English summary:

Studies on Determinants of Tourism Demand Dynamics in a Small Island Destination

The Case of Aruba

This study investigates the effects of several factors that can cause dynamics in tourism demand. This is achieved by tracing several relationships that could exist in a small island destination that specializes in tourism. Dynamics in the context of this study delineates a pattern of development that deviates from the proportional (monotonous) assumption. The goal of this study is not to model dynamic developments in tourism demand, but to identify a number of factors that can cause dynamics in tourism demand, and, ultimately, tourism development. Tourism demand is important because it is the foundation of numerous business decisions, and it is the life line of many destinations that rely on tourism for their economic prosperity.

While the economic literature has acknowledged the existence of dynamics in tourism, awareness of its causal factors remains limited. This is because:

(1) Research on tourism demand has been structured around only a small number of explanatory variables, such as income, prices, exchange rates, transportation costs, marketing expenditures, tourists’ tastes, expectations and habits.

(2) Most tourism demand studies were based on annual data, which blanks out potential influences that occur at more frequent periodicities, such as on a monthly level.

(3) Existing tourism studies have paid limited attention to the so-called bilateral effects involving tourism demand, particularly from the perspective of tourism demand being influenced by the same factor that it commands, such as economic growth and quality of life of island residents.

The consequence of these shortcomings is that our understanding of the determinants of tourism demand in both the short- and long-term remains confined to a few explanatory influences, which restricts proper insight into the developments that occur in tourism. These could be of great interest to many destinations and may indeed impact their survival. Furthermore, a restrained view like this limits the creative process necessary for undertaking successful tourism studies, i.e., by not stimulating an environment where new ideas on tourism developments could be channeled.
through innovative tourism investigations. Moreover, it has implications for the advancement of theories that explain tourism development.

Tourism is an open system that is affected by both human interactions and acts of nature. The open system of tourism is concerned with both internal and external forces that cause it to become dynamic. Internal forces comprise the various interactions between four different stakeholders, i.e., tourists, businesses, the community, and the government. The external forces concern events independent of tourism that may nonetheless have an impact on this phenomenon. These may include various shock events (such as terrorist attacks, political instability, and economic recession), as well as recurring events such as weather seasonality, sports events (World Cup Soccer or Olympic Games). The effects of externalities have made an increasingly significant mark over time, due to the globalization of the tourism market. The strength of the effects of human interaction and acts of nature on tourism demand dynamics is ultimately determined by the convergence of vulnerability and resilience conditions at the destination.

The case of study is the island of Aruba, which is worldwide highly ranked in terms of tourism specialization, contribution to employment, and human development. The results yielded by island studies do not need to have isolated validity. Case studies, even if they are one-country studies such as the island of Aruba, could be useful to the broader tourism literature, because they can promote new ideas and theoretical formulations.

Chapter 1 provides an overview of the research questions, research relevance, and hypotheses tested in this study. The main question addressed here is that of the contribution of this study to the determinants of tourism demand dynamics in the literature, from the perspective of a small island destination.

The study is segmented into three main sections, each containing two to three studies that structure each segment. Part I is a general exploratory section, whereby tourism development (TD) is analytically associated with quality of life (QoL) and exogenous shocks or disturbances (SoD). Chapter 2 (‘Tourism development, quality of life and exogenous shocks: A systemic framework’) proposes an analytical framework that describes the relationship between TD, QoL of residents, and SoD. This framework provides opportunities for creating a better understanding of the nature of both TD and QoL of residents, and points towards improving both. Additionally, the framework provides prospects for advancing the preparedness and responsiveness of actors, while potentially speeding up the recovery after shock events. Chapter 3 (‘The force field of tourism’) proposes a similar conceptual framework, extending this structure further by incorporating endogenous growth as an additional driver of TO and by
including three theoretical perspectives, each with the potential of explaining tourism growth from a different angle.

Part II explores the short-sequence relationships of TD. This section analyzes the effect of a number of short-term forces on tourism demand, with particular emphasis on cyclicality and seasonality. Chapter 4 (‘The connection business cycles and tourism demand cycles’) investigates whether business cycles have a bearing on tourism demand flows. The economic situation in the source country, which is defined by cyclical behavior, involves periods of spurts of growth followed by slowdowns over time. These cyclical movements have the potential to impact tourism demand, causing the latter to deviate from its long-term path. The results of this investigation show interchangeable periods of upward and downward movements, with turning points (peaks and trough) in between. The results further hinted at the possibility of business cycles having, to some extent, an impact on tourism demand cycles to Aruba (and Barbados), varying in terms of the destination being analyzed (Aruba or Barbados), the timing of the response to a business cycle impulse, and the direction of the cycle movements (recovery or contraction). Chapter 5 (‘Measuring pattern, amplitude and timing differences between monetary and non-monetary seasonal factors of tourism: The case of Aruba’) measures pattern, amplitude, and timing differences between the seasonal factors of monetary and non-monetary indicators of tourism development in Aruba. Measuring the co-movement of seasonal factors of both physical and financial flows in tourism allows for a better understanding of the dynamics of seasonality in this phenomenon. Our study found important differences between the pattern, amplitude, and timing differences separating the financial and volume flows of tourism to the island of Aruba, also when considering the market segments involved in the study. Monetary and non-monetary seasonal factors in tourism are not fixed, but change over time, and are also complicated because of differences in terms of correlation, amplitude and timing.

Chapter 6 (‘Impacts of seasonal patterns of climate on recurrent fluctuations in tourism demand: Evidence from Aruba’) investigates the effect of seasonal patterns of pull and push climate elements (rainfall, temperature, wind speed, and cloud coverage) on recurrent fluctuations in tourism demand from the United States and Venezuela to Aruba. The results showed that both pull and push seasonal factors of climate were simultaneously influential in determining the seasonal demand patterns from both the US and Venezuelan markets. In the case of the US market, the pull fundamentals were the seasonal factors of cloud coverage and wind speed in Aruba, while the key push factors included the seasonal patterns of rainfall, temperature, and wind speed in that country. The seasonality of tourism
demand from Venezuela was affected by the recurring movements of rainfall and temperature in Aruba (pull factors) and rainfall in that country (push factor).

Part III probes the relationships between TD, economic growth, and QoL. Chapter 7 (‘Tourism and long-run economic growth in Aruba’) examines the long-term relationship between TD and economic growth in Aruba. The aim was to determine whether the relationship is unidirectional or bidirectional. This study applies the basic assumption that there is a long-term linear relationship between TD and economic growth. The study found a bilateral causation between TD and economic growth in Aruba. This implies that tourism was not only an engine of growth, but economic growth on itself provided long-run growth potential to tourism. This outcome validated the Reciprocal Hypothesis in the case of TD in Aruba. As such, this study should be considered as a start-up to the more complicated connections explored in the next two chapters.

Chapter 8 (‘The TD-QoL nexus in a small island destination’) assesses whether there are links between TD, QoL, and economic growth for Aruba. The assumption here is that there are both direct/indirect bilateral relationships between TD and QoL, whereby economic growth acts as a mediating variable between the two constructs. The method applied in this chapter, also termed the objective approach, is based on macroeconomic indicators, which are thought to represent the well-being position of individuals of the destination. The empirical evidence suggested the presence of the Tourism-Led QoL Hypothesis, whereby TD had an important effect on the QoL of residents in Aruba. This relationship was not found on the indirect way, where economic development would have acted as a mediating variable. Alternatively, the study also found evidence of the existence of a QoL-Driven Tourism Hypothesis, where QoL has an impact on TD. In this case, the relationship was both direct and indirect, whereby the latter ran from QoL through economic development to TD. Furthermore, our study also found that the relationships were non-linear in nature, distinguishing between short-run and long-run effects. The empirical evidence was sufficient to validate the hypothesis of a bilateral relationship between the two constructs. Moreover, the study concluded that economic development indeed had a mediating role between TD and QoL, although the evidence suggests only mediation from QoL to TD, given that the intervention of economic development from TD to QoL was not supported by the empirical findings. The results, therefore, provided only partial validation of this hypothesis.

Like in the previous chapter, Chapter 9 (‘Examining the TD-QoL relationship in Aruba: A subjective approach’) also assessed whether there was a bilateral relationship between TD and QoL, again with economic
growth as the mediating variable. The method of data collection and analysis here is based on micro figures, i.e., numbers collected through a survey among a representative number of residents in Aruba. The investigation found a relationship running from TD to QoL (direct link), and from TD to economic development to QoL (indirect link). Alternatively, the investigation revealed an indirect relationship running from QoL through economic development to TD. Overall, there was empirical evidence that suggested a bilateral relationship between TD and QoL, although this two-way relationship was only visible from the indirect perspective, pertaining to the impact of QoL on TD. However, depending on the dimensions being analyzed, this indirect relation between TD and QoL could be either positive or negative, thus complicating our understanding of the nature of the connection. Economic development intervened as a mediating variable between TD and QoL, in a two-way perspective. This meant that economic development played mediating roles in both the relationships running from (i) TD to QoL (TD → QoL); and (ii) QoL to TD (QoL → TD).

Comparison of the findings of the investigations in Chapter 8 and 9 revealed that both approaches showed concurring results for most of the investigated hypotheses, indicating that the objective approach largely coincided with the subjective one. The similarity of the results suggests as well that the limitations of both the objective (problem of over- or under-reporting) and subjective approaches (problems of social comparison) were likely curbed in such a way as to bring the outcomes closer to each other.

The study contributes both conceptually and methodologically to new ideas that advance the scope of the tourism demand dynamics literature. From a conceptual viewpoint, the study first provides a variety of alternative drivers of tourism demand. This is the most significant contribution of this study, since the contemporary view of the determinants of tourism is expanded to include additional (alternate) factors. Secondly, the study presents an analytical framework containing bilateral relationships between TD, QoL and SoD, with endogenous forces as an additional factor that determines the outcome of TD. Thirdly, the study presents a fresh look at dynamics thinking in tourism by investigating cyclical and seasonal patterns, thereby providing a more profound insight into the dynamics of tourism demand in the short-run. Fourthly, the study highlights the interconnectedness between TD and economic development with both short- and long-term dynamics in the relationship, making it possible to link these types of studies to the tourism demand dynamics literature. In the fifth place, the study established that QoL is not a passive phenomenon, but can affect future TD. The study also illuminated several ways by means of which QoL could steer future TD, among others, through the support of residents, their educational preparation, and their attempts to misuse tourists...
for their own self-centered benefit. Additionally, the study expanded the possibilities of a bilateral relationship between these two constructs, by including economic development as a mediating variable in the relationship. The latter allows for an extended role of the relationship between TD and economic development mentioned in the previous passage. The interconnectedness of TD and QoL provides an additional explanation for the dynamic features of tourism in the long-term.

From a methodological perspective, the study firstly offers a calculation method for the timing differences between two seasonal factors, based on identification of peaks and troughs in the seasonal patterns, and subsequent determination of the lag or lead position of one versus the other. This timing methodology provides an additional dimension for studying seasonal relationships. Secondly, the study provides a methodology for by-passing the problem of seasonal unit root testing in order to determine whether seasonality was stochastic or deterministic in nature. This can help to avoid the difficulties associated with seasonal unit root tests, which are more complex than the simple unit root assessments. Thirdly, the study confronts the challenge of examining bilateral relations between TD and QoL in structural equation modeling, by estimating two separate structural equation models.

The study also contributes towards expanding the theory base of the field by providing several building blocks in the form of theoretical propositions on short-term determinants of tourism demand and the relationship between TD and QoL.

The study highlights several implications for managers and policy-makers. From the perspective of cyclicality and seasonality, there is a need for managers and policy-makers to understand the relevance of these two types of factors in determining short-term TD. Managers and policy-makers should identify those markets that are affected by business cycle developments in the source countries, including their type of relationship (short versus long term), intensity (deterioration versus recovery periods), and intertemporal effects (simultaneous or lagged). Similarly, seasonal variations of climate, both at the destination and at the source countries, could influence the seasonality of tourism demand. This implies that managers and policy-makers have the extra task of monitoring expected weather seasons, both at the destination and at the source countries, as a short-term determinant of TD. Managers and policy-makers need to be aware of the seasonal differences between the various indicators of tourism demand, which could assist them when determining their pricing strategy, while this information could equally help policy-makers to delineate their tourism diversification strategy.
From the viewpoint of long-term dynamics, managers and policy-makers need to recognize that residents’ QoL is important for TD and economic development. This could allow policy-makers to make better use of the potentials of QoL, and guide these towards improving future TD. Managers and policy-makers need to also understand that TD and QoL are multi-dimensional concepts with multiple and variable angles of cause and effects relationships. Adding the finding that economic development (which is also a multidimensional concept) could also mediate between TD and QoL does complicate our understanding of the relationship between TD and QoL even further. Engaging this mediating effect, for instance, requires allocating more (financial) resources to tourism, specifically to the tourism-related industries (such as transport, communication, and agriculture), in order to obtain higher levels of economic growth in the future, which could be engineered to further benefit tourism. Thus, managers and policy-makers need to understand the dimensionality of all three constructs and their interactions (including how they interact from within), in order to improve the effectiveness of TD on people’s QoL, but also to achieve bigger benefits out of tourism.

The symbiotic relationship between TD and QoL requires an adequate policy and institutional framework that can nurture and monitor the connection between both constructs. In this regard, governments have an important role to play by promoting policies that encourage and facilitate an environment of productivity, innovation and product upgrading, thereby providing sustainable location advantages to the tourism destination. Moreover, there is a need for coordination and collaboration to counter-market failures (including land use, pollution, and restrictions on locals to use beaches) that occur in tourism, as well as externalities that have an impact on QoL (these include labor immigration, loss of nature, and access to beaches). Additionally, policy-makers should take care of building and maintaining an adequate socio-economic background, where elements such as leadership, creativity, innovation, and entrepreneurship could thrive, in order to assure a long-term growth potential of both tourism and the economy.

The role of the government in crucial questions could be limited at times, depending on (1) the importance of a destination for an economy; (2) the presence of market failures and/or market distortions; and (3) political tendencies that emerge with respect to privatization and commercialization of government functions.

Our presented studies intended to cover several aspects that were deemed relevant, particularly for small island destinations. However, these studies do not purport to offer a comprehensive picture of the factors affecting tourism demand dynamics, because the latter could be extensive.
Furthermore, the findings are not representative in a general sense for all islands, given that differences in, for example, level of tourism, economic, and human development, as well as degree of tourism specialization at the destination could produce different outcomes for each island. This does not mean, however, that the findings of island studies should be confined specifically to islands; the results could have broader significance for the tourism literature.

A number of data restrictions were experienced when conducting the presented studies, in terms of: (1) the length of the time series; (2) the availability of the necessary series to conduct the research; and (3) the apathy of survey respondents in terms of participating in extensive surveys that could adequately cover linkages between TD, economic development, and QoL.

Future research should set out to extend the depth and breadth of the determinants of tourism demand dynamics, and the resulting theoretical foundations. A first direction of future investigation could be to expand the drivers of short-term tourism demand, by exploring other variables in terms of how their cyclical and/or seasonal behavior affect those of tourism demand. Examples include airline prices, hotel prices, fuel prices, and exchange rates. Analogously, future studies should consider including other destinations in the analysis in order to broaden the scope of the findings. Additionally, future studies should consider supply factors such as destination image, attractions and events, quality of the product, and so forth, focusing on Aruba and its competitors.

A second direction for future research pertains to the relationship between TD and QoL. Future studies could expand the dimensions of each of these constructs, and the possible effects they have on each other. This could provide a better understanding of the nature of the (bilateral) relationship between these two constructs. Furthermore, future studies may investigate other variables that could mediate between these two constructs, such as social, environmental and cultural variables. This could provide a better understanding of the indirect workings of the relationship between TD and QoL. To expand on the generalizations of the findings, future studies should consider including other destinations in the analysis. One key aspect of the analysis of the relationship between TD and QoL is that future studies should contain both objective and subjective research approaches in order to weigh in on the findings.

A third direction of research is to focus on theory-building, which quest could be steered by new theoretical propositions emerging from the investigations on the drivers of tourism demand. In this way, these studies could contribute to the pool of available theories that explain TD.
This thesis set out to investigate the effects of several forms of developments that could affect the path of TD in a small island. It was demonstrated that tourism demand dynamics could be triggered by a broader range of factors, associated with time-dimensions and reciprocal effects, than what has been explicitly alluded to by the literature. This has important implications for our understanding of the drivers of tourism demand. At the same time, the study presented new avenues for future research and the theorizing of tourism demand. Finally, the study demonstrated that even a case study of a small island destination could provide material for expanding tourism literature, as was one of the intentions of this study.