

Tourism and the Economic Paradigm^{1,2}

Zheng Chris Cao

Department of Economics, Finance and Entrepreneurship

Aston Business School

Aston University

Birmingham, UK

z.cao1@aston.ac.uk

¹ This is a draft chapter/article. The final version is available in <A Modern Guide to Tourism Economics> edited by R. Croes and Y. Yang, published in 2022, Edward Elgar Publishing Ltd (<http://dx.doi.org/10.4337/9781800378766>). The material cannot be used for any other purpose without further permission of the publisher, and is for private use only.

² Please cite this chapter as:

Cao, Z. C. (2022). Tourism and the Economic Paradigm. In R. Croes, & Y. Yang (Eds.), *A Modern Guide to Tourism Economics* (pp. 15-36). Edward Elgar.

Abstract

This chapter provides an up-to-date review of the core topics pertaining to tourism economics. Particular focus is laid on the system of concepts, principles and theoretical arguments derived from modern economics. In tourism research, the economic perspective advances our knowledge with respect to the mechanism behind tourist behavior, the underpinnings of tourism firms' efficiency and productivity, the rationale for promoting tourism development, and the global impacts of the tourism sector. This chapter also identifies streams of potential future research concerning the changes in tourism patterns, business dynamism, macroeconomy, and globalization, in the wake of the unprecedented pandemic. To address those research questions thoroughly, it becomes more vital than ever before for tourism economists to pursue interdisciplinary collaboration.

Keywords:

Economic Paradigm, Tourism Demand, Structure-Conduct-Performance (SCP) Paradigm, Economic Growth, Business Cycle, Globalization

1. Introduction

Pioneered by researchers in international economics and regional sciences, tourism economics has undergone rapid growth since the establishment of the journal *Tourism Economics* in the mid-1990s. The maturity of the discipline is marked by the publication of several key texts, catering to university students, researchers and policy makers, by leading scholars in this field (Song et al., 2012).

As Stabler, Papatheodorou, and Sinclair (2009) assess, tourism has characteristics that set it apart from many other economic activities and therefore poses analytical challenges to economists. The “tourism product” is usually purchased without inspection, and the consumption of it comprises a multitude of human activities in sequence and across locations. Correspondingly, the production of “tourism product” is served by multiple industries, each of which has its own market dynamics. This composite nature of tourism gives rise to an exceptional diversity of topics and perspectives in tourism economics research. Consequently, for many topics it is not uncommon to notice a lack of consensus of theoretical arguments and empirical evidence.

Economics is broadly divided into two interrelated dimensions, one concerning “micro-oriented” issues of resource allocation in consumption and production activities, the other examining a variety of “macro-oriented” issues of resource utilization for society and long-run economic growth (Eadington & Redman, 1991). When applied to tourism, the economic perspective can unveil the mechanism behind tourist behavior, the underpinnings of firm efficiency and productivity, the rationale for promoting tourism development, and the global impacts of the tourism sector.

This chapter provides an up-to-date glance at a range of core topics pertaining to tourism economics. Particular focus is laid on the system of concepts, principles and theoretical arguments derived from modern economics. It is worth noting that economics concerns only one dimension of tourism. A thorough understanding of tourism entails a multi-lens approach that takes into account the interplay among economic, geographical, political, socio-psychological, cultural, technological, and environmental factors.

2. The economic paradigm

Economics is a prominent field of social sciences due to its relevance to businesses and governments. It is characterized by developing mathematical and statistical models that simulate the workings of specific markets and overall economies (Eadington & Redman, 1991).

As Backhouse (2010) observes, economic knowledge can be derived in different ways. One approach is through economic theory, which typically involves the working output of the implications of rational choice in various contexts. This approach may be done by using mathematics (to construct theoretical models), or it may just involve logical analysis expressed in everyday language. An alternative approach is through testing against real-world evidence. Unlike theoretical economics, empirical (or applied) economic research typically involves the construction of statistical models that contain numbers processed from statistical data. Estimation outputs from statistical models constitute the empirical evidence for or against existing theories.

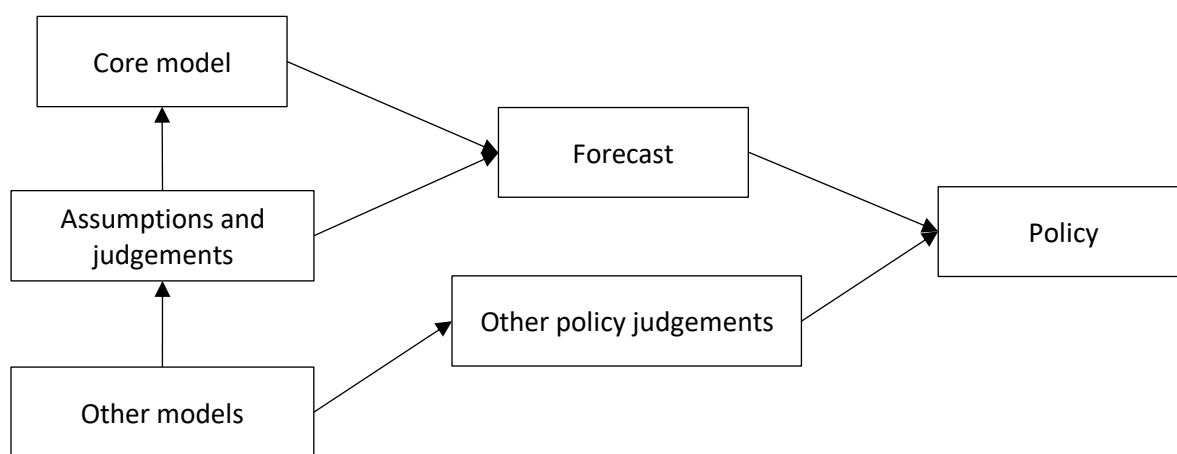


Figure 2.1 – How a “suite of models” are used

Source: Adapted from Backhouse (2010)

On the role of economics in policy making, a recurring debate is how to balance the use of formal models and the exercise of informal judgement as a supplement (Backhouse, 2010). An economic model is a simplified description of reality by only capturing the most essential factors, designed to yield hypotheses about economic behavior that can be tested. It is necessarily subjective in design, as different economists will make different judgments about what is needed to explain their interpretations of reality (Ouliaris, 2011). To make informed policy decisions, one may adopt a “suite-of-models” approach, as illustrated in Figure 2.1. In this approach, a large, core forecasting model is central to policy maker’s decisions, but this is supplemented by other models, some of which are based on economic theory, others purely statistical (Backhouse, 2010). Those other models serve to provide inputs that are fed into the core model and to

uncover evidence on which the core model is silent. Throughout the process, judgement plays a vital role. Not only is the implementation of economic models assisted by forecasters' judgements, but policy decisions are informed by policy-makers' judgements about the degree to which the current or prospective behavior might differ from the predictions by the models.

As a field that emphasizes its practical relevance to specific industries and policy makers, tourism economics is application-oriented by nature. It heavily rests on the insights from statistical models, although this does not preclude the use of mathematics-based theoretical models. Song et al. (2012) survey a pool of publications up to the end of 2011 and identify the trends in a spectrum of topical areas in tourism economics. They observe that demand analysis dominates tourism economics studies in terms of research interests and methodological advancements, whereas supply-side studies are diverse and often fragmented, with comparably fewer methodological innovations. On the macroeconomy, a major focus is on assessing the economic impacts of tourism development, but this field of research has yet to reach its methodological maturity.

Tourism activities are, in essence, spatial. As with the concept of "place" in economic geography (MacKinnon & Cumbers, 2018, p.6), one may see a destination as a distinct place to which a group of people have become attached, endowing it with meaning and significance. Economic activities in a destination, including tourism, are mediated by sets of socially- and culturally-embedded processes and practices that are unique to the destination. For tourism economics research, that means the spatial or geographical dimensions of tourism activities are an indispensable perspective. As Coles, Liasidou, and Shaw (2008) advocate, researchers should embrace the theoretical, conceptual and analytical opportunities offered by economic geography. An emerging and valuable perspective for studying inter-firm relationships, for example, agglomeration and tacit collusion (see Gan & Hernandez, 2013), is new economic geography, which came to prominence in the 1990s (Song et al., 2012). Another emerging paradigm is evolutionary economic geography (EEG), which focuses on the dynamic processes of economic changes and places knowledge and innovation as the drivers of economic evolution. Brouder and Eriksson (2013) identify the epistemological precepts of EEG where there are potential synergies with tourism studies: namely, path dependence, complexity theory, and generalized Darwinism. Furthermore, they add three other themes: regional branching, networks and knowledge transfer, and tourism entrepreneurship. They argue that EEG is a powerful explanatory paradigm to examine economic restructuring and regional development, such as the growth and decline of regional tourism economies and why some destinations are resilient while others are in a more precarious position.

Table 2.1 – Key review articles in tourism economics

Theme	Topic	Publication
Economic paradigm	Micro- and macro-economics	Eadington and Redman (1991) Song et al. (2012)
	Economic geography	Brouder and Eriksson (2013) Brouder (2014) Calero and Turner (2020)
Demand	Determinants	Brida & Scuderi (2013)
	Modeling and forecasting	Song and Li (2008) Song, Qiu, and Park (2019)
	Big data analytics	Li et al. (2018)
	Discrete choice modeling	Kemperman (2021)
Market, firm, and efficiency	Efficiency and productivity modeling	Assaf and Josiassen (2016) Assaf and Tsionas (2019)
	Entrepreneurship	Solvoll, Alsos, and Bulanova (2015) Fu et al. (2019)
	Innovation	Hjalager (2010) Gomezelj (2016)
Growth and volatility	Economic growth	Brida, Cortes-Jimenez, and Pulina (2016) Ahmad, Menegaki, and Al-Muharrami (2020)
	Poverty reduction	Scheyvens (2007) Zhao and Ritchie (2007) Spenceley and Meyer (2012)
	Political economy of development	Bianchi (2018)
Globalization	Internationalization and innovation	Williams and Shaw (2011)
	Globalization	Dwyer (2015) Song, Li and Cao (2018)

Due to space constraints, this chapter is only able to provide an outline of tourism economics. Table 2.1 collates a selection of well-cited review articles, which complement this chapter by delving into their respective topics in much greater depth.

3. Demand

Demand analysis plays a pivotal role in tourism economics, as it forms the basis for many topics beyond the demand side of the tourism sector, such as assessing the impact of tourism. Conceptually, tourism demand can be measured as the number of tourist arrival, the level of tourism expenditure and the length of stay (Stabler, Papatheodorou, & Sinclair, 2009).

3.1 Determinants

To delineate the formation of tourism demand, we interpret a tourist's decision making as a process where she allocates her spending on a combination of tourism and other types of goods and services, to achieve the maximum utility (or satisfaction) from consuming the combination. Microeconomics theory establishes that the decision depends on the tourist's budget constraint and her personal preferences. Accordingly, the identification of determinants of tourism demand starts with those factors that have a bearing on budget constraint or personal preferences, whereas a host of macroeconomic, political and cultural factors are further identified if the aggregate tourism demand is to be examined.

Empirical tourism demand research predominantly uses economic, quantifiable determinants, such as tourists' income levels, consumer price levels, exchange rates and transportation costs, for econometric analysis (Song, Witt, & Li, 2009). These factors tend to reflect the budget constraint that tourists face and effectively explain the aggregate patterns of tourism demand as well. Data on these factors are regularly published by national statistical authorities, allowing for the construction of panel data sets to investigate the temporal dynamics and cross-country/regional heterogeneity of tourism demand.

For studies at the market segment level, researchers additionally resort to a socio-psychological perspective, which accounts for the role of personal preferences in tourist decisions. As per this perspective, destination choice is influenced by both internal and external inputs. Internal inputs are the socio-psychological set of a tourist's personal characteristics, motives, values, and attitudes, while external inputs can be viewed as the sum of social interactions and marketing communications to which a tourist is exposed (Um & Crompton, 1990). This socio-psychological perspective underlies a branch of empirical approach called discrete choice modeling, which is formally derived from sources such as information integration theory, probabilistic choice theory, and random utility theory (Kemperman, 2021). Destination choice is conceptualized as a multistage process of narrowing down from a relatively large choice set of destination alternatives to a final one, based on a bundle of internal and external attributes,

for example, the type of destination, accommodation options available, crowdedness, and friendliness of local population (Kemperman, 2021). Apart from discrete choice modeling, another emerging approach that has attracted increasing attention is agent-based modeling (ABM), which is a computational method that models complex systems of autonomous agents and simulates the multiple potential outcomes (e.g., destination choice) of those agents' behaviors and interactions (Nicholls, Amelung, & Student, 2017).

In addition to the above economic and socio-psychological factors, tourism demand is intermittently influenced by one-off events, such as natural disasters, epidemics, and terrorist attacks (Stabler, Papatheodorou, & Sinclair, 2010). As determinants, those events alter tourists' risk perception and thus change their behavior, ranging from delaying the purchase to using strategies designed to reduce the risk to a tolerable level (Fuchs & Reichel, 2006; Slevitch & Sharma, 2008). In contrast, sports and cultural events increase visitation to a destination and positively impact on hotel demand (Chikish et al., 2019; Depken & Stephenson, 2018).

3.2 Demand modeling and forecasting

A main application of demand analysis lies in forecasting. The methodological approaches to tourism demand forecasting are highly technical and can be broadly categorized into time series models, econometric models (i.e., causal models), and AI-based models (Jiao & Chen, 2019; Song & Li, 2008).

Time series models forecast tourism demand based on its historical patterns, such as seasonality, cycles, and overall trends. This type of models is non-causal based and utilizes values of successive observations of tourism demand at regular intervals. Models such as Naïve I, Naïve II, exponential smoothing (ES), and autoregressive integrated moving average (ARIMA), together with their variations, have been widely used as benchmarks for forecast evaluation and comparison (Jiao & Chen, 2019; Song, Qiu, & Park, 2019). As Jiao and Chen (2019) observe, recent developments move towards non-linear time series models (e.g., smooth transition AR, Markov switching VAR) and singular spectrum analysis (SSA).

Unlike time series models, econometric models emphasize establishing the structure of causality and determining the importance of various explanatory variables. The search for potential causality and the identification of explanatory variables are guided by economic theories. In tourism literature, the econometric models that have been widely used include the error correction models (ECMs), autoregressive distributed lag models (ADLM or ARDL), and time-varying parameter (TVP) models. Also popular are system-of-equations models, within which it is convenient to embed economic theories. Examples are vector autoregressive (VAR) models and almost ideal demand system (AIDS) models. A

recent trend in tourism demand forecasting is the use of web-based data, from sources such as Google Trends, Google Analytics, Baidu Index and Facebook, as explanatory variables (Gunter, Önder, & Gindl, 2019; Song, Qiu, & Park, 2019; Yang, Pan, & Song, 2014).

Compared with time series and econometric models, AI-based models can explain non-linear data without the need for formal specification and *a priori* knowledge about the relationships between input and output variables (Song, Qiu, & Park, 2019). One particularly popular method is the artificial neural network (ANN) models, which have shown superior forecasting performance. Other methods, such as the rough sets approach, support vector machines (SVMs), fuzzy time series, grey theory, and genetic algorithm (GA), are also widely used (Jiao & Chen, 2019). Despite their usefulness, AI-based models are often criticized for their lack of theoretical background, diminishing their explanatory capability (Song, Qiu, & Park, 2019).

Reflecting on the scientific value of tourism demand studies, Gunter, Önder, and Smeral (2019) find that a good proportion of studies focus predominantly on statistical significance at the expense of substantive (or economic) significance. Moreover, the extant studies often fail to justify their choice of modeling approaches and do not discuss why certain important factors are left out.

4. Market, firm, and efficiency

The tourism sector³ comprises a collection of service-based industries, encompassing those that provide accommodation, food and beverage, passenger transport, travel agencies and reservation services, cultural, sports and recreational activities, and retail trade (Stabler, Papatheodorou, & Sinclair, 2009; United Nations, 2010, p.42).

In the area of industrial economics, a long-standing theoretical framework is the structure-conduct-performance (SCP) paradigm, which is based on neoclassical economics theory. It postulates a set of linear causal relationships among the structure of a market, the behavior of firms in that market, and economic performance, though it has been widely criticized for being too simplistic in accounting for firm performance and market dynamics (Ferguson & Ferguson, 1998).

³ Here we follow the UNWTO and refer tourism as a sector. The term “sector” generally describes a large segment of the economy, while “industry” refers to a specific group of businesses and organizations. Smaller industries can collectively form a larger sector.

4.1 Market structure and firm behavior

Market structure is typically characterized by the number of firms, the degree of product differentiation, barriers to entry and exit, and the control over price. It is commonly indicated through measures of market concentration, for example, the n-firm concentration ratio and the Herfindahl-Hirschman Index (HHI) (Chen, 2021).

Among all market structures, as noted by Song et al. (2012), oligopoly has attracted the most attention. An oligopolistic market has very few dominant firms. One prominent feature is that firms are interdependent, with a firm's production, pricing, marketing and growth strategies largely dependent on its rivals' actions (Huang et al., 2012; Yang et al., 2009).

According to the SCP paradigm, firm behaviors are influenced by the type of market structure in which the firm is operating. The more concentrated a market is, the more market power that firms in that market possess. Market power denotes the capability of firms to raise prices without losing many customers, and it enables the practice of price discrimination.

Closely related to price discrimination, dynamic pricing is a strategic revenue management tool used for firms to maximize profit by continuously adjusting prices in response to fluctuations in demand, either over time or across consumers (Gibbs et al., 2018). Empirical tourism research tends to focus on the hospitality industry (e.g., Abrate, Nicolau, & Viglia, 2019; Gibbs et al., 2018) and the air transport industry (e.g., Escobari, 2012). The research themes generally fall into four broad categories: the practice of intertemporal price discrimination, the fairness concerns perceived by consumers, inventory controls through pricing, and organizational culture (Abrate, Nicolau, & Viglia, 2019).

In addition to pricing strategies, another firm behavior that has been widely researched on is growth strategies, especially mergers and acquisitions (M&As). On the one hand, from the perspective of firms, the justifications for M&As center on synergies among firms, cost-savings (through economies of scale/scope and reduced transaction costs), growth of market share, and diversification (Gudmundsson, Merkert, & Redondi, 2020; Merkert & Morrell, 2012). However, on the other hand, from the perspective of regulators, M&As tend to raise competition concerns, as a merger will increase market concentration and the likelihood of tacit collusion, potentially leading to unfavorable outcomes for consumers (e.g., higher prices, fewer choices, and lower quality).

4.2 Efficiency and productivity

Productivity underlies the success of firms. It generally refers to the efficiency and effectiveness with which resources are used, by relating the quantity of inputs (notably labor and capital) to outputs (Blake, Sinclair, & Soria, 2006). The concept “productivity” is closely linked to, sometimes used interchangeably with, “efficiency” and “effectiveness”, where the former captures the degree to which an activity generates the largest possible outputs from a given quantity of inputs and the latter denotes the ability of an organization to attain its specified objectives (Joppe & Li, 2016). In tourism research, there has been an increasing trend of using “technical efficiency” to measure performance. As Assaf and Tsionas (2018) remark, precisely speaking, technical efficiency is distinct from productivity, in that productivity growth is not driven by technical efficiency alone but also by other factors such as innovation and output growth.

In practice, productivity is defined as a ratio of output to inputs. There are two main variations of measure: partial factor productivity (PFP) and total factor productivity (TFP) (Joppe & Li, 2016). PFP relates output to a single input, with the most common measure being labor productivity (LP). Labor productivity reflects workers' living standards, as it correlates with the level of per capita income. Given the critical role of labor and human capital in the tourism sector, LP has particular relevance to policy makers. Meanwhile, TFP captures the part of productivity that cannot be directly attributed to capital and labor and is associated with effective use of technology and high levels of innovation and entrepreneurship (Blake, Sinclair, & Soria, 2006).

Methodologically, productivity is studied through frontier analysis, in particular the data envelopment analysis (DEA) and stochastic frontier analysis (SFA) (see Assaf & Josiassen, 2016 for a comprehensive review). DEA is a non-parametric method that envelops the input/output combination of the data and then uses the closest approximation possible of the best-practice frontier to obtain measures of productivity change, technological change, and efficiency change (Assaf & Tsionas, 2018). SFA is a parametric method. It estimates the parameters in specific functions, such as the Cobb-Douglas production function, the transcendental production function, and the translog production function (Kumbhakar, Wang, & Horncastle, 2015). Compared with DEA, SFA has an advantage of accommodating for random error that is beyond the control of a firm (Assaf & Tsionas, 2018). This gives a more realistic representation of the production process. In recent years there have been more and more methodological innovations, such as the Bayesian approach, in tourism productivity studies (Assaf & Tsionas, 2019).

Beyond the industry levels, productivity is also considered critical to economic growth and destination competitiveness (Assaf & Dwyer, 2013; Liu & Wu, 2019). Total factor productivity (TFP), traditionally also

known as Solow residual, is defined to capture the contributors to the part of economic growth that is not explained by capital accumulation or increased labor inputs. Drivers of TFP, such as skills and human capital, technology and innovation, and the competitive environment (including institutions) (Blake, Sinclair, & Soria, 2006), are key determinants of competitiveness. As a result, productivity indicators can be applied to evaluate destination competitiveness (Assaf & Dwyer, 2013), or they can be embedded in relevant analytical frameworks (Crouch & Ritchie, 1999; Dwyer & Kim, 2003).

4.3 Business dynamism

Business dynamism refers to the process of the birth, growth, decline and exit of firms. Not only does it have direct implications on market structure and job creation, but it also allows new ideas to flourish (e.g., “creative destruction”) and stimulates aggregate productivity growth by shifting resources away from lower-productivity to higher-productivity firms (Decker et al., 2016; G mar, Moniche, & Morales, 2016).

Analysis of firm survival and business failure has been frequently carried out in industrial economics (Lado-Sestayo, Vivel-B a, & Otero-Gonz alez, 2016). In tourism research, the topic has attracted intermittent interest largely post-2008. The extant research is mainly conducted in the context of hospitality industry (e.g., G mar, Moniche, & Morales, 2016; Kaniovski, Peneder, & Smeral, 2008; Lado-Sestayo, Vivel-B a, & Otero-Gonz alez, 2016; Vivel-B a, Lado-Sestayo, & Otero-Gonz alez, 2019). Methodologically, the topic is popularly attempted through survival analysis, which models the duration or interval time elapsed until an event (e.g., business failure) happens. In recent years, the Cox proportional hazards model has gained increasing popularity. Generally, the determinants of business failure span across a host of firm-level financial and ownership characteristics and an array of regional, industrial and macro factors.

Contrary to business failure, another aspect of business dynamism is the birth of new firms, i.e., entrepreneurship, which is seen as a key driver of sustainable economic growth. Based on the evidence from Germany, Fritsch and Wyrwich (2017) find that a regional culture of entrepreneurship, combined with a high level of social acceptance and approval of entrepreneurship, creates resilience to severe economic and political shocks, including even devastating wars and abrupt changes of political regime. Solvoll, Alsos, and Bulanova (2015) summarize three broad views of entrepreneurship: i) the innovation-based perspective is derived from the work of Schumpeter, who regarded entrepreneurs mainly as innovators, who combine resources in new ways to create innovations and introduce them to the market; ii) the business formation perspective views entrepreneurship as the process from the entrepreneurial intention to the development and establishment of new organizations; iii) the opportunity-based

perspective defines entrepreneurship as the discovery and exploitation of business opportunities by entrepreneurs.

Comprehensive reviews are conducted by Fu et al. (2019) and Hjalager (2010) on entrepreneurship and innovation in tourism. Fu et al. (2019) categorize the antecedents of entrepreneurship into entrepreneurs' personal characteristics (e.g., demographics and motivations) and destination business environment factors (e.g., economic, socio-cultural, institutional and technological factors). On innovation, Hjalager (2010) points out that its driving forces are less well-identified, but implicitly there are three theoretical sources: a Schumpeterian approach to the role of entrepreneurs, the technology-push/demand-pull paradigm, and the Marshallian innovation systems or innovation cluster approach. With respect to outcomes, at the firm level, entrepreneurship and innovations are found to improve tourists' experience, enhance firm's financial performance and competitive advantage, and lead to firm growth, while at the destination level they improve destination attractiveness, support sustainable development, and increase regional prosperity (Fu et al., 2019; Hjalager, 2010).

5. Growth and volatility

The economy at the aggregate level is characterized by interdependencies among economic variables. A threshold concept of macroeconomics is "cumulative causation", which refers to a self-reinforcing process whereby an initial shock or impulse triggers further changes of other variables in the economic system. As a major sector, not only does tourism generate growth opportunities, but it also introduces volatility to a country, as the sector is highly susceptible to shocks and disruptions.

5.1 Tourism development and economic growth

Over the past few decades, the tourism sector has experienced rapid growth worldwide, alongside the trend that service production is taking up a greater and greater share (65% by 2018, according to the World Bank, 2021) of the world's GDP. Smeral (2003) explores why tourism grows faster than the economy as a whole and attributes this pattern to the "demand bias" of structural change in the economy: once it has achieved saturation in basic needs and durable goods, a growing economy has more money left, first for leisure activities, and then for knowledge-based goods and services. Moreover, in the long run, tourism services become relatively more expensive than manufactured goods. This is due to the "productivity bias" of tourism development: boosted by relatively high increments in labor productivity, manufacturing can sustain high wage increases and passes these increases on to other sectors, such as tourism, which cannot

emulate its productivity increases (Smeral, 2003). Consequently, relative tourism prices must rise in order to keep profit ratios at a satisfactory level.

For many countries, tourism is used as a tool for economic development. The mechanism behind this is theorized as the tourism-led growth (TLG) hypothesis, which postulates that international tourism can bring in foreign exchange, create jobs, spur local investment, exploit economies of scale, and even diffuse knowledge (Brida, Cortes-Jimenez, & Pulina, 2016). This hypothesis is rooted in the export-led growth (ELG) theory, which has received long-standing interest from researchers in development economics (e.g., Balassa, 1978; Marin, 1992).

As Figini and Vici (2010) review, there are two strands of literature that tackle the theoretical foundation of the TLG hypothesis. The first one stems from the theory of multiplier in Keynesian economics, a school of thought arguing that aggregate demand has strong influences on economic output especially in the short run. International tourism (or tourism exports) is a part of aggregate demand, and its growth generates economy-wide knock-on effects via the expansion of output and employment in the supply chain for the tourism sector and via workers' re-spending of income. Nowak, Sahli, and Cortés-Jiménez (2007) further highlight the role of capital accumulation in long-run economic growth, noting that tourism exports provide funds for the imports of capital goods, which subsequently raise the economy's potential output. Faber and Gaubert (2019) find that the multiplier effect can take the form of positive cross-sector spillovers from the development of local services sector onto manufacturing sector. The second strand of TLG literature emphasizes the aggregate supply side and draws on the endogenous growth theory. It is hypothesized that international trade, including tourism, encourages human capital accumulation, knowledge spillover, and innovation activities. As a result, the aggregate productivity of the economy is elevated, leading to long-run economic growth (Figini & Vici, 2010; Nowak, Sahli, & Cortés-Jiménez, 2007).

Given its role in boosting economic growth, tourism is of particular significance to less developed countries in regard to poverty reduction (Croes & Vanegas Sr, 2008). The sector generally employs a large number of women, youth and low-skilled workers, who account for a considerable proportion of the very poor section of society (Medina-Muñoz, Medina-Muñoz, & Gutiérrez-Pérez, 2016). The idea of "pro-poor tourism" (PPT) has long been embraced by some powerful organizations, such as the World Tourism Organization (UNWTO) and the World Bank. A well-known framework is the "Sustainable Tourism-Eliminating Poverty" (ST-EP) program launched by the UNWTO in 2002. In reviewing the theoretical perspectives on the motivations behind PPT initiatives, Scheyvens (2007) remarks that neoliberal

orthodoxy is a key driver, although alternative development rhetoric (e.g., “participation”, “empowerment”, “capacity building”) is also embedded in the written documents of those initiatives.

5.2 Employment and wage

The endogenous growth theory holds that human capital formation is a significant contributor to economic growth. Job opportunities in the tourism sector can attract workers and increase labor force participation. For individuals, working in the tourism sector enhances their skills and knowledge and can serve as capacity building.

Recognizing the importance of human capital, Bañuls and Rodríguez (2005) summarize three theoretical perspectives on the relationships among education, human capital, and wage differentials. The human capital theory (also reviewed by Thrane, 2008) posits that education provides workers with the skills valued by their employers and enhances productivity. Accordingly, different levels of education lead to wage differentials among workers. Screening and signaling theories consider that educational qualifications can act as a filter that allows only those individuals with greater potential productivity to pass and that there is a link between educational qualifications and the attributes that are required at given levels of the labor pyramid. In the presence of asymmetric information between employers and workers, employers use a worker’s level of education as an indicator of his or her ability to do a given job and as an indicator of specific levels of labor performance. The competition theory hypothesizes that workers enter the labor market with a variety of qualifications and characteristics, such as education, age and sex, while these in turn determine the cost of a training program for a worker to fill a given position. Therefore, firms should select those workers with better qualifications and characteristics to reduce the cost of the workers’ training and ensure productivity.

A recurring topic concerning tourism employment is the gender pay gap. Tourism is one of the sectors with a particularly high proportion of women in total employment. Occupational segregation (caused by such as human capital requirements, preferences, and hiring discrimination) pushes women into the less well-paid jobs (Guimarães, & Silva, 2016; Santos & Varejão, 2007). Moreover, gender differences in work experience are another contributor to the pay gap (Thrane, 2008), as women accumulate market-valued work experience more slowly than men due to maternity and family reasons (e.g., a traditional division of labor within the family).

5.3 Economic volatility

From the perspective of Keynesian economics, the macroeconomic environment in which the tourism sector is operating is inherently unstable. Economic volatility, also termed business cycle, is measured as the deviation of actual output from its long-run growth trend. A business cycle typically comprises periods of upturn, expansion, peaking out, and recession.

In empirical research, there has been great interest in establishing the dates at which turning points in a business cycle are present. In the context of tourism, this entails dating and forecasting the turning points of tourism demand growth cycles. The modeling approaches that have been often adopted include the basic structural model (BSM), logit and probit regression models, Markov regime-switching (MS) model, and the non-parametric approach by Harding and Pagan (2003) (Gouveia & Rodrigues, 2005; Kulendran & Wong, 2011; Wan & Song, 2018).

Keynesian economics posits that demand shocks are the primary sources of volatility, for example, changes in consumer or business confidence, changes in government's fiscal stance, and credit market disruptions. For the tourism sector, these demand shocks cause a disturbance to the determinants of tourism demand and then lead to significant variations in tourism demand. Besides, events such as natural disasters (Huang & Min, 2002; Mazzocchi & Montini, 2001), political instability (Ioannides & Apostolopoulos, 1999), terrorism (Drakos & Kutan, 2003; Sönmez, 1998), and public health crises (Kuo et al., 2008; Zhang et al., 2021) also cause considerable disruptions to both the demand and supply sides of the tourism sector.

On the relationship between business cycles and tourism demand cycles, it has been observed that tourism demand responds to business cycles with some delays (Guizzardi & Mazzocchi, 2010), and the effects of business cycles exerted on tourism demand, exemplified by income elasticities of tourism imports, are asymmetric across different phases of a business cycle (Croes, Ridderstaat, & Rivera, 2018; Smeral, 2012). Smeral (2012) attributes this pattern of asymmetry to the behaviorist concept of "loss aversion", the existence of liquidity constraints, precautionary saving, and habit modification. As Croes, Ridderstaat, and Rivera (2018) note, this perspective implies that shocks are only transitory. However, if the disruption affects an economy's productivity level, the impact of economic shocks could be persistent.

A further topic in tourism economics, albeit less researched, is the international transmission of business cycle. In the era of increasing global integration, an economic shock may have far-reaching consequences beyond the country where it originates. The transmission of business cycle can be via trade flows, capital

movements, labor migration, technological transfer, or common factors such as commodity supply shocks (Song, Li, & Cao, 2018). Kose, Otrok, and Prasad (2012) find that, between 1960 and 2008, there was a substantial convergence of business cycles among industrial economies and among emerging economies, though there was a concomitant divergence (or decoupling) of business cycles between these two groups. In regard to tourism demand cycles, convergence is found among major tourism countries (Cao, Li, & Song, 2017).

6. Globalization

At the international level, our world is characterized by globalization, which entails increasing cross-country interconnectedness, mobility of people, and even interdependence (Dwyer, 2015; Song, Li, & Cao, 2018), though this trend has met with impediments in recent years, notably the counter-globalization movements since the Great Recession of 2008.

Globalization is driven by a host of economic, political, technological and cultural factors (Dwyer et al., 2009; McGrew, 2020; Song, Li, & Cao, 2018). McGrew (2020) discusses the first three factors. On the economic front, globalization is explained as a direct consequence of market competition in relation to comparative advantage and transnational production; an alternative view draws on the Marxist political economy theory that locates globalization in the logic of modern capitalism, where firms are continually searching for new markets, cheaper labor, and new sources of profitability. On the political front, globalization is seen as the product of the neoliberal ideology throughout the OECD world and the associated policies of liberalization, deregulation, and privatization. On the technological front, a crucial factor driving globalization is the advent of modern communication technology, which has massively reduced the costs and frictions of cross-border economic exchanges and “shrunk the globe”. Besides, Song, Li, and Cao (2018) add that cultural factors, such as cultural exposure and cultural exchange, accelerate the integration of different cultures.

An integral part of the globalization process (Fayed & Fletcher, 2002), tourism intersects almost every domain where globalization is manifested. For example, tourism helped to create the modern global transportation system, through which remote destinations became easily and swiftly accessible, and also contributed to such establishments as airports, hotels, and resorts; governments increasingly simplified formal procedures to facilitate the processing of growing numbers of tourists (Cohen, 2012). Meanwhile, liberalization in trade and investment boosts the transnationalization of ownership structures, marketing

arrangements, the outsourcing of services and the transmission of knowledge, as seen in the late 1990s in hotels, restaurants and travel agencies across many developing countries (Williams, 2002).

Within globalization research, a popular topic is internationalization, i.e., the process of firm expansion. In the specific context of tourism, Hjalager (2007) identifies four stages of internationalization. In stage one, firms set out to attract overseas customers to consume tourism products in the firms' home market (or existing destination). Stage two concerns the integration across borders through investments. Stage three is characterized by international fragmentation, or division of production, which is tightly linked to outsourcing practices. The underlying logic here is to create profitability through vertical integration. Finally, stage four is a relatively advanced stage, where added value is created via conglomerate integration with other sectors, transcending into new value chains.

As a prevalent strategy for many firms, internationalization is important to innovation. Drawing on international economics literature, Williams and Shaw (2011) explain this importance from three perspectives: i) internationalization can be understood as a form of innovation; ii) successful internationalization is dependent on innovation; iii) internationalization requires firms to have superior knowledge compared to those operating only in the domestic sphere. They further point out that internationalization research is a particularly relevant field for tourism, where there is growing interest in small firms, often at their early stage, such as "born global".

7. Concluding remarks

This chapter provides an up-to-date review of the key themes of tourism economics, with particular attention placed on the system of concepts, principles and theoretical arguments derived from modern economics. However, as a unique research field, tourism economics is not a replication of economic theories but has its inner workings. As the distribution of tourism activities is underlain by a collection of economic, geographical, political, socio-psychological, cultural, technological, and environmental factors, a thorough research must adequately account for the interplay and dynamics of those factors.

In the post-pandemic era, future directions of tourism economics research will be shaped by how the tourism sector adapts to the "new normal". Despite the devastating socio-economic consequences, the COVID-19 pandemic poses tremendous opportunities for changes in the sector. The pandemic challenges the existing business models and practices, forces firms to adopt innovative technologies, and tests the coordinative capabilities of destination authorities.

On the demand side, future research may investigate the pattern that tourist flows are shifting towards domestic and short-haul destinations before international travel fully resumes and explore the factors underlying those behavioral changes. For the destinations that once struggled with overtourism, the pandemic unintentionally pressed the “pause” button and rendered the opportunity to have a rethink about the mass tourism model.

On the supply side, an important area that deserves further research is business dynamism, where stories of firm survival have and will continue to dominate news headlines in the years to come while start-ups will accelerate the adoption of innovations in tourism services. Moreover, it is worth investigating the scarring effect of unemployment in light of the immense disruptions to the labor market, especially the effect on youth who graduate during the pandemic, as they may face a lower starting salary and a sluggish career advancement.

At the global level, it would be of both academic and practical significance to answer the questions about how countries around the world should reconnect with each other amid the trends of “slowbalization” and “deglobalization” that have existed even before the pandemic.

When applied to tourism, economics provides an organized set of frameworks and methodological procedures into disentangling the mechanism behind tourists, firms and government behaviors. However, none of the research questions presented by the COVID-19 pandemic can be addressed by the economic perspective alone. Long advocated by leading tourism economists, collective and interdisciplinary effort is of greater relevance than ever before.

References

- Abrate, G., Nicolau, J. L., & Viglia, G. (2019). The impact of dynamic price variability on revenue maximization. *Tourism Management, 74*, 224-233.
- Ahmad, N., Menegaki, A. N., & Al-Muharrami, S. (2020). Systematic literature review of tourism growth nexus: an overview of the literature and a content analysis of 100 most influential papers. *Journal of Economic Surveys, 34*(5), 1068-1110.
- Assaf, A. G., & Dwyer, L. (2013). Benchmarking international tourism destinations. *Tourism Economics, 19*(6), 1233-1247.

- Assaf, A. G., & Josiassen, A. (2016). Frontier analysis: A state-of-the-art review and meta-analysis. *Journal of Travel Research, 55*(5), 612-627.
- Assaf, A. G., & Tsionas, M. (2018). The estimation and decomposition of tourism productivity. *Tourism Management, 65*, 131-142.
- Assaf, A. G., & Tsionas, M. G. (2019). A review of research into performance modeling in tourism research- Launching the Annals of Tourism Research curated collection on performance modeling in tourism research. *Annals of Tourism Research, 76*, 266-277.
- Backhouse, R. E. (2010). *The puzzle of modern economics: science or ideology?*. New York: Cambridge University Press.
- Balassa, B. (1978). Exports and economic growth: further evidence. *Journal of development Economics, 5*(2), 181-189.
- Bañuls, A. L., & Rodríguez, A. B. R. (2005). Returns on education in the Spanish tourism labour market. *Tourism Economics, 11*(1), 119-132.
- Bianchi, R. (2018). The political economy of tourism development: A critical review. *Annals of Tourism Research, 70*, 88-102.
- Blake, A., Sinclair, M. T., & Soria, J. A. C. (2006). Tourism productivity: evidence from the United Kingdom. *Annals of Tourism Research, 33*(4), 1099-1120.
- Brida, J. G., Cortes-Jimenez, I., & Pulina, M. (2016). Has the tourism-led growth hypothesis been validated? A literature review. *Current Issues in Tourism, 19*(5), 394-430.
- Brida, J. G., & Scuderi, R. (2013). Determinants of tourist expenditure: A review of microeconomic models. *Tourism Management Perspectives, 6*, 28-40.
- Brouder, P. (2014). Evolutionary economic geography and tourism studies: Extant studies and future research directions. *Tourism Geographies, 16*(4), 540-545.
- Brouder, P., & Eriksson, R. H. (2013). Tourism evolution: On the synergies of tourism studies and evolutionary economic geography. *Annals of Tourism Research, 43*, 370-389.
- Calero, C., & Turner, L. W. (2020). Regional economic development and tourism: A literature review to highlight future directions for regional tourism research. *Tourism Economics, 26*(1), 3-26.

- Cao, Z., Li, G., & Song, H. (2017). Modelling the interdependence of tourism demand: The global vector autoregressive approach. *Annals of Tourism Research*, 67, 1-13.
- Chen, Y. (2021). *Economics of Tourism and Hospitality: A Micro Approach*. Routledge.
- Chikish, Y., Humphreys, B. R., Liu, C., & Nowak, A. (2019). Sports-led tourism, spatial displacement, and hotel demand. *Economic Inquiry*, 57(4), 1859-1878.
- Cohen, E. (2012). Globalization, global crises and tourism. *Tourism recreation research*, 37(2), 103-111.
- Coles, T., Liasidou, S., & Shaw, G. (2008). Tourism and new economic geography: issues and challenges in moving from advocacy to adoption. *Journal of Travel & Tourism Marketing*, 25(3-4), 312-324.
- Croes, R., Ridderstaat, J., & Rivera, M. (2018). Asymmetric business cycle effects and tourism demand cycles. *Journal of Travel Research*, 57(4), 419-436.
- Croes, R., & Vanegas Sr, M. (2008). Cointegration and causality between tourism and poverty reduction. *Journal of travel research*, 47(1), 94-103.
- Crouch, G. I., & Ritchie, J. B. (1999). Tourism, competitiveness, and societal prosperity. *Journal of business research*, 44(3), 137-152.
- Decker, R. A., Haltiwanger, J., Jarmin, R. S., & Miranda, J. (2016). Declining business dynamism: Implications for productivity. *Brookings Institution, Hutchins Center Working Paper*.
- Depken, C. A., & Stephenson, E. F. (2018). Hotel demand before, during, and after sports events: Evidence from Charlotte, North Carolina. *Economic Inquiry*, 56(3), 1764-1776.
- Drakos, K., & Kutan, A. M. (2003). Regional effects of terrorism on tourism in three Mediterranean countries. *Journal of Conflict Resolution*, 47(5), 621-641.
- Dwyer, L. (2015). Globalization of tourism: Drivers and outcomes. *Tourism Recreation Research*, 40(3), 326-339.
- Dwyer, L., Edwards, D., Mistilis, N., Roman, C., & Scott, N. (2009). Destination and enterprise management for a tourism future. *Tourism management*, 30(1), 63-74.
- Dwyer, L., & Kim, C. (2003). Destination competitiveness: determinants and indicators. *Current issues in tourism*, 6(5), 369-414.
- Eadington, W. R., & Redman, M. (1991). Economics and tourism. *Annals of Tourism research*, 18(1), 41-56.

- Escobari, D. (2012). Dynamic pricing, advance sales and aggregate demand learning in airlines. *The Journal of Industrial Economics*, 60(4), 697-724.
- Faber, B., & Gaubert, C. (2019). Tourism and economic development: Evidence from Mexico's coastline. *American Economic Review*, 109(6), 2245-93.
- Fayed, H., & Fletcher, J. (2002). Report: Globalization of economic activity: Issues for tourism. *Tourism Economics*, 8(2), 207-230.
- Ferguson, P. R., & Ferguson, G. (1998). *Industrial economics: issues and perspectives*. Basingstoke, UK: Palgrave Macmillan.
- Figini, P., & Vici, L. (2010). Tourism and growth in a cross section of countries. *Tourism Economics*, 16(4), 789-805.
- Fritsch, M., & Wyrwich, M. (2017). The effect of entrepreneurship on economic development—an empirical analysis using regional entrepreneurship culture. *Journal of Economic Geography*, 17(1), 157-189.
- Fu, H., Okumus, F., Wu, K., & Köseoglu, M. A. (2019). The entrepreneurship research in hospitality and tourism. *International Journal of Hospitality Management*, 78, 1-12.
- Fuchs, G., & Reichel, A. (2006). Tourist Destination Risk Perception: The Case of Israel. *Journal of Hospitality & Leisure Marketing*, 14(2), 83-108.
- Gan, L., & Hernandez, M. A. (2013). Making friends with your neighbors? Agglomeration and tacit collusion in the lodging industry. *Review of Economics and Statistics*, 95(3), 1002-1017.
- Gémar, G., Moniche, L., & Morales, A. J. (2016). Survival analysis of the Spanish hotel industry. *Tourism Management*, 54, 428-438.
- Gibbs, C., Guttentag, D., Gretzel, U., Yao, L., & Morton, J. (2018). Use of dynamic pricing strategies by Airbnb hosts. *International Journal of Contemporary Hospitality Management*.
- Gomezelj, D. O. (2016). A systematic review of research on innovation in hospitality and tourism. *International Journal of Contemporary Hospitality Management*.
- Gouveia, P. M., & Rodrigues, P. M. (2005). Dating and synchronizing tourism growth cycles. *Tourism Economics*, 11(4), 501-515.

- Gudmundsson, S. V., Merkert, R., & Redondi, R. (2020). Cost structure effects of horizontal airline mergers and acquisitions. *Transport policy*, *99*, 136-144.
- Guimarães, C. R. F. F., & Silva, J. R. (2016). Pay gap by gender in the tourism industry of Brazil. *Tourism Management*, *52*, 440-450.
- Guizzardi, A., & Mazzocchi, M. (2010). Tourism demand for Italy and the business cycle. *Tourism Management*, *31*(3), 367-377.
- Gunter, U., Önder, I., & Gindl, S. (2019). Exploring the predictive ability of LIKES of posts on the Facebook pages of four major city DMOs in Austria. *Tourism Economics*, *25*(3), 375-401.
- Gunter, U., Önder, I., & Smeral, E. (2019). Scientific value of econometric tourism demand studies. *Annals of Tourism Research*, *78*, 102738.
- Harding, D., & Pagan, A. (2003). A comparison of two business cycle dating methods. *Journal of Economic Dynamics and Control*, *27*(9), 1681-1690.
- Hjalager, A. M. (2007). Stages in the economic globalization of tourism. *Annals of tourism research*, *34*(2), 437-457.
- Hjalager, A. M. (2010). A review of innovation research in tourism. *Tourism management*, *31*(1), 1-12.
- Huang, J. H., & Min, J. C. (2002). Earthquake devastation and recovery in tourism: the Taiwan case. *Tourism Management*, *23*(2), 145-154.
- Huang, Y., Song, H., Huang, G. Q., & Lou, J. (2012). A comparative study of tourism supply chains with quantity competition. *Journal of Travel Research*, *51*(6), 717-729.
- Ioannides, D., & Apostolopoulos, Y. (1999). Political instability, war, and tourism in Cyprus: Effects, management, and prospects for recovery. *Journal of Travel Research*, *38*(1), 51-56.
- Jiao, E. X., & Chen, J. L. (2019). Tourism forecasting: a review of methodological developments over the last decade. *Tourism Economics*, *25*(3), 469-492.
- Joppe, M., & Li, X. P. (2016). Productivity measurement in tourism: The need for better tools. *Journal of Travel Research*, *55*(2), 139-149.
- Kaniovski, S., Peneder, M., & Smeral, E. (2008). Determinants of firm survival in the Austrian accommodation sector. *Tourism Economics*, *14*(3), 527-543.

- Kemperman, A. (2021). A review of research into discrete choice experiments in tourism: Launching the Annals of Tourism Research Curated Collection on Discrete Choice Experiments in Tourism. *Annals of Tourism Research*, 87, 103137.
- Kose, M. A., Otrok, C., & Prasad, E. (2012). Global business cycles: convergence or decoupling?. *International Economic Review*, 53(2), 511-538.
- Kulendran, N., & Wong, K. K. (2011). Determinants versus composite leading indicators in predicting turning points in growth cycle. *Journal of Travel Research*, 50(4), 417-430.
- Kumbhakar, S. C., Wang, H., & Horncastle, A. P. (2015). *A practitioner's guide to stochastic frontier analysis using Stata*. Cambridge University Press.
- Kuo, H. I., Chen, C. C., Tseng, W. C., Ju, L. F., & Huang, B. W. (2008). Assessing impacts of SARS and Avian Flu on international tourism demand to Asia. *Tourism Management*, 29(5), 917-928.
- Lado-Sestayo, R., Vivel-Búa, M., & Otero-González, L. (2016). Survival in the lodging sector: An analysis at the firm and location levels. *International Journal of Hospitality Management*, 59, 19-30.
- Li, J., Xu, L., Tang, L., Wang, S., & Li, L. (2018). Big data in tourism research: A literature review. *Tourism Management*, 68, 301-323.
- Liu, A., & Wu, D. C. (2019). Tourism productivity and economic growth. *Annals of Tourism Research*, 76, 253-265.
- MacKinnon, D., & Cumbers, A. (2018). *An Introduction to Economic Geography: Globalisation, Uneven Development and Place*. Routledge.
- Marin, D. (1992). Is the export-led growth hypothesis valid for industrialized countries?. *The Review of Economics and Statistics*, 678-688.
- Mazzocchi, M., & Montini, A. (2001). Earthquake effects on tourism in central Italy. *Annals of Tourism Research*, 28(4), 1031-1046.
- McGrew, A. (2020). The Logics of Economic Globalisation. In J. Ravenhill (Ed.). *Global Political Economy* (6th ed., pp. 249–281). Oxford, UK: Oxford University Press.
- Medina-Muñoz, D. R., Medina-Muñoz, R. D., & Gutiérrez-Pérez, F. J. (2016). The impacts of tourism on poverty alleviation: An integrated research framework. *Journal of Sustainable Tourism*, 24(2), 270-298.

- Merkert, R., & Morrell, P. S. (2012). Mergers and acquisitions in aviation—Management and economic perspectives on the size of airlines. *Transportation Research Part E: Logistics and Transportation Review*, 48(4), 853-862.
- Nicholls, S., Amelung, B., & Student, J. (2017). Agent-based modeling: A powerful tool for tourism researchers. *Journal of Travel Research*, 56(1), 3-15.
- Nowak, J. J., Sahli, M., & Cortés-Jiménez, I. (2007). Tourism, capital good imports and economic growth: theory and evidence for Spain. *Tourism Economics*, 13(4), 515-536.
- Ouliaris, S. (2011). What are economic models. *Finance & Development*, 48(2), 46-47.
- Santos, L. D., & Varejão, J. (2007). Employment, pay and discrimination in the tourism industry. *Tourism Economics*, 13(2), 225-240.
- Scheyvens, R. (2007). Exploring the tourism-poverty nexus. *Current issues in tourism*, 10(2-3), 231-254.
- Slevitch, L., & Sharma, A. (2008). Management of Perceived Risk in the Context of Destination Choice. *International Journal of Hospitality & Tourism Administration*, 9(1), 85-103.
- Smeral, E. (2003). A structural view of tourism growth. *Tourism Economics*, 9(1), 77-93.
- Smeral, E. (2012). International tourism demand and the business cycle. *Annals of Tourism Research*, 39(1), 379-400.
- Solvoll, S., Alsos, G. A., & Bulanova, O. (2015). Tourism entrepreneurship—review and future directions. *Scandinavian Journal of Hospitality and Tourism*, 15(sup1), 120-137.
- Sönmez, S. F. (1998). Tourism, terrorism, and political instability. *Annals of tourism research*, 25(2), 416-456.
- Song, H., Dwyer, L., Li, G., & Cao, Z. (2012). Tourism economics research: A review and assessment. *Annals of tourism research*, 39(3), 1653-1682.
- Song, H., & Li, G. (2008). Tourism demand modelling and forecasting—A review of recent research. *Tourism management*, 29(2), 203-220.
- Song, H., Li, G., & Cao, Z. (2018). Tourism and Economic Globalization: an emerging research agenda. *Journal of Travel Research*, 57(8), 999-1011.
- Song, H., Witt, S. F., & Li, G. (2009). *The advanced econometrics of tourism demand*. Routledge.

- Song, H., Qiu, R. T., & Park, J. (2019). A review of research on tourism demand forecasting: Launching the Annals of Tourism Research Curated Collection on tourism demand forecasting. *Annals of Tourism Research*, 75, 338-362.
- Spenceley, A., & Meyer, D. (2012). Tourism and poverty reduction: Theory and practice in less economically developed countries. *Journal of Sustainable Tourism*, 20(3), 297-317.
- Stabler, M. J., Papatheodorou, A., & Sinclair, M. T. (2009). *The economics of tourism*. Routledge.
- Thrane, C. (2008). Earnings differentiation in the tourism industry: Gender, human capital and socio-demographic effects. *Tourism Management*, 29(3), 514-524.
- Um, S., & Crompton, J. L. (1990). Attitude determinants in tourism destination choice. *Annals of tourism research*, 17(3), 432-448.
- United Nations. (2010). *International recommendations for tourism statistics 2008* (No. 83). New York: United Nations Publications.
- Vivel-Búa, M., Lado-Sestayo, R., & Otero-González, L. (2019). Influence of firm characteristics and the environment on hotel survival across MSMES segments during the 2007–2015 period. *Tourism Management*, 75, 477-490.
- Wan, S. K., & Song, H. (2018). Forecasting turning points in tourism growth. *Annals of Tourism Research*, 72, 156-167.
- Williams, A. M., & Shaw, G. (2011). Internationalization and innovation in tourism. *Annals of tourism research*, 38(1), 27-51.
- Williams, M. (2002). *The Political Economy of Tourism, Liberalization, Gender and the GATS*. Center of Concern-Global Women's Project, International Gender and Trade Network-Secretariat.
- World Bank. (2021). *Services, value added (% of GDP), World Development Indicators*. New York: World Bank. Retrieved on April 18, 2021 from: <https://data.worldbank.org/indicator/NV.SRV.TOTL.ZS>.
- Yang, S., Huang, G. Q., Song, H., & Liang, L. (2009). Game-theoretic approach to competition dynamics in tourism supply chains. *Journal of Travel Research*, 47(4), 425-439.
- Yang, Y., Pan, B., & Song, H. (2014). Predicting hotel demand using destination marketing organization's web traffic data. *Journal of Travel Research*, 53(4), 433-447.

Zhang, H., Song, H., Wen, L., & Liu, C. (2021). Forecasting tourism recovery amid COVID-19. *Annals of Tourism Research*, *87*, 103149.

Zhao, W., & Ritchie, J. B. (2007). Tourism and poverty alleviation: An integrative research framework. *Current Issues in Tourism*, *10*(2-3), 119-143.