales field have been involved in the research reported here.

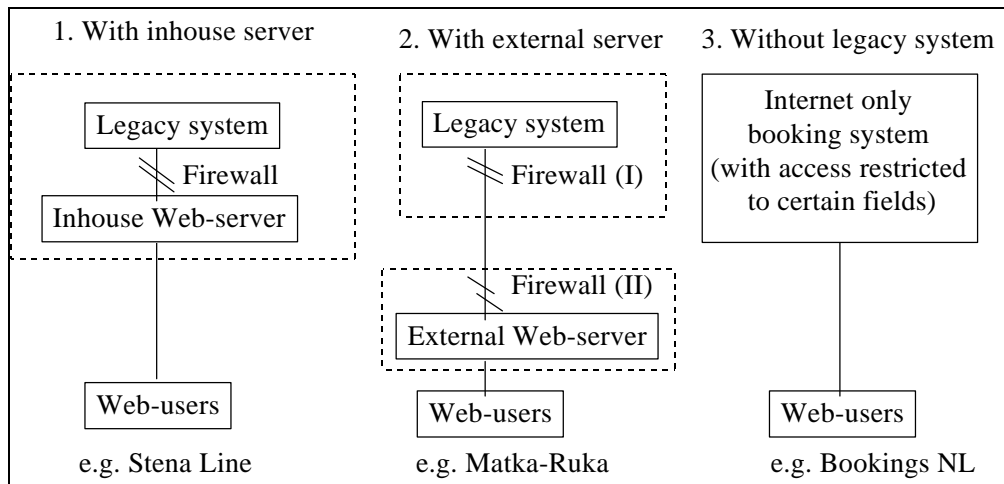
280 <http://www.usatoday.com/life/travel/business/t1102web.htm>, 11/02/98.

P12. Advantages from a positive differentiation from competitors can no longer be achieved through simple (non-interactive, and non-transactional) websites. Already today making a positive differentiation from one's competitors by means of the Internet requires more than just a basic website.

Positive differentiation can *definitely* no longer be achieved by a simple non-interactive non-transactional, website.²⁸¹ A simple website is hardly enough to stay even with competitors.

There are many opportunities for both principals and intermediaries to utilise the net. Only players who integrate (link) their legacy systems (internal reservations systems and/or databases) with a webserver can offer the leading edge website functionality needed to gain a positive differentiation from competitors. This of course does not apply to newcomers, who do not have any legacy systems at all, but only an Internet-based booking system.

Figure 8.2 Three basic architectures for Internet-based booking systems



Real-time availability data and booking functionality with instant confirmation are quickly becoming the norm within most parts of the travel and tourism industry (or industries) and therefore something which is expected by customers now. A certain size or volume is needed - to make the right connection to the net. For some, such as individual accommodation properties, it is technically possible, but hardly feasible, to establish on-line real-

281 Key informants were asked if a simple site was still enough? There was a resounding NO NO NO to this question from all the key informants - except one, who may have misunderstood the question, despite efforts by the writer to make sure that this was not the case.

time booking functionality themselves just for their own small business, but they may make the connection via a (product and/or destination focused) intermediary who handles the technical side relating to online net bookings on behalf of the given individual - and of many other properties.

8.3 And the winners are...

Here it would have been nice to have been able to say: the consumers. Although consumers do get convenience, they rarely get any discounts for Internet orders. Internet marketers will not get the Internet sales which many of them hope for unless compelling incentives in the form of up-front discounts for Internet bookings are given to business and leisure travellers/holiday-makers.

All the websites discussed in this publication are good in their own right, and in some way innovative. That is why they have been included. Obviously, as has been illustrated by examples from a great number of different types of tourism and travel services, the Internet can be used by largely any type of actor, although in the accommodation sector individual properties have to go through some kind of intermediary to be able to offer Internet users the possibility of making bookings via the Internet with instant confirmation. Even in the case of booking request solutions, it seems to be an advantage for the accommodation to be under the umbrella of a well-known entry point.

In terms of sales in absolute numbers - or seen in relation to the firms' own total turnover. Table 8.2 provides a list of European Internet marketers who have been successful, as far as the writer has been able to determine.

Table 8.2 Some successful European-owned, European-oriented websites, 1998 and 1999

	Name	Country	Tourism / travel service	\$ Million Internet sales generated 1998 [and 1999]	% of revenue 1998 [and 1999]	Break-even reached in 1998?
1	TISS GmbH	Germany	Intermediary - airtickets	26 [52]	100 [do]	Yes
2	TIScover.at	Austria	Destination based reservation system	20 [55]	?	No
3	Apollo	Sweden	Tour operator	15 [60]	9 [34]	Yes
3b	Ving Sweden	Sweden	Tour operator	7.5 [18]	2.5 [6]	No
3c	TUI	Germany	Tour operator	6.1 [24]	0.2 [0.8]	No
4	Lufthansa	Germany	Airline	7 [28]	0.08 [0.3]	No
4b	Braathens	Norway	Airline	0.9 [5]	0.15 [1.5]	No
5	Scandlines	Denmark [+Ger./Swe.]	Ferry lines (for cars)	5.9 [7.2]	2.5 [3.8]	Yes
5b	Stena Line	Sweden	Ferry lines	0.6 [2.8]	0.3 [2.1]	No
6	DSB	Denmark	National train operator	3 [6]	0.8 [1.6]	Yes
6b	DB	Germany	National train operator	- [~4, min.]	0 [0.2]	No
7	Bookings NL	Netherlands	Intermediary - hotels	2 [7]	100 [do]	Yes
8	Matka Ruka	Finland	Holiday cottages	0.7 [1.6]	6 [12]	No
8b	dansommer	Denmark	Holiday cottages	0.4 [4]	0.8 [7.5]	No
9	National Express UK	UK	Long distance coaches	0.5 [1.6]	0.07 [0.22]	Yes
9b	Svenska Buss	Sweden	Long distance coaches	0.07 [0.14]	1.5 [3]	Yes
10	eCamp	Germany	Camping	0.4 [0.7]	Marginal	No
11	Hostels Norway	Norway	Youth hostel association	0.3 [0.5]	3.2 [5]	Yes
	Sixteen players	from eight countries	Total, 1998: [Total, 1999:]	96 [278]	Increase, 98-99: 188%	

Note: *Criteria for inclusion:* published or estimatable Internet revenue figures, and number one or two within a certain category. For package tours three are included, though. Not included: hotel chains and car rentals, BA, SAS, KLM and non-European-owned online travel agencies. For dansommer the percentages are for the booking-year. For the calendar year the percentages are higher.

About 81 of the \$96 million Internet travel sales in 1998 were generated by the European market (i.e. by European residents) - out of a total Western European Internet travel market estimate of about \$250 million for 1998. This means that about 33% of the estimated total Internet travel revenue on the Western European market in 1998 is accounted for by the players in Table 8.2.

TISS GmbH (Travel Information Software Systems GmbH of Germany) grabbed first position in Europe in 1998 in terms of Internet revenue generated, if sales to non-Europeans are included.

But for TISS GmbH (which is in no way connected with TIScover.at) as well as for Bookings NL, about half of the revenue is generated by non-European markets, i.e. largely by US residents.²⁸² At least \$13 + \$1 million = 14 million of the 1998 Internet revenue is thus not generated by the European market. Some of Lufthansa's and TIScover's Internet revenue is probably also generated by Americans. But all the Internet revenue by the other players shown in Table 8.2 is generated by Europeans (i.e. the European market). British Airways' Internet sales figure for 1998 has not been published, but for BA a great part of its Internet revenue is probably generated by non-Europeans (Americans),²⁸³ and the same goes for KLM.

TIScover.at of Tyrol in Austria generated accommodation revenue of about \$20 million in 1998, which was the second highest of any European travel and tourism service site known by the writer. TIScover is set to keep its number two position in 1999, during which year it is hoped that the system will reach break-even.

Within airtickets and hotels there are firms which are entirely Internet based, and profitable as well.

Among the traditional businesses which have adopted the Internet as an additional distribution/sales channel, there are three tour operators, which have achieved remarkable results:

- 1) Apollo (mainly Sweden - but also active in Denmark, and from 1999 in Norway), achieved Internet revenue of \$50 million during its first 18 months of existence from the beginning of 1998 to the middle of 1999. In light of this, total Internet revenue for 1999 could be \$60 million for all of 1999 (or even considerably

282 For TISS about three times as much revenue is generated via e-mails to TISS fulfilment agents, based on information from the TISS site (www.tiss.com - www.europe.ibm.com/nc/customer/case17x.html).

283 Cf. Guglielmo, 1998.

more²⁸⁴), which would correspond to 35% of the roughly \$170 million total annual revenue. If Apollo reaches the \$60 million mark in 1999 it looks set to become number one in Europe in 1999 across all travel and tourism subsectors. Since the very beginning Apollo has given discounts for Internet bookings.

- 2) Ving (Sweden and Norway) gets a mention because of actual Internet sales in absolute and relative terms, and
- 3) TUI (Germany) not so much because of actual Internet sales, but because of the great number of visitors to its site, who must be assumed to be inspired by the TUI offers on the Internet, even though they may decide to make the booking off-line in a travel agency.

Among European airlines there are not really any success stories to tell in 1998, but two get special mentions after all:

- Lufthansa and Braathens: LH because - although achieving far lower Internet sales in 1998 than expected - it has published the highest Internet sales figure in absolute terms in 1998 of any European airline. Furthermore, 1999 sales are set to increase to four times the 1998 level. Braathens did best in 1998 in relative terms, and is set to gain up to 1.5% of its revenue from routes to/from/in Norway via the Internet in 1999.

In the ferry line sector Scandlines generated almost \$6 million worth of Internet booked car crossings in 1998 and is set to increase to over \$7 million in 1999, although one major route was substituted by a bridge in the middle of 1998. Stena Line will certainly move beyond the \$1 million mark in terms of Internet sales in 1999.

Within the railways two operators also deserve a mention: Danish Rail (DSB) and German Rail (Deutsche Bahn, DB):

- DSB's Internet revenue of \$3 million in 1998 was the highest of any European train operator, and this is set to double in 1999. DSB's 1998 Internet sales were about a quarter of the level of Amtrak of the US in absolute terms and not far from the North American train operators in relative terms.
- The DB site has more visitors (and page views) than any other European travel and tourism website. Its international timetables are the undisputed best in Europe, a fact which is acknowledged by the other national train operators, who link to DB

284 Thus Apollo itself talks about breaking the \$125 million limit (www.apollo.se, 22 June 1999), but this cannot be achieved without winning a lot of market share.

for international schedules. Internet bookings on the DB site are bound to become significant in absolute terms, which in the DB instance means a two-digit million dollar revenue figure, probably for the year 2000 and onwards.

The tour operator Apollo and its very high percentage of Internet sales has already been mentioned. Three other firms achieved a remarkably high percentage of their total sales via the Internet during the first half of 1999. They are all from the same sector, namely holiday cottages:

- dansommer, Denmark 10% Holiday cottages (summer)
- Sol & Strand, Denmark 10% Holiday cottages (summer)
(Danish-owned, but main sales office actually located in Flensburg, Germany)
- Matka Ruka, Finland 9% Holiday cottages (winter)

In the remaining sectors each of the top players were below the \$1 million mark in terms of Internet sales in 1998, but within long-distance coaches National Express will certainly move beyond this threshold in 1999.

Svenska Buss in Sweden is set to get 3% of its sales from the Internet in 1999, up from 1.5% in 1998. In absolute numbers this translates into rather small \$-sales. However, for an operator of *multiple* scheduled coach lines, the percentages achieved by Svenska Buss are high, also compared to what has been achieved by operators of other forms of scheduled services by trains, planes or ferries in Europe and elsewhere in the world.

9. Bibliography

- Airtours, 1999, *Airtours Annual Report & Accounts 1998*.
- Andersen, Jesper Troelstrup, 1999, *Traininfo to the mobile phones of commuters* (in Danish), www.computerworld.dk, 12 July, also in printed version of *Computerworld*, 16 July, p. 5 (cf. www.bane.dk/toginfo/toginfo.htm).
- Archdale, Gilbert, 1993, *Computer reservation systems and public tourist offices*, *Tourism Management*, vol. 14, No.1, pp. 3-14.
- Archdale, Gilbert, 1994, *Destination databases: issues and priorities*, in A.V. Seaton et al. *Tourism: The State of the art*, pp. 246-25.
- Arriva, 1999, *The European Bus Market*, www.arriva.co.uk/passenger/index.htm.
- ASTA, 1999, *Delta Internet scheme designed to lure consumers into ultimately paying more for airfares*, press release, 11 January, www.astanet.com/.
- Attach, 1999, *Travel Made Easy*, 14 June, www.attachusa.com/life/travel.htm.
- Birnbacher, Gert, 1998, *Internet in praxis - experiences from one of Denmark's largest firms* (in Danish: *Internet i praksis - erfaring fra en af Danmarks største virksomheder*) in Rask, Morten, 1998, *Det kommercielle Internet*, Summary from seminar held on 8 January 1998 by IKOM at Kommunedata, Aalborg, Denmark, www.i4.auc.dk/rask/summary/ikom8198.htm.
- Bloch, Michael and Arie Segev, 1996, *The Impact of Electronic Commerce on the Travel Industry: An Analysis Methodology and Case study*, The Fisher Center for Information Technology and Management, Walter Haas School of Business, University of California, www.stern.nyu.edu/~mbloch/docs/travel/travel.htm
- BR (The Swedish Bus and Coach Federation), *Statistics about the Swedish Bus Industry 1998* (in Swedish, 21 pp.), www.bussbranschen.se/statistik.htm, pdf-format.
- Buhalis, Dimitrios, 1993, *RICIRMS as a strategic tool for small and medium tourism enterprises*, *Tourism Management*, October, pp. 366-378.
- Canniffe, Mary, 1997, *FEXCO buys 74% of tourist system*, *The Irish Times*, 9 July, www.fexco.com/ (hereunder, *media, press release archive*).
- Castleberry, Jay A., C. Hempell and G. Kaufman, 1998, *The battle for electronic shelf space on the global distribution network*, www.hotel-on-line.com.
- Clampet, Elizabeth, 1999, *Delta Revokes Offline Ticket Surcharge*, 27 January, *Internet-News.com*, www.internetnews.com/ec-news/article/0,1087,4_33701,00.html.
- CommerceNet / Nielsen Media Research, 1999, *Spring 1999 Internet demographic Survey* (North America), press release about the most recent study, 17 June, www.commerce.net/news/press/ann061699.html and www.nielsenmedia.com/newsreleases/releases/1999/commercenet.html.
- Connolly, Daniel J., Michael D. Olsen, and Richard G. Moore, 1998, *The Internet as a distribution channel*, *Cornell Hotel and Restaurant Administration Quarterly*, August, pp. 42-54.

- Cornell, 1999, *Cornell University European Hotel Industry Strategy Conference*, May, London, www.imn.to/conference/cornell_europe/day1and2.html.
- Cox, Beth, 1999, *Delta Expanding Electronic Ticketing to Europe*, 29 January, Internet-News.com, www.internetnews.com/ec_news/article/0,1087,archive_4_33731,00.html
- Crowsnest, 1998, *Crowsnest British Railway Guide*, www.crowsnest.co.uk/north/train.htm.
- CyberAtlas, 1998, *Security Stunts Online Travel Growth*, 4 November, http://cyberatlas.internet.com/market/travel/slow_growth.html.
- CyberAtlas, 1999, *Internet hotel bookings taking off - US lodging companies missing out*, 13 January, <http://cyberatlas.internet.com/market/travel/hotel.html>
- Datamonitor, 1999a, *Online population set to top 250 million in the next five years*, press release, 1 March, www.datamonitor.com/.
- Datamonitor, 1999b, *Online sales of travel products in Europe set to reach \$1.7 billion in 2002*, press release 24 May, www.datamonitor.com/.
- Ebner, Arno, 1994, *Tirol Informations System (TIS) - Die Konsequenz einer Idee*, in W. Schertler (ed.), *Tourismus als Informationsgeschäft - Strategische Bedeutung neuer Informations- und Kommunikationstechnologien im Tourismus*, Ueberreuter, pp. 307-346.
- EC DG 23, 1998, *Facts and Figures on the Europeans on Holidays, 1997-1998, Executive Summary*, March 1998, A Eurobarometer survey carried out on behalf of the European Commission Directorate General XXIII, cf. www.inra.com/.
- Economist, The, 1999, *Why Internet shares will fall to earth*, *The Economist*, 30 January, pp. 15, 16, 21-23.
- Elmer, Stefan, 1999, *Every third European Internet buyer is German* (in Danish), *Computerworld Denmark*, 5 February 1999, p. 21.
- Elliott, Christopher, 1999, *Battling for bookings*, January, www.abcnews.go.com/sections/travel/crabby/webtrav.html.
- Ellsworth, Jill H. and Matthew V. Ellsworth, 1997, *Marketing on the Internet*, New York: John Wiley.
- EMAP online, 1998a, *Electronic Commerce*, www.internet-sales.com/hot/commerce.shtml, in *The Internet Marketing Hotlist*, c/o www.emaponline.com/hot.
- EMAP online, 1998b, *UK Market Overview*, www.internet-sales.com/hot/ukover.shtml.
- EMAP online, 1998c, *UK and World Market Size Predictions*, www.internet-sales.com/hot/size.shtml.
- Enterprise City, 1999, *Flights, Holidays, Trains and Buses*, links to 18 UK stores, www.enterprisecity.co.uk/stores/travel/flightsb.shtml.
- Equant Research & Development, 1998a, *The Benefits of Internet & Intranet Business*, White Paper, www.equant.com.
- Equant Research & Development, 1998b, *A Trip to the Beach, Equant Style*, White Paper, www.equant.com.

- Essick, Kristi, 1998a, *Web surfers versus TV watchers: Who's lazier?*, 14 August, www.cnn.com, from The Industry Standard - an idg.net site.
- Essick, Kristi, 1998b, *Europe Set for E-commerce Explosion*, The Industry Standard, 2 November, <http://thestandard.com/>.
- Essick, Kristi, 1999, *More Europeans move online*, www.computerworld.com, Online News, 02/01/99.
- Felkl, Beate, 1998, ÖBB, David Manna FS, Oliver Milzarek DB, Renato de Pieri FS, Jonas Strömberg SJ and Paul van de Werken NS, *Interlinking Internet*, SIAFI report presented at UIC's Internet Club meeting, October 98, www.uic.asso.fr/uk/about/.
- Fink, Karen, 1998, *Internet Marketing in Danish Tourism Companies - A Case Study of DFDS' Internet Customers*, Masters Thesis, Sheffield Hallam University, 4 December.
- Forrester Research, 1998a, *Consumers To Generate \$29.5 Billion Booking Online Leisure Trips By 2003*, www.forrester.com, press release, 30 September.
- Forrester Research, 1998b, *Report: Online leisure travel booking is booming - Consumers to generate \$29.5 billion booking online leisure trips by 2003*, Hotel Online Special Report, www.hotel-on-line.com.
- Frangialli, Francesco, 1998, (Secretary General, World Tourism Organization), *A new era in Information Technology for tourism*, OECD Conference, A new era in Information Technology: Its implications for tourism policies, Seoul, 10-11 November, <http://203.243.102.5/conf/oeed/panel/p12.htm>, under <http://203.243.102.5/conf/oeed/>.
- Frew, Andy (ed.), 1999, *HITA 99 Conference Proceedings*, Hospitality Information Technology Association Worldwide Conference, Edinburgh.
- Frew, Andy and Peter O'Connor, 1999a, *Destination marketing system strategies in Scotland and Ireland: An approach to assessment*, Information Technology & Tourism, Vol. 2, pp. 3-13.
- Frew, Andy and Peter O'Connor, 1999b, Destination marketing system strategies: Refining and extending an assessment framework, in D. Buhalis and W. Schertler (eds.), *Information and Communication Technologies in Tourism 1999*, Berlin: Springer Verlag, pp. 398-407.
- fvw, 1999, *Europäische Veranstalter in Zahlen, Dokumentation 1997/98*, 28 May, (fvw 13/99), and the same from 1996/97 (fvw 13/98).
- Gallacher, Jackie (ed.), 1998, *The airline top 100* (of 1997), *Airline Business*, September 1998, pp. 29-38.
- Garcia-Sierra, Adrian (BT Postgraduate Researcher, EC Innovation Centre), 1997, *Electronic Commerce and the Internet*, <http://info.cardiff.ac.uk/uwcc/masts/ecic/netcom.html>
- Gilbert, David C. et al., 1998, *A Study of the hotel industry's application of the Internet as a relationship marketing tool*, www.hotel-on-line.com/, July.
- Greenberg, Peter S., 1998, *Globe-trotting in cyberspace*, 12 October, www.msnbc.com/news/199824.asp.

- Greenspun, Philip, 1997, *Building Relational Database-Backed Web Sites*, for the Web Tools Review, <http://photo.net/wtr/rdbms-backed.html>.
- Guglielmo, Connie, 1998, *Travel business packs 'em in on-line*, Interactive Week, 18 February, www4.zdnet.com/intweek/printhigh/21698/ds216b.html.
- Gummesson, Evert, 1998, *Relationship Marketing: From 4Ps to 30 Rs*, Stockholm University (350 pp.), cf. www.fek.su.se/grund/d/RM98.htm (or Swedish version from 1995, 340 pp., described in Swedish at www.dinbokhandel.com/relmf.htm).
- Harking, Joe, 1998, *The Emperor's New Clothes*, 2 December, www.travelthe.net/columns/auction.htm.
- Hoffman, D.L., W.D. Kalsbeek and T.P. Novak, 1996, *Internet and Web Use in the United States: Baselines for Commercial Development*, Special Section on *Internet in the Home*, Communications of the ACM, 39 (December), pp. 36-46, <http://ecommerce.vanderbilt.edu/baseline/internet.demos.july9.1996.html>.
- Holloway, J C & C Robinson, 1995, *Marketing for tourism*.
- Holm, Per Annar, 1998, *Loyalty program for charter holidays* (in Norwegian), www.aftenposten.no, 23 April.
- IATA, 1998, *World Air Transport Statistics*.
- IBM, 1997, IBM Customer Case Study: TISS, Travel Information Software Systems Consolidating on the Web, <http://www.europe.ibm.com/nc/customer/case17x.html>.
- IDC, 1998, *Buyers on the Web to increase nearly tenfold by 2002, according to IDC's Internet Commerce Market Model*, press release, 17 August, www.idcresearch.com/.
- IDC, 1999a, *European Internet Statistics: How many people are online in Europe?* www.euointernet.idc.dk/euinet/stats.htm, i.e. no. of web users by country, January.
- IDC, 1999b, *Internet Commerce to follow in 2 years predicts IDC report*, www.idc.com.
- IDC, 1999c, *E-commerce set to explode*, 5 March, www.yourbusinessonline.com/press/press.html.
- IDC, 1999d, *Internet Commerce Will Rocket to More Than \$1 Trillion by 2003, According to IDC - Web Usage and Internet Commerce Are Becoming Less U.S.-Centric*, 28 June, www.idc.com.
- IntelliQuest, 1999, *IntelliQuest Internet Study Shows 100 Million Adults Online in 2000* (79 million users in the USA early 1999) www.intelliquest.com/press/release72.asp.
- Jegminat, Georg, 1999, *ITB-Elektronik-Kongress zu Electronic Commerce - Das Innovationstempo stellt hohe Anforderungen*, fwv 6/99, p. 26.
- Jones, Del, 1998, *Airlines ponder discounted Web fares*, 2 November, USA Today, www.usatoday.com/life/travel/business/t1102web.htm.
- Jung, Hyung-Soo, 1998, *The Use of Internet as a Marketing Tool by National Tourism Organisations*, masters thesis, School of Management Studies for the Service Sector, University of Surry.
- Jupiter Communications, 1998a, *European Online Markets*, www.jup.com/store/studies/europe.

- Jupiter Communications, 1998b, *Germany to lead Europe in online sales*, 28 July, <http://sellitontheweb.com/ezine/news0108.shtml>.
- Jupiter Communications, 1998c, *Online Travel: Five Year Outlook*, Multiclient report about the US, March, summary at: www.jup.com/research/reports/travel.
- Jupiter Communications, 1998d, *Jupiter predicts on-line travel industry will open opportunities "beyond air"*, www.freesun.be/.
- Jupiter Communications, 1999, *1999 Online Travel Report - Revenue Forecast, Distribution Strategies, and Competitive Landscape*, July, preview at, www.jup.com/store/studies/travel/index.html (and notice at www.nua.ie/surveys/, 17 May: *Online Travel Worth USD16.6 Billion by 2003*).
- Kontzer, Tony, 1998, *Europe's E-tailing future*, review of IMRG report, E Business Magazine, August, <http://www.hp.com/Ebusiness/imrg.html>.
- Ka Kei Ng, Samuel, 1998, *New Zealand tourism and the Internet: adoption, attitudes and keys to effective use*, Master's Thesis, Victoria University of Wellington (195 pp.).
- Kärcher, Karsten, 1997a, *Reinventing the package holiday business*, Deutscher Universitäts Verlag.
- Kärcher, Karsten, 1997b, *Sonne, Sand und Spass? Bitte hier anklicken! - Ferien- und Reiseanbieter - noch in der Pionierphase*, Neue Zürcher Zeitung, 17 June, www.nzz.ch/on-line/02_dossiers/marktplatz_internet/mp_tourismus.htm.
- Keegan, W.J., 1989, *Global Marketing Management*.
- Kotler, Philip, *Marketing Management*.
- Kotler, Philip, John Bowen and James Makens, 1999, *Marketing for Hospitality and Tourism*, Englewood Cliffs, NJ: Prentice Hall.
- Krantz, Marshall, 1998, *Airlines Upgrade Web Products*, August, www.btonline.com.
- Krzepisz, Susan P., 1998, *Travel and the Internet - A match made in heaven (mostly)*, Nova Southeastern University, www.scis.nova.edu/~susankr/mmis654/ecassign3.html.
- Kristiansen, Thomas, 1998, *Interactive Marketing - How New Interactive media can increase marketing effectiveness and efficiency. An Application to European National Tourist Organisations*, Master's Thesis, European School of Management, Berlin, 1 April (79 pp.).
- Ligerman, Hugo, 1998, *How can technology help distribution and the service process?*, 24 March, www.firstconf.com/c48/hugo.html.
- Lindsten, Per Olof and Weje, Sandén, 1999, *Electronic commerce - The future way of doing business is already established on the Net* (in Swedish), Veckans Affärer, 22 February 1999, www.va.se.
- Linjebuss AB, 1999, *Ideas for the future*, in pdf-format at www.linjebuss.com/lbweb/home.nsf.
- Machlis, Sharon, 1999, *British Airways plans more online sales*, Online News, 8 March, www.computerworld.com/.

- Marcussen, Carl H. and Peter Morthorst, 1996, Public Tourist Information Offices as Booking-Centres for Accommodation, in Klein, Stefan et al. (eds), *Information and Communication Technologies in Tourism 1996*, Berlin: Springer Verlag, pp 168-179.
- Marcussen, Carl H., 1996a, *Turistinformations- og bookingsystemer - en casesamling* (in Danish), Nexø: Research Centre of Bornholm.
- Marcussen, Carl H., 1996b, Hotel representation companies and the Internet, *HITA 96 conference proceedings* pp. 1-28.
- Marcussen, Carl H., 1997a, Electronic distribution of holiday and business hotels, in Tjoa (ed.), *Information and Communication Technologies in Tourism 1997*, Berlin: Springer Verlag, pp. 190-198.
- Marcussen, Carl H., 1997b, *Marketing European Tourism Products via Internet/WWW*, *Journal of Travel & Tourism Marketing*, Vol. 6, No. 3/4, pp. 23-34.
- Marcussen, Carl H. and Dorte Skjoldager, 1998, Extranets of National Tourist Organisations, in D. Buhalis et al. (eds), *Information and Communication Technologies in Tourism 1998*, Berlin: Springer Verlag, pp. 103-119.
- Marcussen, Carl H., 1998, *Distribution of Danish tourism products in Europe - status, trends and challenges* (in Danish, 344 pp.), Nexø: Research Centre of Bornholm (www.rcb.dk). English Summary published in *International Journal of Electronic Markets* (www.electronicmarkets.org), special issue on Electronic Commerce in Europe, Vol. 8, No. 2 1998, pp. 27-29.
- Marcussen, Carl H., 1999, Distribution of Danish holiday cottages via the Internet/WWW, in D. Buhalis and W. Schertler (eds), *Information and Communication Technologies in Tourism 1999*, Berlin: Springer Verlag, pp. 259-269.
- Mardelli, Michael, 1999, www.Tr@umurlaub.de (in German), Com!Online, 2/99, pp. 70-83.
- McCarthy, J.E., 1960, *Basic Marketing: A management Approach*, Irwin, Homewook, IL.
- McNulty, Mary Ann and Cheryl Rosen, 1998, *New Vision: The Web as CRS*, Business Travel News, 17 August, www.bton-line.com.
- McNulty, Mary Ann, 1999, *Corp. Web Spend To double*, Business Travel News, 8 March, www.bton-line.com.
- Murphy, Gary Lawrence, 1998, *New York Post: Forrester revises Online Travel Projections*, 6 October, www.egroups.com/list/icg-L/14.html.
- Mutch, Alistair, 1995, *IT and small tourism enterprises: a case study of cottage-letting agencies*, *Tourism Management*, Vol. 16, No. 7, pp. 533-539.
- Nielsen Media Research, 1998, *Number of Internet users and shoppers surges in United States and Canada - New Study Shows Users at 79 Million; Purchasers Double in Nine Months*, press release, 24 August, www.nielsenmedia.com/newsreleases/releases/1998/commnet2.html, cf. also CommerceNet/Nielsen, 1999, for a press release about a later study, www.nielsenmedia.com/newsreleases/releases/1999/commercenet.html.
- Nee, Eric, 1998, *Welcome to my store*, 19 October,

- www.forbes.com/forbes/98/1019/6209140a.htm, click *see table* leading to *What's at stake* (in the US) for home mortgages, cars and *travel*,
www.forbes.com/forbes/98/1019/6209140tab1.htm.
- Novell, 1999, *Worldwide survey reveals that Europe is at the forefront of the E-Commerce revolution, Lufthansa heads list with on-line flight sales and reservation service*, press release, Nice, 19 May, www.novell.com/corp/intl/uk/company/www100report.html.
- NUA, March 1999, *How many online?*, www.nua.ie, quoting sources from about October 1998.
- OECD, 1995, *Tourism Policy and International Tourism in OECD Countries 1992-1993, Special Feature: Tourism and Employment*.
- O'Connor, Peter, 1999, *Electronic Information Distribution in Tourism and Hospitality*, CABI.
- O'Connor, Peter and Patrick Horan, 1999, *Failing to make the connection? - An analysis of Web reservations facilities in the top 50 international hotel chains*, in Frew (ed.) 1999, pp. 129-139.
- O'Connor, Peter and John Rafferty, 1997, *Gulliver - Distributing Irish tourism electronically*, the International Journal of Electronic Markets (www.electronicmarkets.org), Vol. 7, No. 2, 1997, pp. 40-45.
- Ottesen, Otto, 1981, *Innføring i markedskommunikasjon*, Copenhagen: Erhvervsøkonomisk Forlag.
- Palmer, Adrian, 1994, *Principles of services marketing*, McGraw-Hill.
- Palmeri, Christopher, 1998, *This might not fly*, Forbes, 20 April, <http://www.forbes.com/forbes/98/0420/6108200a.htm>.
- PhocusWright, 1998, *Survey reveals 18% of wired travellers book online*, press release, 4 November, www.phocuswright.com/WTN0498.HTM.
- PhocusWright, 1999, *European airlines slow to jump on the Internet eCommerce bandwagon*, press release, Brussels, Belgium, 7 May, www.phocuswright.com/EA050799.HTM.
- PhocusWright, 1999b, *The PhoCusWright Yearbook 1999: Analysis, Assumptions And Assessments For The Online Travel Marketplace, preview*, www.phocuswright.com/yearbook.htm.
- Pinchler, Stefan, 1998, *Direktvertrieb über den Lufthansa InfoFlyway*, Lufthansa press conference at the ITB, 8 March.
- Porter Michael J., 1980, *Competitive Strategy*, New York: Free Press.
- Porter Michael J., 1985, *Competitive Advantage*, New York: Free Press.
- Prescott, John (UK Department of the Environment, Transport and the Regions), 1998, *A New Deal for Transport: Better for Everyone*, www.detr.gov.uk/itwp/paper/index.htm.
- Pröll, Birgit, Werner Retschitzegger, Roland Wagner, and Arno Ebner, 1998, *Beyond traditional tourism information systems: The webbased approach TIScover*, Information Technology and Tourism, Vol. 1, Inaugural Volume, pp. 15-31.

- Pröll, Birgit, Werner Retschitzegger and Roland Wagner, 1999, Holiday packages on the Web, in D. Buhalis and W. Schertler (eds), *Information and Communication Technologies in Tourism 1999*, Berlin: Springer Verlag, pp. 108-118.
- Rachman, Zulfikar M., 1999, Effective Tourism Web Sites: A Web-based Survey and Tourism Web Sites Review, masters thesis, Te University of Waikato, School of Management Studies, <http://meltingpot.fortunecity.com/stark/134/tourism/indeks.html>
- Rasmussen, Jens Erik, 1999, *Spies leads the charter war* (in Danish), Jyllands-Posten, 17 April.
- Richer, Paul, 1996, *Should travel companies be selling online?*, Journal of Vacation Marketing, Vol. 2, No. 3, pp. 277-285.
- Robinson, Teri, 1998, *Do-It-Yourself Travel - Travel agencies face Internet threat*, Emmerce, 9 January, www.computerworld.com.
- Rosen, Cheryl, 1999, *Online Sales Heat Market* (re. US '98), BTN Online, www.btnonline.com/db_area/archives/1999/02/99022203.htm.
- Sanchez-Klein, Jana, 1998, *Gartner: Euro will help drive E-commerce*. www.idg.net (Online News), 16 July.
- Sheldon, Pauline, 1993, *Destination Information Systems*, Annals of Tourism Research, Vol. 20, No. 4, pp. 633-649.
- Sheldon, Pauline, 1997, *Tourism Information Technology*, Wallingford, UK: CABI.
- SJ, 1999, *The SJ Group Annual Report 1998*.
- Stoltz, Craig, 1998a, *Nothing But Net: The Rundown on Travel-Booking Sites on the Web*, Washington Post Staff Writer, 13 September, <http://www.washingtonpost.com/wp-srv/travel/on-line/capsulereviews.htm>.
- Stoltz, Craig, 1998b, *The E-Travel Revolution is Over*, Washington Post Staff Writer, 15 November, p. E01, <http://www.washingtonpost.com/wp-srv/travel/front.htm> and <http://www.washingtonpost.com/wp-srv/travel/on-line/phocus111598.htm>.
- Sussman, Silvia and Michael Baker, 1996, *Responding to the electronic marketplace: Lessons from Destination Management Systems*, International Journal of Hospitality Management, Vol. 15, No. 2, pp. 99-112.
- Thomson Travel Group plc, 1999, *Report & Accounts 1998*.
- Thompson, Maryann Jones, 1998, *Airlines Dominate Online Travel*, The Industry Standard - The Newsmagazine of the Internet Economy, <http://thestandard.com>, 12 October.
- Thompson, Maryann Jones, 1999, *Spotlight: Why E-commerce Forecasters Don't Get It "Right"*, The Industry Standard - The Newsmagazine of the Internet Economy, 1 March, www.industrystandard.net/metrics/display/0,1283,850,00.html.
- Tomlin, Paul (Eurostar UK), 1998, *GDS technology for rail*, www.firstconf.com/c48/paul.html, March.
- Travel Asia, 1998, *Way of the future?*, 27 March, www.travel-asia.com/03_27_98/stories/way.htm.

- Travelocity, 1999, *Travelocity.com Continues As Online Travel Industry Leader - Achieves \$128 Million in First Quarter 1999*, press release, 3 June, www3.travelocity.com/pressroom/pressrelease/0,1090,50,00.html.
- TUI, *Geschäftsbericht, Annual Report, 1996/7*.
- UIC, 1998, *Second Worldwide UIC Internet Club meeting on 22-23 October*, CD-ROM, and www.uic.asso.fr/uk/about/seminar_internet/som_club_internet.htm.
- UIC, 1998, *Rail traffic statistics of the UIC European railways 1998*, www.uic.asso.fr/.
- UIC, 1996, *Member railway statistics - Synopsis 1996*.
- Vallejo, Maria P., 1998, *Hotels greet Web boom*, BTN Online, www.btnonline.com/db_area/archives/1998/11/98111638.htm.
- Volgenau, Gerry, 1999, Travel Writer, *The going things: More E-tickets, less luggage*, 3 January, Free Press, www.freep.com/news/airtravel/qtrend3.htm.
- Waesche, Nico, 1998, *How are Internet Forecasts Made?*, <http://heise.xlink.de/tp/english/inhalt/te/1661/1.html>.
- Werthner, Hannes, 1993, *TIS - Tiroler Tourismus Information System*, Wirtschaftsinformatik, Vol. 35, No. 1, pp. 43-50.
- Werthner, Hannes and Stefan Klein, 1999, *Information technology and tourism - A challenging relationship*, Berlin: Springer Verlag.
- Witt, Stephen F. and Luiz Moutinho (eds), 1994, *Tourism marketing and management handbook*, Englewood Cliffs, NJ: Prentice-Hall.
- World Tourism Organization (WTO), 1999, *Compendium of Tourism Statistics 1993-1997*.
Annual accounts of a number of airlines - as well as national train operating companies - in pdf-format from the Web: Lufthansa, British Airways, SAS, KLM, Swissair, Finnair, Braathens, Delta Airlines, United Airlines, Northwest Airlines.
Various articles and news items from:
www.computerworld.com, www.computerworld.no, www.computerworld.dk and www.webworld.dk, <http://domino.idg.se>, all of the International Data Group, Inc. (IDG).

Links to all the websites mentioned in this publication can be found on the following webpage: <http://www.rcb.dk/UK/staff/chm/book1999.htm>.

10. Appendices

Appendix 1.1 General structure of the individual case studies

General outline for the case studies - and agenda for meetings - or headlines in e-mailed questionnaire:

Background information about the organisation or person behind the website

- No. of employees
- Year started
- Main activities
- Geographic breakdown of sales
- The internal booking system

About the website:

- First established
- Current features
- Statistics: hits, visits, *bookings*
- Perceived benefits and costs of the website

Future plans and ideas for further development of the website:

- Already planed extensions in the near future
- Other ideas
- General discussion about the future development of the Internet as a platform for distribution of European tourism services.

A more detailed questionnaire was developed to go along with the above.

Appendix 1.2 List of people and organisations interviewed

Special thanks go to the following organisations and individuals, most of whom kindly gave a personal interview. In a few instance it was only possible to undertake a telephone interview or the respondent (key informant) preferred to reply in writing, but thank you very much anyway:

- Equant, UK Mr Ian Ryder, Manager, Consultancy.
- Deutsche Lufthansa AG Ms Nicole Paschold, Online Sales & Multimedia.
- British Airways, UK Ms Patricia Crossley-Smith, Senior Distribution Manager.
- Iberia, Spain Ms Nenuca Cenejo, VP Commercial Logistics.
- Finnair, Finland Mr Timir Bhowse, Product Manager, New Distribution Systems.
- Braathens, Norway Ms Kari Aanonsen, Senior Consultant, Commercial Systems.
- German Rail Ms Daniela Wenzel-Perlick, manager of marketing/sales communication and Ms Claudia Wachowitz, Corporate communications, passenger transport.
- Swiss Federal Railways Mr Martin Krauchthaler, IT dept. and Mr Roger arranged by Mr Krähenbühl, passenger traffic division (as Jörg Dreier, Internet manager).
- Swedish Rail Mr Lars Thorwall, former Internet section manager, SJ Data (now with a major telecom company), and Ulf Olsson, current Web master.
- Danish Rail Mr Gert Birnbacher, Internet section manager
- HaCon GmbH, Germany Mr Werner Kretschmer, MD and part-owner
- Europcar, Germany Ms Verena von Gehlen, press officer, and Mr Kai Nikolaizig, responsible for Internet.
- Stena Line, Sweden Mr Hans Björngborg, Information & Technology Director.
- Irish Ferries Mr Declan Moynihan, Manager - Marketing Systems.
- Scandlines, Denmark Ms Kit Lyngaa, Product Development Manager.
- National Express, UK Mr Chris Brown, Director of IT & telesales and Mr David Jones, Head of Distribution Systems.
- Svenska Buss, Sweden Mr Allan Staalhand, Ramkvillabuss, Internet responsible
- Bookings NL, Netherlands Mr Geert-Jan Bruinsma, Manager and owner.
- HRS, Germany Mr H.J. Hessbrüggen, Head of Marketing.
- IYHF, London, UK Mr Rawdon S C Lau, Secretary General, IYHF
- Hostelling International Mr Roy Jacobsen, Administration Manager.
Norway

- Matka-Ruka, Finland Mr Hannu Larmila, JSOP Interactive, Kuopio, Mr Rauno Hannola, Manager, Pehmo Oy, Kuusamo, Mr Voitto Pitkänen, Accommodation and activities, Matka-Ruka, Kuusamo.
- dansommer, Denmark Mr Niels Svendsen, Sales Manager.
- Sol & Strand, Denmark Mr Orla Mortensen, Internet Developer.
- eCamp, SASS GmbH Mr Rolf Sass, MD and owner.
- TUI, Germany Mr Alex Ketzler, New Media, Internet Service Center.
- Kuoni, Switzerland Mr Andreas Waldis, Marketing Manager.
- Ving, Sweden Ms Anette Gustafsson, project leader, with overall responsibility for the Internet activities of Ving in Sweden, Norway, Denmark and Poland.
- Apollo, Sweden Mr Patrik Hagman, IT co-ordinator.
- TISS GmbH, Germany Mr Rudi Weissmann, Manager and owner.
- TIScover, Austria Mr Arno Ebner, MD, Tourism Info. Systems GmbH

Appendix 1.3. Exchange rates

Price per 100 units, in terms of USD, ECU, DEM, GBP and DKK - average for 1997.

Country / Region	Currency Year:	USD 1997	ECU 1997	DEM 1997	GBP 1997	DKK 1997
USA	USD	100.00	88.56	173.47	61.06	660.86
EU	ECU	112.92	100.00	195.89	68.95	746.26
Germany	DEM	57.65	51.05	100.00	35.20	380.96
UK	GBP	163.77	145.03	284.10	100.00	1082.32
Denmark	DKK	15.13	13.40	26.25	9.24	100.00

Price per 100 units, in terms of USD, ECU, DEM, GBP and DKK - average for 1998.

Country / Region	Currency Date:	USD 1998	ECU 1998	DEM 1998	GBP 1998	DKK 1998
USA	USD	100.00	89.13	175.85	60.37	669.70
EU	ECU	112.20	100.00	197.29	67.73	751.37
Germany	DEM	56.87	50.69	100.00	34.33	380.84
UK	GBP	165.65	147.64	291.29	100.00	1109.36
Denmark	DKK	14.93	13.31	26.26	9.01	100.00
Austria	ATS	8.08	7.20	14.21	4.88	54.13
Belgium	BEF	2.76	2.46	4.85	1.66	18.46
Finland	FIM	18.72	16.68	32.92	11.30	125.36
France	FRF	16.96	15.12	29.83	10.24	113.60
Greece	GRD	0.34	0.30	0.60	0.20	2.27
Iceland	ISK	1.41	1.25	2.47	0.85	9.41
Ireland	IEP	142.42	126.94	250.45	85.98	953.82
Italy	ITL	0.06	0.05	0.10	0.03	0.39
Netherlands	NLG	50.45	44.97	88.71	30.46	337.86
Norway	NOK	13.24	11.81	23.29	8.00	88.70
Portugal	PTE	0.56	0.49	0.98	0.34	3.72
Spain	ESP	0.67	0.60	1.18	0.40	4.49
Sweden	SEK	12.58	11.21	22.12	7.59	84.23
Switzerland	CHF	69.04	61.54	121.41	41.68	462.37
Japan	JPY	0.77	0.68	1.35	0.46	5.13

Price per 100 units, in terms of USD, ECU, DEM, GBP and DKK - spring 1999.

Country / Region	Currency Date:	USD	ECU	DEM	GBP	DKK
		99.06.30	99.06.30	99.06.30	99.06.30	99.06.30
USA	USD	100.00	96.91	189.54	63.51	720.41
EU	ECU	103.19	100.00	195.58	65.54	743.39
Germany	DEM	52.76	51.13	100.00	33.51	380.09
UK	GBP	157.45	152.58	298.42	100.00	1134.25
Denmark	DKK	13.88	13.45	26.31	8.82	100.00

Source: Danish National Bank, www.nationalbanken.dk (the rates in DKK only).

Note: Exchange rates in USD, ECU, DEM and GBP have been calculated based on the DKK rates.

Throughout this publication the 1998 exchange rates have been used unless it is explicitly stated in the accompanying text that the mid-1999 rate has been used (which has been done only in one or two instances).

Appendix 2.1 Considerations behind Figure 2.6 - the assumed mix of Internet travel sales in Western Europe in 1998

Some differences between US and Western Europe may be assumed with respect to the relative importance of the different travel and tourism service categories. Furthermore it may be assumed that these underlying market differences manifest themselves in the travel sales mix via the Internet:

- On one hand the air travel market in the US alone is 120% larger than the one in Western Europe measured by the number of scheduled passengers carried per year (554 million passengers for the top 18 US airlines - and another 24 million for the two largest Canadian Airlines - vs 252 million passengers for the top 20 Western European airlines, cf. chapter 3), and the total passenger-revenue-km is almost twice as high in the US as in Western Europe.
- The price (revenue) per segment (passenger) for major US airlines is only \$145 vs about \$220 for *scheduled* flights by major European airlines, however (partly because of more km per segment and partly because there is a higher price per passenger-km for the European airlines than for their US counterparts). The average length per air travel segment is about 1660 km for the US versus 2000 km for Western European airlines. The price per passenger-km is about \$0.09 by US scheduled airlines, vs about \$0.11 by European airlines. This has been determined from an analysis of the revenue structure of major airlines based of their annual accounts (breakdown of passenger, freight and other revenue) combined with knowledge about total revenue, passenger and freight volumes of all the scheduled airlines.
- Air travel is thus a relatively more important means of transport in the US than in Europe (46% of market value in the US vs 34% in Western Europe). The share of air travel in Internet travel sales in the Western European market is estimated at 48% (vs 52% for the US).
- There are about 28% more hotel rooms in Western Europe (4.9 million rooms) than in the US (3.8 million rooms). This is more than counteracted by a lower occupancy rate in Europe (44%) than in the US (64.5%), because of greater seasonality in Europe, cf. Appendix 6.1. The number of room nights sold in the US is therefore about 900 million (each costing \$75 in 1997), vs only 775 million room nights sold in Western Europe p.a.
- Furthermore, when looking at distribution of individual hotel room nights via the Internet, the element of the room nights which is being sold through tour operators (as

part of pre-packaged offers from tour operators), should be disregarded. This may be some \$20 billion, leaving about \$40 billion for *individual room night revenue*. Package tours (typically air + hotel, etc.) are much more common in Europe than in the US. Therefore, when it comes to Internet sales of *individual room nights*, the difference between the US and Western Europe is considerably greater than indicated by the 900 vs 775 million room nights p.a. mentioned above. Total accommodation revenue for European hotels is about \$60 billion, \$40 billion of which was generated by individual room nights (and \$20 billion as the hotel element of tour packages). This \$40 billion is considerably less than the corresponding US figure (which is \$62 billion). So, the market in Western Europe for individual hotel room nights is *much smaller* than in the US, which is *one reason* why the share of hotels in Internet travel sales is smaller for Western Europe than for the US. *Another reason* is the *structure* of the European hotel industry, which inhibits electronic distribution, including Internet sales: European hotels are relatively small, and relatively many of them are not members of either large or small chains. The average number of rooms per hotel and similar establishment in Western Europe is only 26 (in some 188 000 establishments), whereas the average number of rooms for US hotel properties is more than three times as high, namely 78 (in 49 000 establishments). All other things being equal, it is easier for a large hotel property than for a small one to justify investments in electronic distribution.

- Another point is worth making about hotel chains - or lack of these - in Western Europe. The top 50 hotel companies world-wide have a total of 3.91 million rooms, in 29 461 properties, i.e. with 133 rooms on average (cf. Appendix 6.2). It seems that about 70% of these properties are located in the US, and relatively few (15% or less) in Europe.²⁸⁵ If this rough estimate holds true, this means that 19 000 of 49 000 (=39%) of the hotel properties in the US are members of *one of the top 50 hotel chains*, whereas the same is true for only 4100 of the 188 000 (~2%) of the hotel properties in Western Europe. Additionally, there are of course many hotels both in the US and in Europe, which are members of the hundreds of small local hotel chains. E.g. in Denmark, although only 4% of the hotel properties are members of one of the top 50 hotel chains (mainly Best Western), as many as 40% are members of *some* chain, large or small. Hotels in chains, and certainly hotels in large chains, are typically bookable re-

285 Of the 11 000 hotel properties belonging to chains ranked second, third, fourth or fifth on the top 50 list, 72% are located in the US, and 15% in Western Europe. The number one hotel company, Cendant Corp. (with Days Inn, Ramada, Super8 and several other brands), which currently has more than 6000 properties world-wide, most of them in the US, established its first hotel in Europe as late as 1998. The geographic distribution of the hotel properties of the remaining 45 hotel companies on the top 50 list (some of which cover several brands) has not been analysed by the writer. The reader can take a look at the top 50 list at www.ahma.com/. In a recent study by O'Connor and Horan, 1999, it was found that out of 38 hotel companies (all with websites) from a similar top 50 list, 61% were US-based, 24% were European, and the remaining from Asia. But this is a hotel company count. When counting hotel properties the percentage for the US is assumed to be higher.

al-time through Global Distribution Systems (GDSs), as well as real-time through the Internet. Only between 20% and 25% of the hotels in Denmark are bookable through GDSs, which indicates that hotels in large chains are more likely than hotels in small chains or hotels outside of chains to have acquired electronic distribution through GDSs. Since hotel chains are much less common in Europe than in the US (and Canada), technically and especially organisationally it is much more difficult to offer real-time booking of hotel rooms in Europe than in North America, through GDSs and/or the Internet. Any hotel can put up an e-mail box, of course, but this only enables a sort of off-line booking, where the Internet user e-mails a booking request without knowing if confirmation will ever be received. In 1998, rooms in about 22% of US hotels could be reserved over the Internet (press release from Bear Stearns, 12 January 1999).²⁸⁶ This means that a lot more than 22% of the (3.5 million) US *hotel rooms* (as stated in some secondary versions of the original press release) can be booked via the Internet, since the larger hotels are more likely to be on-line bookable than the smaller ones. It would be safe to assume that the percentage of hotels in Western Europe which are bookable via the Internet, is much less than 22%.

- For these reasons, the share of hotel booking of Internet travel sales must be considered to be less in Europe than in the US, actually 23% (vs 36%) and must be assumed to remain lower in a foreseeable future.
- Packages (typically charter flights with hotel accommodation), account for 16% of the holidays taken by European holiday-makers.²⁸⁷ This is a considerably higher proportion than in the US. The share of market value is 28%, but their share of Internet sales on the Western European travel market in 1998 is estimated to be just 18%, since Europeans are assumed to be rather unwilling to place orders for such an expensive and advice-requiring product as a tour package (actually somewhat more unwilling than Forrester seems to assume about the Americans).
- Camping accounts for as much as 16% of Western European holidays (of more than four nights), but a camping holiday is much cheaper than a hotel holiday, so in value the share of camping is much smaller than 16%.²⁸⁸ Furthermore the penetration of Internet access among camping sites is less than for hotels. Camping is absent in the Forrester estimate and forecast for the US. But booking off-line by e-mail directly with camp sites in Europe could account for at least 1% of the value of Internet travel bookings in Western Europe in 1998, and another 1% for youth hostels, whose guests are heavy Internet users, i.e. 2% in total.

286 <http://www.businesswire.com/webbox/bw.011299/951000.htm>.

287 Facts and Figures on the Europeans on Holidays 1997-1998, Executive Summary, March 1998, EC DG XXIII.

288 Ibid.

- 10% of European holiday-makers use the train as the most important means of transport whereas 31% use the plane (15% scheduled flights, 16% charter flights as mentioned). Passenger transport by train is many times more important in Europe than in the US, since the number of train passenger-kilometers p.a. is 33 times greater in Western Europe than in the US.²⁸⁹ Even if we focus on very long trips only (of about 400 km each), there were 17 times more of those made in Western Europe than in the US, for a slightly lower price per km than in the US. This means that in Europe revenue for long train trips was about \$15 billion vs just \$1 billion in the US. Tickets sold over the net will therefore become of some importance in Europe, whereas the train category is absent from US estimates and forecasts, although Amtrak did get 1.2% of its \$1 billion passenger revenue via the Internet in 1998 (= \$12 million), and so did Via Rail in Canada, cf. chapter 4.7. In Western Europe probably no more than 0.1% of the \$15 billion revenue for long trips came via the Internet in 1998, i.e. about \$15 million, which is 6% of the assumed total of Internet travel sales in Western Europe in 1998. The most important feature of train websites is and will remain the provision of timetable information, with booking facilities a secondary feature only.
- The total market for car rentals in Western Europe is probably only worth \$6 billion vs \$16 billion for the US. One argument for this is that two-thirds of car-rentals are airport based, and air transport is considerably less used in Europe than in the US. Car rental is estimated to account for 3% of the total Internet travel sales market in Western Europe.
- The market size for scheduled long-distance coach travel in the US (perhaps \$1.5 billion) and Western Europe (perhaps slightly smaller, \$1.3 billion) is discussed in Appendix 5.1. But Internet sales of this travel service were nil in the US in 1998, and just \$1 million in Western Europe, i.e. just 0.4% of total Internet sales in Western Europe in 1998.
- Cruises (which account for a couple of percent of US holidays) will remain a largely absent travel service category in the Western European market when it comes to Internet sales. The relatively few cruises which are sold in Europe can be regarded as included in the European tour package figures.
- On the other hand international car ferry crossings play a certain role in Western Europe, unlike in North America. And it seems that reservations for these services

289 Thus Amtrak sells only 21 million trips p.a. (414 km each, i.e. rather long trips) vs 5300 million trips p.a. for the Western European railway operators (but with an average length of only 54 km), cf. Figure 4.1.

were already being undertaken fairly frequently via the Internet by 1998, mainly with a couple of ferry lines in Scandinavia.

Internet sales of selected major travel service categories, USA and Western Europe

USA	Internet	Internet	Internet	Internet	Internet
Forrester Research *	Total	Total *	Direct	Agents	Agents
(* Internet totals only)	(%)	Million \$	Million \$	Million \$	(%)
Type of travel service:	1998	1998	1998	1998	1998
Airtravel, scheduled	52.0	1600	600	1000	63.0
Hotel accom., ex. tours	36.0	1100	765	335	30.0
Tour packages	5.7	175	130	45	26.0
Car rentals	5.6	171	126	45	26.0
+Rail	0.4	12	12	0	0.0
+Scheduled coaches	0.0	0	0	0	
Cruises	0.0	0	0	0	
Total, max.	100.0	3058	1633	1425	47.0
Western Europe	Internet	Internet	Internet	Internet	Internet
Marcussen	Total	Total	Direct	Agents	Agents
	(%)	Million \$	Million \$	Million \$	(%)
Type of travel service:	1998	1998	1998	1998	1998
Airtravel, scheduled	46.0	114	57	57	50.0
Hotel accom., ex. tours	23.0	57	39	18	32.0
Tour packages	17.0	43	38	5	12.0
Car rentals	3.0	8	7	1	13.0
Rail, long trips	6.0	15	15	0	0.0
Scheduled coaches, long	0.0	1	1	0	0.0
Camping & youth hostels	2.0	5	5	0	0.0
International car ferries	3.0	7	7	0	0.0
Total	100.0	250	169	81	32.0

Not included: Transport in own car; private accommodation; entertainment (entry tickets).

Market estimates for selected major travel service categories, USA and Western Europe

USA	Market	Market	Average	Market	Market	Market	Market
Marcussen	Total	volume	price per	Total	Direct	Agents	Agents
	(% of bn \$)	Million	unit (\$)	Billion \$	Billion \$	Billion \$	(%)
Type of travel service:	'97-data	'97-data	'97-data	'97-data	'97-data	'97-data	'97-estim.
Airtravel, scheduled	46.0	578	145	84	8	75	90.0
Hotel accom., ex. tours	34.0	824	75.2	62	43	19	30.0
Tour packages	6.0	19	569	11	1	10	90.0
Car rentals	9.0	104	153	16	11	5	30.0
+Rail	0.5	21	47	1	1	0	10.0
+Scheduled coaches	0.8	47	32	1.5	1	0	10.0
Cruises	4.0	5.5	1250	7	0	7	95.0
Total, max.	100.0			182	67	115	63.0
Western Europe	Market	Market	Average	Market	Market	Market	Market
Marcussen	Total	volume	price per	Total	Direct	Agents	Agents
	(% of bn \$)	Million	unit (\$)	Billion \$	Billion \$	Billion \$	(%)
Type of travel service:	'97-data	'97-data	'97-data	'97-data	'97-data	'97-data	'97-estim.
Airtravel, scheduled	33.0	252	220	55	6	50	90.0
Hotel accom., ex. tours	24.0	495	80	40	28	12	30.0
Tour packages	27.0	80	569	46	9	36	80.0
Car rentals	4.0	43	139	6	4	2	30.0
Rail, long trips	9.0	360	42	15	13.5	4.5	10.0
Scheduled coaches, long	1.0	65	20	1.3	1	0	0.0
Camping & youth hostels	2.0	250	15	4	4	0	0.0
International car ferries	1.0	20	75	2	2	0	0.0
Total	100.0			168	67	101	60.0

Not included: Transport in own car; private accommodation; entertainment (entry tickets).

A simple return ticket by air or rail includes two segments, e.g. the 554 million air segments in Western Europe in 1997 correspond to 277 million simple return trips. The volume and rates mentioned for hotels are room nights. The volume and rates mentioned for camping/youth hostels in Europe are person nights. The volume and rates mentioned for car rentals are per rental transaction (based on Avis data for North America and Europe). The average number of car rental days for cars in the US was about four days (Hertz Corp.), but probably less in Europe (~3 days).

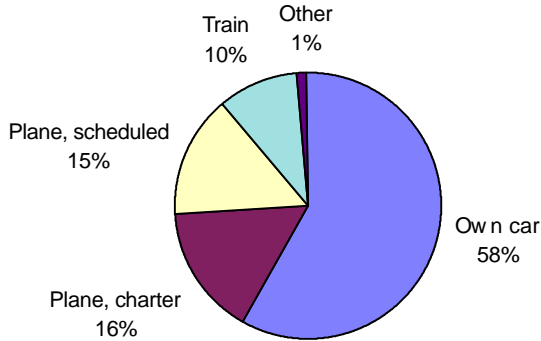
Since Stena Line carries 1.8 million cars per year, and Scandlines 5-7 million per year one would guess that car crossings on international ferries could amount to *roughly* 20 million (market volume), each costing about \$75 per segment, i.e. a total market value of *about* \$1.5 billion.

The Internet's share of selected major travel service categories, USA and Western Europe (1998)

USA Marcussen	Percentages of the channel			Percentages of the market		
	Total Internet	Direct Internet	Agents Internet	Total Internet	Direct Internet	Agents Internet
Type of travel service:	1998	1998	1998	1998	1998	1998
Airtravel, scheduled	1.9	7.2	1.3	1.9	0.7	1.2
Hotel accom., ex. tours	1.8	1.8	1.8	1.8	1.2	0.5
Tour packages	1.6	12.2	0.5	1.6	1.2	0.4
Car rentals	1.1	1.1	0.9	1.1	0.8	0.3
+Rail	1.2	1.3	0.0	1.2	1.2	0.0
+Scheduled coaches	0.0	0.0	0.0	0.0	0.0	0.0
Cruises	0.0	0.0	0.0	0.0	0.0	0.0
Total, max.	1.7	2.5	1.2	1.7	0.9	0.8
Western Europe						
Western Europe Marcussen	Percentages of the channel			Percentages of the market		
	Total Internet	Direct Internet	Agents Internet	Total Internet	Direct Internet	Agents Internet
Type of travel service:	1998	1998	1998	1998	1998	1998
Airtravel, scheduled	0.21	1.03	0.11	0.21	0.10	0.10
Hotel accom., ex. tours	0.14	0.14	0.15	0.14	0.10	0.05
Tour packages	0.09	0.42	0.01	0.09	0.08	0.01
Car rentals	0.13	0.17	0.06	0.13	0.12	0.02
Rail, long trips	0.10	0.11	0.00	0.10	0.10	0.00
Scheduled coaches, long	0.08	0.08	-	0.08	0.08	0.00
Camping & youth hostels	0.13	0.13	-	0.13	0.13	0.00
International car ferries	0.47	0.47	-	0.47	0.47	0.00
Total	0.15	0.25	0.08	0.15	0.10	0.05

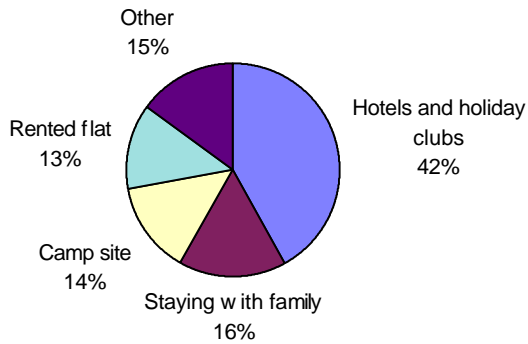
See also diagrams below.

Means of transport for Western European holiday-makers (1997-8)



Note: Some of the transport by charter plane is flight-only, i.e. without hotel accommodation as part of the package.

Type of accommodation used by Western European holiday-makers (1997-8)



Source: EC DG 23, 1998, Facts and Figures on the Europeans on Holidays 1997-1998, Executive Summary, March.

Note: Only stays of more than four nights.

Appendix 2.2 Internet sales of cruises on the US market

Forrester predicts that sales of cruises via the Internet will go from zero in 1998 to \$2.5 billion in 2003, i.e. 8% of the total as shown in Figure 2.5. However, the total US cruise market was only \$7 billion in 1997 (5.5 million participants, at an average price of \$1250).²⁹⁰ The cruise market may increase by up to 7% p.a., up to \$10.5 billion in 2003. The average price of a cruise is much (~three times) higher than a typical simple return airticket. A high price deters website visitors from making bookings. Since cruises are high-price travel products, and since they had not even left the harbour in terms of Internet sales in 1998, it seems very unlikely that sales of cruises via the Internet will reach \$2.5 billion in 2003, which would be at least 24% of the US cruise market. Forrester predicts that 12% of the US leisure travel market will go via Internet in 2003, but it would seem more prudent to assume that no more than about 6% of cruises on the US market will be sold via the Internet in 2003, i.e. \$0.6 billion, not \$2.5 billion.

Approved travel agencies have been able to make bookings of the Royal Caribbean brand via an Extranet since the beginning of 1998, and of Celebrity since October 1998. Carnival has done the same, and additionally opened for on-line real-time Internet bookings for consumers in March 1999 as the first cruise line in the industry.²⁹¹ Royal Caribbean International and Carnival Corporation, whose vessels typically operate in the Americas and must be assumed mainly to serve Americans, hold more than 50% of the US cruise market. Clearly it makes a tremendous difference whether tours booked by agents via this and similar Extranets are included in the Internet travel sales forecast or not. In principle they should not be included, and Forrester has no doubt not intended to include it. Leading cruise lines such as Royal Caribbean and Carnival have no doubt been interviewed by Forrester, but the cruise lines have probably not made a clear distinction between Internet bookings by end-users (consumers) and Extranet bookings by travel agents.

Carnival, which intended to introduce Web bookings to consumers (Internet) and agents (Extranet) by early 1999 expects that consumers will *continue to seek the advice of travel agents to validate their (buying) decision*. - Dickinson of Carnival expects *at least 90% to 95% of its business will continue to be generated by travel agents into the year 2002*,²⁹²

290 Abels, Joel M (1998), Internet, Internet, Internet, www.traveltrade.com, 7 September - Royal Caribbean alone had 1.3 million participants in 1997 (excluding 200 000 sailing with Celebrity Cruises since takeover by Royal Caribbean during 1997), which according to the 1997 accounts should give Royal Caribbean a 25.5% market share, with another 7% for Celebrity (probably of the US market). There are separate websites for the two brands: www.royalcaribbean.com and www.celebrity-cruises.com, the former introduced on 1 February 1996. Carnival Corporation is even larger than Royal Caribbean, and carries around 2 million passengers p.a.

291 Carnival press release, 22 March 1999.

292 Special report, *All-inclusives rage of the 90's*, subsection called *Cruise companies going direct but agents need not fear*, in the Canadian Travel Press, www.travelpress.com/ctp/issues/1998-02-16/perspect.html.

compared to more than 98% in 1998,²⁹³ which underlines the assumption that no more than 6% of cruises will be booked via the Internet by consumers in the year 2003, since there are also other direct booking channels than the Internet, such as the telephone (to call centres, via 800-numbers).

293 According to Carnival Corp. Annual Accounts, 1998.

Appendix 2.3 Travel market sizes - in the US and Western Europe.

\$29.5 billion Internet travel sales will correspond to 12% of the leisure travel market in 2003, which means that 100% equals \$246 billion for the total leisure travel market. Assuming that the market is projected to increase (at least) 10% over the five years, the total US leisure travel market must have been about \$223 billion in 1998, at the most. The figure of about \$173 billion for holidays in the US market has been mentioned by the National Retail Federation for the year 1998 (thestandard.com/metrics, 22 November 1998). Obviously, if we include Internet leisure travel estimates like that of Forrester in relation to this lower number of \$173 billion for holidays in the US in 1998, the Internet's share will be larger. But there may be some leisure travel and related services which are not exactly holidays.

Travel and tourism includes 15 interrelated businesses, such as lodging establishments, airlines, restaurants (partly), cruise lines, car rental firms, travel agents, and tour operators. Travel and tourism is the third largest industry in the US (after auto sales and food retail sales) in terms of value, and the second largest industry (after health care) in terms of employment (www.ahma.com).

For the whole US travel and tourism industry including business travel, the figure \$491 billion for 1998 can be inferred (from 1997 data + 2% increase to 1998 and onwards per year), of which lodging accounted for 18%, or \$87 billion. \$68 billion of this was room night revenue, a typical room night costing between \$75 and \$80.²⁹⁴ Since Forrester has estimated Internet revenue for US hotels, etc. in 1998 to be \$1.1 billion, this means that the Internet should account for 1.6% of room-night-revenue in 1998 - up from about 0.5% in 1997. If the Forrester Internet forecast for hotels of \$10 billion in the year 2003 holds true, this means that 13.3% of hotel revenue should come via the Internet by then! Part of this will go via the on-line travel agents rather than directly to the hotels.

It is *assumed* that - when looking at the leisure travel market only, and *all* these different service categories that are included in this - the *total* Western European leisure travel market is slightly larger than the US counterpart, cf. Table 2.4. There are actually *no hard facts to support this particular assumption* other than the fact that in absolute terms GDP

294 A very recent report compiled by Shifflet & Associates in 1999 (www.ahma.com/infocenter/eco_impact98.htm) comes up with the figure \$508 billion as the total direct economic impact of the US travel and tourism industry in 1998, including items such as food, shopping, entertainment and miscellaneous in addition to accommodation and transportation. Of this total, \$75 billion was hotel/motel room revenue.

in Western Europe is considerably higher than in the US, cf. first row of numbers, column (1) and (3) in Table 2.1.

But when looking at the travel market from the supply side it appears that the US market for selected business and leisure travel service categories is actually slightly larger than the market for the same categories in Western Europe (\$182 billion vs \$168 billion, in 1997), cf. Appendix 2.1. Also the GDP-derived figures given in chapter 1.1 indicated that the US market value may exceed that for Western Europe. The most meaningful market values to use are the \$182 billion for the US and \$168 billion for Western Europe, since it has been shown how these have been arrived at (in Appendix 2.1).

Appendix 2.4 Discussion of Internet travel sales in Western Europe - 1998 and 2002 - cf. Table 2.4

Internet travel sales in Europe have reached a maximum of 3.4% in 2002. Firstly, the number of Internet users in Western Europe in the year 2002 forecast by IDC is 77% higher than the figure given by Datamonitor - for all of Europe, cf. Table 2.2. Secondly, there is no guarantee that the number of Internet *buyers* will increase as fast as predicted by IDC, and finally there is no guarantee that the average travel purchase value will increase from \$100 per Internet buyer to \$300 as assumed by this writer.

Jupiter Communications have published an estimate for Internet sales of airtickets in Germany, namely \$38.5 million in 1998, increasing to \$782 million in 2002. Assuming that Germany accounts for 29.5% of total Internet (travel) sales in Western Europe in 1998, as stated by IDC, and assuming air travel accounts for 53% of all Internet travel sales - as in the US - this gives Internet travel sales (or rather purchases) in Western Europe of about \$250 million in 1998. Actually, since Lufthansa only achieved a third of the expected Internet sales in 1998 the \$250 million may not have been achieved.²⁹⁵ Therefore it seems more prudent to consider \$200 million as the minimum estimate for 1998. The previously mentioned estimate of \$300 million for Internet travel sales in Western Europe in 1998 is a maximum. Could the true figure be between the two numbers, i.e. about \$250 million?

Correspondingly, assuming Germany still accounts for at least 30% of total Internet travel sales in Western Europe in 2002, and assuming that the share of air travel has dropped, as in the US, to about 39% of all Internet travel sales, with 782 million air ticket sales in 2002 in Germany, as forecast by Jupiter, that translates to $(0.782/0.3)/0.39 = \$6.7$ billion in Internet travel sales in Western Europe in 2002. Alternatively, assuming that Germany, the UK and France together still account for 57.5% of European Internet travel sales in 2002 - as IDC estimates for the end of 1998 - and assuming the 1.5 billion in Internet sales of airtickets account for 39% of all Internet travel sales in the three large countries, that translates to the same, i.e. $(1.5/0.575)/0.39 = \$6.7$ billion in Internet travel sales in Western Europe in 2002. This is a *maximum* forecast for three reasons:

1. Internet sales of airtickets may be lower than assumed;
2. the share of airtickets of all Internet travel sales may be higher;
3. and the share of Germany, the UK and France may be higher in 2002 than assumed.

295 At ITB'98 in April, Lufthansa stated that it expected revenue of DM 40 million via the Internet in all of 1998. Later, at ITB'99 the actual Lufthansa figure for 1998 was stated, cf. FVW 6/99, p. 26: DM 1.3 million for 4500 tickets in 25 on-line auctions in 1998 + DM 11 million for 40 000 segments (~20 000 round tickets) sold via Lufthansa Info Flyway, i.e. DM 12.3 in total, corresponding to \$7.4 million.

In a recent press release (24 May 1999) Datamonitor forecast European on-line travel sales of only \$1.7 billion in 2002, which the writer considers a quite conservative estimate.

A medium (and even slightly optimistic) forecast for 2002 for Internet travel sales in Western Europe would be \$4 billion. This is a most significant increase from the 1998 level, which the writer estimates to have been about \$250 million (with \$200 million as a minimum), cf. Table 2.4. An increase from \$250 million to \$4 billion in four years is a sixteen-fold increase in absolute numbers, i.e. a doubling every year for four consecutive years, or an increase of 100% per year. At least some successful European players are set to increase their Internet travel sales by 188% from 1998 to 1999, cf. Table 8.2.

To substantiate the numbers in Table 2.4 for the US it can be mentioned that several major US airlines (Delta, Northwest)²⁹⁶ have stated that about 2% of their passenger revenue in 1998 came directly from the Internet, the customers invariably being US residents, typically buying tickets for travel within the US. Certainly part of this revenue must also have come from business travellers. Online (Internet) sales to business travellers are assumed to be included in the on-line travel market figures mentioned in Table 2.4, as previously stated.²⁹⁷ But airtickets, be it from airlines directly or via on-line travel agents, especially in the US, are the great sales success on the Internet as far as travel and related services are concerned. If the the US hotel/lodging industry actually realised 1.1 billion in sales via Internet in 1998 (directly + sales via the on-line travel agents), as Forrester has estimated, this means that Internet sales would account for 1.6% of a total room-night-revenue of \$68 billion in 1998.

296 www.usatoday.com, 2 November 1998 (Delta CEO); www.nwa.com/lb/corpinfo/newsc/1998/pa061698b.shtml; also Air Canada reached the 2% mark (*Toronto Star*, 18 November 1998).

297 Internet sales of several top US airlines such as United, NWA, American, Southwest, US Airways, and perhaps Continental may even have exceeded 2% already in 1998 since several of these sites count more page views than Delta (cf. www.100hot.com/travel), although Delta carries more passengers than the other airlines (or at least did in 1997 according to IATA).

Appendix 2.5 Shares of the online players on the US Internet travel market 1998

It should be kept in mind that Internet travel sales comprise both sales by the principal travel service providers (the product owners), and online travel agents. The well-known top four US travel intermediaries (Travelocity, Expedia, Preview Travel and ITN) had travel sales of about \$900 million in total, most (~all) of which was for the US market - in 1998.

However, 25% of Travelocity's users were non-US, but this does not mean that 25% of Travelocity's travel sales are for markets other than the US (according to Terrell Jones, President of Sabre Interactive, at ENTER'99), for now Travelocity provides ticketing around the world. Travelocity's travel revenue was \$285 million; Expedia \$250 million; Preview Travel \$200 million; ITN perhaps \$160 million. United Airlines bought a minority stake in ITN in 1998. Preview, Travelocity, and Expedia ranked 40th, 48th, and 50th respectively on the Media Metrix Top 50 Web Sites in February 1999.²⁹⁸ Up to 25% of the \$900 million sales were for business travellers. The 25% of business travel sales is true for Preview Travel (according to Jeffrey A. Lavender, VP of Preview Travel, at ENTER'99). It may also apply to the other on-line agencies, at least partly. It is part of Preview Travel's mission to serve *the leisure and small business travellers*. ITN states as part of the information it provides for advertisers on its site that 50% of its users visit the site to book travel for business, which certainly shows that business travel sales are important for ITN also (although business travel sales may be less important than leisure, in spite of the statement).

Both Travelocity and Expedia opened UK versions of their sites in late 1998. Expedia UK reportedly achieved \$0.6 million in online travel sales during its first month of operation.²⁹⁹

298 www.relevantknowledge.com, press release dated 22 March 1999.

299 www.forrester.com, 30 December 1998.

Rough estimate of the shares of the on-line players on the US market in 1998

	A	B	C	D=A+B+C	A / D	(B+C) / D
Type of travel service	Direct online sales (max)	Top four Online agents	Other online agents (guess)	Total online (Forrester)	Direct (%)	Online Agents (%)
Airtickets	925	675		1,600	58	42
Hotels	765	135	200	1,100	70	30
Tour packages	130	45		175	74	26
Car rentals	126	45		171	74	26
Cruises	0			0	-	-
Total	1946	900	200	3,046	64	36
Share	64%	29%	7%			

	E	D	E / D	A / A	(B+C) / E
Type of travel service	Total market \$ mill.	Online sales (Forrester) \$ mill.	Online sales 1998 (%)	Direct online sales 1998 (%)	Agents' online sales (%)
Airtickets	(*) 71,000	1,600	2.3	1.3	1.0
Hotels	(**) 67,000	1,100	1.6	1.1	0.5
Other travel services	(***) 85,000	346	0.4	0.3	0.1
Total (leisure)	~223,000	3,046	1.4	0.9	0.5

Note: (*) Own estimate, based on Delta's accounts, assuming that Delta's share is ~18% of passengers and of revenue. Total market = 289 million round trips, \$242 each = \$70 billion (1997). 1998 ~ 1997 + 2% = \$71.4 billion ~ \$71 billion.

(**) Own estimate, based on ahma.com: accommodation only: 900 million room nights x \$76.50.

(***) Residual. Other services include tour packages, car rentals, cruises etc.

Appendix 2.6. The Internet payment situation in Denmark

Internet users in Denmark have been the most reluctant in Europe to make Internet purchases, according to a comprehensive European survey by IDC in 1998.

After several years of disputes about the fees and security in connection with payments over the net, as of April 1999 *ordinary bank cards* as well international payment cards can be used to settle payments for purchases made in Internet shops in Denmark. The security standards can either be SET or SSL. There is a fixed fee for the shops per transaction, irrespective of whether SET or SSL is used. On top of this there is a fee of 0.15% of the transaction value if the security standard SSL is offered by the shops and chosen by the customers. The explanation given for this additional fee for SSL transactions is the following: *International experience shows that the security level is lower in connection with SSL payment than in connection with SET payment. The difference in security level is reflected in different prices.*³⁰⁰ The shops carries the risk in case of misuse, and the security for the consumer is the same irrespective of what solution the shop chooses.

In Denmark there are twice as many ordinary bank cards (without Visa) as combined bank/Visa cards. But when looking at Internet payment transactions the situation is the opposite: Twice as many Internet payment transactions are undertaken by combined bank/Visa cards than by ordinary bank cards. Nevertheless, the ability to pay by bank card adds to the actual and potential use of the Internet as a sales channel on the Danish market, including the payment function. The population of Denmark aged 17 or over is divided into three groups of equal size: one-third (32%) have an international payment card, including combined Dankort/Visa; one-third (35%) have a bank card (Dankort) but no international payment card and no combined Dankort/Visa either. The last third (34%) have neither a bank card nor an international payment card.

The ability to pay by bank cards only has more than doubled the number of adult Danes who hold a payment card which can be used to settle payment for Internet purchases online ($35/32 = +110\%$). Therefore it is easy to understand that there has been a great desire in the industry and among Danish politicians to implement the possibility of paying by bank card in Danish Internet shops.

Experience during the first three months of Internet payment to Danish Internet shops (9 to 15 June 1999) shows the following: only 28% of the transactions (not 52%) were paid by holders of ordinary bank cards. Although not doubling the number of Internet purchases which are settled online, the ability to pay by ordinary bank card has added more

300 News release in Danish, 9 April 1999, www.pbs.dk/.

than a third ($28/73 = 38\%$) to what the number of Internet payment transactions would have been without this ability.

All in all it is now possible for Danish Internet shopkeepers to settle payments online. But those who have so far received payment for Internet sales off-line by traditional means may wish to continue the Internet business as usual. But certainly it requires a deliberate decision about how to proceed. The most obvious thing to do for those Internet shopkeepers in Denmark who have so far received payment off-line (or had no Danish Internet shop at all) would be to let the customers have a choice of paying off-line or online.

Analysis of payment card data covering Denmark

A.				
<u>Adults in Denmark (aged 17 or older)</u>	<u>Payments</u>	<u>% of payments</u>	<u>No. of adults</u>	<u>% of adult population</u>
No payment card	0	0	1 423 091	34
Dankort only	4934	27	1 468 000	35
Visa/Dankort	11181	62	986 000	23
Eurocard/MasterCard	1275	7	246 000	6
<u>Other international payment cards</u>	<u>571</u>	<u>3</u>	<u>100 000</u>	<u>2</u>
<u>Total</u>	<u>17961</u>	<u>100</u>	<u>4 223 091</u>	<u>100</u>
B.				
<u>Three groups of adults</u>	<u>Payments</u>	<u>% of payments</u>	<u>Persons</u>	<u>% of adult population</u>
No payment card	0	0	1 423 091	34
Dankort only	4934	27	1 468 000	35
<u>Any international payment card</u>	<u>13027</u>	<u>73</u>	<u>1 332 000</u>	<u>32</u>
<u>Total</u>	<u>17961</u>	<u>100</u>	<u>4 223 091</u>	<u>100</u>
C.				
<u>Type of payment card</u>	<u>Payments</u>	<u>% of payments</u>	<u>Number</u>	<u>% of cards</u>
(a) Dankort only	4934	27	1 468 000	52
(b) Any international payment card	13027	73	1 332 000	48
<u>Total</u>	<u>17961</u>	<u>100</u>	<u>2 800 000</u>	<u>100</u>
(b) / (a):		38		110

Note: Based on the writer's analysis of data published by www.pbs.dk (16.06.99), combined with official population statistics. The data for *other international payment cards* is the writer's own estimate. It has been assumed that those who hold a Eurocard/MasterCard or another international payment card (such as Diners) all hold a Dankort (without Visa).

Ironically, within a few weeks of the start of Internet payments by bank card in Danish Internet shops, there was a scandal involving copying of bank cards, which were then misused in automatic teller machines in and around Copenhagen.³⁰¹ The false bank cards were not used in the Internet shops; this would have made the technically successful introduction of this new Internet payment possibility a disaster from the very beginning, and

301 Munch-Andersen, Nina Z., 1999, *80 Dankort customers think they have been cheated for up to a million DKK* (in Danish), www.jp.dk (newspaper), 24 April; and Tranberg & Bauer, *Dankort fraud out of control* (in Danish), *Politiken*, 24 April, p. 1.

fortified the worst fears of the Internet payment sceptics. The Danish police is co-operating with the police in Sweden and Finland to solve similar frauds.

But consumers need not worry. They are secured in any case. And those Internet shopkeepers, who settle payments off-line need not worry either.

Appendix 3.1. On the criteria for selecting the three times 20 major airlines in Table 3.1.

A couple of large airlines are not included on the IATA top 50 list, namely Southwest Airlines of the US, which would have been ranked number 6 and Ansett Australia, which would have been ranked around 25th. Southwest do not appear on the IATA member list, which may be the reason it is not on the top 50 list, whereas Ansett is a member of IATA, but may not have submitted its statistics in time for inclusion. In Table 3.1 Southwest and Ansett have been inserted according to the information on their respective websites about numbers of passengers carried.

Apart from the two airlines mentioned, the North American and Western European airlines from the top 50 list have been supplemented with some other major airlines, in order to form three times 20 airlines. The additional airlines were initially identified from an entirely different source, namely www.airsafe.com/airline.htm, which includes information about the accumulated number of flights since 1970 by airline. The actual number of passengers carried in 1997 by these additional airlines could typically be found on the individual websites, and this information was then used to rank those airlines which were not on the IATA top 50 list.

Only five airlines from the top 50 list have been omitted from the Table 3.1: these are Iran Air (ranked as 35th), which does not have an active website at all and (50) Aviaco of Spain, which has only a website with one photograph. Air China (43), Pakistan International Airlines (45) and South African Airways (48) all have websites, but none of them with online booking functions.

Links to all the individual airline websites mentioned, and all other sites mentioned in this book can be found on the following webpage:
<http://www.rcb.dk/UK/staff/chm/book1999.htm>

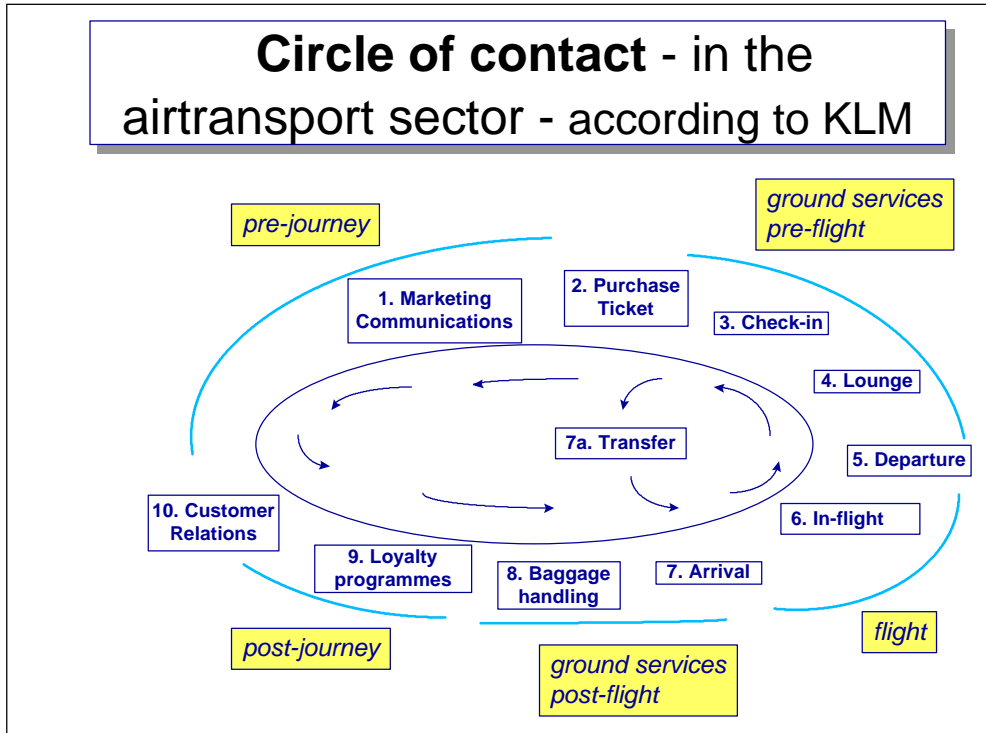
Appendix 4.1. Overview of the 25 UK train operating units (franchises) + Eurostar

Owner	Franchise	Passengers 1997/98	% of passeng.	Million pas- senger km	% of km	Average length km	Written complaints	% of complaints	
Connex	Connex South Central	93.039.000	11	2211	6	24	23.112	4	
Connex	Connex South Eastern	117.218.000	14	2885	8	25	23.695	4	
First Group	First Great Eastern Railway	51.630.000	6	1586	5	31	7.717	1	
First Group	First Great Western Trains	16.445.517	2	2227	6	135	63.205	10	
First Group	First North Western Trains	27.783.000	3	776	2	28	16.635	3	
MTL Rail	Merseyrail Electrics	26.766.168	3	344	1	13	5.042	1	
MTL Rail	Northern Spirit	42.000.000	5	1332	4	32	26.595	4	
Nat.Express	Central Trains	32.409.000	4	1149	3	35	23.725	4	
Nat.Express	Gatwick Express	4.189.000	1	183	1	44	1.004	0	
Nat.Express	Midland MainLine	6.314.000	1	801	2	127	17.153	3	
Nat.Express	ScotRail Railways	56.700.000	7	1744	5	31	19.502	3	
Nat.Express	Silverlink Train Services	30.700.000	4	814	2	27	11.873	2	
Prism	Cardiff Railways	6.068.000	1	92	0	15	1.176	0	
Prism	LTS Rail	23.752.000	3	693	2	29	3.922	1	
Prism	Wales & West Pas.	13.646.000	2	772	2	57	20.745	3	
Prism	West Anglia Great Northern	52.817.000	6	1614	5	31	19.200	3	
Virgin Rail	Virgin CrossCountry	12.489.000	1	2016	6	161	78.665	12	
Virgin Rail	Virgin West Coast	14.985.000	2	3292	10	220	119.266	18	
Others	Anglia Railways	5.987.000	1	571	2	95	27.903	4	
Others	Chiltern Railways	8.808.000	1	367	1	42	4.352	1	
Others	Great North Eastern Railway	13.675.387	2	3572	10	261	82.361	13	
Others	Island Line	703.000	0	5	0	8	71	0	
Others	South West Trains	118.159.000	14	3487	10	30	31.958	5	
Others	Thames Trains	28.532.000	3	809	2	28	11.857	2	
Others	Thameslink Rail	30.247.000	4	1018	3	34	8.881	1	
	Total (ex. Eurostar)	835.062.072	100	34.362	100	41	649.615	100	
	Eurostar (1998)	6.300.000 *		2.646		420			
	<u>Totals per owner group:</u>								
	Virgin	27.474.000	3,3	5.308	15,4	193	197.931	30,5	
	Connex	210.257.000	25,2	5.096	14,8	24	46.807	7,2	
	National Express	130.312.000	15,6	4.692	13,7	36	73.257	11,3	
	First	95.858.517	11,5	4.589	13,4	48	87.557	13,5	
	Prism	96.283.000	11,5	3.171	9,2	33	45.043	6,9	
	MTL	68.766.168	8,2	1.677	4,9	24	31.637	4,9	
	<u>Others</u>	<u>206.111.387</u>	<u>24,7</u>	<u>9.830</u>	<u>28,6</u>	<u>48</u>	<u>167.383</u>	<u>25,8</u>	
	<u>Total (ex. Eurostar)</u>	<u>835.062.072</u>	<u>100</u>	<u>34.362</u>	<u>100</u>	<u>41</u>	<u>649.615</u>	<u>100</u>	
Sources:	www.rail-reg.gov.uk/complain/bullet1/annexbc.htm + own supplementary calculations.								
	* Press release, 18 January 1999, www.eurotunnel.co.uk								

Appendix 4.2. Train operator website feature matrix - selected countries

Feature:	Train operator in:											
	Germany	Switzerland	Austria	Sweden	Denmark	Norway	Finland	France	TheRailline - Virgin, UK	Amtrak, USA	Via Rail, Canada	Nat. Express Bus, UK
Timeschedule / route functions:												
Station search by												
a) free text	+	+	+	+	+	+		+	+	+	+	+
b) draw down curtains						+		+		+		
c) by clickable map						+						
Showing selected route on map	+	+	+									
International timetables, mega	+											
Timetable integrated with booking	+	+	+	+	+	+		+	+	+	+	+
Timetable info. also mobile SMS		+					..					
Also timetable info. about buses					+	+					..	
Incentives for internet bookings:												
Discounts on all Internet bookings												+
Any other special offers on Internet												
Booking-features:												
Std. ticket purchase	+	+	+	+	+	+		+	+	+	+	+
Std. seat reservation	+	+	+	+	+	+		+	+	+	+	+
Sleepers purchase / reservation						+		+		+		
International tickets to residents	+							+				+
International tickets to foreigners	+											+
Supplementary features:												
Best-buy international airtickets						+						
Video on-demand						+		+				
Payment methods:												
At station counter							+					+
At station, electron. kiosk					+	+						
Cash on (mail) delivery			+									
Giro card (invoice) mailed, directly	+				+	+						
Invoice, mailed, from shopping mall				+								
Internat. pay. card, SET				+								
Internat. pay. card, SSL	+	+	+			+		+	+	+	+	+
National bank card, SET					..							
National bank card, SSL					..							
Ticket retrieval methods:												
At station, manual		+				+		+	+	+	?	+
At station, electron. kiosk					+	+						
At TA's or other third party dealers					+					+	?	
By mail	+	+		+	+	+		+	+	+	?	+
Punctuality information:												
Info. about delayed departures												
Info. about delayed arrivals					+	..				+		
Delay alerts on mobile phones					+							
Repeat sales creation by:												
Frequent traveller program										+	+	
e-mailed offers and/or news												

**Supplement to the Train Operator website Feature Matrix:
A parallel from the air transport sector: the Circle of Contact**



Source: Ligerman, Hugo, 1998, *How can technology help distribution and the service process?*, 24 March, one of 15 slides from a Power Point presentation by KLM at IT for Travel & Tourism '98, Holiday Inn, Amsterdam, 23-24 March 1998, www.firstconf.com/c37/. Reproduced here with permission from KLM.

An additional supplement to the Train Operator website Feature Matrix on the previous page is a matrix showing an overview of Internet Projects for Railways, and their various functions, prepared by Renato De Pieri of Italian Rail, FS, 31 July 1998, for the second worldwide UIC Internet Club meeting on 22-23 October 1998, www.uic.asso.fr/, hereunder www.uic.asso.fr/uk/about/seminar_internet/ci98/conference/uicsiafi.htm#chart, also included in Felkl et al. (1998), downloadable as a word-document under www.uic.asso.fr/uk/about/.

Appendix 5.1 Discussion of the size of the US and Western European market for long-distance travel by scheduled coaches

- About long-distance express coach travel in the US is known: Greyhound Lines had a revenue of \$846 million in 1998. Most of this, 86% (= \$728 million), was revenue from *scheduled services*, Greyhound Lines is thus *not* involved in non-scheduled passenger transport. This in turn means that if one knew the market share of Greyhound Lines in the US, the total market for long-distance scheduled coach travel could be calculated.
- Greyhound is the only nationwide provider of scheduled intercity bus transportation services in the US. The Company's primary business consists of scheduled passenger service, package express service and food services at certain terminals, which accounted for 86.0%, 4.0% and 3.7%, respectively, of the Company's total operating revenues for 1998 (Annual accounts, 1998).
- This however, does not mean that Greyhound is alone on the scheduled intercity bus transportation services in the US since there are regional players as well. The market share of Greyhound Lines in the US has not been stated (in any accounts or other documents which the writer could find on the net), but it could be at least 50%. Therefore a first estimate of the total scheduled long-distance coach market in the US would be $\$728 \times 2 = 1.5$ billion in 1998.
- From the *1998 Annual Report of Laidlaw Inc.* the total North American market for various bus services is stated (in Canadian \$), including intercity scheduled highway coach transport and non-scheduled tour coaches (CAD6 billion). Assuming that the US market accounts for 90% of that, this means that the US market for scheduled and non-scheduled long-distance coach travel is worth about US\$ 3.5 billion (1998). It seems likely that a little less than half (i.e. US\$ 1.5) of this could be travel by long-distance scheduled coaches, and the balance being tour coaches (which are run by thousands of operators in a highly fragmented industry).

Bus and coach travel segment	Percent of market value	Billion US\$ USA, 90%	Billion US\$ Canada, 10%	Billion US\$ North America	Billion CAD North America
Education services (school busses)	45	8.7	1.0	9.7	15.0
Municipal, local busses	36	7.0	0.8	7.8	12.0
Highway coach transport, scheduled	8	~1.5	0.2	1.6	2.5
Highway coach transport, non-scheduled	11	~2.0	0.2	2.3	3.5
Total	100	19.2	2.1	21.3	33.0

- In Sweden the percentage for long-distance is 2.4% of the revenue of all bus and coach traffic. And in the UK two long distance coach operators generate a total of about \$300 million p.a.. If the UK market represents up to 25% of the revenue of all long-distance scheduled coach traffic in Western Europe (although the UK only represents 15% of the population), 100% would equal (at least) *\$1.5 billion*. The \$1.5 billion would then correspond to 3.4% of the total (Western) European bus and coach market of up to \$44 billion. Another consideration: if the long-distance scheduled coach market in Sweden, which is worth \$38 million p.a. (SEK 300 million) represents about 3% of the Western European market (although Sweden only represents 2.3% of the population), then the whole market would be worth *\$1.3 billion*.
- A best guess of the value of the Western European market for scheduled long-distance coach services is then *about \$1.3 billion*.

Appendix 5.2 Revenue figures of some UK private sector players in bus, coach and other forms of public transport

For National Express plc, revenue increased by 16.7% to £1.32 billion in 1998 (1997: £1.13 billion); http://thestandard.net/companies/company_display/0,1591,93628,00.html;

Stagecoach Holdings plc (revenue £1.38 billion in 1998, £1.55 billion in 1999 to the end of April);

Arriva plc (revenue of £1.56 billion in 1998, up from £1.42 in 1997, of which passenger services accounted for £486 million in 1998, £439 million in 1997);

The Go-Ahead Group plc (£414 million in sales in 1998). Go-Ahead is, by the way, part of a French-British-Swedish consortium (with Via-GTI holding 51% of the shares, and Go-Ahead 39%), which has won a contract for running the commuter trains in the Stockholm area, Sweden, from 1 January 2000 to 2010 (Storstockholms Lokaltrafik AB, SL, www.sl.se).

Metroline's principal activity is provision of bus services under contract to London Transport Busses. - Turnover increased by 31% to £47.8 million in the year to 9 October 1998. - Metroline's turnover was £42 million during the *24 weeks* ending on 26 March 1999 (i.e. for less than half a year). Metroline plc took over Scottish Citylink from National Express in August 1998. Scottish Citylink is Scotland's leading brand for scheduled long-distance coach services. In 1997 it carried 2.2 million passengers and generated £12 million in revenue. The fact that Metroline carries as many as 150 million passengers p.a., but just 2.2 million by long-distance coaches, namely by Scottish Citylink, reflects the dominance of short bus trips over long-distance coach trips in terms of passenger volume.

Appendix 5.3 The world-wide car industry at a glance

Company	Cars in US fleet	Number of US locations	1997 US rental revenue (\$ million)	Revenue Europe (\$ million)	Revenue ROW (\$ million)	1997 Global car rental revenue (\$ million)	1997 Global car rental revenue (%)
a: National	145.000	968	1.750	-	-	1.750	7
b: Alamo (*)	110.000	175	1.100	150	50	1.300	5
c: CarTemps	35.000	400	280			280	1
d: Eurodollar, UK				178		178	1
a+b+c+d: AutoNation	290.000	1543	3.130	328	50	3.508	13
Hertz (**)	250.000	1.150	2.700	519	200	3.419	13
Avis	200.000	1.000	2.000	847	300	3.147	12
Enterprise	355.000	3.100	3.100	-	-	3.100	12
Budget	125.000	955	1.600	660	440	2.700	10
Dollar / Europcar	62.000	229	707	737	-	1.444	5
Thrifty	34.000	488	363	160	160	683	3
Major brands	1.316.000	8.465	13.600	3.251	1.150	18.001	68
Others	614.000	12.535	2.800	2.749	2.850	8.399	32
Total	1.640.000	21.000	16.400	6.000	4.000	26.400	100

Sources: US major brands in the home market: *Auto Rental News 1998 Fact Book*, according to Faust, Fred, 1998, *Enterprise is independent, at the top. Company eclipses Hertz, but challenge is not over yet*, www.pickenterprise.com, St. Louis Post-Dispatch, 25 January 1998. Total for the US: Avis and Budget websites. Europe and rest of world totals: Own rough estimate. European data: various websites.

Assumptions:

(*) That \$200 million in revenue, and 20 000 Alamo cars are located outside the US (1300 million - 200 = 1100 million). (**) That Hertz revenue in the US in \$300 million less than the 3000 estimated by Auto Rental News - to allow for more international revenue.

Appendix 5.4 Looking for lowest prices on two different Europcar sites

Below we try to find the total rental estimate - including insurance, taxes etc. - for a two-door economy car for *tomorrow* (Friday) for 24 hours from 9.00 a.m., with pickup and return of the car in central Hamburg. First we use the Europcar International site (www.europcar.com) - stating different countries of residence, and afterwards the corresponding lowest price is found on the www.europcar.de site:

The Europcar International site - www.europcar.com:

1a) The cheapest price (total rental estimate) found on the [europcar.com](http://www.europcar.com) site - giving *Denmark* as home country - was DKK 511 (~DM 134) - including taxes, airport surcharges (although pick-up at railway station!), collision damage and theft waivers.

1b) Going through exactly the same procedure - giving *USA* as home country - results in a total rental estimate of DM 152 (i.e. not in US\$!) - including taxes, airport charge (!) and airport *surcharges* (!) for one day. On top of this come options such as collision damage waiver of DM 37 per day, and theft waiver of DM 14 per day which were included in offer 1a), i.e. $DM\ 152+37+14=DM\ 203$.

1c) Giving Germany as country of residence results in a total rental estimate of DM 143 - including taxes and airport surcharges (but no airport charge) for one day. On top of this comes collision damage waiver of DM 37 per day, and theft waiver of DM 14 per day, i.e. $DM\ 143+37+14=DM\ 194$.

1d) Giving Afghanistan or Zimbabwe (the first and last on the list - which basically must translate to *all others*) as country of residence results in total rental estimate of US\$ (!) 80.25 (~ DM 144 for one day including the same as under 1a) (taxes, airport surcharges, collision damage and theft waivers).

1e) Giving the UK as country of residence results in total rental estimate of about £39 (DM 113) for one day including the same as under 1a, 1c and the final amount under 1c.

The Europcar Germany site - www.europcar.de:

2) The lowest corresponding price found on the Europcar Germany site (www.europcar.de) was DM 54 plus DM 43 in full hull insurance (Vollkasko), i.e. only DM 97 in total, considerably lower than any of the offers found on the www.europcar.com site.

1) In summary the lowest prices found on the Europcar International site were as follows:

- for Americans	DM 203
- for Germans	DM 194
- for Others	DM 144
- for Danes	DM 134
- for Britons	DM 113

2) The corresponding lowest price found on the Europcar Germany site was:

- for all	DM 97
-----------	-------

It is stated on the www.eurocar.com site that rates are subject to change if reservation is not confirmed. If you rent in a foreign country, the rate quoted in your currency is only for guidance. The rental rate is usually guaranteed in the renting country currency only. In spite of (or because of) this explanation, and in spite of a some uncertainty as to exactly what currency exchange rates to use, given the great variance in prices found on the eurocar.com site leaves the Internet user with an uncomfortable feeling of uncertainty as to how much one can rely on the prices generated by the site.

For those interested a more detailed breakdown is given below:

Details of the examples of cheapest rates found at the www.eurocar.com site

Country of residence	Price quoted in	Price in DM for 100 units:	Rate, one day (DM)	Plus	Total rental estimate (DM)	Collision damage waiver DM	Theft waiver (DM)	Total insurance (DM)	Grand total (DM)
USA	DM !	100.00	131.04	Airport charge, airport surcharges, taxes	152.01	37.07	13.79	50.86	202.87
Germany	DM	100.00	123.35	Airport surcharges, taxes	143.09	37.07	13.79	50.86	193.95
Others	\$	179.40	143.97	Nothing	143.97	included	included	0.00	143.97
Denmark	DKK	26.31	134.46	Nothing	134.46	included	included	0.00	134.46
UK	£	291.43	112.58	Nothing	112.58	included	included	0.00	112.58

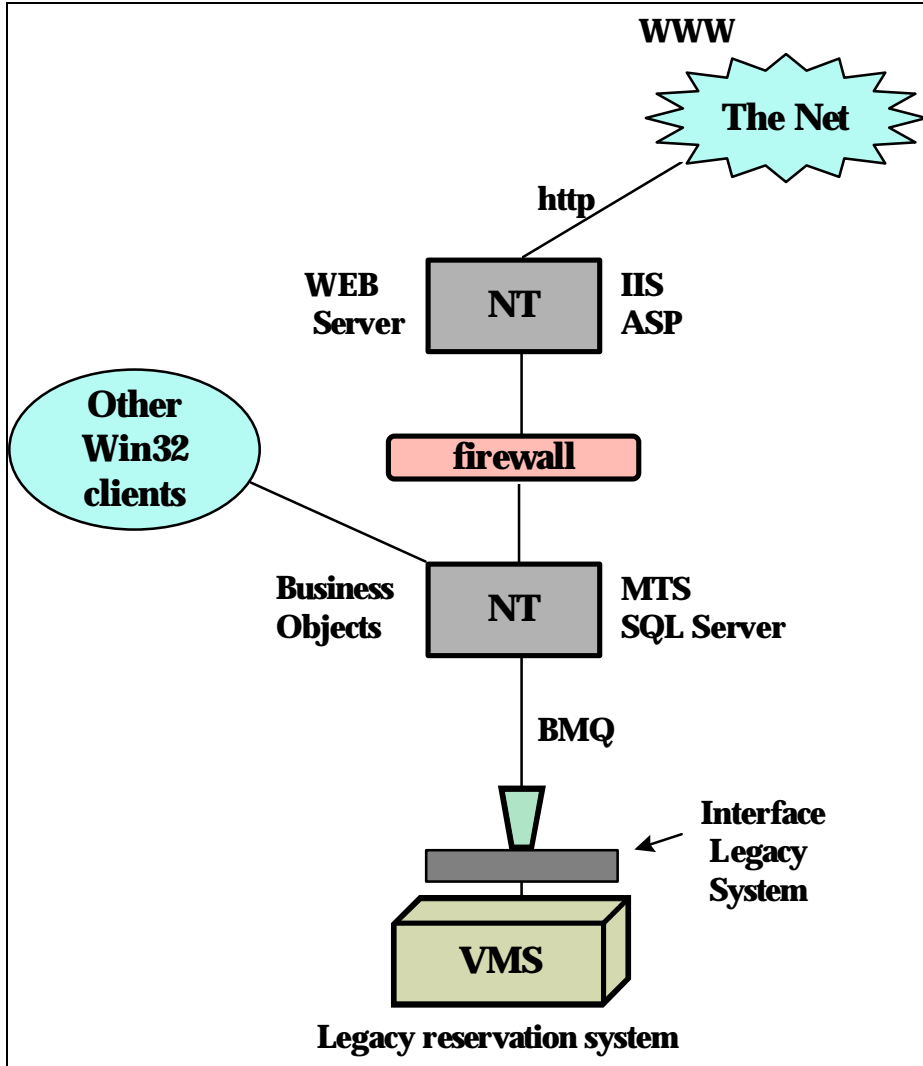
Details of the cheapest rate found at the www.eurocar.de site

Anybody who knows German	DM	100.00	54.00	Nothing	54.00	in the full insurance	in the full insurance	43.00	97.00
--------------------------	----	--------	-------	---------	-------	-----------------------	-----------------------	-------	-------

Appendix 5.5 Investment, costs and benefits of the Stena Line Internet booking site

Year	Initial invest. in booking SEK mill.	Initial invest. in other parts SEK mill.	Yearly maintain SEK mill.	Total costs SEK mill.	Costs, acc. SEK mill.		
1998	3.5	3.5		7	7		
1999			2	2	9		
2000			4	4	13		
2001			6	6	19		
~2003			10				
Year	Million car crossings	Percent of which booked	Segments per booking	Total no. of car bookings million	All Net bookings	Percent of which car bookings	Internet car bookings
1998	1.78	90	1.8	0.89	3000	65	1950
1999	1.78	90	1.8	0.89	20 800	65	13 520
2000	1.78	90	1.8	0.89	82 154	65	53 400
2001	1.78	90	1.8	0.89	13 6923	65	89 000
Year	Percent of car bookings via net	Internet car bookings	Price per crossing cars, SEK	Revenue per booking cars, SEK	Internet rev., cars SEK mill.	Percent of which additional	Additional (extra) revenue, cars SEK mill.
1998	0.22	1950	650	1170	2.3	10	0.23
1999	1.52	13 520	625	1125	15	10	1.5
2000	6	53 400	600	1080	58	10	5.8
2001	10	89 000	575	1035	92	10	9.2
Year	Internet passenger bookings	~Price per crossing person, SEK	Segments per passenger book. (2*1,8)	Net revenue, passengers SEK mill.	Percent which additional	Extra rev., passengers SEK mill.	Total additional revenue, SEK
1998	1050	100	3.6	0.4	10	0.04	0.3
1999	7280	95	3.6	2.5	10	0.2	1.8
2000	28 754	90	3.6	9.3	10	0.9	6.7
2001	47 923	80	3.6	13.8	10	1.4	10.6
Year	Savings per Internet booking		ALL Internet bookings	Cost savings SEK mill.	Of which from cars/passengers	Savings+ additional	Gross Profit (GP) SEK mill.
1998	SEK 40		3000	0.1	65 / 35%	0.4	
1999	SEK 40		20 800	0.8	66 / 35%	2.6	
2000	SEK 40		82 154	3.3	67 / 35%	10.0	
2001	SEK 40		136 923	5.5	68 / 35%	16.1	
Year	Acc. Savings+ extra GP SEK mill.	Acc. Investment + annual costs SEK mill.	Acc. Net effect SEK mill.	Applied exchange rate, \$ per SEK 100	Acc. Savings+ extra GP \$ mill.	Acc. Investment + annual costs \$ mill.	Acc. Net effect \$ mill.
1998	0.4	7	-6.6	12.58	0.05	0.88	-0.83
1999	3.0	9	-6.0	12.58	0.38	1.13	-0.76
2000	13.0	13	0.0	12.58	1.63	1.64	0.00
2001	29.0	19	10.0	12.58	3.65	2.39	1.26

Appendix 5.6 The Stena Line Internet booking system architecture - Phoenix



Source: Stena Line.

Appendix 6.1 Number of hotels by country in Western Europe and the US

Country	Hotels and similar	No. of rooms ('97)	Occupancy rate (rooms)	Mill. room nights sold	No. of beds ('97)	~Rooms pr. hotel	Beds per room	~Beds per hotel
UK	40,000	561,655	44%	90	1,072,762	14	~1.9	27
Germany	37,162	859,642	32%	101	1,565,850	23	1.8	42
Italy	35,371	943,623	39%	135	1,724,100	27	1.8	49
France	20,582	608,353	54%	119	1,216,706	30	2.0	59
Austria	18,955	301,479	32%	36	633,601	16	2.1	33
Spain	9,792	576,514	62%	130	1,103,399	59	1.9	113
Greece	7,185	296,096	58%	63	561,068	41	1.9	78
Switzerland	6,400	141,826	39%	20	261,482	22	1.8	41
Belgium	1,914	61,052	30%	7	158,982	32	2.6	83
Portugal	1,777	93,460	40%	13	211,315	53	2.3	119
Sweden	2,251	102,146	32%	12	227,247	45	2.2	101
Netherlands	1,525	75,393	38%	10	144,000	49	~1.9	94
Norway	1,183	62,233	38%	9	135,605	53	2.2	115
Finland	1,097	54,364	48%	10	117,906	50	2.2	107
Denmark	1,072	57,042	38%	8	108,950	53	~1.9	102
Rep. Ireland	866	52,696	65%	13	116,463	61	2.2	134
Luxembourg	401	7,683	45%	1.3	14,675	19	~1.9	37
Western Europe	187,533	4,855,257	44%	775	9,374,111	26	1.93	50
USA ('97)	49,000	3,800,000	65%	895	6,840,000	78	1.8	140
Comparison								
W.Europe/ USA	3.83	1.28	0.68	0.87	1.37	0.33	1.07	0.36

Sources: Eurostat 1994 (no. of establishments only); World Tourism Organization (WTO), 1999, *Compendium of Tourism Statistics 1993-1997* (rooms, beds, occupancy rates); www.ahma.com (1997 data for the US).

Note: Unfortunately no more current data for number of establishments per country in Western Europe is available. The number of hotels in *Norway* was exactly 1198 in 1997 (www.ssb.no), i.e. about the same as in 1995. The number of hotels in *Sweden* is actually from 1998 (according to www.scb.se). The number of hotels in *Denmark* is an estimate also including hotels with less than 40 beds.

Appendix 6.2 The Top 50 Hotel Brands

<u>Company</u>	<u>Rooms</u>	<u>Properties</u>	<u>Rooms per property</u>
(1) Cendant Corporation (Days Inn, Ramada, Super 8, Howard Johnson, Travelodge, Knights, Wingate, Villager)	536703	6149	87
(2) Bass Hotels & Resorts (Holiday Inn, Crowne Plaza)	448040	2847	157
(3) Choice Hotels International	305372	3665	83
(4) Best Western International	303943	3832	79
(5) Marriott International	300264	1542	195
(6) Sheraton/Westin/Starwood	212246	674	315
(7) Promus Hotel Corporation	189278	1315	144
(8) Accor (w/Novotel, Mercure, Sofitel)	122969	847	145
(9) Patriot American (w/Interstate & Wyndham)	113258	492	230
(10) Radisson Hotels Worldwide	91092	380	240
(11) Motel 6, L.P.	85565	783	109
(12) Hilton Hotels Corp	80722	222	364
(13) Meristar Hospitality Corporation	70845	309	229
(14) Sol Melia	59280	241	246
(15) Inter-Continental Hotels & Resorts	58506	177	331
(16) Universal Group	56200	472	119
(17) Hyatt Hotels Corp	55808	109	512
(18) Felcor Lodging Trust	50152	194	259
(19) Golden Tulip Worldwide	48926	382	128
(20) Hilton International	45537	136	335
(21) LaQuinta Inns	39136	306	128
(22) Red Roof Inns	34103	293	116
(23) Oakwood Corp Housing	33000	70	471
(24) Bristol Hotels & Resorts	32223	121	266
(25) Flag International Hotels	29306	502	58
(26) Choice Hotels International Europe	26258	335	78
(27) Le Meridien Hotels & Resorts	26220	93	282
(28) Hyatt International Corporation	25431	71	358
(29) Lodgian	25378	136	187
(30) Prime Hospitality Corporation	24853	183	136
(31) Prince Hotels	24833	78	318
(32) Circus Circus Enterprises	23603	15	1574
(33) Radisson SAS Hotels Worldwide	22608	93	243
(34) Hospitality Properties Trust	22367	167	134
(35) Walt Disney World Resorts	21357	18	1187
(36) Tharaldson Lodging	20713	308	67
(37) Shangri-La Hotels & Resorts	20249	40	506
(38) U.S. Franchise Systems (Microtel, Hawthorn, Best)	19560	223	88
(39) Marcus Hotels & Resorts (w/Baymont)	19181	173	111
(40) Nikko Hotels International JAL Hotels Co.	18846	52	362
(41) Olympus Real Estate Corporation	18773	132	142
(42) Westmont Hospitality Group	18491	92	201
(43) Choice Hotels Europe	18356	266	69
(44) Choice Hotels Canada	17934	213	84
(45) Hotels & Compagnie, France	17340	335	52
(46) Omni Hotels	16073	45	357
(47) Canadian Pacific Hotels	16029	35	458
(48) Crossroads Hospitality Company, L.L.C.	15948	132	121
(49) Homestead Village	15254	122	125
(50) ANA Hotels International	15132	44	344
Total	3913261	29461	133

Source: 1999 Directory of Hotel & Motel Companies, www.ahma.com.

Note: Accor actually operates about 3000 hotel properties worldwide, including Motel 6, i.e. considerably more than mentioned in the above Top 50 list.

Appendix 6.3 European Youth hostel statistics (1997)

Organisation	No. of hostels	Hostels in IBN	% in IBN	No. of over-nights	Overnights per hostel	% of hostels in W.Europe	% of European over-nights
DJH, Germany	611	19	3	10,240,092	16,760	27	45
STF, Sweden **	300	2	1	1,089,227	3,631	13	5
YHA England & Wales, UK	235	29	12	2,102,338	8,946	11	9
FUAJ, France	186	38	20	1,272,924	6,844	8	6
REAJ, Spain	179	4	2	1,524,939	8,519	8	7
SRM, Finland **	132	1	1	382,062	2,894	6	2
DANHOSTEL, Denmark	103	3	3	1,072,086	10,409	5	5
ÖJHV/ÖJHW, Austria	93	13	14	1,179,759	12,686	4	5
Norwegian Youthhostels **	92	2	2	400,000	4,348	4.1	1.7
SYHA, Scotland, UK	80	11	14	633,607	7,920	4	3
SJH, Switzerland *	70	22	31	799,610	11,423	3	3
AIG, Italy	54	6	11	715,646	13,253	2	3
An Oige, Ireland	37	5	14	203,644	5,504	2	1
NJHC, Netherlands	35	5	14	679,598	19,417	2	3
BÍF, Iceland **	31	0	0	~77,500	~2,500	1	0,3
VJH, Belgium	22	5	23	253,986	11,545	1	1
MOVIOVEM, Portugal	22	7	32	228,777	10,399	1	1
CAJL, Luxembourg	15	1	7	104,340	6,956	1	0.5
LAJ, Belgium	9	2	22	170,642	18,960	0.4	1
NINI, Northern Ireland	8	4	50	~40,000	~5,000	0.4	0.2
Greece	1	1	100	~10,000	~10,000	0.0	0.0
Western Europe	2315	180	8	23.180.777	10.013	100	100
Worldwide	4500	273	6	31.000.000	6.889	////////	////////
Europe as % of world	51	66	////	75	////////	////////	////////

Sources: www.iyhf.org/eufed/, www.vandrerhjem.no, www.stf.se, www.mek.fi (+www.srmnet.org), and www.itn.is/~gpalsson/aerr/ensk/bif_ensk.htm.

Note: * Associate member of The European Union Federation of Youth Hostel Associations EUFED. ** Not a member of EUFED. The numbers of hostel guest nights for Iceland, Northern Ireland and Greece are estimates only.

The IBN numbers are as counted on the www.iyhf.org/ site on 14 May 1999. The hostel data for Sweden and Finland are from 1998.

Appendix 6.4 A review of (lack of) booking functionality for European youth hostels

Country	Web address	Booking (request) function?
Austria	www.oehv.or.at/	Yes, on request basis to the association's office.
Belgium	No	
Denmark	www.danhostel.dk/	No
Finland	www.srmnet.org/	No
France	www.fuaj.org/	No - but 30 of 186 hostels have e-mail box
Germany	www.djh.de/	No
Greece	No	
Iceland	www.itn.is/~gpalsson/aerr/ensk/bif_ensk.htm	No
Ireland (Republic of)	www.irelandyha.org/	No
Italy	www.hostels-aig.org/	No.
Luxembourg	www.youthhostels.lu/	No
Netherlands	www.njhc.org/	No - but all hostels described uniformly
Norway	www.vandrerhjem.no/	Yes
Portugal	No	
Spain	No	
Sweden	www.stfturist.se/	No
Switzerland	www.youthhostel.ch/	Yes, standard mask to be filled in.
United Kingdom: England & Wales Northern Ireland Scotland	www.yha.org.uk/ www.hini.org.uk/ www.syha.org.uk/	No No A free form e-mail can be sent to the Scottish reservations centre.
Total: 20 organisations	16 with active Web addresses	Only a few with booking request facilities.

On the Austrian site booking requests can be sent to Austrian Youth Hostel Association's office, both for domestic hostels and for foreign IBN hostels. There are no photos of the Austrian hostels, only basic contact details. Probably only a few people would send a booking request to the Austrian Youth Hostel Association on the basis of practically no information.

There were more than 10 000 visitors per month to the Italian site in the spring of 1999³⁰² - which is more than to the Norwegian site, where there were 8000 visitors per month. (Hostels in Italy count almost twice as many overnights as those in Norway). A computer-to-fax booking request system is established in a network of only four of the 54 Italian youth hostels.

There is good information and photo material on the Dutch hostels, presented in a uniform way, with photos, but bookings or booking requests cannot be made from the site.

302 20 303 visitors in eight weeks from 17 March 1999 to 11 May 1999, according to counter.

For most of the Swiss hostels the message *Zu dieser Jugi sind sonst keine Infos vorhanden* appears. But at least there is a photo of each of the hostels. And all the Swiss hostels appear to have an e-mail box, to which a fill-in-the-blanks type of booking request can apparently be sent. In all instances the customer is required to state both telephone and fax-number, whereas e-mail address is not required! Although all the Swiss hostels have been given e-mail addresses, obviously not all of them are actually using and checking the e-mail box. As a matter of fact the Swiss Youth Hostel Association receives the e-mail in all instances, since many, especially small, hostels do not have Internet access. Each booking request is printed out by the Association, and *manually* faxed to the given hostel! When the number of booking enquiries reaches a certain volume, its routing to the individual hostels' fax-machine should at least be automated - since the staff of the Association hardly have time for such manual handling - and/or the main hostels, measured by the number of booking requests, should be encouraged (or required) to get and use an e-mail box, which would also greatly facilitate feedback from the hostels to the Internet users.

Outside Western Europe, but in the Mediterranean area, in Israel, a booking request form for both hostel packages and individual hostel nights is placed on the site of Hostelling International Israel.³⁰³ Payment is by credit card, but the customer will receive confirmation of the reservation before money is deducted from the credit card.

303 www.youth-hostels.org.il/

Appendix 6.5 Why the hostels in IYHF's IBN system cannot be booked through the Web

The current considerations of IYHF as to why the hostels in IBN cannot be booked via the net for the time are given below.

In June 1999 IYHF raised a number of issues and considerations in connection with Internet bookings: Although security for payment raised some concerns, this was not the main reason for not opening IBN to everybody over the Web. IBN is a system created for the FIT (Free Independent Travellers) market, and the FIT market is only a relatively small proportion of the youth hostel market segment. Most FITs stay in key city hostels on their arrival as their first point of entry and they do not necessarily reserve the whole journey. There are plenty of alternatives for them to make a booking once they reach their first point of arrival, which are probably easier and cheaper. Credit card bookings for international travel also involve high bank charges, which is a disadvantage for budget travellers.³⁰⁴

The youth hostel movement involves more than 60% of domestic travel and even within the 10 million international overnights (about one in every three of the 31 million hostel overnights worldwide mentioned in Appendix 6.3 is international), the IYHF roughly estimates that at least three million would involve groups. It is fairly obvious that group bookings require a totally different set-up, which is quite different from IBN. Furthermore, most of the national Associations already have their own booking systems and some of them have already started Internet bookings. The IYHF is still evaluating the evolution of its IBN booking system at the moment. If all national Associations gradually move to Internet bookings, IBN will probably not be needed in due course, or alternatively, the IYHF may co-ordinate the Internet bookings, but this will involve considerable negotiation between countries, and no development of such a kind can be achieved until an international agreement has been reached. IYHF has consulted a wide range of key city hostel managers and the general consensus is that key city hostels already lack sufficient capacity during peak periods. Opening IBN or any other system at this stage would only cause more disappointment to the customer, according to IYHF.

304 30 June 1999, Mr. R. Lau, Secretary General, IYHF.

Appendix 6.6 Hostelling and train-travel in the Nordic countries

The hostel in Stamsund, northern Norway, recently received a prize as the best hostel in the world. Stamsund is located on the island of Lofoten, between Bodø and Narvik in northern Norway. How to get there? Take the train to either Bodø or Narvik, and then sail from there. Train to Bodø: Express train Oslo-Trondheim, night train Trondheim-Bodø. Cheapest price second class ticket, one-way, sleeping in a three-bed carriage: NOK 1080 (\$143 one-way, of which the sleeper supplement is \$15, i.e. $128 \times 2 = \$256$ for a return ticket excluding the sleepers).³⁰⁵ Then comes the coastal steamer trip from Bodø, departing at 15.00, arriving Stamsund at 19.30.³⁰⁶ The price per night at Stamsund Hostel is NOK 80 (\$11), and it is even free to use the boat and fishing equipment!³⁰⁷ Another very recommendable destination is Bergen. The harbour area is very beautiful, and so is the train journey there, which is ranked as one of the top 20 railway experiences in the world by the magazine *The International Railway Traveller*. So, if you take the night train from Oslo, do get up early to enjoy the scenery. Seeing Norway by train, and staying at youth hostels is great, and affordable provided one travels on a rail-card with unlimited travel (such as InterRail or ScanRail, see below).

An InterRail card for 26+ covering each country in Europe costs DKK 3600 (\$537) for unlimited 2nd class travel for a whole month, and if one travels only in Norway-Sweden-Finland the price is *only* \$321, i.e. little more than a simple return ticket. The ScanRail bargain gives you unlimited travel by train for 21 days in the three countries mentioned plus in Denmark for \$315 (age 26-59) 2nd class, or by 1st class for \$100 extra. Clearly it must be hard to sell full-price 2nd class individual rail-tickets to holiday-makers, when one can get unlimited travel for such a bargain price!

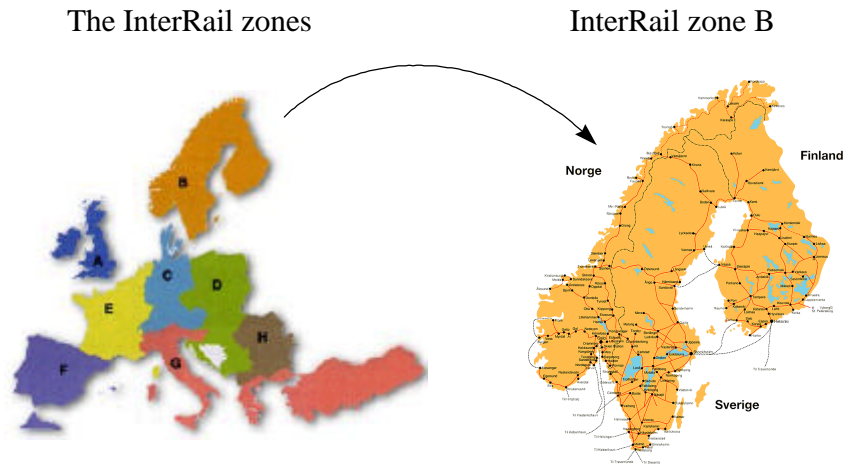
Personal travel experience 1 (Norway, Sweden, Finland): the writer once bought a ScanRail card and travelled around the Nordic countries, stayed at many youth hostels (also several places in Norway), on several night trains, on one ferry and twice slept in the open (cf. *allemansträtten*), and had the experience of a lifetime. According to memory the trip went as follows: Copenhagen - Stockholm - Mora - night train to Kiruna - Narvik (hostel) - Luleå (hostel) - Oulu - Helsinki (hostel) - night train to mid-Finland (hostel) - Turku (hostel) - via night ferry to Stockholm and straight on to Oslo (hostel) - night train to

305 www.nsb.no/person/index_en.html - online train booking possible, but only for Norwegians! Off-season train tickets were available 19 April - 5 May at about half price.

306 www.hurtigruten.com/hr/us/5/ruteplan2.html - online booking not possible. No prices given.

307 www.vandrerhjem.no.

Trondheim (hostel) - via Oslo and night train from there to Bergen (hostel) - via Oslo to Stavanger - Kristianssand - via Hirtshals to home sweet home.



Source: www.dsb.dk/rejser_udland/ - hereunder:
www.dsb.dk/rejser_udland/produkter/interrail98/interrail_zonekort.jpg
www.dsb.dk/rejser_udland/produkter/interrail98/zone_b.gif

Note: ScanRail covers the same countries as InterRail zone B plus Denmark.

Personal travel experience 2 (Europe in general): now that InterRail has been mentioned in relation to Norway and the remaining Nordic countries, it should be noted that InterRail is not only a bargain (even for those 26⁺) for leisure travel but certainly also for business travel involving multiple destinations in several European countries. One business class return ticket by air between European cities may cost as much as two months' unlimited rail-travel, albeit by 2nd class. The night train will take you to a morning meeting in almost any city from almost anywhere in Europe.

Personal travel experience 3 (Norway by car): another way of experiencing Norway is by car, combined with either hostel or hotel accommodation. At least the latter may be bought as a package of ferry and stays at 5-6 different accommodations. The writer saw the Hardangervidda, Hardangerfjorden and a bit of Sognefjorden once that way, and to be fair to one of NIH's hotel competitors, this was also a great experience (Larvik to Porsgrunn, Rauland, Norheimsund, Leikanger, *Geilo*, *Rjukan* to Larvik).³⁰⁸ Since, according to the

308 NIH may be pleased to know that one of the hotel bookings failed. But a room in another hotel was granted - in which the bottom fell out of the bed! This was all part of the fun.

NIH site there are hostels in Geilo and Rjukan, and in 90 other places, clearly there are plenty of opportunities to make car/hostel round-trips in Norway.

Appendix 6.7 Costs and benefits seen from the point of view of the Matka-Ruka letting agency

- (a) Initial investment, say FIM 200 000 (to systems developer, and for design of Web pages).
- (b) Annual recurrent costs, say FIM 20 000 (to the ISP, Internet Service Provider).
- (c) Fee (cost) per booking, FIM 20 (payable by Matka-Ruka to developers).
- (d) Saved staff-time, 0.3 hours $((2 \times 10) - 2 = 18 \text{ minutes}) \times \text{FIM } 100 \text{ per hour} = \text{FIM } 30$.
- (e) Commission to agency is about FIM 400 per booking. Ten percent of the Internet bookings could be additional. These two factors correspond to $\text{FIM } 400 \times 0.10 = \text{FIM } 40$ per Internet booking p.a.
- (f) Extra Gross Profit per Internet booking = (d) + (e) - (c) = $30 + 40 - 20 = \text{FIM } 50$ per net booking.

Investment appraisal - Matka-Ruka

Year (Date)	1995 (Dec. 31)	1996 (Dec. 31)	1997 (Dec. 31)	1998 (Dec. 31)	1999 (Dec. 31)
Total no. of bookings	-	25000	31400	32400	33600
Internet bookings as %	0	1	2	6	12
1 No. of Internet bookings	0	250	630	1950	4050
2 Extra GP per Internet booking, FIM	-	50	50	50	50
3 Extra GP for Internet booking p.a., FIM	0	12500	31500	97500	202500
4 Additional GP, accumulated, FIM	0	12500	44000	141500	344000
5 Initial investment, FIM	200000				
6 Annual fixed costs, FIM		20000	20000	20000	20000
7 Initial investment+annual costs, FIM (5+6)	200000	20000	20000	20000	20000
8 Initial investment + fixed costs accumulated	200000	220000	240000	260000	280000
9 Net cash flow p.a., FIM (3-7)	-200000	-7500	11500	77500	182500
10 Net cash flow, accumulated, FIM (4-8)	-200000	-207500	-196000	-118500	64000
11 Discount factor, ~8% p.a. (7.792% p.a.)	0,741	0,798	0,861	0,928	1,000
12 Net cash flow p.a. discounted (9 / 11)	-270008	-9393	13362	83539	182500
13 Net cash flow, discounted, accumulated	-270008	-279401	-266039	-182500	0

- (a) Normally there would be an initial investment involved, which for Matka-Ruka has at least partly been time-used as a participant in the development process of the booking system.

For others, interested in acquiring a similar system there would be an up-front price for the internal booking system, the Internet bridge, and the construction of Web pages. The internal booking system (with a firewall and Internet bridge), would cost anywhere between FIM 100 000 and FIM 400 000. The price at the low end of the range will cover a system for one or two internal operators - and it will be open towards the Internet. It is for a system with less than 200 hotel rooms or cottages. On top of this come costs for standard hardware (such as a pentium PC as booking server - whereas workstations probably exist). At the high end of the price range there can be an unlimited number of workstations and an unlimited number of cottages or hotel rooms. There will then be several user levels (administration-sales-maintenance-owner-additional sales offices (bookings only), i.e. in addition to the normal sales office (like Matka-Ruka) there can be other sales terminals that can make the bookings (e.g. municipal travel information kiosks in various places). There will be a fax sending and an automatic fax reading facility.

(b) There will be certain recurrent annual costs for renting server space at the ISP. As a pure guess this has been put at FIM 20 000 p.a.

(c) In the Matka-Ruka instance the arrangement is that Pehmo/JSOP gets a total of FIM 20 from Matka-Ruka for every Internet booking, and in this way the former recoup their development costs.

(d) Matka-Ruka saves costs when customers book through the net. It takes no more than two minutes to process a filled in cottage booking form received by e-mail, including sending a confirmation manually by e-mail. To sell by phone takes the answering of two phone calls each lasting about 10 minutes, i.e. 20 minutes for answering two calls, 18 minutes of which is saved.

(e) Matka-Ruka gets about 20% of the revenue per booking ($20\% \times 2000 = \text{FIM } 400$), leaving 80% for the cottage owner. The Internet booking site *has* resulted in additional bookings. For example, some foreign customers who have never been to Kuusamo before, and who have not been sent any brochures, have found Kuusamo on the Web and made their cottage booking. Not all Internet bookings are additional of course; the number which are is unknown. If, for instance 10% of the Internet bookings are additional, this means that the additional revenue (additional gross profit) per Internet booking is about $\text{FIM } 400 \times 0.1 = \text{FIM } 40$.

(x) In some cases Web usage substitutes a printed catalogue and postage. This has not been taken into account.

Appendix 7.1 The players in the Nordic package tour market - 1998

Tour brand:	A Sweden	B Norway	C Denmark	D Finland	E Poland	A+B+C Scandinavia	ABCD 4 Nordic	ABCDE 5 markets
Ving	500	240	136		22	876	876	898
Spies	125		215	75		340	415	415
Tjaereborg			183	76		183	259	259
Saga		200				200	200	200
Always	230					230	230	230
SLG Group	855	440	534	151	22	1829	1980	2002

Fritidsresor (est.)	460			140		460	600	600
Star Tour		300	193			493	493	493
Royal Tours (est.)	120					120	120	120
Hasse (est.)				80		0	80	80
Other brands (est.)	75	35	27	20		137	157	157
+Scan Holiday					85	0	0	85
Fritidsresor Group	655	335	220	240	85	1210	1450	1535

Aurinkomatkat - Sun-tours				283		0	283	283
Finnmatkat				142		0	142	142
Finnair Travel Serv.				425		0	425	425

Apollo	300	2	48			350	350	350
---------------	------------	----------	-----------	--	--	------------	------------	------------

Larsen Rejser			59			59	59	59
Simons Charter			45			45	45	45
Herning Rejser			44			44	44	44
Alletiders (Kuoni)			148			148	148	148

Top five groups	1810	777	950	816	107	3537	4353	4460
Orbis Travel					272			
All others	90	173	222	134	301	485	619	920
Total market	1900	950	1172	950	680	4022	4972	5380

Market shares (%) as in Table 7.15	A Sweden	B Norway	C Denmark	D Finland	E Poland	A+B+C Scandinavia	ABCD 4 Nordic	ABCDE 5 markets
Ving (within SLG)	26%	25%	12%	0%	3%	22%	18%	17%
SLG Group (Airtours)	45%	46%	46%	16%	3%	45%	40%	37%
Fritidsresor (Thomson)	34%	35%	19%	25%	13%	30%	29%	29%
Finnair Travel Group	-	-	-	45%			9%	8%
Apollo	16%	0%	4%	0%	0%	9%	7%	7%
Alltidars (Kuoni)	-	-	13%	-		4%	3%	3%
Top five groups	95%	82%	81%	86%	16%	88%	88%	83%
All others	~5%	18%	19%	14%	84%	12%	12%	17%
Total (%)	100%	100%	100%	100%	100%	100%	100%	100%
Market volume (x1000)	1900	950	1172	950	680	4022	4972	4972

Average market price per tour (\$)	616	695	569		591		
Exchange rates:	SEK:	NOK:	DKK:			DM:	£:
\$ per 100 units (1998)	12.58	13.24	14.93			56.87	165.65

Note: The prices and quantities mentioned for Norway were the expectations as of April 1998. The quantities on the Norwegian market for the full year may have been negatively affected by a strike in June 1998 (www.aftenposten.no – 14 June 1998 - *40 000 charter holiday makers hit by strike*). And the average price on the Norwegian market may have been negatively influenced by a price war in the autumn of 1998 (www.aftenposten.no - *Full price war on charter holidays*). Fritidsresor and Star Tours are distinct brands but are perceived as being quite closely linked.

Comment:

In Scandinavia almost 79% of the market is held by brands which have foreign owners. Other named tour operators on the Danish market are: Dansk Folkeferie (43k), Århus Charter (18k), and Club la Santa (12k).

Appendix 7.2 Ving's Internet package tour sales - and European totals – 1998-1999-2002, in volume and value (estimates)

1998-prices								
<u>Total packs (x 1000)</u>	<u>1998</u>	<u>1999</u>	<u>2002</u>	<u>\$ per pack.</u>	<u>Total \$ mill.</u>	<u>1998</u>	<u>1999</u>	<u>2002</u>
Ving Sweden	500	500	510	616	Ving Sweden	308	308	314
Ving Norway	240	250	255	695	Ving Norway	167	174	177
<u>Ving Denmark</u>	<u>136</u>	<u>150</u>	<u>170</u>	<u>569</u>	<u>Ving Denmark</u>	<u>77</u>	<u>85</u>	<u>97</u>
Ving Scandinavia	876	900	935	630	Ving Scandinavia	552	567	588
<u>Other European</u>	<u>79124</u>	<u>79900</u>	<u>82265</u>	<u>568</u>	<u>Other European</u>	<u>44968</u>	<u>45408</u>	<u>46753</u>
<u>Europe total</u>	<u>80000</u>	<u>80800</u>	<u>83200</u>	<u>569</u>	<u>Europe total</u>	<u>45520</u>	<u>45975</u>	<u>47341</u>
<u>Packages via net (000)</u>	<u>1998</u>	<u>1999</u>	<u>2002</u>	<u>\$ per pack.</u>	<u>Net sales \$ mill.</u>	<u>1998</u>	<u>1999</u>	<u>2002</u>
Ving Sweden	12	30	92	616	Ving Sweden	7.5	18.5	57
Ving Norway	2	5	36	695	Ving Norway	1.3	3.3	25
<u>Ving Denmark</u>	<u>0</u>	<u>1</u>	<u>17</u>	<u>569</u>	<u>Ving Denmark</u>	<u>0.0</u>	<u>0.6</u>	<u>10</u>
Ving Scandinavia	14	36	145	630	Ving Scandinavia	8,9	22,4	91
<u>Other European</u>	<u>65</u>	<u>210</u>	<u>1437</u>	<u>556</u>	<u>Other European</u>	<u>36</u>	<u>118</u>	<u>809</u>
<u>Europe total</u>	<u>79</u>	<u>246</u>	<u>1582</u>	<u>569</u>	<u>Europe total</u>	<u>45</u>	<u>140</u>	<u>900</u>
<u>Ving as % of Europe</u>	<u>18</u>	<u>15</u>	<u>9</u>		<u>Ving as % of Europe</u>	<u>20</u>	<u>16</u>	<u>10</u>
<u>% of packages via net</u>	<u>1998</u>	<u>1999</u>	<u>2002</u>		<u>% of \$ sales via net</u>	<u>1998</u>	<u>1999</u>	<u>2002</u>
Ving Sweden	2.5	6	18		Ving Sweden	2.5	6	18
Ving Norway	0.8	2	14		Ving Norway	0.8	2	14
<u>Ving Denmark</u>	<u>0</u>	<u>1</u>	<u>10</u>		<u>Ving Denmark</u>	<u>0</u>	<u>1</u>	<u>10</u>
Ving Scandinavia	1.6	4	15		Ving Scandinavia	1.6	4	15
<u>Other European</u>	<u>0.08</u>	<u>0.3</u>	<u>1.7</u>		<u>Other European</u>	<u>0.08</u>	<u>0.3</u>	<u>1.7</u>
<u>Europe total</u>	<u>0.10</u>	<u>0.30</u>	<u>1.90</u>		<u>Europe total</u>	<u>0.10</u>	<u>0.30</u>	<u>1.90</u>

Appendix 7.3 Internet commerce in Sweden 1998

Product category	SEK mill. Consumer	SEK mill. Business	SEK mill. Total	% Consumer	% Business	% Total
Computer hard/soft	137	1453	1591	27	77	66
Paper products	0	400	400	0	21	17
CDs	100	0	100	20	0	4
Books	55	30	85	11	2	4
Gaming	60	0	60	12	0	3
Travel (Ving only)	60	0	60	12	0	3
Tickets	45	5	50	9	0	2
Tools, etc.	13	3	16	3	0	1
Food	14	2	15	3	0	1
Flowers	13	1	15	3	0	1
White goods	5	1	6	1	0	0
Cosmetics	3	0	3	0	0	0
Total	505	1895	2400	100	100	100
Percent	21%	79%	100%			

Source: Based on Faktaruta, according to Veckans Affärer, 22 February 1999, www.va.se, cf. details below.

Swedish Internet commerce to consumers and businesses 1998

	SEK mill.	Started	Consumer	Business	Net (%)	Product category
Dell	650		10%	90%	Large	Computer products
WM-data/Owell	600	Jan., 97	0%	100%	8	Computer products
Pappersgruppen	400	Oct., 97	0%	100%	18	Paper products
Dustin	200	May, 95	10%	90%	30	Computer products
Apollo	*					Travel
24IT	103		38%	62%		Computer products
Boxman	~90	Dec., 97	100%	0%	100	CDs
Bokus	80	Aug., 97	65%	35%	100	Books
ATG /Interbet	60	Feb., 98	100%	0%	0.6	Gaming
Ving	60	Apr., 98	100%	0%	3	Travel
SF	50	Dec., 97	~90%	~10%	10	Tickets
PC-Express	~27.5	Apr., 98	30%	70%	Large	Computer products
Claes Ohlsson	16		~80%	~20%	6	Tools etc.
PrisXtra	15	Aug., 97	~90%	~10%	5	Food
Interflora	~14.5	Nov., 95	~90%	~10%	~7.5	Flowers
Buyonet	10		50%	50%	100	Software
SJ	*					Travel
Vitvarumäklarna	6	Oct., 97	90%	10%	25	White goods
Skivhugget	~7.5		~100%	~0%	15	CDs
Ad Libris	5	97	65%	35%	100	Books
Åhléns	5	Aug., 97	100%	0%	Low	Cosmetics / CDs
Total	2400		21%	79%		

Source: Faktaruta, according to Lindsten, Per Olof and Weje, Sandén, 1999, *Electronic commerce - The future way of doing business is already established on the Net* (in Swedish), Veckans Affärer, 22 February 1999, www.va.se.

Note: A few places the middle value of a range - or an estimate based on the text - are added, market by '~'. Missed by Lindsten and Sandén: Apollo (~SEK 120 mill.). SJ should have been in there (~SEK 6 mill., \$0.8 million) as well. And so should SAS (probably).

* Missing from source.

Appendix 7.4 Ving: cost savings, break-even and pay-back

Normally it takes five telephone conversations to sell a trip for Ving Sweden. The cost of staff time for such five telephone conversations may be SEK 275 (\$35, since \$1 = SEK 8). Now Ving gets an average of one e-mail per sold package. In 1998 Ving Sweden received 35 e-mails per day, and it took about four hours to respond to them. The pure working time costs could then be SEK ~ 125 per hour $\times 4 =$ SEK 500 per 35 trips sold, i.e. SEK 15 per trip, or only about \$2! Now we are able to calculate that the pure time-saving per Internet booking is about SEK $275 - 15 =$ SEK 260 (\$33) per sold trip. Let us round down to SEK 250 (\$31.45, say \$30). This means that for every million SEK investment is required the shifting of 4000 trips from telephone sales to Internet sale. With an investment of e.g. SEK 4 million (\$0.5 million) the requirement is 16 000 trips - accumulated, disregarding interest - to break-even, but this is a *purely hypothetical* investment figure only for Ving Sweden. In this example we have not taken account of the fact that some of those who endeavour to make Internet bookings may have made a few telephone calls before making the booking, but to what extent this is the case can of course be investigated by Ving. The Ving Norway and Ving Denmark sites together could require the same amount, i.e. another SEK 4 million. And then comes Ving Poland, which could be an information only site initially, rather than a booking site, requiring less investment than the booking sites for each of the Scandinavian countries. The savings per package sold via the net would be less in Norway than in Sweden, and even less in Denmark, because of lower economies of scale. Since the package tour market in Poland is rather small, and since the Internet has very low penetration in Poland, no measurable cost savings can be expected from a Polish site. But some additional sales may be achieved in Poland through an information only site.

There will now follow some hypothetical break-even considerations, the conclusion of which is that the benefits from the Ving Sweden site alone, given the conservative Internet sales indicated by Table 7.16 and the underlying Appendix 7.2, can pay back a SEK 9 million investment in the sites of all four different countries in only two years (1998 to the end of 1999), although the booking sites were only in operation from April 1998, not the beginning of 1998, so it could be argued that pay-back is only 21 months in the example given. There are two main ways of justifying IT investments: either through savings or through extra gross profit because of additional sales. Clearly, savings may come from a combination of the two, but in the following example cost savings are included as the only benefit.

Break-even considerations - principles and hypothetical example

A) No. of units to reach break-even $\frac{\text{Investment}}{\text{Cost saving per unit [sold through the Internet]}}$.		
via cost savings		

B) or via $\frac{\text{Investment}}{\text{gross profit per additional unit [sold because of the website]}}$.		
additional sales:		

or: $\frac{(\text{Investment} - \text{gross profit for additional units sold because of the website})}{\text{Cost saving per unit [sold through the Internet]}}$		
C) both		

<i>Hypothetical example, based on cost savings</i>		
Ving Sweden	$\frac{\text{SEK 4 million}}{\text{SEK 250}}$	= 16 000 tours

Ving Norway	$\frac{\text{SEK 2 million}}{\text{SEK 150}}$	~ 13 000 tours

Ving Denmark	$\frac{\text{SEK 2 million}}{\text{SEK 125}}$	= 16 000 tours

Ving Poland	$\frac{\text{SEK 1 million}}{\text{No}}$	= No pay-back soon ³⁰⁹

Ving, total:	$\frac{\text{SEK 9 million}}{\sim \text{SEK 20}}$	~ 36 000 + 10% to be sure ³¹⁰ = 40 000

309 Given the tremendous Internet penetration in *Finland*, from a Scandinavia Leisure Group point of view it might be considered better to invest in establishing Internet booking sites for the SLG brands Spies and Tjaereborg on the fair-sized Finnish tour package market, rather than providing a website - not to mention a full blown Internet booking site - for the rather small Polish market.

310 Interest should be taken into account in a real investment analysis (involving the calculation of the net Present Value of the investment, etc.), which in simple break-even analyses can be done by using low estimates on the benefit side and high estimates on the cost side.

11. Indeks

- 2001
 - 14; 29; 50-51; 55; 70; 74; 77; 82; 86; 119; 146; 157; 165; 192; 194
- 2002
 - 11-12; 14; 26-29; 35-36; 48; 55; 74; 78; 82; 86; 97; 115; 136; 177; 192; 202; 204; 207-208; 226; 228; 249; 252-253; 282; 284
- 2003
 - 9; 12; 15; 27; 29-30; 48; 175; 191-192; 208; 227-229; 248-250
- 4P
 - 18-19
- accommodation
 - 1; 9; 11; 14; 16; 34; 90-91; 125-127; 134; 137-139; 148; 161-162; 178; 203; 207; 209; 218-219; 221; 241-242; 247; 278
- Accor
 - 111
- ADAC
 - 164
- Aer Lingus
 - 40
- Aeromexico
 - 40
- Africa
 - 111
- Air Canada
 - 40; 253
- Air China
 - 259
- Air France
 - 32; 40
- Air New Zealand
 - 40
- Air UK
 - 40; 42
- airbus
 - 102
- airline
 - 14; 39; 40-42; 49-50; 52-55; 151; 169; 176; 194-195; 208; 213; 217; 222; 227; 259
- airticket
 - 41; 50; 82; 201; 248; 252
- Airtours
 - 12; 168; 170; 173-175; 177; 181; 185; 196-197; 225; 283
- AirTran
 - 40
- Alamo
 - 111; 266
- Alaska Airlines
 - 40
- Alitalia
 - 32; 40
- All Nippon Airways
 - 40
- Alletiders
 - 12; 187; 196; 282-283
- Alletiders Group
 - 12; 187; 196
- Alltours
 - 176; 178
- Aloha Airlines
 - 40
- Alpitour
 - 188
- Always
 - 185; 282
- Amadeus
 - 43-44; 49; 51; 55; 72; 112; 134; 177
- America West Airlines
 - 40
- American
 - 14-15; 29; 36; 39-41; 46; 48; 60-61; 65; 70; 90; 92; 113; 137; 215; 222; 253; 259; 263
- American Airlines
 - 40
- American Trans Air
 - 40
- Amsterdam
 - 262
- Amtrak
 - 42; 59-61; 90; 92-94; 106; 113; 222; 243
- annual accounts
 - 53; 69; 99; 105; 168; 240
- annual report
 - 52; 61; 66; 73; 188; 194; 217
- Ansett
 - 40; 259
- AOL
 - 132
- Apollo
 - 12; 187; 196; 201-202; 204-206; 212-213; 220-221; 223; 237; 282-283; 286
- Arriva
 - 97-98; 225; 265
- Asia
 - 232; 241
- auction

43; 176; 228
Aurinkomatkat
 187; 282
 Australia 40; 91; 95; 106; 107; 108; 259
 Austria
 59; 61; 95; 103; 128-129; 133-135; 188; 201;
 220-221; 237-238; 271; 273-274
 Austrian
 40; 188; 274
 Austrian Airlines
 40; 188
 availability
 16; 18; 47; 50-51; 57; 59; 61; 68; 71; 75; 80-81;
 114-116; 124; 127; 129; 131; 133; 135-136; 150-
 151; 155; 164-165; 175; 177; 180-184; 187-188;
 194-195; 198; 205; 209-210; 218
 Aviacó
 39; 259
 Avis
 110-111; 113; 266
 B&B
 126; 148
 BA
 32; 42; 47-49; 217; 220-221
 Baltic
 60; 91; 115; 149
 bank
 36; 72; 105; 185; 190; 256-257; 276
 Beijing
 91
 Belgian
 61; 113
 Belgium
 32; 58-59; 89; 95; 103; 128-129; 188; 231; 238;
 271; 273-274
 benefit
 66; 69; 120; 287-288
 Bergen
 142; 277-278
 Berlin
 15; 92; 97; 229
 best buy
 80; 82; 132
 Best Western
 241
 bookers
 20; 75; 132; 177; 179; 190; 202-203; 214
 booking
 9-11; 14; 18; 39; 41-43; 46-47; 49-51; 54-55; 61;
 65; 67; 69; 71-76; 78; 80-81; 86-87; 89; 90; 92-
 94; 97; 99-101; 103-105; 107-108; 115-122;
 124-126; 129-135; 138-143; 145-161; 164-165;
 175-176; 178-191; 194-195; 198-200; 202-203;
 205; 208-210; 213; 215; 218-220; 222; 227;
 235; 242-243; 249; 259; 269-270; 274-277; 280-
 281; 287-288
 booking system
 9-10; 42; 49; 69; 120; 122; 129-131; 134; 150-
 154; 156; 164; 175; 198-199; 209; 218; 235;
 270; 276; 280-281
 Bookings NL
 9; 11; 128-131; 220-221; 236
 Bord Failte
 134
 BornholmsTrafikken
 115-116
 brand
 12; 47; 135; 148; 159; 174; 183-184; 187; 189;
 192; 195-196; 200-201; 213; 248; 265; 282
 Brazil
 40
 Britain
 24; 106; 169; 183; 198
 Britannia Air
 169
 British
 10; 40-42; 46-48; 53; 59; 89; 111; 115; 117-118;
 151; 169; 170; 173; 193; 216; 221; 226; 229;
 233; 236; 265
 British Airways
 40-42; 46-48; 53; 89; 221; 229; 233; 236
 British Midland
 40; 42; 151
 British Rail
 59; 226
 Brittany Ferries
 116
 Brussels
 32; 87; 89; 231
 Braathens
 11; 32; 40; 42; 52-54; 71; 208; 217; 220; 222;
 233; 236
 Btx
 65; 131
 Budget
 113; 169; 212; 266
 Budget Travel
 169
 Bulgaria
 59; 104
 bus
 11; 79; 89; 97-102; 104-108; 215; 263-265
 bus operator
 11; 97; 99-102; 104
 busabout
 102

C++
 68
cable TV
 70; 95
Caledonian Macbrayne
 116
call back
 116
call centre
 42; 72; 89; 132-133; 174-175; 195; 198; 249
camping
 10; 125; 137; 148; 161-165; 210; 242; 245
Canada
 30; 34; 40; 42; 59; 83; 91; 93; 95; 106-108; 169;
 207; 230; 242-243; 253; 263
Canadian
 40; 90-91; 240; 249; 263
Canadian Airlines
 40; 240
Cap Gemini
 113
car rental
 9; 34; 43; 97; 109-111; 113-115; 212; 220; 243;
 245; 250; 255
Caremar
 116
cargo
 68; 101
Carlson Leisure Group
 169
Carnival
 248-249
Cathay Pacific
 40
CGEA
 98; 99
cheep
 43

China
 40; 59; 91-92; 259
China Eastern Airlines
 40
China Southern Airlines
 40
Club Med
 188
coach
 88; 97-100; 102-103; 105-106; 108; 113; 149;
 209; 223; 243; 263-265
Cobol
 199
Color Line
 116; 147
competitive advantage
 11; 16; 19; 21; 74; 94; 217

Compuserve
 132
Condor Ferries
 116-117
Continental Airlines
 40
Copenhagen
 19; 83; 101; 105; 123; 231; 257; 277
Corsica
 116
Cosmos
 182
cost
 11; 16; 52; 67; 69; 73; 75; 84; 90; 94; 105-106;
 127; 131; 145; 153; 155; 165; 179; 203; 213;
 217; 278; 280; 281; 287-288
cottage
 125; 149; 150-152; 154-160; 174; 180; 210-211;
 213; 230; 281
cottage letting agencies
 125; 154-158; 174; 210-211
cottage letting agency
 149; 156; 158; 160; 213
Country Holidays
 180
credit card
 37; 47; 50-51; 55; 65; 88; 102; 105; 107; 115-
 116; 118; 124; 129; 135-136; 155; 177; 181;
 183; 184; 190; 199; 204; 208; 210; 216; 256;
 257; 275
Croatia
 161

Croatian
 104
CRS
 230
cruise
 34; 248; 250
Crystal
 169; 180
Czech
 59-60; 103; 131
Dagens Nyheter
 199-200
DanCenter
 155-156
Danish

9; 12; 15; 24; 54-55; 59-61; 64; 73; 75; 78-81; 83-84; 87; 92; 94-95; 105; 121-122; 126-127; 134; 147; 154-160; 170; 173; 185-187; 197; 204-205; 213-214; 216; 222-223; 225-227; 230; 232; 236; 239; 256-257; 283

Danish Rail
9; 59; 61; 64; 73; 75; 78-80; 84; 87; 92; 94-95; 222; 236

Danish Tourist Board
126; 147

Dankort
256-257

dansommer
11; 75; 155-159; 175; 220; 223; 237

database
47; 113; 122; 132; 134; 150; 163

Datamonitor
9; 23; 26-28; 35; 44; 226; 252-253

DB
9; 59; 61-67; 71; 78; 94; 208; 220; 222; 227

Delta
40; 42; 46; 225-226; 233; 253; 255

Denmark
9; 24; 37; 58-59; 62; 70; 78-79; 83; 85; 93-95; 101; 103-104; 108; 115; 121; 131; 134; 141; 145; 147; 154-156; 158; 162; 173; 186-187; 193; 196-197; 199; 202-206; 208; 214; 216; 220-221; 223; 225-226; 230; 232; 236-239; 241; 256-258; 267-268; 271; 273-274; 277; 282-284; 287-288

DER
170; 176

Dertour
180

design
101; 124; 280

destination
18; 47; 79; 104; 118; 126-127; 133-134; 183; 195; 203-204; 218; 277

Destination Management System
15; 133-134; 232

Deutsche Bahn
62; 66; 208; 222

deutschlandreise.de
134

DFDS
15; 116; 147; 227

differentiation
11; 21; 94; 217-218

Digital
122

Direct Holidays
174; 181; 183

discount
97; 113; 120; 199-200; 206; 212-213

Disneyland Paris
102

distribution
11; 14-16; 19-21; 29-31; 33; 48; 52; 54; 57; 74; 83; 95; 131-133; 153-154; 156-159; 164; 175; 180; 183-184; 210-213; 217; 221; 225; 229; 230; 235; 240-242; 262

distribution channel
11; 14; 16; 20; 31; 33; 52; 74; 131; 133; 153; 158; 212; 225

DMS
134

Dollar
111-112

Dollar Rent A Car
111

DSB
9; 11; 71; 73; 75; 79-86; 93-94; 121; 220; 222

Dutch
36; 118; 131; 154; 275

Eastern Europe
23; 25; 60-61; 102-103; 111; 163; 207

eCamp
10; 12; 163-165; 220; 237

ecommerce
28; 37; 228

Edinburgh
88; 227; 230

electronic commerce
36; 57

electronic kiosk
81

Electronic Mall Bodensee
134

electronic ticketing
52; 68

employees
17; 49-50; 54-55; 59-60; 62; 66-67; 70-71; 79; 87-89; 98; 100-101; 104; 106-107; 111; 117; 121; 123; 128; 131-132; 136; 150; 162-163; 169-170; 174; 189; 191-192; 196; 197; 205; 235

ENTER
75; 190; 254

Enterprise
226; 266

Equant
41-43; 47; 90; 226; 236

Estonian
104

EU
36; 70; 161; 238-239

Eurocamp

165
Eurocard
72; 257
Eurolines
11; 99-106; 108; 209
Europcar
9; 106; 110-115; 209; 212; 236; 267-268
Europe
9-16; 23-30; 32-36; 41-42; 44; 48-50; 52-53; 55;
59-61; 64; 70; 75; 80; 82; 94; 97; 101-104; 106;
108; 110-113; 127-129; 132-138; 142; 151-152;
155-156; 158-159; 161-165; 167; 170; 183; 188-
189; 200; 202; 207-217; 221-223; 226-231; 240-
243; 245; 250-253; 256; 264; 266; 271; 273;
275; 277-278; 284
European
1; 9; 11-16; 18; 23-24; 28-37; 39-42; 46; 50; 53-
54; 57-61; 65-66; 70; 75; 78; 90; 92; 94-95; 97;
99; 102-104; 106; 108; 110-111; 113; 115-116;
125-127; 131; 133; 135; 137-138; 146-147; 156;
161-162; 167; 171; 188; 196; 200-202; 207; 208;
210-212; 216-217; 219-222; 225-231; 233; 235;
240-243; 247; 250; 252-253; 256; 259; 263-264;
266; 273-274; 278; 284
Europeans
9; 15; 29; 30-32; 90; 125; 126; 131; 147; 161-
162; 221; 226-227; 242; 247
Eurostar
59; 61; 87-90; 232; 260
exchange rate
123; 239; 268
Expedia
46; 55; 254
express
89; 97; 99; 101; 263
Express 2000
101
ExpressBus
101
external
15
Extranet
17; 248
Faroe Islands
116
fax
10; 65; 101; 127; 129; 135; 138-141; 145; 147-
148; 150; 162; 164-165; 210; 274-275; 281
ferries
79; 116; 121-122; 223; 245
Ferrimaroc
116
ferry
11; 18; 34; 79; 88; 97; 115-117; 119; 121; 123;
147; 209; 222; 243; 277-278
FEXCO
134; 225
Finland
24; 50; 52; 59; 95; 101-102; 104; 116; 149-150;
152-154; 158; 163; 173; 185-186; 196; 202; 207;
220; 223; 236-238; 258; 271; 273-274; 277; 282-
283; 288
Finnair
11-12; 40; 50-52; 154; 173; 187; 196; 233; 236;
282-283
Finnish
12; 61; 101; 149-150; 159; 173; 185-187; 204;
288
Finnmatkat
187; 282
First Choice
167; 174; 182; 193
Fischer
176-178
Fjord Line
116
forecast
12; 15; 27; 29; 30; 35; 77; 191; 242; 248; 250;
252-253
Forrester
15; 26; 28-30; 33-36; 78; 227; 230; 242; 248;
250; 253; 255
fragmented
127; 263
France
32; 40; 58-59; 89; 95; 98-99; 103; 108; 110-112;
116; 123-124; 128-129; 132; 163; 169; 188; 216;
227; 231; 238; 252; 271; 273; 274
Frankfurt
64; 131
French
68; 89; 98; 113; 127; 195; 208; 265
French Rail
89; 208
frequent flyer
43; 49-50; 113
Fritidsresor
12; 170; 173; 181; 186-187; 196; 282-283
Fritidsresor Group
12; 170; 173; 181; 186-187; 196; 282
Frosch
174; 176-177
FTI
177-178
future

14; 28; 41-42; 45; 49; 52; 65; 66; 69; 72; 74; 81;
83-84; 90-91; 97; 100-101; 108; 115; 120-121;
131; 133; 165; 174; 179; 189; 191-192; 194;
199; 200; 204; 212; 229; 232; 235; 242; 286

fw
44; 46; 66; 111-113; 115; 156-157; 165; 167-
170; 172-173; 175; 187-189; 193; 196; 205; 227-
228

Galileo
112

Garuda
40

Garuda Indonesian Airlines
40

GDP
13; 25-26; 238-239; 250-251

GDS
18; 42; 89; 112; 177; 210; 232

German
10; 37; 43; 59-62; 68; 75; 80; 94; 111; 113-114;
121-122; 127; 131-134; 150; 156-157; 159; 162;
164; 170-171; 174; 176; 178-179; 185; 190; 195-
196; 208; 222; 226; 230; 236; 268

German Rail
59; 60-62; 80; 94; 113; 121; 208; 222; 236

Germany
9; 12; 16; 18; 24; 58; 59; 61-62; 64-66; 78; 94;
95; 102-104; 111-116; 121; 126; 128-129; 131-
132; 134; 145; 156; 158; 162-164; 167; 170;
172; 174-178; 182; 189-190; 193; 201; 207; 209-
210; 212-213; 220-223; 228; 236-239; 252; 267-
268; 271; 273-274

giro
72; 81; 185

Glasgow
174

Global Distribution System
242

goal
48-49; 102; 115

Greece
59; 95; 116-117; 203-204; 238; 271; 273-274

Greek
60

Greyhound
101-102; 106-108; 113; 263

Greyhound Canada
106-107

Greyhound Lines
106-108; 263

Greyhound Pioneer
106-108

growth
55; 78; 108; 213; 226

growth rate
78

Graahundbus
101

GTT
188

guest nights
10; 137; 139; 142; 146; 273

Gulet Touropa Touristik
188

Gulliver
134-135; 231

HaCon
61; 64; 236

Hamburg
66; 113-114; 116; 163-164; 267

Hapag Touristik Union (HTU)
172; 189

Hasse
186; 282

Hawaiian Airlines
40

Helsinki
101; 131; 149; 154; 277

Herming Charter
187

Hertz
110-111; 113; 212; 245; 266

HIN
10; 136-142; 144-148

hitbox
132

holiday
33-34; 37; 51-52; 102; 125-126; 151; 153-156;
159-162; 168-169; 174-178; 181-183; 199-200;
206; 208; 210; 213; 223; 229; 230; 242-243;
277; 283

holiday cottage
34; 151; 153-156; 159-160; 181; 208; 210; 213;
223; 230

Holiday Cottages Group
169; 180

Holiday Express
183

Hong Kong
92

hostel
10; 135-139; 141-143; 145; 147-148; 210; 220;
273; 275-278

Hostelling International
 10-11; 135-136; 138-139; 141; 145; 275
Hostelling International Israel
 275
Hostelling International Norway
 10-11; 136; 138-139; 141; 145
hotel
 9; 11; 14-15; 18; 29; 33; 34; 54; 102; 127-133;
 137-138; 148; 150; 161; 169; 177; 201; 203-204;
 210; 225-227; 231; 240-242; 247; 250; 253; 271;
 278; 281
hotel chain
 18; 34; 127; 231; 241
Hotelplan
 171; 184
Hover Speed Ferries
 116
HRS
 131-133; 236
HSMAI
 200
Hungary
 59; 104; 161
IATA
 13; 39; 40; 228; 253; 259
Iberia
 40; 49-50; 188; 236
Iberojet
 188
IBM
 70; 228
IBN
 11; 135-136; 142; 273-274; 276
IC
 67; 71; 78; 80
ICE
 66-67; 71; 78
Iceland
 24; 32; 95; 238; 273-274
IDC
 23-25; 27-29; 35; 202; 215-216; 226; 228; 252;
 256
India
 59; 91; 111
Indian Airlines
 40
InfoFlyway
 43-46; 231
information
 13; 15-16; 18; 20; 39; 42-44; 47; 49-54; 60-62;
 66; 68-70; 73-74; 78; 80-83; 87-90; 95; 114;
 117-118; 122; 127; 133-135; 164; 177-178; 184-
 186; 189-190; 192; 194; 198; 204; 209; 212;
 215-216; 221; 225; 231; 235; 243; 254; 259;
 274-275; 281; 287
information technology
 54
intelligent
 83; 148; 204
Inter City
 66
Inter City Express
 66
Intercity
 73-74; 79
intermediary
 31; 125-127; 146; 200-201; 210; 218-219
internal
 15; 49; 69; 81-82; 108; 120; 131; 150; 164; 199;
 205; 209; 218; 235; 281

international
 10; 11; 13-14; 21; 40; 50; 53; 57; 61; 64-66; 69;
 79-80; 82; 86; 87; 97; 99-100; 102-104; 110;
 115-116; 126; 135; 146-148; 188; 204; 209-210;
 215-216; 222; 231; 243; 245; 256-257; 266; 276
Internet
 1; 9-21; 23-37; 39-55; 57; 60-63; 65-95; 97-108;
 111; 113-123; 126-127; 129-136; 138-139; 141-
 148; 150-160; 163-165; 174-181; 183-186; 189-
 192; 194; 196-210; 212-223; 225-233; 235-237;
 240; 242-243; 248; 250; 252-254; 256-257; 262;
 268-270; 275-276; 280-281; 284-288
Internet booking
 9-11; 32; 39-43; 45-47; 50-55; 61; 65; 67; 72;
 74-76; 79; 88; 90-91; 93-94; 100-102; 105-108;
 111; 113; 115-117; 119-120; 122; 126-127; 133;
 135-136; 138-139; 142-148; 151-157; 159-160;
 164-165; 174; 177-179; 181; 189-192; 194; 199;
 202-203; 205-206; 208-210; 212-213; 215; 219;
 222; 248; 269-270; 276; 280-281; 287-288
Internet commerce
 15; 28-29; 36; 85; 88; 133; 194; 200; 204; 207;
 214; 285-286
Internet world
 33
InterRail
 82; 277-278
Intranet
 17; 68-69; 89; 226
investment
 9-11; 42; 50; 66; 76; 85; 88; 106; 119; 130; 133-
 134; 143; 145; 153; 160; 164; 194; 198; 203;
 280; 287-288
Iran Air

39; 259
Ireland
40; 59; 95; 103; 116; 123-124; 128-129; 134;
169; 227; 238; 271; 273-274
Ireland (Republic of)
274
Irish
9; 116; 123-124; 134; 225; 231; 236
Irish Ferries
9; 116; 123-124; 236
Irish Tourist Board
134
Israel
163; 275
IT
13; 15; 49; 67; 71; 74; 76-77; 107; 133; 162;
204; 230; 236-237; 262; 287
Italian
68; 262; 274
Italy
58-59; 64; 95; 103; 113; 116-117; 126; 131; 188;
238; 271; 273-274
ITB
44; 46; 190; 201; 228; 231; 252
ITN
254
ITS
176-177
ITV
171-172; 184
IYHF
135-136; 236; 276
Japan 40; 46; 59; 91; 95; 238
Japan Air System 40
Japan Airlines 40; 46
Java 47; 68
JetAir 188
JSOP 150; 237; 281
Jupiter 15; 28; 29; 34; 35; 228; 229;
252
kiosk 66; 80
KLM 32; 40; 42; 52; 53; 220; 221;
229; 233; 262
KLM UK 40; 42
Korean 40; 41
Kotler 18; 19; 229
Kreutzer 176; 177; 178
Kuoni 10; 12; 167; 172; 173; 174;
182; 183; 184; 187; 192; 193; 194; 195; 196;
237; 282; 283
Kuusamo 149; 150; 151; 152; 154; 237;
281
L'TUR
179
Laidlaw
107; 263
LAL
177
Larsen Rejser
173; 187; 282
last minute
43; 50-51; 155; 164; 176-178; 181; 184-189;
194-195; 203; 205-206; 210
Latvian
104
legacy system
48; 82; 120; 199; 218
letting agencies
125; 154-158; 174; 210-211
letting agency
149; 155-156; 158; 160; 213; 280
LH
63; 222
Linjebuss
97; 99; 229
link
42; 60-61; 80; 105; 108; 160; 188; 218; 222
Linux
131; 150
local
18; 53; 79; 97; 125; 141; 214; 241; 263
London
46; 89; 92; 97-98; 102; 104-105; 127; 136; 142;
169; 226; 231; 236; 265
long distance
62; 65; 69; 71; 73; 75; 77-80; 82; 86; 97-99; 102-
103; 108; 113; 203; 243; 263-265
lookers
20; 75; 190; 202; 213-214
LTU
176; 179
Lufthansa
9; 11; 32; 40-46; 53; 63; 113; 201; 220-222; 231;
233; 236; 252
Lunn Poly
169-170; 180
Luxembourg
59; 61; 95; 271; 273-274
mainframe
199
Malaysia Airlines System
40
market
1; 9-14; 19; 28-36; 39; 41; 49; 52-53; 71; 75; 78;
83; 97-98; 100; 106; 108-111; 119; 127; 131-
132; 136; 145-146; 148-149; 155-160; 167-176;
179-191; 193; 196-197; 200-201; 204-208; 212-

214; 221; 226; 240-243; 245; 248; 250-257; 263-264; 266; 276; 282-283; 286-288

marketing
9; 15-16; 18-20; 46; 83; 101; 119; 121; 134; 145; 160; 191-192; 227; 229; 231; 233; 236

MasterCard
36; 55; 65; 72; 257

McCarthy
18-19; 107; 230

Metroline
98; 102; 265

Mexicana Airlines
40

MICE
17-18

Microsoft
46; 55; 120

Middle East
111

Midway Airlines
40

Midwest Express
40

Minitel
132; 216

Minoan
116

mobile
11; 52; 61; 70; 73; 78-79; 81; 83-84; 86; 94-95; 132; 162; 164; 209; 225

mobile phone
11; 52; 61; 70; 73; 78; 81; 83-84; 86; 94-95; 209; 225

Moscow
64; 91

MSN
132

Mundicolor
188

national
9-10; 18; 50; 57-58; 61; 64; 66; 70; 79-80; 91; 97; 99-100; 102-103; 105; 107-108; 135-137; 147-148; 155-156; 162; 197; 210; 232-233; 276

National Express
9; 88-89; 98; 102; 104-106; 108; 113; 212; 220; 223; 236; 265

Neckerman
179

Net
9; 11-16; 18; 20-21; 24; 28-37; 41-42; 48; 50-51; 53-55; 57; 59-60; 62-63; 65-67; 69-70; 73-75; 77-79; 81-82; 84; 86-87; 90; 93-94; 97; 100-102; 105-108; 115-116; 118-120; 122; 125; 129; 136; 139; 142-143; 145-146; 153; 155; 157; 159-161; 167; 175-177; 179-185; 187; 189-195; 198-205; 207-210; 212-218; 229; 232; 243; 256; 263; 276; 280-281; 284; 286-288

Netherlands
11; 59; 61; 95; 103; 126; 128-130; 158; 188; 220; 236; 238; 271; 273-274

network
102; 106; 111; 132; 161; 205; 225; 274

New Zealand
15; 40; 91; 95; 229

Nielsen
28; 214; 225; 230

Nordic
10; 12; 16; 18; 24; 80; 94; 104; 108; 142; 167; 173; 175; 189; 196; 207; 209-210; 216; 226; 277-278; 282-283

Nordkapp
101

North America
11; 13; 23; 25-26; 29-30; 39-41; 60-61; 90; 92; 113; 127; 212; 222; 225; 242-243; 245; 259; 263

Northern Ireland
134; 273-274

Northwest
40; 52-53; 233; 253

Northwest Airlines
40; 233

Northwest alliance
52

NORTRA
139

Norway
10-11; 24; 40; 42; 52-54; 59; 64; 95; 100-101; 104; 111; 116; 126; 136-148; 158; 161; 173; 185-187; 196-197; 199-200; 202-206; 220-222; 236-238; 271; 274; 277-278; 282-284; 287-288

Norwegian
10-11; 19; 52-54; 61; 78; 100-101; 136-143; 145-147; 196-197; 199-200; 205; 208-209; 228; 273-274; 283

Novasol
155-156

Novell
46; 231

NSB
61; 78

NUA
23; 28; 35; 37; 231

NUR
176; 179

occupancy rate
240; 271

OECD
 13-14; 227; 231
Olympic Airways
 40
Onni Vilkas
 101
Oracle
 113; 122
Orbis Travel
 282
Oslo
 101; 136; 142; 200; 277
P&O
 116-117
package tour
 1; 10; 12; 115; 167-168; 170-175; 177-179; 183-184; 190; 195-197; 200-203; 206; 208; 213; 220; 282-284; 287
packages
 14; 18; 33-34; 102; 154; 156; 168-169; 173-175; 177; 179-182; 185-186; 190-191; 193-195; 197; 199-200; 202-203; 205; 231; 241-242; 255; 275; 284
page view
 9; 62-63; 67-69; 90; 129; 190; 209; 214; 222; 253
Pakistan International Airlines
 259
Paris
 87; 89; 93; 102; 142
passenger
 11; 40; 42; 45-46; 51; 53-54; 57-58; 60; 62; 67; 69-71; 78; 87-89; 92-94; 97; 101; 105-106; 117; 122-123; 208; 225; 236; 240; 243; 253; 263; 265
payment
 16; 18; 21; 36; 37; 41-43; 47; 50-51; 55; 68; 72-75; 81; 102; 117-118; 124; 135; 151; 154-156; 175-176; 180-181; 183-184; 187; 189-190; 194; 198-199; 204; 207-210; 215-216; 256-258; 276
payment card
 21; 36; 68; 72; 204; 215-216; 256-257
Pehmo
 150; 154; 237; 281
penetration
 9-11; 16; 21; 23-26; 28-29; 35; 50; 78; 81; 86; 94-95; 99; 104; 135; 140; 145; 148; 154; 159; 162; 199; 201-202; 209; 215-216; 242; 287-288
PhoCusWright
 15; 31-33; 35; 231
phone
 37; 50; 66; 73; 81; 83-84; 88; 94; 101; 119; 127; 129; 141; 145; 148; 151; 161; 175; 182; 185; 187; 198; 213; 217; 281
phone call
 37; 66; 73; 281
pilot
 51; 70; 176
Poland
 55; 59; 196-197; 203-204; 237; 282-283; 287-288
Polferries
 116
Polish
 55; 61; 103; 197; 199; 204; 287
Polish Rail
 61
population
 11; 16; 21; 24-25; 28-29; 35; 37; 41; 50; 95; 106; 148; 154; 157; 198; 202; 204; 207; 215-216; 226; 256-257; 264
Portland Direct
 169; 174; 180
Portugal
 40-41; 58-59; 95; 103; 238; 271; 273-274
Preussag AG
 189
Preview Travel
 46; 254
price
 18; 20; 45-47; 55; 65; 75; 90; 93; 97; 100; 105-106; 114; 123; 132; 135; 137-138; 151; 168; 170-171; 183; 185; 190; 196; 199-200; 203; 205-206; 208-209; 212-213; 240; 243; 248; 267-268; 277; 281; 283
PriceBuster
 55
principal
 36; 254; 265
privacy
 36-37
privatised
 59; 98
product
 14; 20; 31; 33; 49; 54; 66; 75; 81-82; 86; 150; 154; 158-159; 163; 180; 198; 209; 214; 218; 254
projected
 29; 78; 153; 200; 250
public
 54; 68; 70; 79; 97-98; 133; 136; 182; 188; 216; 225; 265
Qantas
 40
quality
 102; 141; 148; 199

rail
 14; 57; 59; 61-62; 64-66; 69-71; 75; 78-81; 83;
 86-91; 94; 97-98; 106; 232; 245; 277-278

Railtrack
 66; 87

railway
 11; 57; 59-62; 66-69; 73; 79-81; 83; 86; 88; 90-
 95; 98; 208; 233; 243; 267; 277

ratio
 20; 67; 75; 129; 174; 190; 202; 214-215

RDBMS
 122

regional
 18; 61; 78-79; 108; 133; 225; 263

reise@flugcenter
 178

Reisebaumeister
 184

relational database management systems
 122

Reno Air
 40

Rep. Ireland
 40; 59; 116; 169; 271

reservation
 11; 18; 42-43; 57; 73; 81; 89; 91; 93; 100-101;
 104; 108; 113-114; 118-120; 122-124; 127-129;
 131; 133; 135; 149; 151; 155; 158; 194; 205;
 220; 225; 231; 268; 275

revenue
 9; 11-12; 29; 32; 45-47; 49; 51-54; 67; 69; 71;
 80; 88; 93-94; 97-101; 104; 106-107; 110-111;
 113; 123; 129; 131; 133-134; 137-138; 143; 149;
 152; 155-159; 162; 165; 167-170; 188-189; 191;
 193; 196; 199-202; 205; 208; 210; 220-222; 240-
 241; 243; 250; 252-255; 263-266; 281

road
 14; 97; 216

Romania
 59; 104

room
 14; 34; 129-131; 137-138; 147; 204; 240; 245;
 250; 253; 255; 271; 278

room night
 14; 34; 129-131; 137-138; 240; 245; 250; 255

Royal Caribbean
 248

Royal Tours
 186; 282

Russia
 23; 60-61; 92; 149; 154

Russian
 59-61; 150

Ryanair
 40

Sabena
 32; 40

Sabre
 14; 112; 254

Saga
 185; 282

sales
 9-12; 14-16; 18; 20-21; 23; 29-35; 37; 41-42; 44-
 55; 57; 66-67; 69-71; 74; 78-83; 86; 89; 92-94;
 100; 106; 108; 121; 127; 132; 134; 143; 145-
 146; 153; 156-159; 161; 164-165; 174-175; 179;
 183; 185; 191; 193-209; 212-214; 216-217; 219-
 223; 226; 228-229; 231; 235-236; 240-243; 248;
 250; 252-257; 265; 281; 284; 287-288

Sardinia
 116

SAS
 32; 40-41; 53-55; 71; 202; 217; 220; 233; 286

SASS
 163-165; 237

Saudi Arabian Airlines
 40

save
 55; 66; 69; 114; 174; 217

saving
 41; 50; 66; 69; 75; 82; 84-85; 119; 127; 287-288

savings
 9; 11; 21; 42; 52; 73; 75; 77; 82; 84-85; 94; 119;
 127; 160; 203; 213; 217; 287-288

SBB
 9; 67-70; 94

Scandinavia
 12; 67; 71-72; 74; 117; 141; 145; 159; 170; 181;
 185; 187; 195-196; 200-202; 204-206; 210; 212;
 243; 282-284; 288

Scandinavian
 19; 54-55; 115-117; 170; 173; 195; 198-199;
 203-204; 207; 287

Scandinavian Leisure Group
 170; 173; 195

Scandinavian Seaways
 116

Scandlines
 9; 115-116; 121-123; 209; 220; 222; 236; 245

ScanRail
 277-278

schedule
 43; 64; 76-78; 82; 84; 97; 264

scheduled

32; 34; 39-40; 45-46; 50-51; 53; 97-103; 106;
108; 124; 197; 223; 240; 243; 263-265

Scotland
102; 134-135; 227; 230; 265; 273-274

search
16; 50; 68; 80; 87; 101; 116; 118; 129; 131; 139;
154-155; 158; 160; 176; 178; 180; 182-183; 194;
198; 204; 213

seat
47; 50; 57; 61; 67-68; 73-75; 80-81; 86-89; 91;
101; 107; 209

Secure Economic Transaction
71

Secure Socket Layer
117

security
36-37; 65; 74; 116; 194; 203-204; 256; 276

server
43-44; 60; 66; 72; 81; 113-114; 116; 120-121;
123; 150; 164; 177; 214; 218; 281

service
18; 30; 33; 36; 43; 47; 52; 62; 66; 69; 74; 78; 81;
83; 87-90; 101-102; 106; 108; 111; 116; 124;
164-165; 190; 198; 201-202; 209; 212-213; 216;
220-221; 229; 231; 240; 243; 250-251; 254-255;
262-263

SET
36; 54; 66; 69; 71; 74; 194; 208; 256

Shinkansen
91

Short Message Service
70

Silja Line
116

Simons Charter
173; 187; 282

Singapore
40; 95

Singapore Airlines
40

Sixt
111-112

SJ
9; 70-78; 94; 99; 227; 232; 236; 286

Skytours
169; 184

SLG
12; 175; 181; 185-186; 195-196; 204; 282-283;
288

Slovak
59

Slovakian
104

SMART
72

smart card
57

SMS
70; 83

SMT Bus
108

Smyril Line
116

snCF
59; 89

Sol & Strand
155-156; 159-160; 213; 223; 237

Soltour
188

South African Airways
259

Southwest
39; 40; 215; 253; 259

Southwest Airlines
39-40; 259

Spain
49-50; 59; 95; 103; 116; 131; 150; 188; 236;
238; 259; 271; 273-274

Spanish
39; 49; 113; 150

speedlink
102

Spies
185; 197; 232; 282; 288

SSL
36-37; 65-66; 70; 74; 88; 105; 115-117; 124;
181; 183; 194; 208; 256

SSR Reisen
184

St.Petersburg
101

Stagecoach
98-99; 102; 265

Stamsund
277

Star Tour
170; 186; 282-283

Start
156

Stena
9; 115-121; 209; 220; 222; 236; 245; 269; 270

Stena Line
9; 115-121; 209; 220; 222; 236; 245; 269-270

Stockholm
57; 97; 121; 200; 228; 265; 277

Storstockholms Lokaltrafik AB, SL

97; 265
strategic
83; 121; 133; 225
Studiosus
178
Suntours
187; 282
Superfast Ferries
117
survey
87; 99; 162; 226; 231
Svenska Buss
98-100; 108; 220; 223; 236
Swebus
99-100
Sweden
9; 11; 24; 53; 58-59; 62; 71; 73; 78; 94-95; 97-
101; 103-104; 108; 116-118; 121; 126; 131; 141;
145; 153-154; 158; 170; 173; 185-187; 195-206;
212-213; 215; 220-221; 223; 236-238; 258; 264-
265; 271; 273-274; 277; 282-285; 287-288
Swedish
52-54; 70-71; 73; 94-95; 99-100; 121-122; 150;
185; 199-200; 202; 205-206; 225; 228-229; 236;
265; 286
Swedish Rail
70; 94-95; 202; 236
Swiss
10; 12; 67; 69-70; 91; 94-95; 132; 147; 171-172;
184-185; 193; 236; 275
Swiss Federal Railways
67; 236
Swiss Rail
69; 91; 94-95
Swissair
40; 233

Switzerland
59; 61; 69-70; 94-95; 103; 131; 134; 159; 161;
167; 171-172; 175; 182; 184; 189; 192-194; 210;
237-238; 271; 273-274
TA
42-43
Tandem
199
TAP Air Portugal
40
telecom
26; 132; 162; 165
telephone
42; 47; 55; 61; 72-73; 81-82; 84-86; 116; 122;
132; 135-136; 141; 151; 163; 175; 180; 192;
197; 203; 205; 210; 236; 249; 275; 287

text TV
51-52; 122
Thai Airways
40
Thomas Cook
169; 174-175; 182-183
Thomson
12; 167-170; 173-175; 180; 186; 196; 232; 283
ticket
14; 41; 45-47; 49; 51-52; 55; 57; 68-69; 71; 73-
75; 78; 80-81; 86; 88-91; 104-105; 108; 123;
176; 179; 183; 195; 199; 203; 245; 277-278
ticketless travel
52; 54; 73
timetable
9; 11; 60-61; 63-64; 66; 67; 70; 80; 84-85; 87;
90-91; 93; 104
TIScover
133-134; 201; 220-221; 231; 237
TISS
95; 201; 220-221; 228; 237
Tjaereborg
177-178; 185-186; 282; 288
Torget
71-72; 75
tour
10; 12; 33; 108; 156; 167-180; 182-185; 187-
197; 200-206; 208; 210-213; 221; 223; 240; 242-
243; 250; 255; 263; 282-284; 287-288
tour operator
10; 12; 156; 167; 169-172; 174-180; 182-185;
187-191; 193; 195-197; 200; 202; 204-205; 208;
210-212; 221; 223; 240; 250; 283

tourism
1; 9; 11; 13-21; 29; 30; 31; 32; 33; 34; 35; 36;
53; 62; 75; 78; 83; 86; 97; 121; 133; 134; 150;
151; 152; 154; 159; 161; 194; 200; 204; 207;
208; 209; 212; 214; 215; 218; 219; 221; 222;
225; 227; 228; 229; 230; 231; 233; 235; 240;
250; 252
tourist
13; 20; 52; 98-99; 125; 133; 154; 158-159; 161-
162; 212; 225
Tower Air
40
trading
13; 17; 36; 200
train
42; 52; 59; 61-62; 64-66; 69-74; 77-79; 82; 87-
90; 92; 97-99; 104; 106; 113; 149; 203; 208;
220; 222; 226; 233; 243; 260; 277-278

transaction
 41; 122; 190; 203; 245; 256
transactional
 14; 21; 75; 217-218
transactions
 37; 54; 105; 134; 256
transport
 14; 18; 34; 53; 57; 60-62; 66; 68-72; 74-75; 78-79; 81; 97-100; 105-106; 110; 113; 123; 147; 154; 208; 236; 240; 243; 247; 263; 265
travel
 1; 9; 11; 13-16; 19-21; 23; 27; 29-36; 41; 43-44; 47-50; 52-55; 61-66; 69; 73-75; 78-81; 83-84; 86-92; 97-99; 101-102; 105-106; 108; 113-114; 121; 125; 131-132; 149-152; 154-157; 159-160; 167; 169-170; 174-181; 184; 186-187; 189-196; 198; 200-202; 204-205; 207-210; 212-222; 225-230; 232; 240-243; 248; 250-255; 263; 276-278; 281
travel agency
 14; 50; 61; 73; 149; 155; 175; 177-179; 222
travel agent
 21; 30; 33-34; 42; 48; 52; 54; 66; 69; 92; 101; 113; 156-157; 159-160; 169-170; 174-180; 184; 186-187; 190-193; 210; 213; 217; 248; 250; 253-254
traveller
 41; 55; 60; 71; 73; 80-81; 83; 86; 177-178
Travelocity
 232; 254
Travelplan
 188
TravelWeb
 215
TUI
 12; 75; 168; 170; 172; 175-176; 179-180; 182; 184; 188-192; 215; 220; 222; 232; 237
Turkey
 13; 103; 111; 163
Turkish
 40
Turkish Airlines
 40
Turku
 101; 277
turnover
 69; 71; 93; 123; 170; 189; 219; 265
TV
 48; 51; 52; 70; 95; 122
TWA
 40
Tyrol
 133; 221
UIC
 57-59; 87; 93; 227; 233; 262
UK
 12; 16; 18; 24; 37; 40; 42; 58-59; 61-62; 66; 70; 87-89; 95; 98-99; 102-106; 108; 113; 116-118; 126; 129; 155; 165; 167-170; 174-175; 180-183; 189; 193; 196; 207-210; 212; 216; 220; 226; 231-232; 236; 238-239; 252; 254; 260; 264-265; 267-268; 271; 273; 305
Ukraine 60-61
uncertainty
 27; 268
United Airlines
 40; 48; 233; 254
United Kingdom
 128; 274
UNIX
 122
US
 9; 11; 13-15; 18; 23; 26; 29-30; 32-37; 39-42; 46-48; 50; 55; 60-61; 63; 78; 93; 97; 102; 106-113; 127; 131; 207-208; 212-215; 221-222; 226; 229-230; 232; 240-243; 245; 248; 250-255; 259; 263; 266-267; 271
US Airways
 40; 253
USA
 11; 14; 26; 28; 35-36; 42; 59; 90; 93; 95; 106; 131-132; 138; 228; 238-239; 241; 263; 267-268; 271
user
 16; 20; 29; 41; 43; 47; 67; 74-75; 77; 81; 84-85; 87; 91; 93; 113-114; 118; 122; 136; 139; 141-142; 151; 156; 160; 163-164; 176-178; 180; 182; 185-186; 190; 198-199; 202; 205; 212; 242; 268; 281
user session
 67; 75; 77; 84; 85; 91; 93; 202; 205
value
 9-10; 30-31; 33-36; 42; 55; 83; 85; 94; 100; 108-109; 158-159; 168-169; 172; 199-200; 202; 214; 240; 242; 250-252; 256; 263-264; 284; 286
ValuJet
 40
Varig
 40
VIA Rail
 42; 83; 91; 93-94
Videotex
 131-132
Ving
 10; 12; 53; 170; 185; 195-204; 215; 220; 222; 237; 282-288

Virgin
 32; 40; 42; 59; 88-89
Virgin Atlantic
 40; 42
Virgin Trains
 88
virtual Atlantic crossing
 14
virtual auctions
 41
virtual call centre
 72; 198
Virtual Reality
 160; 191; 204
virtual shop
 203
virtual world
 33
Visa
 36-37; 65; 190; 256-257
visit
 67; 113; 129; 139; 177; 190-191; 213-214; 254
visitor
 73; 84; 129; 162
visits
 47; 50-51; 67; 72-73; 75; 93; 106; 138-139; 159;
 164; 190-191; 202; 205; 213; 235

Voyages Jules Verne
 182-183
VR
 160
W.Europe
 26; 32; 34-35; 108; 161; 207-209; 214; 221; 240;
 243; 251; 263-264; 271; 273; 275
Wales
 273-274
Web
 9-18; 20-21; 23-25; 28-29; 37; 39-41; 43; 45-52;
 54-55; 57; 59-62; 64-66; 68-75; 77; 79; 82; 84-
 85; 87-94; 99-105; 107; 111; 114-116; 118; 120-
 123; 129; 131-136; 138-140; 142; 145-146; 148-
 152; 154; 156; 159-160; 162-165; 168-169; 174-
 178; 180-194; 198-205; 208-210; 212-215; 217-
 220; 227-233; 235; 241; 248; 254; 259; 261-262;
 266; 274; 276; 280-281; 288; 305
Western Europe
 9; 11; 13-16; 23-36; 39-41; 55; 58; 60-61; 101;
 103; 111; 127-128; 135-137; 162-163; 188; 207;
 211; 240-243; 245; 250-253; 259; 264; 271; 273
Windows
 150
World Offers
 47
World Tourism Organization (WTO)
 233; 271
World Wide Web
 23; 131
Worldspan
 14; 112
WWW
 1; 16; 24; 44; 50; 207; 230
www
 9; 11-15; 23-25; 27-29; 32-34; 36-37; 39-40; 42;
 44; 46-49; 53-55; 57-64; 66-68; 70-71; 73-76;
 78; 80; 83; 87-91; 95; 97-99; 101-103; 105; 107-
 108; 111-113; 115-116; 118; 121-123; 127-132;
 134-136; 139-140; 148-149; 151; 154-155; 161-
 165; 169-170; 172-173; 175-192; 196-197; 199-
 202; 205; 212-217; 221; 225-233; 239; 241-242;
 248-250; 253-254; 256-257; 259; 262; 265-268;
 271-275; 277-278; 283; 285-286; 305
youth hostel
 11; 34; 126; 135-138; 140; 142; 147-148; 162;
 210; 242; 245; 274; 276-277
Yugoslavian
 104
Zurich
 70
Öger
 176; 178

Links to all the websites mentioned in this book can be found on the following web page:
<http://www.rcb.dk/UK/staff/chm/book1999.htm>.

