
Editors' introduction: contemporary issues in tourism economics

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Tourism economics has been a rapidly expanding subject over the past decade or so – this is partly a reflection of the increasing interest in tourism research generally. Tourism papers are published in tourism and in economics journals, and there is now a specialist journal, *Tourism Economics*, devoted to it. There are several texts on the subject as well. What specific contribution is tourism economics making?

Tourism economics is not so much a new branch of economics, but rather it is an industry- or sector-based area of work which draws on, and applies, developments in general economics. In this respect, it is like transport or energy economics. As with these areas, there are some aspects of tourism economics which have been, or are becoming, of particular importance, in the way that choice modelling is a characteristic and important aspect of transport economics. Tourism economics draws on several, mainly micro-economic, branches of economics and econometrics, such as demand modelling, taxation theory, environmental economics, human capital theory and industrial organisation. More recently, it has been drawing on trade theory and general equilibrium modelling.

Recent developments in tourism economics have taken one of a number of forms. There are some areas which have been part of the traditional content of tourism economics which are being made more rigorous. Perhaps the best example of this is in demand analysis and forecasting. This has long been an important aspect of the subject, with many contributions, with a distinct emphasis on obtaining practical empirical results. Research in this field has been made more rigorous, and results made more reliable, by the use of advanced econometric specification and testing. This is illustrated in the two chapters by Lim and by Song and Turner. Taxing and pricing issues have also formed part of the content of the subject, and these have been informed by developments in taxation theory, pricing and infrastructure analysis, as the chapters by Mak, Sakai and Loomis and Lindberg show. So far, the analysis of the supply side of tourism has not attracted as much attention as the demand side – as Davies and Downward indicate, there is ample scope for greater application of new industrial organisation theory in this field.

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By contrast, some fields of tourism economics are relatively new, or have taken a rather different turn. One of these concerns the measurement of economic impacts of tourism, for example the impacts of additional tourism into an economy, policy changes, such as in taxation or promotion, which influences tourism flows, or events or crises which affect tourism. Until about a decade ago, the prevailing approach to impact measurement was one using input–output multipliers – this approach normally produced an estimate of the impact on output which was a multiple, often about two, or the original change in tourism spending. Recently there has been a trend towards the use of computable general equilibrium (CGE) models. These are models which try to capture the overall structure of the economy, and reflect the interaction of markets and the presence of resource constraints. These models are now used extensively in the USA, the UK and Australia to assess the economic impacts of policy, for example on GDP, employment, tax receipts and industry structure. While their use in other areas, such as tax policy, trade policy and investment evaluation, is commonplace, they have only recently been used to explore tourism policy questions. Typically, these models come out with much smaller impacts on the key economic variables than do the input–output-based approaches, because they allow for crowding-out effects in other parts of the economy. They are now being used to explore a whole range of tourism policy questions, such as the impacts of taxes and promotion, the impacts of crises and growth in tourism flows – these are covered in Blake, Gillham and Sinclair. These models can also be used to analyse the impacts of special events, as Dwyer, Forsyth and Spurr show. Significantly, these models give very different perspectives on impacts of tourism changes from those generated by the earlier techniques, which are still in extensive use.

Another aspect of tourism economics which has been given more attention of late has been international trade in tourism. Tourism is a major traded service, and for many countries, it represents the largest single export and import. Thus there is a new emphasis on looking at tourism as a traded service. This is reflected in the analysis of tourism competitiveness (see Crouch and Ritchie), and in the use of competitiveness and other variables to explain the patterns of trade in tourism (Sahli). Exposure to trade in turn has implications for the structure of the tourism industry, and Fletcher and Westlake show how globalisation is impacting on the industry.

Part One addresses tourism demand and modelling issues. One of the aspects of tourism economics which attracts consistent interest is forecasting of demand. There are good reasons for this. The tourism product is perishable, but many of the costs incurred in providing for tourists are sunk. Thus there are substantial benefits from getting forecasts right. To do this, the demand function needs to be understood.

A good deal of interest surrounds demand elasticity estimates, such as estimates of price, cross-price and income elasticities. This is so for at least two reasons. Good elasticity estimates enable good demand forecasts. Second, much policy analysis relies on elasticity estimates. To estimate the impact of tax increases on tourism, or the effects of promotion on inbound tourism, a fall in air fares as a result of more competition from low cost carriers, or the impact of changes in competitiveness, it is necessary to have a good handle on the relevant elasticities. Papatheodoru examines the micro foundations of tourism demand. It is with knowledge of these that we are able to derive accurate specifications of demand to test econometrically. Lim pays attention to the specification and testing of demand models. It is evident in the studies which she reviews that there have been significant improvements in modelling of demand, though best practice is not universal. Song and Turner recognise the econometric issues involved in tourism demand forecasting, but also the relevance of aspects which are less easily captured, such as industry assessments.

In Chapter 1, 'A survey of tourism demand modelling practice: issues and implications', Christine Lim analyses 124 empirical studies of international tourism demand. She provides a detailed classification according to the decade of publication, type of data used, model specifications and alternative functional forms, the number and choice of dependent and explanatory variables used in demand studies. Past tourism studies have focused primarily on the economic variables affecting tourism demand. These factors are predominantly exogenous variables over which destination or tourist-receiving countries have little control. Most of the studies undertaken have been published in the 1980s, have used annual data, and have been based on estimation of log-linear single-equation models. Tourist arrivals/departures and tourist expenditure/receipts have been the most frequently used dependent variables. Lim concludes that the major factors influencing international tourism demand include income, relative tourism prices, transportation costs and a myriad of other factors. Although there have been a proliferation of studies since the 1960s on the relationship between tourism demand and its determinants, specific areas still remain under-researched, particularly those related to marketing and non-economic factors. The chapter also includes an econometric review of these studies to examine the method of estimation and diagnostic tests used.

Over time, tourism demand modelling practice has gone from using simple to state-of-the-art statistical and econometric techniques. As Lim indicates, the use of unit root tests and statistical analysis for non-stationary processes through the use of cointegration methods has revolutionised the understanding of tourism and macroeconomic time-series data. These developments permit both long- and short-run tourism

demand models to be estimated and tested. However, there are many unanswered questions regarding the plethora of test procedures now available, particularly regarding their small sample properties. Lim's conclusion is that future research to evaluate and extend existing procedures for modelling tourism and tourism-related macroeconomic time-series data through the use of Monte Carlo numerical experiments is imperative.

In Chapter 2, 'Microfoundations of tourism choice', Andreas Papatheodorou emphasises that knowledge of the formation mechanisms and determinant factors of tourist choice is of primary importance for all tourism stakeholders. Tourists need to know themselves better, become more informed about the process of decision making and choose destinations and tourist activities that will hopefully increase their attractiveness, competitiveness and prosperity. His contribution first discusses the foundations of tourist choice in the context of the mainstream classical microeconomic theory – the standard benchmark in consumer demand analysis upon which other approaches are presented and evaluated. Despite some advantages, the classical theory fails to address essential issues including separability of preferences, discreteness in choice and product differentiation. As a valid alternative, therefore, Papatheodorou analyses the characteristics theory and its application in tourism economics. This is an interesting framework that deals successfully with many of the classical theory caveats. The chapter also discusses information issues and developments from a dynamic perspective before proposing areas for further research.

Papatheodorou emphasises the policy implications of this study. From the supply side, the deciphering of tourism choice can help service providers and destination policy makers to design appropriate marketing and advertising campaigns for specific consumer target groups. It can also assist them to manage the quality of their product integrally and face periods of crisis in tourism successfully. Similarly, researchers need to understand tourist choice factors to produce robust econometric models and forecasts that can facilitate destination management and long-term projection and decision planning.

As Papatheodorou acknowledges, it is not surprising that tourism choice and its microfoundations have received substantial attention by researchers in social sciences from both a theoretical and an empirical perspective. As in most cases with tourism, researchers are predominantly interested in applying the principles of their discipline to explain tourist choices. The economists would mainly focus on rational behaviour and utility maximisation issues, the geographers would examine tourist flows in space, the psychologists would discuss motivation while other social scientists would highlight socio-cultural factors. Likewise, researchers in marketing and advertising would study how tourist choice can be affected in favour of a

targeted product or destination. To understand tourist choice in full it is important to integrate the above approaches and produce a creative, interdisciplinary amalgam. Such a task, however, is beyond the scope of Papatheodorou's chapter, which essentially explains how economics has treated the issue.

Chapter 3, 'Tourism demand forecasting', by Haiyan Song and Lindsay Turner, demonstrates that the forecasting of tourism demand has taken numerous turns in regard to methodology over the past twenty years. In the history of this development the methods have been variously assessed, compared and used in different contexts. This makes it increasingly difficult to follow the methodological history and to understand the current front line, and where the next steps are likely to take research. This chapter attempts to clarify both the historical development since 1990 of tourism demand forecasting, assess the various new developments and provide a view of current research directions.

Song and Turner point out that tourism researchers and practitioners are interested in tourism demand forecasting for several reasons. First, tourism demand is the foundation on which all tourism-related business decisions ultimately rest. The success of many businesses depends largely or totally on the state of tourism demand, and ultimate management failure is quite often due to the failure to meet market demand. Accurate forecasts of tourism demand are essential for efficient planning by tourism-related businesses, particularly given the perishable nature of the tourism product. Second, tourism investment, especially investment in destination infrastructures requires long-term financial commitments and thus the prediction of long-term demand for tourism-related infrastructure often forms an important part of project appraisal. Third, government macroeconomic policies largely depend on the relative importance of individual sectors within a destination. Hence, accurate forecasts of demand in the tourism sector of the economy will help destination governments in formulating and implementing appropriate medium- to long-term tourism strategies.

Song and Turner show that tourism forecasts may be generated by either quantitative or qualitative approaches, but they focus on quantitative forecasting methods, especially econometric approaches. Their review of the literature on the recent published studies of tourism forecasting suggests that several issues deserve more attention. First, although some researchers have used modern econometric techniques, such as cointegration and error correction mechanisms, in modelling and forecasting tourism demand, more effort needs to be made to follow continuously new developments in econometrics. The cointegration and error correction approach to modelling has now become a standard research methodology in applied econometrics and forecasting but tourism researchers have been slow to adopt

state-of-the-art forecasting methods. Second, more research needs to be done to evaluate forecasting performance in tourism between modern econometric techniques and traditional time-series models in order to reach some agreement in this area. Third, very little attention has been paid to the issue of directional analysis in the tourism literature, but for certain strategic business decisions it may be more important to forecast correctly the direction of change in either tourism demand or the rate of growth of tourism demand, rather than to minimise error magnitude. Failure to predict major downturns or upswings in tourism demand could have serious financial consequences. Further research is also needed to examine whether the empirical results obtained on relative forecasting performance, in terms of directional change, still hold when more destination and origin country pairs, more modern time-series methods and different forecasting horizons are involved. Fourth, more research is needed into examining the nature and breadth of economic determinants used. As tourism becomes a more universal, social activity, undertaken for a wider range of reasons, by more diverse cultures, so the causal determinants of tourist flows may also change. Fifth, since one cannot expect to obtain a single model that consistently outperforms all other models in all situations, and researchers, policy makers and practitioners have a different interest in the ways in which the forecasting models are used, combining forecasts generated from different models would benefit all stakeholders. However, forecast combination is not a straightforward process and can include non-quantitative methods such as expert opinion; also, there are different ways in which the forecasts can be combined, all of which calls for serious research to be undertaken in the area of tourism forecasting.

Part Two explores 'Tourism supply'. The supply side tends to be relatively neglected in tourism economics. This may be partly due to the fact that the industry, being composed of many disparate individual industries like accommodation, retail and airlines, is difficult to characterise or summarise. This said, as Davies and Downward show, there is ample scope of the economics of industrial organisation to be used to analyse supply issues in the industry.

Information technology, and the rapid advances in it, is a recurring theme when tourism supply is being considered. IT is leading to substantial changes in the structures of some industries such as travel agents. The general issue of IT in tourism is considered in Part 6 by Pauline Sheldon, and its relevance to different aspects of supply is recognised by Čavlek, in looking at distribution, and by Bull, who considers the use of the internet by the industry more generally. Another aspect of supply concerns firm ownership and behaviour. Not all tourism suppliers can be characterised as profit-maximising private firms. Bull notes that many tourism firms may

have objectives other than profit maximisation, and that this will condition their actions. Loomis and Lindberg examine the pricing behaviour of tourism suppliers which are government owned. Much of tourism supply comes from government-owned bodies, such as national parks, infrastructure suppliers like roads and airports, and some transport industries.

In Chapter 4, 'Structure conduct performance and industrial organisation in tourism', Brian Davies and Paul Downward argue that economic investigations into tourism supply and especially the nature of interfirm relationships remains underdeveloped territory. These authors are concerned to investigate supply-side economics as related to the tourism industry concentrating on the competitive environment. Davies and Downward argue that from a microeconomic perspective, the supply of tourism can be understood in terms of the models and concepts developed and refined in the structure conduct and performance paradigm (SCP) and, relatedly, the new industrial organisation (IO) literatures. Davies and Downward draw upon their previous research in the travel agency/tour operations business and hotels to highlight key issues that need further investigation and refinement, and which could have application to other tourism sectors. The authors first indicate the scale and economic importance of tourism, its definition, and how regulators implicitly draw upon SCP–IO concepts in terms of competition policy. They then outline the key concepts and links between the SCP and IO literature. There then follows a critical review of the existing tourism literature on travel and tourism and hotels. Existing work in the area has concentrated on oligopoly in supply being purely theoretical or drawing on descriptive features of the market, and is often contradictory. Davies and Downward have pioneered the use of econometric methods consistent with the methodological roots of SCP–IO literature. Yet, there are important conceptual and methodological issues to address if SCP–IO analysis of tourism is to advance. Descriptive case study research has a role here as does the triangulation of qualitative and quantitative methods. Davies and Downward highlight the processes actually at work in the business environment and explore links to statistically defended predictions of models. The potential of this approach is illustrated with some recent results on the behaviour of UK small-scale package tour companies. Davies and Downward conclude that an econometric strategy combined with insights from descriptive analysis will provide more robust industry insights. Further, academic primary research can help qualify the more formal quantitative analysis required of the SCP–IO literature, thus better informing public policy. Ultimately, this requires refinement of existing approaches together with a broader research methodology. Such frameworks will improve our understanding of not just SCP and IO but of the

tourism industry. Greater understanding of business behaviour, hotels, tour operators, travel agents and the tourism business will result.

In Chapter 5, 'Industrial economics and pricing issues within tourism enterprises and markets', Adrian Bull begins with the claim that the majority of products traded within travel and tourism markets involve special characteristics such as intangibility, heterogeneity, a shared experience, simultaneous production and consumption, perishability, high fixed or sunk costs and cyclical demand. There are, moreover, often fixed capacity constraints facing tourism firms and multiple market segments with different elasticities of demand. Tourism involves a huge range of products, only some of which are substitutable, and therefore the 'market' for tourism is in fact fragmented into markets for many products. Suppliers in these markets therefore face unusual conditions involving market structure and price/output decisions. Some of the key problems identified are 'market definitions', which are challenging and vital for competition policy; 'market structures', which are heavily influenced by product differentiation and contestability issues; and the possible 'competitive and pricing strategies' that suppliers may then employ. These problems may also be complicated by non-profit objectives and the question of how to define tourism products.

A number of issues are coming to the fore in current research and Bull discusses some of these. First, the development of the internet is having a profound impact not only on the marketing of tourism products but also on the markets themselves, providing an open information source that is changing the asymmetric nature of market knowledge, and providing more consumer information to redress the historic problem of tourism being only an experience product. Research is moving from analysing the effectiveness of the internet as a marketing tool to more sophisticated applications such as its ability to create potential monopsonist or buying power tourist groups through on-line communities or for product and price information to become more readily available for analysis by competitors. The internet also helps to permit customisation as the offspring of product differentiation as suppliers with an investment in database marketing, or with the ability to unbundle and create bespoke travel and tourism products, are able to reposition themselves into a different market structure where the neoclassical rules of oligopoly or imperfect competition may not apply so readily. Second, many suppliers in tourism face a situation of competition to sell a core product, but then provide additional products under monopolistic conditions to tourists that buy the core product from them. For example, low-cost airlines may face a highly competitive market in selling air trips, but once the passengers are on board the airline can act as a monopoly supplier of food and beverages, duty-free goods and so on. Under these conditions,

suppliers may select a non profit-optimal strategy for their core product, but one that maximises sales volume in order to maximise the captive market to which they can sell monopoly products at high profit. Current research in this area is utilising the economics of competitive clubs as a theoretical framework of analysis. Third, the issue of defining market boundaries more exactly is receiving increased attention, largely due to an emphasis on the actioning of competition policy in the EU and a number of countries including the USA, Australia and New Zealand. Market definition is becoming an object of demand- rather than supply-side study in many cases, since consumers can be more accurately surveyed to determine potential substitutability where products are complex as in tourism, rather than relying on official industrial classifications that in many cases do not serve tourism at all well. Fourth, researchers are finding new uses for methodologies such as hedonic pricing. This technique has been used to demonstrate how tour operators, supposedly under oligopolistic conditions, operate with market share objectives for market power. It has also been used to show how inefficient pricing by resort hotels in undervaluing or overvaluing their attributes compared with those of competitors can quickly lose demand in a local market.

There are a number of challenges to researchers concerning industrial organisation at the local or destination level, and that at the interdestinational level. Bull highlights the fact that there is currently no good analytical framework to deal with the paradox between the need for tourism businesses, especially small ones, to undertake cooperative promotion and other marketing to gain external economies of scale, and competition between these selfsame suppliers. This problem arises in the convention sector, for example. The 'economics of alliances' between partners whose activities are rarely competitive with each other is an insufficient tool for dealing with competitive cases. Bull argues that researchers have attempted to analyse the supply side of economic activity using standard economic and econometric tools derived from market structure and industrial structure analysis. However, the complexity of market definition and product definition means that it is perfectly possible to adjust slightly the specification of a 'product' or 'supplier' from a parametric perspective and yield completely different results from an analysis. For example, Davies and Downward (see their contribution to this volume) note the contradictory findings from analyses of the UK tour operating sector by other researchers and themselves. Clearly, the specification of 'competing suppliers' in sectors with such fuzzy boundaries as many of those in tourism is a continuing problem for analysis, and particularly for competition regulation authorities. Some authorities such as the EU are turning to consumer studies to identify and specify market boundaries, and there is clearly

a need for research using, for example, tourism consumption systems methods to help to develop demand-side specifications.

Bull argues that it is important to establish to what extent suppliers are operating with objectives other than profit maximisation. Several articles in the research literature produce contradictory results since empirically many firms are not operating with the expected profit-maximising strategy. What impact do market share maximisation or personal 'concealing performance' objectives have on market structure and performance, given that they could well be common objectives for many suppliers within travel and tourism?

In Chapter 6, 'Travel and tourism intermediaries', Nevenka Čavlek discusses the key issues in travel and tourism intermediation. She emphasises that the business environment within which travel and tourism intermediaries operate has undergone radical changes and thus that travel and tourism intermediaries need to undertake necessary changes too. Čavlek focuses on the current role that travel agencies and tour operators play in the market, on the business environment of the largest tourism-generating markets, on the economics of travel agencies, and on the main commercial risks faced by agencies and operators. In order to show how the worldwide distribution network differs, the structures of sales items in Europe and the USA are compared and an illustration of retailing operating accounts is analysed. The complexity of the tour operating business is shown in the light of the principle of economies of scale and enlarged scopes of operations. However, since many risks are connected with these large-scale operations, the importance and complexity of yield management in the tour operating business is also discussed. Some predict that travel intermediaries do not have a future, because the need for intermediaries will disappear with better educated and more travel-experienced customers, as well as with the new possibilities that modern information technology offers.

Čavlek acknowledges that the possibilities offered by new information and communication technologies might be seen as a threat to traditional travel and tourism intermediaries, but claims that only by accepting modern technology as a partner can traditional intermediaries find themselves in a better position to secure their future in the market. This means that travel and tourism intermediaries need to undertake some changes in their core businesses. Another challenge to tour operators comes from the rise of low-cost ('no-frills') airlines, and the possibility of direct bookings of flights and accommodation through the internet. Existing internet portals can already combine accommodation services from hotel data systems and flights from airline computer reservation systems to create a package at daily prices. In response to this challenge, Čavlek points out that many tour operators have developed their own websites, and some are also

already able to perform 'dynamic packaging' at daily prices. Moreover, vertically integrated tour operators have started their own low-cost flight operations, and are offering city-breaks using low-cost carriers. She argues that as long as tour operators can add value to their products, save time and money for their clients, and ensure their protection, they can secure their competitiveness in the long term. Since the business environment in which these companies operate is becoming increasingly competitive, and since the risks of their operation are very high, travel and tourism intermediaries are constantly seeking better organisational forms. There will consequently be an increasing need in the future to put more emphasis on the economics of their business.

Čavlek argues that the trend of consolidation that has taken place among travel and tourism intermediaries in the European market is slowly moving to the American market. At the same time there are visible signs of disintegration among European leisure travel concerns. The new organisational structures require new management models, but above all they require well-educated staff who will be able to lead the development of the industry. She concludes that, in general, the modern business of travel and tourism intermediaries is increasingly characterised by integration and cooperation as well as by the use of modern technology. Over time the market is likely to be more polarised between vertically integrated concerns and 'small players'. Small companies will be able to survive the competition of vertically integrated concerns only if they are able to offer products of high quality standards for clients with specific requirements, and in the long term foster high quality management and innovative activity. This is particularly important since large companies, which may have at their disposal high technology and which possess the capital for optimal development, cannot respond as quickly to changes as small companies. Large vertically integrated concerns will try to develop yield management techniques applicable to this very complex and risky business. One business function in particular that will gain in importance, no matter what the size of the company, will be risk management.

In Chapter 7, 'Pricing principles for natural and cultural attractions in tourism', by John Loomis and Kreg Lindberg, the basic thesis is that pricing plays many more roles in recreation and tourism management than might be imagined. Loomis and Lindberg begin with the claim that natural and cultural attractions in tourism often are owned by the government or non-governmental organisations, and this leads to pricing objectives and strategies that may differ from those in the private sector. The authors note that the very decision to retain these attractions in public ownership suggests that profit maximising pricing such as a private firm would pursue may not meet the objectives of public ownership. Public pricing goals often

involve recovery of at least some of the management costs, while keeping sites affordable to allow for public exposure to the natural or cultural heritage. Thus a wider range of factors may affect the pricing decision in public agencies and non-profit organisations than in the private sector. Loomis and Lindberg describe economic approaches to pricing, and then describe alternative approaches that are driven by economic (for example, decreasing production costs) or non-economic (for example, revenue requirements, social equity) considerations. Even when non-economic goals affect the pricing decision, economic principles can guide the decision. Thus, if pricing is used to reduce negative ecological or congestion impacts, it is necessary to know the price responsiveness of demand to calculate the magnitude of a price increase needed to reduce visitation levels to a target amount. Also there are economic and recreation management consequences of pricing policies sensitive to social equity concerns. For example, low prices may lead to overuse or excess demand, necessitating supplemental non-pricing rationing.

The authors draw upon the relevant portions of the general public sector pricing literature and tailor general principles to the specifics of outdoor recreation and cultural sites. The principle of marginal cost pricing is introduced, and the cases of constant, decreasing and increasing costs of production are discussed. Strategies for peak load and differential pricing across products to manage visitor flows are presented, as is price discrimination across submarkets. The relationships between pricing and objectives such as maximising total revenue or achieving public goals such as equity across visitor groups are also described. The chapter stresses that economics plays an important role in the pricing of such attractions even when they are not profit-maximising private firms. Loomis and Lindberg acknowledge that the implementation of the types of pricing principles they discuss requires knowledge of visitor demand and price elasticity. This requires systematic research on a wide variety of tourist opportunities to understand the likely range of elasticities for typical tourist sites, facilities as well as different types of users and their region of origin.

Part Three covers 'Tourism transport', with particular emphasis on airlines. The links between tourism and transport are obvious, though there has been relatively little discussion of the two together in the literature. The role of aviation in tourism has been increasing rapidly over the past four decades, and within the aviation sector there have been developments which have important implications for tourism. One of these has been the moves by airlines, to form strategic alliances. The nature of these, and their impacts, is discussed by Dimanche and Jolly, and by Morley. Aviation has long been a controversial area for governments, which have been pressured by airlines' interests to implement restrictive regulations and by tourism

and consumer interests to liberalise. The dominant trend has been one towards liberalisation, and this has facilitated the increasing role of aviation in tourism, as documented by Forsyth. These developments continue, with the boom in low-cost carriers leading to shifts in the patterns of tourism flows.

Business alliances represent a growing trend, particularly in the tourism sector. In Chapter 8, 'The evolution of alliances in the airline industry', Frédéric Dimanche and Dominique Jolly explore the nature of these business alliances, the effect of pulling resources together, and the types of benefits expected by the respective partners. After reviewing the existing literature on strategic alliances, Dimanche and Jolly employ a new typology of alliances that they illustrate in the context of tourism and, more specifically, airlines. The two types of inter-firm alliances are endogamy and exogamy. Endogamy occurs when partners share related profiles, whereas exogamy appears when allies exhibit unrelated profiles. The usefulness of this typology is that it enables the researcher to use resource-based approaches so as to suggest a dichotomy between alliances generating opposite results and representing very different stakes and risks. For practitioners, this typology allows the distinction between two classes that call for significantly different managerial approaches. Dimanche and Jolly propose the use of this original alliance typology to cast a new light on the evolution of strategic alliances in the airline sector.

Dimanche and Jolly claim that the nature of inter-firm alliances in the airline industry has changed dramatically over the last decade. The change has been from alliances being 'endogamic' to becoming 'exogamic' partnerships. The split between these two types of cooperation stems from the relatedness between allies' profiles. When two allies operate similar value chains in the same environment, they are likely to bring similar resources in the alliance; this opens the door to the accumulation of undifferentiated resources. In contrast, when allies operate different value chains or come from unrelated environments, they are likely to bring differentiated resources that they will try to combine. As a consequence, endogamies generate quantitative complementarities related to size effects, while exogamies produce qualitative complementarities. As endogamies, the aim was to gain some quantitative complementarities related to size effects including gaining joint economies of scale, increasing market power, cost sharing, reaching a critical mass, and so on. Airlines have since tended to reduce their involvement in these cooperation agreements to form new partnerships. Global alliances, for example Star Alliance, Oneworld and SkyTeam, are built between airlines to benefit from their differentiated profiles. These are exogamic partnerships. Because each partner operates a network different from that of its counterpart, together they are able to benefit from

geographical and market complementarities. As the size of the networks increase, so do the strategic and managerial challenges. Whatever the research issue, Dimanche and Jolly suggest that an understanding of the evolution of alliances from endogamic to exogamic, should shed increasing light on the nature and the consequences of those alliances.

International airline alliances have become an important and growing feature of the airline industry. While these alliances are not stable, they are likely to continue to be a feature of the airline industry. In Chapter 9, 'Airline alliances and tourism', Clive Morley argues that alliances can affect both the demand and supply sides of tourism. Airlines are generally believed to benefit from lower costs, improved market access, coordination of services with partners improving productivity and reducing competition, and higher barriers to entry. Travellers are expected to benefit from the better service aspects and reduced fares as a consequence of reduced costs for the airlines. The balance of outcomes for tourists of improved efficiency of airlines versus a lessening of competitive forces needs to be determined empirically. Tourism demand could conceivably be greatly affected by the changes in the airline industry and airline operations that result from airline alliances.

Morley argues that the strong growth of alliances of international airlines raises two key issues for further consideration. The first is: are alliances likely to persist as an important feature of the airline industry? The second issue is consequential: if airline alliances will persist, what are the likely impacts on tourism?

The empirical evidence is that alliances have led to both lower costs for airlines and lower fares. However, it is not clear that the impact on tourism has been as marked. There is a need for future research to use better and more specific data, and thus generate focused and particular estimates of the impacts of alliances on tourism. As Morley notes, most of the studies carried out to date have been broad and general in their conclusions, giving average and overall results. For example, estimates of profit, productivity and fare impacts of alliances, while based in sophisticated theoretical economic models, are derived from data at a high level of aggregation (such as productivity indices rather than specific measures) and, as regression coefficients, are, in a sense, averages over time and airlines. For policy and planning purposes they give an indication rather than a precise figure for use in any particular case. There is a need for more focused data and estimates.

As Morley points out, most modelling of alliance impacts assumes that the air fares before the alliances are sustainable and appropriate, so that any reduction is an efficiency gain from the alliance. He argues that the situation can be more complex, and there could be an element of correcting unsustainably high prevailing fares. Many studies of airline alliances' effects have proceeded on the basis of an event study form of model. This

has meant the formulation of a model and the incorporation into it of a dummy variable representing the presence of an alliance. However, the effects of airline mergers can be distorted in such modelling, as alliances may not be independent of existing features of a route (say) such as the previous fare levels, and as effects can take some time to become fully apparent. Thus, the straightforward use of dummy variables in econometric models to indicate the presence of an alliance, and other simple alliance indicators, can be misleading in the results they give.

Morley identifies some key weaknesses in the research literature to date that provide opportunities for further work. Important among these are the derivation of the elasticities used in most models, which assume that elasticities are constant in respect of other important variables such as incomes (that is, are constant over important market segments) and over time. Both of these assumptions are likely to be invalid and tests have confirmed this. It is thus necessary for accuracy that elasticities be continually re-estimated on up-to-date data. This is a matter of importance for tourism demand analysis in general, and of importance for such areas as assessing the effects of airline alliances where such elasticities are relied upon. The lack of sound estimates of cross-price elasticities is another aspect of this issue.

More particular to the studies of airline alliances, Morley highlights the use of posted, representative or average fares. Tourism flows, and much of the actual travel decisions of air travellers more widely, are often driven by discount, special or group fares. Alliances may not have a great impact on such fares, which are already very competitive and set by demand, rather than determined by cost considerations. The fares used in studies may not be a real representation of fares actually considered by tourists, and thus the impacts can be distorted. Additionally, the impacts of alliances on marketing, and the flow-on effects on tourism, are asserted but not well tested or estimated.

Morley concludes that models that include some of the features of alliances (such as lower fares, reduced stopovers, through ticketing and so on) as explanatory variables would be a step in advance of current models. Data for such variables might be obtained from specifically designed and conducted surveys. This would enable the estimation of the impacts on tourism numbers of the component aspects of alliances.

In Chapter 10, 'Aviation and tourism', Peter Forsyth demonstrates that these concepts are closely linked – for many tourists, especially international tourists, air transport is the preferred or only effective means of transport. The growth of tourism in the past fifty years has been greatly stimulated by developments in aviation. While there is now a substantial literature on both tourism economics and the economics of aviation, there have been relatively few contributions which explore the connections.

For many journeys, the services of the air transport and the tourism industries must be consumed jointly. As a consequence, there are many ways in which the two industries impact on one another. Changes in the industry structure of one, such as those which came about due to liberalisation of air transport, have resulted in the stimulation of growth in the other, such as long-haul tourism. Technical progress in aviation has resulted in lower fares, which have stimulated tourism growth. Government policies imposed on one industry, such as taxation of tourism, have impacted on the other.

Forsyth acknowledges that there are conflicts of interest between tourism and aviation sectors – lower air fares stimulate tourism, but put pressure on airline profits – and that this has posed policy dilemmas for governments. Over time, however, governments have chosen to implement less restrictive regulation of air transport, and this has led to more competition, lower fares and more travel. Forsyth argues that this trend towards liberalisation has reflected the recognition that overall gains are made by having a liberal environment, even if some interests are adversely affected. It reflects a greater understanding of the economic and other benefits tourism can bring to a country, and it reflects a more articulate tourism industry in many countries. While there has been some cost in terms of airline profits and staff remuneration, countries see gain in encouraging tourism through more efficient and lower-cost airlines.

There have been several phases in these developments which have been critical, such as the development of charter markets in Europe, US domestic airline deregulation and the emergence of low-cost carriers. Improvements in aviation technology have also impacted on tourism, notably by lowering costs, and they have also impacted on patterns of tourism. Taxation is one area in which the links between aviation and tourism are important – governments can tax air transport, tourism products or both, and they need to determine the balance between these taxes. In spite of the links, there is not much by way of integration at the firm level between aviation and tourism, though there are some exceptions to this. Important exceptions include tour companies which operate charter airlines, and airlines which invest in travel agents.

There are challenges that require additional research. The impacts of aviation changes on tourism, and the measurement of the economic benefits from consequent changes in tourism have been under-researched. This is something which is now being factored into aviation policy making, though explicit measurement of benefits is still in its infancy. Related to this is the need for a better understanding of the determinants of tourism demand. Tourism demand modelling is becoming more sophisticated (see the chapter by Lim in this volume), and some models explicitly include aviation

(for example, air fare) and ground component (for example, ground component prices) variable as determinants of tourism demand. Both types of variable are significant, and they influence demand in different, though related, ways. They will influence not only total visitor flows, but also duration of trips, and expenditure in total, and per night. As Forsyth emphasises, more detailed evidence on how aviation changes, such as falls in fares, impact on these variables will enable more accurate measures of the impact of aviation changes on tourism economic benefits.

A final aspect of the aviation–tourism connection that Forsyth examines concerns aviation and tourism taxes. The impacts that taxes on one level can have on the other can easily be understood. However, policy makers rarely put all the pieces of the jigsaw together. Does a country wish to encourage tourism, and maximise economic benefits of tourism, by keeping taxes, on both aviation and ground tourism, low? Or does it wish to make use of its market power, and use foreign tourists as a source of revenue? Whichever of these options it chooses, it will need to determine at which level – aviation or ground tourism – such taxes are best levied. Furthermore, if there is already general taxation of tourism and aviation services, it will need to determine how best to counteract these if it wishes to keep taxes low. Aviation and tourism taxation need to be considered jointly – though often they are not.

Part Four concerns ‘Tourism taxation and infrastructure’. Governments both support tourism, by providing infrastructure for it, and take advantage of it, by taxing it. The tax issue is a particularly important one for the tourism industry, because tourism taxes are one of the few taxes which, from the perspective of an individual country or region, might be exportable, an issue which Mak considers. This poses a policy dilemma for governments – additional taxes on tourism exports are mainly paid by non-residents of the country – however, they do discourage tourism, and lessen the economic impacts and benefits that tourism expenditure might bring (considered in Part Five, below). Taxes can also be used to fund infrastructure provision, as considered by Sakai, and can encourage tourism in this way. Given these conflicts, it is not surprising that different countries choose different approaches – some keep taxes low to maximise the benefits from additional tourism expenditure, while others prefer to export their taxes, at some cost to the size of their tourism industries.

In Chapter 11, ‘Taxation of travel and tourism’, James Mak begins with the observation that tourism development is not a free good. Like residents, tourists and their suppliers demand public services which have to be paid for through taxes and user charges. The production of tourism goods and services requires resources which must be diverted from other economic uses. The net benefit from tourism development depends

critically on how a destination designs its public finance/revenue system to tax travel and tourism. Taxing tourism is one way for tourist destinations to reap the economic gains from tourism development and, since the 1980s, taxes levied on travel and tourism have proliferated around the world. Destinations tax tourism for at least four reasons: to expand and diversify their tax base; to export taxes to non-resident tourists; to tax away excess profits or economic rents from tourism to benefit residents; and to correct for market failure. Mak argues that the growth of tourism has provided destinations with an excellent opportunity to broaden their tax base and export taxes to tourists. Tax exporting is not unique to tourism. Some explain that politically it is easier to tax tourists rather than residents because tourists are not constituents. Evidence, however, indicates that where tourism is an important contributor to the local economic base, tourism suppliers constitute powerful political interest groups which are quite capable of defeating or delaying efforts to impose new or increase existing tourist taxes.

Mak notes that, by the early 1990s, the travel industry became quite alarmed by the proliferation of taxes levied on tourism. The fundamental question that must be addressed by both the industry and policy makers is: 'What are the impacts of a growing tax burden on the world's largest industry?'. In response, Mak attempts to answer four questions: (i) What is a tourist tax? (ii) What are the economic reasons for taxing travel and tourism? (iii) Who ultimately bears the burden of tourist taxes? (iv) Is it economically 'efficient' and 'fair' when goods and services that are largely purchased by tourists are more heavily taxed? Within the tourist industry, it is widely believed that the industry and tourists are being unfairly singled out for taxation to the detriment of both tourism and destination residents. Mak argues that there are sound economic reasons for taxing tourism beyond simply collecting revenues to pay for public services that benefit tourists and tourism suppliers. A well-designed system of tourist taxation can benefit the residents of destinations in a number of ways: it can broaden and increase the revenue elasticity of the destination's tax base, extract economic rents, and protect the environment (which also benefits tourism). It can also benefit tourism by making more money available for tourism promotion and for the construction and operation of convention centres. Mak also argues that levying higher taxes on goods and services that are largely purchased by tourists does not necessarily reduce economic efficiency or equity.

Mak concludes with a brief discussion of user charges in tourism. Unlike taxes which are paid under coercion, user charges, like prices in private markets, are 'voluntary' payments in that only those who choose to use those services are required to pay. User charges are most appropriately used

to finance public services when most or all of the benefits go to identifiable users, and those who do not pay can be denied use at a reasonable cost.

Mak points out that more research needs to be done on the direct impacts of travel and tourist taxes on the demand for travel. As well, we need to know more about the incidence and exportability (*ex post*) of tourist taxes. We also need to know more about how to tax and collect revenues from multinational tourism businesses given that their activities take place in different countries and tax jurisdictions. A topic which has not received much attention is the effect of tax incentives on tourism investment. To date, studies of the tourism's tax impacts have relied on static partial equilibrium analysis. In the future the greatest value added would undoubtedly come from examining the impacts of tourism taxation from a general equilibrium perspective using computable general equilibrium modelling techniques. (See the contributions in this volume by Blake, Gillham and Sinclair, and by Dwyer, Forsyth and Spurr.)

In Chapter 12, 'Public sector investment in tourism infrastructure', Marcia Sakai claims that tourism infrastructure provides an important foundation for tourism development, perhaps second in importance only to a destination's attraction resource base, because infrastructure is vital to the commerce of tourism. While infrastructure may be defined to include public safety, mail and freight services, medical systems, financial systems, education systems, national defence, and other services that support both resident and tourism demand, such as retail and shopping, Sakai defines infrastructure as capital-intensive, long-lived physical assets that provide benefits to the general public or to promote economic development.

Sakai argues that infrastructure increases the efficiency of privately producing and distributing tourism services, and in certain cases, such as tourism enclaves or remote destinations, makes possible the supply of tourism services. Tourists, in particular, travel to destinations in other countries or to other regions within their own country, thus making passenger transportation infrastructure a key element. Whether travel is by land, air or sea, the supporting airport and harbour transportation nodes, as well as railway, road, bridge and tunnel networks, are required. Tourists, moreover, add to the effective population of a destination, requiring the same basic services that are ordinarily consumed by residents. The demand for infrastructure services of water supply and waste disposal, communication and electricity is thereby increased.

Public investment in infrastructure that serves the needs of tourism is common, because it serves both tourists and residents. From an economic perspective, public investment is rationalised when private markets fail to produce an efficient amount. Sakai regards the provision of tourism infrastructure as of particular importance in the long-term environment of

tourism growth. Expanded facilities are needed to accommodate anticipated growth and to maintain a relatively uninterrupted service level. At the same time, environmental changes in the technology that supports the various infrastructure networks, geo-political changes that affect oil resources heavily used in modern transportation, and socio-political changes that affect government ability to finance tourism infrastructure are anticipated to affect the look of tourism infrastructure finance for the future.

Sakai argues that the primary public finance issue is whether public investment is commensurate with marginal public benefits and costs. This may be characterised alternatively as determining whether the incremental addition of infrastructure yields only private benefits. This issue is highlighted by greater efforts to increase the level of private investment and funding through user charges and by the trend to privatisation or public-private partnerships. Public policy decisions would be better informed by research that establishes the marginal benefit and marginal cost of public infrastructure investment, as well as the distribution of these benefits and costs. This analysis is needed for deciding how to finance the investment itself, as well as how to finance operations. Opportunity costs need to be assessed, including the costs of externalities. And the long-lived nature of the infrastructure asset requires an analysis that takes into account benefits and costs over time. Besides the traditional static partial equilibrium or input-output analyses (criticised in Blake et al. and Dwyer et al. in this volume), dynamic general equilibrium analysis has significant promise to better assess infrastructure projects and their public finance.

Part Five covers 'Evaluation for policy making'. The measurement of the size, contribution and impacts on the economy of tourism have been areas of major development in tourism economics over the past decade or so. An area which has seen extensive empirical work has been the measurement of the size of the tourism industry by means of tourism satellite accounts (TSAs). Several countries have now incorporated these as part of their national accounts. The measurement problem stems from the tourism industry really being parts of other industries, rather than a single defined industry in itself. As Spurr shows, in the past it has not even been clear how large the tourism industry in a country was. TSAs are of interest in themselves, but they also provide data for further developments, such as productivity analysis and construction of CGE models.

While the TSA is essentially a static set of accounts, CGE models make it possible to assess how changes in tourism impact on the economy. CGE models are models of the whole economy, and they incorporate the interactions between sectors, and reflect resource limitations. They embody an input-output structure, and incorporate a TSA. They enable estimates to be made of how a change in tourism, such as additional tourism encouraged by

promotion, or reduced tourism due to a crisis, will impact on key economic variables, such as GDP, which is an overall measure of output, employment, tax receipts and exports. They also enable one to determine how other industries are affected by tourism changes. Blake et al. survey the developments in applying CGE models in tourism, and discuss specific applications such as modelling crises and tax changes. CGE models can be used to estimate the economic impacts of special events, as Dwyer et al. show. Special events are often promoted on the grounds that they encourage economic activity, and the economic impacts have, in the past, been estimated using input–output techniques. Dwyer et al. show how CGE models can be used to evaluate events, and indicate how the results of such evaluations will differ from those using the earlier techniques. Typically, much smaller economic impacts will emerge. With governments now paying particular attention to the economic impacts of their policies towards the tourism industry, CGE modelling is likely to have a growing role in informing policy making.

In Chapter 13, 'Tourism Satellite Accounts', TSAs are discussed by Ray Spurr. A TSA is a statistical tool for measuring the total economic and employment significance of tourism in a national economy. It sits alongside the main tables in the System of National Accounts and is conceptually consistent with them. To do this the TSA needs to be based on a consistent and authoritative set of definitions and methodological approach. These have been broadly agreed through international negotiations held under the auspices of the World Tourism Organization. The benefits of a TSA include that it provides an integrated set of data within accepted national accounting principles which identify a clear position and importance of tourism within the economy. It also provides an improved and more credible data and a common methodological base for further analysis to support government and industry decision making and strategic planning. TSAs can be expected to be taken up by an increasing number of countries and will contribute to enhanced understanding of tourism and recognition of its economic importance. There remains potential for a growing range of applications. For researchers, TSAs represent a valuable and, as yet, barely tapped resource.

In Chapter 14, 'CGE tourism analysis and policy modelling', Adam Blake, Jonathan Gillham and M. Thea Sinclair argue that CGE models are particularly suited to tourism analysis and policy. In contrast to partial equilibrium approaches, CGE models can take account of the interrelationships among tourism, other sectors in the domestic economy and foreign producers and consumers. The modelling can be tailored to alternative conditions, such as flexible or fixed prices, alternative exchange rate regimes, differences in the degree of mobility of factors of production and different types of competition. CGE tourism models are particularly

helpful to policy makers, who can use them to provide guidance about a wide variety of ‘What if?’ questions, concerning the range of domestic or international shocks or policy scenarios that can arise.

CGE models are based on the recognition of the economy as a general equilibrium system. There are four types of equation: equilibrium conditions for each market ensure that supply is equal to demand for each good, service, factor of production and foreign currency; income–expenditure identities ensure that the economic model is a closed system; behavioural relationships give economic agents’ reactions to changes in prices and incomes, determining consumers’ demand for each good and service; production functions determine how much is produced for any given level of factor utilisation.

The authors document the main contributions that CGE modelling has made to tourism analysis, initially outlining the theory that underlies the models and subsequently providing an overview of the empirical studies that have been undertaken in the tourism field. They review the application of CGE models to tourism in a range of countries including Australia, the UK, the USA and Indonesia. The CGE modelling framework is sufficiently flexible to allow for the incorporation of different sets of assumptions concerning consumption and production relationships, in accordance with the empirical circumstances or scenarios under consideration. Although the assumptions of fixed prices and fixed coefficients may be valid within some empirical contexts, in cases where the assumptions do not hold, input–output (I–O) models provide overestimates of economic impacts. The implication is that policy makers should use the more widely encompassing framework of CGE modelling, within which the I–O model is but one of a set of alternative models. The development of CGE models designed specifically for tourism has been geared mainly towards examining the economic impact of changes in tourism demand on the macro economy and the different economic sectors within it. Subsequent studies have examined alternative tourism-related policy options that the government can follow.

The use of CGE models has been facilitated by the development of Tourism Satellite Accounts, which have provided substantial increases in the quantity and quality of the data that can be used in the models (see the chapter by Spurr). TSAs provide an ideal basis for CGE models that can examine the analytical and policy-related questions that the more descriptive TSAs are not designed to answer. It is within the context of further and more geographically widespread TSA development that the use of CGE tourism models throughout the world is taking off.

The authors examine CGE models in the context of their theoretical framework and applications to tourism analysis and policy making. The

discussion explains the ways in which the general equilibrium framework of the models is evolving to incorporate imperfect competition and dynamic analysis, each of which contributes further insights into the nature of the interrelationships between tourism and other sectors of the economy. The models have provided information relevant to the formation of policies for dealing with events as diverse as shocks resulting from foot and mouth disease or terrorism or changes in different types of tourism taxation. CGE models can also be used to examine such issues as the implications for tourism and other economic sectors of membership of the European Union or other trade associations. Further research should concentrate on further development of models incorporating imperfect competition and dynamic analysis, extending the models to take account of more microeconomic information and undertaking further policy analysis, complementary to the information provided by TSAs.

Blake et al. claim that future research on CGE tourism analysis is likely to focus on three main areas. The first involves further research on dynamic CGE analysis. This is currently at the frontier of developments in tourism modelling, in terms of both theoretical and empirical contributions. The second area concerns the incorporation of more microeconomic information into CGE models of tourism. This is an area that is in the forefront of research on CGE modelling. The incorporation of detailed information at the level of individual households' consumption and firms' production behaviour and their interactions with the macroeconomic representations of economic behaviour characterised by CGE models would improve the quality, accuracy and insights available from the analysis. It would also provide interesting results about the distributional implications of tourism shocks or tourism-related policies. This type of information is a prerequisite for effective strategies to enable tourism development to contribute effectively to poverty alleviation. Such developments in CGE tourism modelling should not be considered in isolation but should complement developments in econometric modelling. The latter can provide more accurate estimates of the parameter values that are included in CGE models, relating to more disaggregated levels of analysis, providing improved means of policy formulation. Thus, the future of CGE tourism analysis depends upon both improvements in modelling and the provision of a superior quantity and quality of data. In the context of tourism modelling, such improvements should encompass the provision of a more disaggregated range of data for different types of tourism production and consumption, such as business tourism, short breaks, educational tourism and adventure tourism. Improved data at the regional and local levels would also assist more effective policy formulation, along with better coordination of policy making at the local, regional, national and international levels.

The third area concerns policy analysis. CGE modelling can show the ways in which tourism impacts and policies are integral to wider macroeconomic events and policy making, demonstrating the ways in which shocks or policies that affect one sector of the economy impact upon others. The modelling can shed specific light on a wide range of issues, including foreign direct investment in tourism, tourism productivity and competitiveness, fiscal policies for tourism, policies within wider international groupings such as the European Union, policies for transportation, the environment and related externalities. The future for CGE modelling of tourism is bright, particularly given the context of ongoing development of TSAs for countries across the world. Clearly, TSAs provide the means of describing and quantifying tourism's contribution to different economies. However, they must be complemented by tourism modelling if they are to provide businesspeople and governments with effective guidance for dealing with the range of events and policy decisions that have to be made on an ongoing basis. CGE tourism modelling provides a versatile and effective means of examining the wide range of scenarios that can occur.

Special events are typically regarded as major generators of economic activity and jobs. While there may be other perceived benefits from events, such as 'putting a city on the map', facilitating business networking and civic pride, much of the public justification of events funding centres around the perceived positive economic impacts of events. In Chapter 15, 'Economic evaluation of special events', Larry Dwyer, Peter Forsyth and Ray Spurr argue that the economic impacts and benefits of events, if rigorously assessed, are very much lower than those invariably claimed, implying a misallocation of events funding generally, and excessive overall spending in promoting events. Input-output models estimate the positive economic impacts on spending brought about by changes such as special events; however, they do not measure the equally real negative economic impacts. An event brings additional demand to the economy – as this demand is met, additional output and jobs are created. However, the process does not end with the positive effects. I–O analysis essentially assumes that all resources and inputs are provided freely, and that no resource constraints exist. In real-life economies, when more resources are required in one area of the economy, they are drawn away, at least in part, from productive activities elsewhere in the economy. Prices of inputs and wages get bid up, and other activity is discouraged. The net impact on output and jobs from a boom in demand, such as would be created by a special event, is much less than the initial injection of spending. Despite its continued use in event assessment, I–O analysis has been rejected in other areas of economic impact evaluation. In industrial countries at least, much economic policy discussion of the impacts of shocks to different industries now relies on the much more

rigorous evaluation technique of CGE analysis, which recognises resource constraints and the inter-industry effects of demand shocks.

An issue neglected to date concerns the interests of the different levels of governments involved in the event assessment process. To make informed decisions about events policy, governments need to know the answers to the following questions: (i) How much will the event add to economic activity and jobs after accounting for inter-industry effects? (ii) Is the event likely to produce net economic benefits, and if so, how much is it worth subsidising? (iii) To what extent do the benefits of the event come at a cost to other jurisdictions? Such questions cannot be answered within the I–O approach. It needs to be emphasised that the perspectives on an event from the local, state and national levels will be quite different. An event may be highly attractive to a rural city, though only of marginal or negative benefit to a state. Notwithstanding this, a state government may be prepared to subsidise the event, even though it is basically shifting, rather than creating, economic activity and jobs. This could be so if a region is depressed, and the state government wishes to give it some stimulus. For this to be worthwhile, the event must be assessed in comparison with other forms of stimulus – there may be ways in which the same funds could generate a greater impact on local economic activity, or a similar impact without as large a negative impact on other parts of the state. If so, it would be more effective to subsidise these alternatives rather than the event. And such decisions should be taken in full awareness of who the winners and losers within the state will be, both in regional and industry terms. The losers might well be other depressed regions, or industries, within the state. An I–O analysis will provide no information on this. Where an event receives financial support from the state government, assessment of the statewide effects is critical.

Dwyer et al. estimate the economic impacts of a selected event on the New South Wales and Australian economies, and on the economy of the rest of Australia using both a CGE and an I–O model. The I–O model is that contained within the CGE model which they have developed for the Australian Sustainable Tourism Cooperative Research Centre. The comparison reveals substantial differences between the techniques with respect to estimates of the economic impacts. Specifically, I–O modelling projects a much greater impact on real output, value added and employment on both New South Wales and Australia, as compared to CGE modelling. In contrast to the I–O model, which projects a positive (or zero) change in output in each industry sector in the state, the CGE model projects reduced output and employment in several industries.

The authors discuss, and reject, arguments that continue to be advanced by advocates of I–O modelling of event impacts. Several types of (inter-related) claims are often made for continuing to use I–O models to estimate

the multiplier effects of event. These are: the choice of model depends on the size of the event; the choice of model depends on the location of the event; the choice of model does not matter since adjustments can be made to I–O results to make them more realistic; CGE models are required to make too many assumptions making them too complex to use; and CGE models are costly, and often unavailable. On the basis of such arguments, I–O analysis continues to receive support in some quarters as the preferred technique of event assessment. The authors consider carefully the nature of each claim and the qualifications that must be made to each.

The distinction must be made also between the impacts and net benefits of events, a distinction which many researchers have failed to appreciate. Economic impacts, such as the change in GDP resulting from an event, are not the same thing as the economic benefits which arise. The impact on GDP is a *gross* measure of the change in value of output as a result of an event. This addition to output normally requires additional inputs, of land, labour and capital, to enable it to be produced. These inputs have a cost, and this cost must be deducted from the change in value of gross output if a measure of the net economic gain is to be made. Standard CGE models can be adapted to produce, as part of their output, an estimate of net benefits – the cost of additional inputs is subtracted from the value of the additional output.

A rational events strategy involves funding events at a level which is appropriate given the benefits they create, and which reflects the benefits which could be obtained by using the funds elsewhere. It also involves allocating the funds available to the events which create the greatest net benefits. Achieving this requires at least two things to happen. First, there needs to be rigorous economic evaluation of events, implying a move away from the current practice of exaggerating economic impacts. Second, there needs to be an institutional framework under which there is the incentive for this to happen.

Part Six includes applications of economic theory to resolve problems in the tourism industry. At its core, it deals with aspects and determinants of economic performance of the tourism industry. Tisdell deals with the environmental performance – how environmental impacts can be valued in economic terms, and how they can be handled efficiently using economic instruments. Two key inputs to tourism are labour and IT. Rey-Maqueira, Tugores and Ramos examine labour, and more specifically, human capital issues in so far as they affect tourism and its performance. Sheldon documents the increasing role of IT in the industry, and how it is changing structures and performance.

International dimensions of performance are considered in the last three chapters. Crouch and Ritchie discuss tourism competitiveness in broad

terms, highlighting non-economic as well as economic dimensions to destination competitiveness. Sahli looks at competitiveness and trade patterns in tourism. Competitiveness, along with other factors, influences how countries trade in tourism services. Trade in tourism services, in turn, is having impacts on countries' tourism industries. Globalisation, which encompasses trade and other aspects, is considered by Fletcher and Westlake. Aspects of globalisation, such as the formation of multinational enterprises, are having an impact on home tourism industries, for example by putting pressure on small and medium-sized enterprises, which have formed the basis of many sectors of the tourism industries up to now.

In Chapter 16, 'Valuation of tourism's natural resources', Clem Tisdell discusses the implications of the economic valuation of natural resources used for tourism. Much tourism depends on the environment(s) at the destination(s) of tourists. Such environments may be natural, cultural, or partly man-made and partly natural. Considerable progress has been made since the early 1960s in developing and applying techniques for the economic valuation of environmental/natural resources. However, as far as tourism and recreation are concerned, these developments have concentrated on estimating the use value of natural sites or resources for this purpose. While this emphasis has its relevance, this chapter emphasises the risk of neglecting non-use economic values. Taking these values into account may strengthen the economic case for conserving a natural area used by tourists and recreationists.

Since access to many environmental goods, such as beaches, national parks and other open-air recreational facilities are either not priced or only partially priced, there is a danger of their not being valued (when they are economically valuable) or of their being undervalued from an economic point of view. As Tisdell notes, this can distort economic resource allocation. Land areas which would be best left in a relatively natural state for tourism and other purposes may, for example, be developed for uses such as agriculture or housing. From an economics perspective, rational decisions about resource use or allocation require appropriate economic valuations to be made about their alternative uses. From an operational viewpoint, economic valuation might be best based on monetary values. Money enables economic values to be expressed in a single unit of measurement and facilitates the comparison of economic values. Tisdell notes that this is the basis of social cost–benefit analysis. According to this approach, the aim of economic valuation of a natural resource or an area of land is to determine its social economic value for all of its alternative uses in monetary terms. The use with the highest net monetary value (determined by social cost–benefit analysis) constitutes the best economic use of the natural resource. This may involve its preservation in a relatively natural state, with tourism being one of its uses.

Measures of consumers' surplus have typically been the basis for assigning monetary economic values to possible alternative states for environmental resources. Willingness to pay by stakeholders for a particular state of a natural resource has been most frequently used as the indicator of the economic value of the resource in that particular state. This involves the *independent* estimation of the willingness to pay of each individual stakeholder for this particular environmental state and the *addition* of all these amounts to determine an aggregate economic valuation. An alternative approach is to consider the aggregate monetary sum that individuals would have to be paid to compensate them for the loss of an environmental asset. Empirically it has been found that the willingness to accept compensation for the loss of an environmental resource usually exceeds the willingness to pay for its retention. The difference is often considerable. That raises the question of which of the two approaches is to be preferred. The first alternative allocates property rights or entitlements in favour of those who want to retain the environmental or natural resource. The second alternative assigns property rights or entitlements in favour of those who may want to exploit the natural resources. As Tisdell notes, the choice of the technique, therefore, involves a question of distributional justice. According to 'new welfare economics', the choice cannot be resolved without a value judgement. Despite this problem, Tisdell acknowledges that there can be a large number of cases in which both approaches (willingness to pay and willingness to accept compensation) lead to the same conclusion about optimal resource use, and that this strengthens any economic policy prescription based on this type of social cost–benefit analysis.

According to the theory of total economic valuation, the economic value of a natural resource may be assessed by taking into account its total economic value consisting of its use value plus its non-use value. The benefit of using net total economic benefit is that it takes into account both market values and non-market values. Tisdell argues that total economic valuations can play a useful role in determining the economically optimal allocation of resources. While the economic value of natural resources for tourism can provide a strong case for their conservation, this case can often be bolstered if account is also taken of off-site non-tourism values of a natural site. Hence, those who want the site conserved for tourism purposes rather than developed would find it worthwhile not only to stress the tourism value of the natural site but also its other economic values as well. Conversely those who want the site preserved primarily for its ecological or off-site values would do well not to ignore its value for tourism purposes. In real political situations, all these sets of economic values can make a difference in influencing political decisions about whether a natural area is conserved. Most attempts by economists to measure the value of outdoor

natural assets used by tourists or visitors concentrate on their value for recreation. In doing so, their focus is on a particular aspect of use value. For some resources, this may be their complete or prime source of economic value. However, for other resources used for tourism and recreation, their source of economic value is mixed and only partially accounted for by their tourism or recreational value. The passive or non-use value of many natural areas is considerable and measurement solely of their tourism and recreational value is liable to understate significantly the economic value of conserving such areas. On the other hand, some sites (such as recreational parks surrounding some man-made reservoirs) may have little or no passive use value.

Tisdell reviews various techniques, such as the travel cost method and contingent valuation method (CVM) in relation to tourism's natural resources, and then considers the relevance of a more recent development, choice modelling, to this subject, and refinements of the CVM. Travel cost methods do not measure non-use values, and applied choice models to date have not done so either, as Tisdell points out. Tisdell's view is that the real test of the choice experiment method, however, may lie in its ability to address non-use economic values such as preservation and existence. It is possible for applications of CVM to measure total economic value. However, this depends on the questions asked and the population surveyed. He notes that the various evaluation techniques all involve application costs and the accuracy of most varies with sample sizes. More attention needs to be given to assessing the net operational benefits of using the different available techniques, desirable sample size and so on. This would be a useful step towards optimally imperfect decision making in this area.

Tisdell raises the possibility that developments in economic valuation by economists have been restricted by the existing theory of economic welfare. This focus is too narrow for many policy applications. One approach of increasing interest to policy makers is to somehow combine environmental cost-benefit analysis with multi-criteria analysis and with participatory approaches, such as citizen juries. Whether and how this can be done is an important area for future research. Of course this shifts the focus of research to the exploration of methods of social conflict resolution. It involves an interdisciplinary search for 'socially optimal methods' of conflict resolution subject to political and institutional constraints. The definitions of social optimality in such cases could, therefore, be different from those used traditionally in welfare economics, as Tisdell notes, and thus one might consider such approaches as complements rather than substitutes for existing economic approaches to optimal resource use. Further research might consider the attributes of different natural resources used by tourists or recreationists in assessing the value of those resources and

the possible economic impacts of a variation in these attributes. Choice experiments provide useful insights in this regard, but are subject to the limitation that the utility function in relation to the characteristics taken into account is usually assumed to be linear; no multiplicative effects on utility of the attributes is allowed. While linear relationships can be used to approximate nonlinear ones as a rule over a range, linearity remains a restriction. As Tisdell points out, the appropriateness of this assumption will depend operationally on whether it promotes optimally imperfect decision making in this subject area.

In Chapter 17, 'Implications of human capital analysis in tourism', Javier Rey-Maqueira, Maria Tugores and Vicente Ramos begin by noting that economic theory has improved its understanding of the role of human capital in economic development, with implications for tourism economics. The authors review how human capital issues have been tackled in the tourism literature and critically evaluate the main contributions, specially relating to curriculum planning and career paths, to training incidence and training needs of workers, as well as to the evaluation of private and public education and training activities. They present some general considerations on the state of the art in human capital research, specifying the topics that could be further developed in the tourism field.

An important part of the economic growth literature has focused on the effects of human capital on productivity and some of the relevant questions about human capital in the tourism sector coincide with general issues in the wider economic literature. However, the importance of personal services in this industry, where the customer is directly in contact with the worker, makes it necessary to study some other specific topics such as the relationship between quality of the product and the employee's education. The authors claim that, for an industry accounting for about 194 million jobs directly and indirectly worldwide in 2003, the role of human capital in tourism is essential for at least two reasons. First, one of the main unsolved problems in the economics of growth literature is the link between sectoral composition and development. The second reason has to do with the role of human capital within the sector. Logically, the problem of delimitation of the tourism sector makes it difficult to analyse training and education needs as well as individuals' demand for education. The authors argue that some relevant questions about human capital in the tourism sector coincide with general issues of the economic analysis: what is the contribution of educated labour to productivity? Which are the strategic sectors of an economy? What is the role of sectoral policies? However, other questions stem from specific tourism characteristics: Is tourism a sector with a low level of productivity? How can productivity be measured in this sector? Which are the education and training needs of the sector? What is the role

of general and specific training? What is the relationship between education, training and the quality of the product supplied? What is the role of human capital in the innovation decisions of the tourism industry? Could it be the driving force of the sector? What is the relationship between investment in human capital and earnings?

The authors note that most of the relevant issues related to the role of human capital have already been studied in depth in the manufacturing or service sectors as a whole. Some of these general topics that can be further applied to the tourism industry are: the substitution possibilities between educated labour and other inputs, the demand for education, the relationship between qualifications and productivity, the role of training, the policy implications, or the relationship between migrations and qualifications, among others. Moreover, the importance of personal services in the tourism sector, where the customer is directly in contact with the worker makes it necessary to study some other specific topics such as the relationship between quality of the product and employees' education. As some see it, only a properly educated workforce would be able to sustain the high level of friendly, efficient and professional service, which is a major ingredient in ensuring satisfied customers and continued growth. However, labour conditions in the sector are very poor, with low salaries, high rates of turnover, high seasonality, unsocial working hours, a lack of a career path design, constituting a significant proportion of the informal sector. All make the acquisition of skills and, therefore, the improvement of the final service, difficult.

The authors claim that the existing literature on the role of human capital in tourism suffers from several shortcomings that limit its scope and open possibilities of new research on the topic. First, most of the human capital studies are limited to specific segments of the tourism sector, mainly hotels and restaurants, or have focused on the analysis of the tourism education system or the training needs in a specific region or country. More effort should be made to make geographical comparisons and to compare the characteristics of the different segments of the tourism sector. Second, there is imprecision in the definition and measurement of human capital. On the one hand, when the role of formal education is evaluated, a variety of medium- and high-level studies (such as university degrees, tourism management qualifications, or vocational school courses, among others) are analysed without any distinction. On the other hand, educational and training needs may differ with the job hierarchy and the department in which the employee is actually working. And yet, most of the studies do not disaggregate jobs, and the few that do have only differentiated the role of education for managers. Third, a similar problem arises when analysing the incidence and consequences of

on-the-job training. In many cases, the definition of training is based on the fulfilment of formal or informal courses, the place where the training has been provided, the instructors, or the institution that pays for the courses. This situation creates a wide range of classifications that makes it difficult to compare training activities through different papers. Fourth, the nature of the existing tourism literature is mainly empirical and based on descriptive analysis. Most of the studies have been conducted through questionnaires addressed to managers or experts in the sector, and sometimes to customers, which reflect their opinion or quantify some particular actions. However, little attention has been paid to the direct measurement of human capital investment effects on salaries, productivity, or turnover, based on workers' responses. Moreover, there are serious shortcomings in the use of modern econometric techniques and the availability of large representative samples.

Another important gap in the literature which the authors identify is the lack of theoretical support for the empirical research. There has been little attempt to test human capital theoretical models in the tourism sector. As the authors see it, this is because most of the topics have been analysed from a management, marketing, or sociological perspective. Two other topics are considered to be especially relevant for future research. One is the lack of literature on innovation in the tourism sector. This is relevant since human capital is a complementary factor to innovations and is necessary for the adoption of existing innovations or the production of new innovations. Also, there needs to be serious reflection on whether human capital policies require an improvement in the conditions of the workforce in order to break the vicious circle of low qualifications and poor labour conditions.

Information technology is an important and growing contributor to the field of tourism, in both the private and public sectors. In Chapter 18, 'Tourism information technology', Pauline Sheldon argues that many factors, including tourism's reliance on, and production of, information, and the intangible nature of the tourism product are partly responsible for this. The tourism industry is both a service industry and an experience industry, requiring unique applications of IT. Since many models of technological development are in the production industries, as such tourism is a leader in the types of technologies that are being applied to service industries.

Sheldon argues that the IT field represents a strong driving force in tourism development, bringing with it business changes and new structures as well as new technologies and applications. New types of firms are emerging and existing firms are restructuring themselves as a result of the available technologies. Fundamental changes are occurring in the area of human resources and the automation of jobs, travel distribution channels,

consumer behaviour, competitive strategies and the production function of travel firms. IT and knowledge are important resources that need to be considered together with land, labour and capital in the firm's decisions. She also highlights the fact that IT is also being used at a higher level for strategic decision making with the use of expert systems, knowledge management systems, intelligent agents, neural networks, artificial intelligence, and even virtual reality. Although these developments are still in their infancy as far as commercial implementation is concerned, they hold great promise for future applications. Mobile technologies, which are also still in the growth phase, are becoming increasingly important for travellers en route and for those navigating unfamiliar and foreign destinations. In general, the need for IT applications will be greater in the future as the desire for travel and the need for electronic connectivity grow.

The success of IT in the tourism industry is due to the many benefits that it brings to private firms, tourism destinations and to travellers. Even though there is a cost (often significant) with the installation and maintenance of good computer systems, and the necessary training, there are many benefits that accrue to those making the investment. Areas of benefits include: service differentiation; creating innovative product; building competitive intelligence by collaboration and better resource acquisition; cost reductions by re-engineering the business process; yielding optimal revenue; reaching customer intimacy; facilitating business transformation by expending intellectual capital; increasing business value; and customer focus. Cost efficiencies are perhaps the most often expected benefit. These efficiencies can be realised in many operational situations such as the reservations function, the accounting and financial functions, market analysis and information retrieval. The technology facilitates transactions and communications between customers and businesses (B2C) and between businesses and other businesses (B2B). Importantly, IT allows for the reallocation of the human resources in a travel firm. With the automation of mundane data-processing tasks, staff are often assigned to provide improved service to the customer, or trained to perform higher-level functions; alternatively the human resource expenditures of the firm can be diminished. Processes such as ordering from suppliers, dealing with customer complaints and preferences, and tracking historical performance are all made more efficient with the use of IT.

Large corporations with many branches experience economies of scale in the design and installation of systems. They also typically experience benefits from centralised knowledge management and record keeping that can assist with such functions as financial reporting and customer relationship management. Economies of scope from implementing IT are occurring as a result of the electronic networks that are in place. Airlines,

for example are able to offer additional services as a result of their huge computer reservation networks. Strategic alliances and partnerships between firms in different sectors, so critical to success in the travel industry, are also facilitated by the electronic networks that are in place.

Sheldon notes that the distribution of any travel product is facilitated by computer reservation systems, the internet and other computerised marketing channels. Smaller firms that in the past have found it cost-prohibitive to compete with large international corporations can be more competitive as the technology, particularly the internet, has levelled the playing field. Companies that have chosen to have a more virtual presence are also reducing their cost structure by having employees telecommute, thereby reducing high rental costs. All sectors of the travel industry are experiencing these benefits.

Sheldon discusses the themes that have developed in chronological order: application of IT to enhance operations in travel firms; special considerations for small and medium-sized enterprises; destination management systems; IT applications to strategic management and decision making; the travel distribution system, travel advising and trip planning systems; marketing and marketing research applications; internet, intranet and extranet; and mobile technologies.

Some critical areas that need further attention by researchers are highlighted by Sheldon. She claims that there has been perhaps too much attention on the commercial and marketing implications of the technology rather than on other important areas for study and development. The literature on consumer access to information, for example, would be well augmented by the introduction of experiential studies of consumer behaviour, in addition to the reportage through surveys using questionnaires, and would add more robustness. Additionally, the use of the World Wide Web for destination management organisation advertising and the need for tourism organisations to be flexible and open to change in the new economy is a fruitful area for more research.

Sheldon also notes that most research on IT usage tends to focus on applications or issues in the individual country or region in which the researcher works. More studies examining the comparative adoption of IT systems across international boundaries would add to the global understanding of the topic. Such comparative analysis can be synthesised to generate more conceptual understandings of the field. The differential between developed and developing countries in their use of technology, and models to assist the developing countries would also be of value, recognising that different political systems and different information and telecommunications environments may lead to different scenarios. She claims that this is particularly relevant as discussions of standards for systems and communications become important in the global economy.

Another area of potential research involves the documentation of the changing structure of the industry and its various sectors. Change is happening at a rapid rate with dramatic impacts on the competitive environment, on the consumer, and on the changing nature of firms in the travel industry. Barriers to entry and exit are changing, regulations are changing, and competition is not only becoming more fierce, but in some cases is also becoming 'co-opetition' instead, where competitors find ways to cooperate for mutual advantage. These changes have been addressed in part, but large-scale studies examining structural changes in the industry are more difficult to perform and are lacking. A few studies have provided insight into the changes in various sectors (airlines, travel agencies, hotels and so on), however, many sectors are still to be examined, as is the industry as a whole. Sheldon considers that the models and theories from industrial economics could assist in researching these shifts and trends in a rigorous manner.

An area for further development that Sheldon highlights is the application of IT to issues of environmental protection and cultural sustainability. Tourism today cannot be successful without the consideration of these two issues, and yet the overlay of IT with them has received little attention. There are many potential ways that IT can assist in the development of those goals. The application of global positioning systems and geographic information systems has much to offer destinations in regard to the management of natural resources such as national parks, wildlife reserves, culturally and environmentally sensitive areas and so on. More websites are including information of cultures, cultural resources and cultural interpretations of destinations, but it is often demand rather than supply driven. There is, however, a need for more of this type of information and focus in the future and this will require close collaboration between the public sector and the vendors of these technologies, in addition to the suppliers of tourism services in the private sector.

Sheldon identifies the cutting edge of the research in tourism information technology is that which examines the use of increasingly intelligent systems. This involves studies on the applications of neural network technologies, intelligent query management, data-mining and data-warehousing systems, multi-media information and virtual reality. When collaboration occurs between the system developers, funding sources and the destinations, the opportunities to further enhance the visitor industry using technology are endless. Firms will benefit economically by applying systems at the operational level by increased efficiency, productivity, customer relationship management, and reach to global markets. At the strategic level they can benefit by becoming more competitive, by developing new products and new market segments, and by creating knowledge warehouses as a basis for strategic decision making. Destinations can

benefit in similar ways to firms, but they can also harness technology to facilitate planning and policy making, to improve their transportation and other infrastructure systems, and to improve their sustainability and the overall economic benefit to the destination.

Sheldon concludes that more theories and paradigms are needed to form strong pillars for the field to move forward. This may require the use of concepts, theories and methods from other disciplines, or the creation of new methodologies within the area of tourism information technology. Tourism is an interdisciplinary field of study, and IT is the realm of computer scientists, management scientists and psychologists to name a few. Cross-fertilisation between these disciplines and collaboration across sectors will be necessary to ensure the richest development of research in the field. It is a critical success factor for the tourism industry in general that researchers, educators and practitioners alike collaborate to examine how IT in all its forms can enhance all aspects of tourism, including the travellers and the host community.

A conceptual model of destination competitiveness can contribute to sustainable tourism development policies and practices. Economic factors, although often important, are not the only consideration and indeed in some instances the goal might be to restrain, reduce, or shift tourism demand such that the type of tourism that develops, and its economic, socio-cultural and environmental impacts, are congruent with the aspirations of the destination's local community. In Chapter 19, 'Destination competitiveness', Geoffrey Crouch and Brent Ritchie argue that competitiveness in tourism at the level of the destination is more complex and multifaceted than is the case when one considers competitiveness at the level of the individual enterprise or product and that tourism destinations are also driven to compete for a much broader range of goals or motives. They observe that as the tourism industry matures, and ever more tourism experiences and destinations seek to compete, the quest to understand destination competitiveness and to use this knowledge in destination marketing and management programmes and activities has grown considerably. In response to the various changes taking place globally, on both the demand and supply sides of the industry, Crouch and Ritchie note that many destinations are seeking solutions to the question of how to become or remain competitive. In doing so, numerous questions often arise. For example, how important are convention facilities; should the airport be expanded; would the construction of a landmark help to enhance the image of the destination by providing it with a recognisable icon; would it be better to concentrate resources on the promotion of the destination; should a hotel room tax be introduced to fund increased destination marketing; should there be more municipal government revenues spent on developing or improving visitor-friendly

infrastructure/services; are residents sufficiently visitor friendly; would the hosting of a special event like a cultural festival, World Expo, or Olympic Games help; would efforts to reduce crime have much impact given the media hysteria over isolated events; and so on. To answer such questions, the elements of destination competitiveness need to be fully understood.

The authors argue that the concepts of comparative and competitive advantage provide a theoretically sound basis for the development of a model of destination competitiveness, but that no single general trade theory will provide the necessary insight or cover the most appropriate determinants from among the many variables possible. The conceptual model of destination competitiveness that is presented is one that Crouch and Ritchie have developed over the past decade. The model emphasises the two cornerstones of competitiveness; namely, 'comparative advantage' (consisting of endowed resources) and 'competitive advantage' (consisting of aspects of resource deployment). The main part of the model, then, illustrates how we see these two cornerstones being operationalised with respect to destination competitiveness.

Crouch and Ritchie emphasise that destinations operate within an environment. The 'global (macro) environment' consists of a vast array of phenomena which broadly impact all human activities and which are therefore not specific to the travel and tourism industry in their effect. Global forces can alter a destination's attractiveness to tourists, shift the pattern of wealth to create new emerging origin markets, adjust the relative costs of travel to different destinations, and disrupt relations between cultures and nations, among many others. The authors emphasise that these forces present a given destination with a number of special concerns, problems, or issues that it must either adapt to, or overcome, if it is to remain competitive, while also providing destinations with a whole new spectrum of opportunities for innovation and market exploitation. By comparison, the 'competitive (micro) environment' is part of the tourism system because it concerns the actions and activities of entities in the tourism system which directly affects the goals of each member of the system whether they are individual companies or a collection of organisations constituting a destination. In the model, a destination's competitive (micro) environment is made up of organisations, influences and forces that lie within the destination's immediate arena of tourism activities and competition. The authors emphasise that these 'close-in' elements of the environment tend to have a more direct and immediate impact than do elements of the global (macro) environment, as a general rule. The micro environment, nevertheless, because of its proximity and greater sense of immediacy, often occupies the attention of managers due to the ramifications for the destination's ability to serve visitors and remain competitive.

A destination's core resources and attractors describe the primary elements of destination appeal. It is these factors that are the key motivators for visitation to a destination. Crouch and Ritchie acknowledge that while other components are essential for success and profitability, it is the core resources and attractors that are the fundamental reasons why prospective visitors choose one destination over another. Whereas the core resources and attractors of a destination constitute the primary motivations for inbound tourism, supporting factors and resources provide a foundation upon which a successful tourism industry can be established. A destination with an abundance of core resources and attractors but a dearth of supporting factors and resources, may find it very difficult to develop its tourism industry, at least in the short term, until some attention is paid to those things that are lacking. A strategic or policy-driven framework for the planning and development of the destination results from the factors shown in the model under destination policy, planning and development. With particular economic, social and other societal goals as the intended outcome, these factors can provide a guiding hand to the direction, form and structure of tourism development. Such a framework can help to ensure that the tourism development that does occur promotes a competitive and sustainable destination while meeting the quality-of-life aspirations of those who reside in the destination.

The destination management component of the model focuses on those activities which implement the policy and planning framework established under destination policy, planning and development, enhance the appeal of the core resources and attractors, strengthen the quality and effectiveness of the supporting factors and resources, and adapt best to the constraints or opportunities imposed or presented by the qualifying and amplifying determinants. Crouch and Ritchie argue that these activities represent the greatest scope for managing a destination's competitiveness as they include programmes, structures, systems and processes which are highly actionable and manageable by individuals, organisations and through collective action.

The potential competitiveness of a destination is conditioned or limited by a number of factors which fall outside the scope of the preceding four groups of determinants. This final group of factors, which Crouch and Ritchie call 'qualifying and amplifying determinants', represents factors whose affect on the competitiveness of a tourist destination is to define its scale, limit or potential. These qualifiers and amplifiers moderate or magnify destination competitiveness by filtering the influence of the other three groups of factors. They may be so important as to represent a ceiling to tourism demand and potential, but are largely beyond the control or influence of the tourism sector alone to do anything about.

Crouch and Ritchie develop a speculative research agenda. First, research to examine the relative importance of the factors of destination competitiveness as a function of the competitive environment, target markets and competitor characteristics. Without this information, destinations will find it difficult to apply these conceptual models. Second, processes and principles for auditing destination competitiveness and performance. Mounting anecdotal evidence indicates that destination stakeholders are demanding reliable and valid assessments of a destination's competitive position and the suitability of its strategic response. More specifically, on the premise that one cannot manage what one cannot measure, Crouch and Ritchie advocate the development of indices, metrics and diagnostic tools for measuring destination competitiveness. They also claim that it would be very helpful to have a better understanding of the factors that deter the achievement of competitiveness once we know what its determinants are. Destinations have always sought to understand and improve their competitiveness. In good times, during periods of growth, tourism destinations have been able to prosper with little difficulty. But in these more difficult times, experiencing declining or stagnating global travel and tourism, destinations have had demonstrated the need to take a more serious look at their competitive positions. Research which helps them do so will be critical.

Chapter 20, 'Tourism destination specialisation', by Mondher Sahli, presents findings and conclusions from an examination of the competitiveness of 19 OECD destination countries. Tourism and travel-related services are still strongly dominated by OECD countries. The main sources remain Europe and the USA, with some new influx from East Asia and the Pacific. Almost half of international tourists come from six OECD countries which are also among the world's top ten tourism earners/spenders. Some of these destinations appear to be coping with increased competition quite well, whereas others are struggling.

The authors examine the concepts of external competitiveness and comparative advantage in terms of its application to tourism destinations. They regard competitiveness as a general concept that encompasses price differentials, coupled with exchange rate movements, productivity levels of various components of the tourism industry (transport, accommodation, tour services, restaurants, entertainment and so on) and qualitative factors affecting the attractiveness of a destination. The external competitiveness of country j 's tourism industry i (TC_{ij}) is defined as that country's competitive ability to retain or increase its market share of tourism export in terms of ground and travel components. This phenomenon is illustrated graphically by the authors by simultaneous analysis of the degree of commitment to exporting in the tourism industry and of net performance in tourism. A country is regarded as competitive in the tourism industry when

it has a growing commitment to exporting (market share) and a high net performance (coverage ratio).

Once measures of overall external competitiveness have been developed, it is useful to know where a destination's competitive position is changing. Empirical analysis of tourism in OECD countries provides a comprehensive overview of two aspects of the various countries' competitiveness. First, the authors argue that a well-known size effect makes the large OECD countries major players in terms of tourism market shares, as for international trade. Short-term competitiveness effects show a certain degree of similarity with trade in goods. On the basis of econometric estimation, it is established that the real exchange rate is one of the key determinants of competitiveness in tourism. This confirms the role of foreign currency holdings, that is, money balances held by tourists to undertake travel activity. Intuitively these monetary holdings must respond to changes in exchange rates as the real value of these balances increases (decreases) in response to devaluation (appreciation) of the foreign exchange rate. Second, even if tourism remains to a large extent governed by the existence of certain resources (sea, sun, mountains and cultural heritage), other factors also play an important role. These include technological factors, which serve to differentiate the nature of tourism comparative advantages, as well as the social dimension, the destination's degree of maturity, the level of domestic demand for tourism (Linder effect), and the price competitiveness and dominance of the transport segment. The econometric analysis of panel data demonstrated the relevance and relative importance of these last factors. Moreover, it revealed that their impact differs depending on the level of development of a country's tourism industry.

The authors examine the role of several variables on the tourism comparative advantage in 19 OECD countries. The variables that determine tourism specialisation are: per capita income; real exchange rate; revealed comparative advantage in international passenger transport; the hotel function; and the tourism intensity rate. The empirical findings on specialisation in tourism show that a good number of these hypotheses can be verified. They indicate, first, that specialisation in tourism is not unrelated to a country's economic structure and, second, that the quality and dynamic of that specialisation differ from one country to the next (or from one subgroup to the next). Moreover, the econometric results indicate that tourism does not evolve in the same way in all countries. Its evolution depends on price competitiveness, the degree of specialisation in passenger transportation, the level of domestic demand for tourist services and the destination's degree of maturity. Tourism specialisation creates pressures on the natural and cultural environment, and hence on resources, social structures, economic activities and land use. It is then in the interest of all

players to cooperate in forming the direction of their tourism policies and actions.

Globalisation is a process that involves economic, political and cultural forces in such a way that they extend the reach of companies and shrink the economic distance between suppliers and consumers. In Chapter 21, 'Globalisation', John Fletcher and John Westlake emphasise that globalisation is not a single phenomenon – rather it is a collection of forces that tend to change the way that the economic, political and cultural worlds operate. Globalisation may be regarded as a process in which the geographical distance between economic factors, producers and consumers becomes a factor of diminishing significance as a result of faster and more efficient forms of travel, communication and finance. The concentration of capital has served to reinforce the capability of those involved in driving forward the globalisation process. Fletcher and Westlake emphasise that it can be seen as a beneficial process whereby the most efficient use can be made of scarce resources and homogeneity in supply can be achieved irrespective of location. In contrast, it can also be viewed as a predatory process whereby global forces face local economic factors and producers with unfair competitive advantages.

Fletcher and Westlake list a number of key drivers that fuel the process of globalisation. Technological progress brings innovations that facilitate and encourage (directly and/or indirectly) trade between nations. The two most important technological factors that provide the driving force behind economic globalisation are increased specialisation in production, forming one of the principal bases for international trade and advances in communications technology. Economic changes are another driver. The widespread liberalisation of current and capital account transactions and the development of international financial markets have enhanced the process of globalisation. Cultural and demographic trends are also important. Increasing global population combined with increased flows of information has acted like a catalyst to open up trading opportunities. Further encouragement has come from cultural exposure, through the 'demonstration effect' and via media sources that set in place a move towards homogenisation. Political stability is also a crucial factor in underpinning the willingness and ability of nations to trade. A major characteristic of the past 50 years has been the cooperative international efforts to reduce state-imposed barriers to trade such as those implemented through the World Trade Organisation (WTO) that is, GATT and GATS. The liberalisation of trade and investment has been influenced by the expansion and intensification of regional integration efforts. In fact, it may be suggested that globalisation, internationalisation and regionalisation are together a cyclical process of amorphous dimensions that feed and consume off each other.

Fletcher and Westlake observe that the globalisation of the world economy is a process that has been embraced by tourism which has been a pioneer in terms of both liberalisation and global expansion. Its importance as a service industry makes it vital that the globalisation process is successful not only from an industry and company perspective, but also from the point of view of the destinations and the tourists that consume the services. The process of globalisation means that the multinational corporations have had to adjust their management and control systems to be able to enjoy the significant economies of large-scale production that are available, and yet provide sufficient flexibility within their operational structure to allow local delivery of services in a satisfactory manner. They claim that this is true for all aspects of the tourism industry but particularly so for the airlines, the cruise ship companies and the multinational hotel companies. They then explore globalisation issues within the key sectors of tourism drawing upon examples to demonstrate its influence on tourism development.

Fletcher and Westlake admit that the plight of small and medium-sized enterprises (SMEs), the most dominant form of business in the tourism industry, is less easily identified. If effective alliances can be formed at the local and regional levels then there are huge opportunities for such businesses to compete in an expanding market. However, globalisation puts enormous pressures on SMEs which are already disadvantaged by being subject to higher unit costs than their multinational counterparts. The challenge for the future is for SMEs to be able to embrace fully the technology that provides them with access to the new markets and to be able to invest in that technology and train their employees in its effective operation.

Fletcher and Westlake stress the need for greater understanding of the true costs of globalisation. To some extent those costs can be seen in the transfer of power away from national government control and in favour of multinational corporations. The latter demands that these multinational corporations have to take on a greater sense of responsibility in the operation of their companies if other global objectives are to be achieved such as the sustainability of the tourism industry. There is also a greater need to understand the ways that SMEs can not only withstand the pressures of competing in a globalised economy but also take advantage of the enormous economies that can be derived from forming alliances and cooperative systems.

From a human resource management point of view, there are, as Fletcher and Westlake note, many unanswered questions. These range from issues relating to the concentration of intellectual capital through the human resource policies and practices that will hold the workforce in place, to the issues relating to centralisation or decentralisation. In terms of training and education, there are clear signs that globalisation is affecting the way that tourism programmes and curricula are structured.