

THE ROLE OF CULTURAL TOURISM IN SEASONALITY REDUCTION: THE CASE OF CAPE VERDE

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SUMÁRIO

No contexto atual de globalização e crescente competitividade no sector turístico, torna-se necessário que os destinos turísticos se foquem em fatores de diferenciação da sua oferta. Cabo Verde sempre foi promovido como destino de "Sol e Praia", o que levou ao desenvolvimento de um turismo de massa, considerado o mais sensível a variação de preços e à sazonalidade. À medida que a procura se altera tanto a oferta turística como as técnicas de marketing se adaptam. Com a evolução das forças do meio envolvente, torna-se necessário encontrar produtos alternativos e promover eixos de diferenciação do destino turístico de Cabo Verde. Cada vez mais o sector turístico ganha proporção na economia do país, sendo responsável atualmente por mais de 20% do PIB nacional. Portanto, é imprescindível gerir e planificar o sector tendo em conta os pontos fracos e as potencialidades do país, bem como monitorar as tendências do mercado de modo a estar consciente das oportunidades e ameças que possam aparecer ao desenvolvimento do mesmo.

A sazonalidade é um fenómeno que normalmente afeta o sector turístico, principalmente os destinos de "Sol e Praia", podendo causar custos, tanto privados como sociais. Assim, o que se propõe nesse trabalho é avaliar a presença da sazonalidade no turismo em Cabo Verde, propondo o desenvolvimento do turismo cultural como forma de reduzir a sazonalidade. Para analisar o efeito da sazonalidade aplicou-se uma análise de regressão linear à base de dados de estatísticas mensais da INECV de 2007 a 2011.

Palavras – Chave: Sazonalidade; Turismo Cultural; Cabo Verde; Marketing Turístico

ABRASTRACT

In the actual context of globalization and increasing competitiveness in the tourist sector,

the tourist destinations must focus on what really differentiates their offer from others. Cape

Verde has always been heavily promoted as a "Sun and Sea" destination, which leads to the

development of mass tourism, the most sensible segment to prices variation and seasonality.

As demand changes emerging new types of tourism, both the touristic offer and marketing

techniques must be adapted. With the evolution of the surrounding forces, it becomes

necessary to find other alternative products and promote axes of differentiation of Cape

Verde's touristic destination. The tourist sector is increasingly gaining proportion in the

country's economy, currently accounting for over 20% of national GDP. In this sense, it is

necessary to manage and plan the sector taking into account the weaknesses and potential of

the country as well as monitor the market trends in order to be aware of the opportunities and

threats that may appear to the sector development.

Seasonality is a phenomenon that usually affects the tourism sector, especially the "Sun

and Sea" destinations, which can cause costs, both private and social. So what is proposed in

this work is the evaluation of the presence of seasonality in Cape Verde's tourism, proposing

the development of cultural tourism as a way to reduce seasonality. To analyze the effect of

seasonality, we have applied a linear regression analysis based on data from INECV monthly

statistics of 2007 to 2011.

Key – Words: Seasonality; Cultural Tourism; Cape Verde; Tourism Marketing

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ACRONYMS

ABTA – Association of British Travel Agents

ASA – Aeroportos e Segurança Aérea

BCV - Banco de Cabo Verde

CI – Cabo Verde Investimentos

DGT – Direcção Geral do Turismo

FDI – Foreign Direct Investment

GDP – Gross Domestic Product

ICOMOS – International Council on Monuments and Sites

IMF – International Monetary Fund

INECV - Instituto Nacional de Estatística de Cabo Verde

IPDT – Instituto de Planeamento e Desenvolvimento do Turismo

LDC – Least Developed Country

OECD – Organization for Economic Cooperation and Development

OLS – Ordinary Least Squares

PEDT – Planeamento Estratégico de Desenvolvimento Turístico

SI – Seasonality Index

SIDS – Small Islands Development States

TACV - Transportes Aéreos de Cabo Verde

TAP – Transportes Aéreos Portugueses

TTCI – Travel & Tourism Competitiveness Index

UNDP – United Nations Development Programme

UNESCO – United Nations Educational Scientific and Cultural Organization

UNWTO – United Nations World Tourism Organization

WEF - World Economic Forum

WTO - World Tourism Organization

WTTC - World Travel & Tourism Council

SUMÁRIO EXECUTIVO

Com a crescente globalização e, intensidade concorrencial no sector turístico torna-se crucial monitorizar e acompanhar as tendências da procura dos destinos turísticos, bem como ter consciência de fenómenos que possam afetar o desenvolvimento sustentável do turismo. Para Cabo Verde, sendo um Pequeno Estado Insular em Desenvolvimento (PEID), cuja economia é bastante dependente do exterior, a aposta no desenvolvimento do turismo apresenta-se como um motor estratégico importante para o desenvolvimento sustentável do país. Todavia, o foco no turismo como um dos eixos da viabilidade económica é bastante recente, apesar de ser um dos sectores mais dinâmicos e de contribuir significativamente tanto para a entrada de divisa estrangeira no arquipélago, como também para gerar emprego, desenvolver as infra-estruturas e património do país e ainda para divulgação da história, civilização e tradições. Porém, continuam a existir alguns constragimentos e limitações em termos de acesso, infraestruturas, organização e gestão assim como de promoção do destino.

A insularidade, a posição geográfica, o clima ameno, alguns recursos naturais específicos, a diversidade do património cultural, o contraste de paisagens ainda virgens e a estabilidade política e social são fatores que fazem de Cabo Verde um destino turístico popular e exótico e que influenciam no seu desempenho. Estes mesmos fatores também atraem estrangeiros, principalmente os Europeus, que de acordo com dados do Instituto Nacional de Estatítica de Cabo Verde (INECV) são os principais turistas a visitarem o país.

Cabo Verde enquanto destino turístico emergente, apresenta a necessidade de desenvolver os seus mecanismos de relação intersectorial de modo a que se consigam sinergias, no sentido de prossecução de objetivos de competitividade e sustentabilidade. É necessário uma maior cooperação entre o público e o privado, e maior apoio por parte do Governo. É amplamente reconhecida a necessidade de promover estudos sobre o mercado turístico e uma maior planificação, pois a sua ausência na génese do turismo gerou um conjunto de subprodutos nocivos que não combinam ou vão mesmo contra as fragilidades estruturais, sociais, ambientais e económicas do país. A ilha do Sal constitui um bom exemplo do crescimento do turismo sem planeamento, destacando-se o crescimento desenfreado e um tanto caótico do centro urbano e desfasamentos entre a procura e as infra-estruturas de suporte necessárias. Torna-se necessário ficar atento aos desafios e tendências do mercado, estando consciente das potencialidades e fraquezas internas, conhecer o perfil dos potenciais segmentos de turistas, de modo a adequar as necessidades e desejos da procura com a oferta.

O fenómeno da sazonalidade afeta a indústria do turismo, principalmente nos destinos de "Sol e Praia", dependendo das caracteríticas tanto da procura como da oferta. Pode causar problemas econômicos, sociais e ambientais para os destinos, por isso tem sido uma preocupação particular para os gestores do sector. É neste sentido que este estudo, incidindo sobre a estadia dos turistas (internos e externos), durante um determinado período, tem como objetivo analizar a presença e efeito da sazonalidade no país. Baseando-nos em dados mensais proporcionados pela INECV foi possível, através de uma regressão linear detectar a existência de sazonalidade no turismo de Cabo Verde, verificando-se ainda algumas hipóteses. Como suporte de análise e de fundamentação da proposta de um modelo turístico complementado com a oferta cultural, recorreu-se a uma metodologia qualitativa a partir de fontes secundárias, da observação e de entrevistas em profundidade com quadros do MTIE de Cabo Verde (Ministério do Turismo e Energia). Os resultados obtidos dos métodos quantitativos e qualitativos evidenciam o forte posicionamento de Cabo Verde como destino de "Sol e Praia", bem como algum impacto da sazonalidade. Ainda se observou que o turismo cultural é reconhecido como um fenómeno diferenciador e de aposta estratégica importante, não obstante os resultados da análise terem sido limitados, mas isso porque assume-se que o efeito do turismo cultural em destinos litorais e principalmente ilhas não é muito claro, considerando que são promovidos e conhecidos num todo como destinos de "Sol e Praia".

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1. INTRODUCTION

This first chapter aims to provide an overall perspective of this investigation through a description of the central issue and its relevance trend, the highlight of the structure, objective and hypothesis of the study.

1.1. Background and Overview

Over the decades, tourism has been experiencing continued growth and diversification to become one of the fastest growing economic sectors worldwide. As an economic and social phenomenon, modern tourism is closely associated to development and encompasses a growth number of destinations. It is a complex phenomenon in the sense that it is difficult to find a singular definition for such an embracing concept. The business volume of tourism nowadays equals or even surpasses the oil exports or automobiles business. The tourism industry has become one of the largest in international commerce, representing one of the main income sources for many developing countries. Accordingly to United Nations World Tourism Organization (UNWTO) 2013 statistics, Travel & Tourism sector in 2012 has accounted for 9% of global Gross Domestic Product (GDP), 6% of world exports and it has generated 1 in 11 jobs worldwide, returning gradually to the position it held before crisis, with emerging markets leading the way (slow growth combined with austerity measures adopted by the major part of European countries are likely to affect travels choices).

International Tourism is one of the most important economic activities of Small Island Developing States (SIDS). As UNWTO Secretary-General, Taleb Rifai, has said in the United Nations (UN) Conference on Sustainable Development (RIO +20), "Tourism offers one of the most promising options for the economic growth and development of small island nations if planned and managed according to the principles of sustainability...and it has been for example, an important contributor in enabling the Maldives and Cape Verde to graduate from the status of Least Developed Country" (Rifai, 2012: vii). It has been recognized that while SIDS often struggle to compete in the global market in a globalized era, their natural and cultural resources give them a strong competitive advantage in the Tourism field (in Challenges and Opportunities for Tourism Development in Small Island Developing States WTO Report, 2012). We can say that culture is what differentiates them from the other destinations, present in a country daily life it attracts visitors during the year, which help to spread the demand, thus reducing tourism seasonality incidence.

1.2. Problem Definition

The study centers in the analysis of the seasonality in tourism and how the cultural touristic offer can help in the reduction of its effect. Firstly a description of the market trends and the profile of the tourists who visit Cape Verde are done. In parallel it is analyzed the product mix of Cape Verde touristic destination, in order to understand how the offer and demand side can be matched to reduce seasonality effects. The diversification between tourist's behaviors put some increasing challenges to the destinations managers because each tourist has particular needs, comes from different places with different cultures and has different motivations. It is difficult to trace exactly a tourist profile since it is increasingly demanding and influenced by the global trends, but it is precisely this dynamic feature that can be useful to guide the strategies and market segmentation to mitigate seasonality.

The so-called "Sun and Sea" tourism is and important touristic segment, which tends to benefit the places that meet these characteristics, usually generating a mass tourism, it attracts one of the greatest flow of tourists. But it is recognized as the more sensitive to the income variation and seasonality (Spínola, 2001). So, one strategy to reduce exposure to adverse effects of seasonality is the diversification and customization of market segments. In the last years, there has been a trend of increased demand for alternative types of tourism and destinations, such as rural tourism, the cultural and sport tourism, as well as business and event tourism. It can be seen through the increase of studies and literature in each of the alternative tourism types, namely Page & Getz (1997) in rural tourism, Getz (2008) about event tourism or Hudson (2003) in sport tourism. A recent World Tourism Organization (WTO) study revealed that tourists, especially the Europeans with developing countries as destination, tend to choose destinations where they can live experiences, mingle with the locals and learn about their lifestyle while the "Sun and Sea" tourist usually has little contact with the locals (Plano Estratégico de Desenvolvimento do Turismo, PEDT, 2010-2013).

Ferreira (2008) has emphasized that tourism in Cape Verde is heavily promoted as "Sun and Sea", but the country's touristic potential goes beyond the bubble called "all-inclusive resorts" and to be a more qualified and sustainable sector new products have to be developed and explored. This can be considered a restrictive view of the country as a tourism destination, besides a great piece of the sector benefits are owned by foreigners and do not revert to the society. The demand for this type of tourism is more likely to be affected by seasonality, with a summer peak season and the pressure generated has some negative impacts in both residents as well as tourists. Considering the weather of Cape Verde, there should

have no "Sun and Sea" tourism seasonality since it is almost stable during the whole year, but we have to take in account the tourist vacations time and other factors that can affect demand choices. Tourism sustainable development should be also supported by the unique characteristics of the Cape Verdean people, the culture heritage, the so-called "morabeza" and the archipelago's ecological diversity.

The statistics on tourist's arrivals growth in the last decade has been reflecting a good performance, but the Cape Verde's industry challenge is to change from a mass tourism to a tourism development based on more sustainable tourism types, such as the cultural among others that will bring real benefits to the community. This research will seek to capture the characteristics of the tourist that visit Cape Verde and to highlight the role that culture can assume in the promotion and differentiation of the destination tourist product and thus the contribution that cultural tourism, the emerging touristic segment, has in reducing seasonality. The main issues to be addressed along the dissertation are:

- i) There is seasonality in Cape Verde Tourism?
- ii) In which segment of tourists seasonality is stronger: the foreigners or nationals?
- iii) Can cultural tourism contribute in tourism seasonality mitigation?

1.3. Relevance, objective and motivation

Due to the growing relevance that tourism is assuming in the archipelago, particularly as a way to overcome the international crisis, great attention has been given to its management and planning. Sal is a quite good example of a tourism development with no control and planning. That is why it is important to know where to concentrate the efforts on. In order to reach this objective, the market trends knowledge is a crucial step for policy-makers as well as the identification of the destination strengths, weaknesses, threats and opportunities. Seasonality is a problem that affects tourism and it has some negative impacts that are why it is important to find ways to tackle it, since tourism has been one of the most relevant industries for the country economic development.

The objective is that given the lack of studies already realized in this field in Cape Verde (since we did not find studies of Cape Verde tourism seasonality online), besides the academic contribution, the results and conclusions of this dissertation contribute in the destination management, national policies and measures to increase competitiveness and sustainability of the industry, as well as in the analysis of the actions already taken and how to

deal with seasonality taking advantage of the country culture richness. Furthermore to be a base for future investigation and academic studies, since it is a dynamic industry in motion as the tourist is becoming increasingly demanding. This theme caught my attention because of its worldwide relevance, particularly for SIDS. Tourism as all socio-economic phenomena has two faces, it can have good as well as bad effects if not well managed and controlled, and seasonality growth represents a threat to tourism sustainable development in Cape Verde. As a business management student, I have chosen the tourism management and marketing field because it is and industry in development in my country. Tourism has been assuming a crucial role in its development, my work may contribute somehow and it could represent a good open door to the labor market since it is the industry with more investment, in which they need some qualified professionals.

1.4. Research method and hypothesis proposal

The investigation will be carried in both a qualitative and quantitative method. Based on the literature review and both primary and secondary data, some hypotheses are proposed and a model to access seasonality presence in tourism is defined. The first thing to do is to find out if there is seasonality in Cape Verde tourism demand, which will be done through graphic plots, seasonality index and finally a linear regression model, based on monthly tourist's overnight stays INECV database. The same thing is done for each tourist segments, the nationals and the foreigners, to find out in which one, seasonality is more intense through the Cramer's coefficient of determination difference test. From the interview's conclusions, the preposition of the role of cultural tourism in seasonality reduction was left as a hypothesis to verify, so through a regression model we will assess the impact that cultural tourism has in seasonality, by comparing islands with different cultural touristic offer. Based on the same database, a characterization of the Cape Verde destination tourist's profile was done in order to have an overview of the market trends. The hypotheses to verify along this dissertation are:

H₁: There is seasonality in Cape Verde tourism demand.

H₂: The seasonality pattern is the same for both national and foreign tourists

H₃: The Tourism Seasonality is stronger in the "Sea and Sun" Cape Verde islands than in the cultural ones (assuming that Sal represents the 1st, S. Antão a cultural island and S. Vicente both – Santos, 2008)

2. LITERATURE REVIEW

2.1. Introduction

This chapter provides the presentation of a theoretical framework to support the objectives as well as the propositions and the hypothesis proposed in the dissertation. The research problem is mainly contextualized by crossing the conceptualization of seasonality and some specific areas of the tourism marketing scientific domain, such as the cultural marketing and tourist behavior. Seasonality is a broad concept, applied in different contexts and is generally analyzed by a quantitative methodology, like OLS (Ordinary Least Squares) Linear Regression Quantitative Method. The literature review allows knowing the current state of knowledge on the subject. This chapter presents a brief reference to the literature and studies developed around the research problem of analyzing the determinants of the seasonality and to understand if developing a touristic offer based in cultural issues may reduce its effect. First it is analyzed the tourism industry background, namely the Cape Verde context, where some specific concepts are identified. After, a brief review of literature in determinants of seasonality and cultural tourism.

2.2. Conceptualization and trends in the Tourism Industry

Tourism is a growing phenomenon of contemporary society and the data shows it. From 1950 to 2011, international arrivals, at global level, has expanded at a 6.2% annual rate, growing from 25 to 980 million, generating an income growth at an even stronger rate reaching around US\$ 919 billion (€ 693 billion) in 2011. Demand maintained strong in both advanced and developing economy destination. Africa was the fastest-growing region with an increase of over 7% in international arrivals thanks to continued growth in Sub-Saharan Africa - the region that Cape Verde belongs to - (UNWTO, 2012). Thus there are no doubts about the relevance of Tourism in the world economy and as an agent of development. There are many causes of this growing behavior: among them one can mention the increase of income per capita of the population from developed countries (which are the main emitters of tourists), the development of transport (mainly air), and the technological evolution of communications that have revolutionized the way of promoting targets and disseminate information, as well as facilitate contacts, the intense urbanization process (the need to get away from the hustle, bustle and stress of big cities), the process of economic globalization, the internationalization of trade that promotes the growth of what is called "business events"

and finally the growth of free time. But tourism is subject to some adverse phenomena to its sustainable development, such as seasonality, which results from the tourism demand and destinations supply match. There are some important concepts to clarify, so then we present UNWTO glossary definitions of some concepts related to tourism (WTO, 2005/2007):

Visitor is a traveler who takes a trip to a main destination other than his/her own or who travels to a place within his/her country but outside the usual environment for at least one night, but does not spend more than one year and for any main purpose other than to be employed by a resident entity in the country or place visited while a **Tourist** is a visitor who spends at least a night in the visited country, when he does not spend a night is considered an **excursionist or same-day visitor**.

Tourism destination taking into account the definition of WTO (1999, 2007), it is an important place visited by tourists that represents the basic unit of tourism analysis. It is serviced by both the public and private sector and can be constituted by a whole country, region, island, village or a city. For marketing point of view, tourism destination is more than a geographical place, but rather an agglomeration of products, services, natural resources, artificial elements and information that is able to attract a number of visitors into a place (Leiper, 1995 & Bieger, 1998). The tourism destination is considered as a unique total experience which contains a combined collection of different products and services, from the tourism natural resources to infrastructures, passing through accommodation, food service, facilities, information and so on, which will influence the perceived destination image and thus impact in the destination competitiveness. Accordingly with Smith (1994), the success of a product in meeting the tourist needs is determined by how well each element is designed and integrated with the others, so the tourism product is more than a combination of elements, but it includes the synergistic interaction among all of them. The success of the tourism product depends on how well it is designed, packed, managed, promoted and delivered to the tourists in an integrated approach of all components (Smith, 1994). So we can conclude that tourism destination product is an experience that encompasses both the physical setting itself and the service infrastructure that support the visit.

The complexity and multidimensional character of the touristic phenomenon has made difficult to structure its definition as a single concept, a task that goes beyond the borders of a single discipline or a single field of knowledge. It is an industry that in economic terms is considered as an exportation from one region to another (the destination) in which it generates

income, promotes job creation, entry of foreign currency that can help to equilibrate the balance of payments, increases the public taxes and heats up business, hence its importance in the economy, due to its high contribution to the generation of Gross Value Added (WTO, 2007). There have been many attempts to define Tourism and the United Nations Conference, realized in Rome, in 1963, has established some definitions, which are accepted worldwide, through the WTO, so we can mention some examples that offer a clear insight into the scope and context of tourism. Jordi Montejano (2001) has set tourism as the theory and practice of all activities related with attraction, services and tourist's needs satisfaction. It is fundamentally a set of techniques based on scientific principles that aims to provide services to the person that spend his free time travelling, being because of this considered as a tourist or excursionist. Other researchers have provided other definitions. The tourism was identified as a temporary movement of people to destinations outside the normal places of work and residence, activities undertaken during their stay in those destinations, and the facilities created to carter for their needs (Mathieson & Wall, 1982) or as a social, cultural and economic phenomenon which entails the movement of people to countries or places outside their usual environment, by a consecutive period of time less than one year, for personal or business/professional purposes. These peoples are called visitors (which may be either tourists or excursionists; residents or non-residents) and tourism has to do with their activities, some of which imply tourism expenditure (WTO, 2005/2007).

All these definitions have in common the perspective of tourism as an activity embracing all aspects of the movement of people away from their natural surroundings, for leisure and entertainment as well as the activities they undertake and facilities they use in their destination areas. It includes a demand side that have to be motivated, a destination, which encompasses a supply side with some attractions as well as support infrastructure to satisfy the visitor and the match of all these factors has an economic, social and environmental impact. To be considered as tourism, a trip has to fill the following criteria: to involve a displacement outside the usual environment; the travel must occur for any purpose different from being remunerated from within the place visited and duration, in the sense that only a maximal duration is mentioned, not a minimal. Tourism has implications on the economy, on the natural and built environment, on the local population at the destination and on the tourists themselves. So, the sector relevance extends beyond just being an important source of revenue, it also provides employment opportunities, influences regional infrastructure, supports local industry, influences freight movements and encourages urban development.

Due to these multiple impacts, the wide range and variety of production factors required for the touristic offer, and the wide range of stakeholders involved or affected by tourism, there is a need for a systematic and synergetic approach to tourism development, management, planning and monitoring (Ignarra, 2001). It is also a dynamic industry since it requires the capacity to adapt constantly to customer's needs and global trends. Tourism as an industry does possess its specific generic product and production process: it provides the products as services, persons, places, organizations and ideas, whose function is the facilitation of travel and activity of individuals away from their usual environment (Smith, 1994). Tourism has two sides, it does not represent just opportunities, but also some challenges and threats, and since it has a strong impact on society, an effective management is required. When it is not well planned can have negative impact such as loss of cultural identity of the host community, environmental pressure and so on.

Accordingly with the trip purpose, there are some types of tourism. Some tourists travel for leisure, recreational, health or even business purposes. Seaside tourism or the so-called "Sun and Sea" tourism, which involves recreation by the sea and water sports, gives place to a mass tourism and some researchers put it in one extreme and the other alternative, small-scale tourism at the other. It is the more adequate to industrial exploration and it is supposed to be the one which has a major impact in destinations because of the scale and the nature of the consumer while the alternative ones are said to have a much reduced impact because of tourist behavior, for whom participation in the community daily life is a feature and they usually spend more money, so the impact is less disruptive (Cooper, 2008). But recently there is a trend toward the increase of demand for alternative types of tourism in a movement identified as "tourism internalization", namely the rural, cultural and sport tourism (Spínola, 2001 citing Urry, 1990, Donaire, 1995 and Palomeque, 1997). We can identify alternative tourism types such as Mountain tourism (hiking, climbing and biking); Sport tourism (winter sports, sport events, summer and extreme sports – rafting, sky diving); Cultural tourism in which we can distinguish the tangible (historical sites, buildings and monuments) and the intangible/creative (places of historical events, traditions, daily life); Health tourism (spas, fitness, relaxation, wellness); Rural tourism or ecotourism (besides relaxation, people work in farms rearing animals, participating in farming processes – dairying, processing of vines, taking care of horses); Event and gastronomic tourism (music, theatre or beer festivals; trying vines and meals of regions abroad); Shopping tourism (go to shopping abroad because of products lower prices); Business tourism (international/national/local/regional conferences, seminars,

businesses trips). We can also refer the educational tourism, the one that is developing around the students that travel to study abroad and increasing segment (Miles, 1998; Shaw & Williams, 2004).

Destination choices available to tourists have proliferated (Pike, 2005). Demand for tourism is a fundamental element in the tourism system and is the result of activities and decisions made in the origin region. As such, and giving the relevance tourism has been assuming, tourism demand analysis provides an essential base for policy and forecasting, critical information to allow the balancing of provision of supply and demand at destinations and it allows the tourism industry to better understand consumer behavior and the tourism marketplace. Tourism demand flows are determined by a wide variety of factors such as historical trade and cultural ties, contrasting environments, some natural factors and destinations features (attractiveness, accessibility, relative prices and so on), the called pull factors that destinations managers can influence (Cooper, 2008). All tourists are different, they have different pictures of their ideal vacation, so recognizing that, and that tourism industry cannot possibly cater for each individual separately forms the basis of marketing segmentation (Dolnicar, 2008). As tourism demand is changing, the tourist is becoming more demanding new types of tourism are emerging, and as such, in order to adapt the offer to the emerging segments, the destinations tourism supply and tourism marketing have to be dynamic. The understanding of the tourism demand it is important to match the supply and spread the destination services and products in order to avoid some phenomenon that can affect tourism development such as seasonality. Seasonality derives from both the tourism demand characteristics and destination tourism services supply capacity to respond to demand needs and to attract them during the whole year. Tourism supply management can influence demand or redirect it and that is why a diversified tourism offer can be crucial to attract a stable demand flow during the year and thus combat seasonality.

2.3. Seasonality in tourism industry

Seasonality is one of the main aspects affecting tourism, although it also occurs in a wide range of other industrial and agricultural sectors. In a more general definition seasonal variations are described by Moore (1989) as recurring movements in a time series during a particular time of the year. Butler (1994:332) has defined seasonality as the "temporal imbalance in the phenomenon of tourism, which may be expressed in terms of dimensions of

such elements as numbers of visitors, expenditure of visitors, traffic on highways and other forms of transportations, employment and admissions to attractions". Although he referred to the seasonal variation in demand and the way the phenomenon can be expressed, his definition does not encompass the reasons of the imbalance and its features. Generally speaking, Hylleberg (1992:4) has stated that "seasonality consists in the systematic, although not necessarily regular, intra-year movement caused by changes in the weather, the calendar, and timing of decisions, directly or indirectly through the production and consumption decisions made by the agents of economy. These decisions are influenced by the endowments, the expectations and the preferences of the agents and the production techniques available in the economy".

Seasonality is one of the basic factors of mass tourism, it is the consequence of the concentration of tourist demand in a given, relatively short, period of the year, being produced in two seasons clearly defined as the "high station or season" and the "out-of-season or low season". This annual peaking of tourism activity during a few weeks or months is likely to result in inefficiency within the industry and is a great burden on the physical and social resources of the destination area and therefore an important contributor to the carrying capacity problem (Mitchell & Murphy, 1991). Seasonality is highlighted as a difficult problem to overcome and despite the efforts in reducing seasonal peaks, the seasonal range has in fact increased in many countries with the fast growth of tourism, which seems to "swamp" any efforts to redirect visitation into quieter periods of the year (Butler, 1994). Although it is a relevant and wide recognized phenomenon, seasonality is simultaneously one of the least understood topics in tourism, since it tends to persists against several public and private attempts to reduce it (Hinch & Jackson, 2000). All the definitions emphasize that the "systematic intra-year movement" is one of the crucial elements of seasonality and that seasonality can be described as some sort of pattern in the demand which reoccur every year, i.e., it is a cyclical phenomenon. But the tourism environment is changing and it will continue to change fast and it is now accepted that climate and seasons now are experiencing instability and they cannot be considered as permanent or predictable anymore (UNWTO, UNEP & WMO, 2007; De Groote, 2009). Seasonality in tourism demand in peripheral and island destinations has a complex and compound impact on the overall performance of the industry and consequently on the whole economy (Baum & Hagen, 1999) that puzzles all the stakeholders evolved, since they depend a lot from tourism. The contrary happens in other stages of the destination's development, such as for more mature destinations as Belgium, in which the demand has been more widely spread over the years (De Groote, 2009). The impact of seasonality is recognized as one of the biggest problems in tourism (Baum & Lundtorp, 2001). So, it is crucial to study this phenomenon because in general, trends suggest increasing seasonal concentration and not the reverse, increasing the gap from off-season to peak periods with the increasing of tourists in a destination (Nikolaos, 2008).

2.3.1 - Causes for demand peaks in tourism

Seasonality has been a central theme in a wide variety of studies and its causes and consequences, the object of research as well as possible solutions for the negative impacts it can bring to the economy and society, starting with BarOn (1975), followed by several authors such as Butler (1994), Baum (1999 & 2001) and Lundtorp (2001) between others. By consensus of several authors (the referred above between others), we can assume natural and institutionalized factors as the two major causes of seasonality in tourism. Natural causes, which are beyond the control of decision-makers (climatic factors such as temperature, sunlight, rainfall), and institutional causes, a combination of religious, social and cultural factors, which are partially under the control of the decision-makers (i.e. the schedule of school holidays; the planning and scheduling of festivals or cultural events in tourism destinations, etc.), accordingly to Bar-On (1975 & 1999).

Destinations relying on outdoor activities, where the pattern of tourist activities is strongly weather dependent, are most likely to be affected by a pronounced influence of natural seasonality on their tourism business. A favorable climatic factor could be a necessary but not sufficient condition to avoid seasonality in tourism. Natural factors could be considered predictable as they are relatively stable and recur with only small changes, however, climatic changes as global warming, will inevitably have an effect on the natural seasonality (Hartmann, 1986; Butler & Mao, 1997). The trend towards warmer temperatures will have major consequences for the world and thus to tourism industry, mainly for regions where outdoor recreations are important. Some of the impacts can be mentioned, such as rising sea levels with a loss of sand on beaches, disappearance of wetlands with a loss of ecological diversity, flooding and an increased risk of forest and heathland fires with the closure of large areas for summer visitors or the shortening of the skiing season. Thus, the trend towards warmer temperatures may cause a shift in the attractiveness of tourist destinations around the globe (Agnew & Viner, 2001).

The institutionalized variations reflect the social norms and practices of a society (Hinch & Hickey, 1996), being the public holidays one of the most common, thus school and industrial holidays are of greater relevance for tourism seasonality. Institutionalized seasonality is more complex and based on human behavior and consumer decision-making. The tradition of the summer family holiday, joining the pleasant weather during the summer months, are the main reasons for the regular peaking of tourist activities during that season (Butler, 1994; Hinch & Jackson, 2000). So it remains the largest single impediment to reducing seasonality, argues Butler (1994). Work holidays also strengthen the seasonal peak, especially since the introduction of paid holidays and the closure of some industrial sectors for one or two during summer months. There are other events that can influence demand seasonal variations such as the ageing of the population, the difference in the prices for tourism services and air fares during different seasons or reduced price sales in shops after Christmas (BarOn, 1975). Some researchers appoint others events as relevant causes for seasonality as social pressure or fashion, the sporting season, tradition (Butler, 1994), calendar effects such as the number of days in a month, or weekends in a month, business customs and supply side constraints (Frechtling, 2001; Baum, 1998). Factors in both the generating and receiving area interact forming the foundation of the tourism seasons, but the physical factors and climate in the destination as well as the temporal distribution of religious, cultural, ethnic and social events and activities profoundly influence the number and characteristics of visitors (Butler & Mao, 1997).

2.3.2 – Consequences of seasonality in the environment and business management

The effects of seasonality are diverse and complex and they have become greater with the growth of mass tourism (Wall & Yan, 2003). The most specialized destinations are usually the most seasonal. Tourism destinations supported by large urban centers, due to the fact that they are recipients of business tourism, because of a more diversified offer and qualified human resources availability, access facilities and consequently great demand, experience a less pronounced degree of seasonality, but it does not mean that they face a negligible seasonal variation in demand. Seasonality has been identified as a problem that has to be overcome or, at least, reduced (Butler, 1994). However, there is also, who argue that seasonality in tourism has advantages, particularly when an ecological and socio-cultural perspective is taken, as the off-peak season provides a time to recover (Higham & Hinch, 2002). It would be wrong to evaluate tourist seasonality only in economic terms and to isolate a regional tourist service system from its social environment and its ecological base

(Hartmann, 1986). Seasonality has economic effects in terms of private and social costs and they usually exceed the few benefits. The economic impacts relate mostly to problems in the off-peak periods, particularly the loss of profits due to the inefficient use of resources and facilities (Manning & Powers, 1984; Sutcliffe & Sinclair, 1980). Business and community have to attain enough revenues during the peak season in the summer in order to ensure success for the whole year (Murphy, 1985). The private costs are paid by each of the agents involved (Cuccia & Rizzo, 2011):

- Private producers (hotels, restaurants) yield a lower return on the capital invested if their investments are tailored to the peak-season demand, suffering from a high level of under-exploited capacity and fixed costs in the off-seasons besides it is also difficult to attract investors or lenders from private sectors;
- The final consumers of the destination both tourists and residents pay higher prices for any kind of product and service they buy in the peak season;
- The workers of the sector typically accept seasonal jobs, without the usual protection required by labor contracts. Staff relations and skills remain minimal, since only little training is usually provided for temporary employees (Murphy, 1985).

This whole situation makes it particularly difficult to maintain product and quality standards (Baum, 1999). In terms of accommodation seasonality may lead to a shortage of hotel rooms in the peak season, but the creation of excess capacity can have economically disastrous effects. Relatively to the facilities underutilization, it is inevitable because the majority of the capital assets are inflexible as they have not many alternative uses. Even though some enterprises in the service sector close during the off-peak season, many must remain open to obtain sufficient income to cover the fixed costs, which represents a great proportion of the total (Mathieson & Wall, 1982).

The social costs include not only effects on the host community but also on the visitors and they concern local public utilities (i.e. water supply, waste management and traffic management, lack of parking, crowded streets, queues for services and so on) that, because of peak season tourism congestion, cause dissatisfaction in residents and in tourists alike. Some researchers have drawn attention to the link between tourism and the increased crime due to the higher number of people present during the peak season (Mathieson & Wall, 1982). So extra facilities, extra police, sanitary, health and park personnel are required during the tourist peak season in order to maintain the services quality. But since the amount raised from the

local tax base and central government grants is not always enough, as the amounts are usually calculated considering the resident population, this result in a decline in the quality of services for residents and visitors alike (Murphy, 1985). Social costs are also tied up with the pressure of tourism on the environment that could be unsustainable for the destination if it overcomes the carrying capacity of the site and can cause irreversible damage for present and future generations. These negative effects include, for example, congested rural lanes, disturbance of wildlife, physical erosion of footpaths and litter problems (Grant et al 1997). The intensity of the pressure on fragile environments caused by overcrowding and overuse during the summer is often cited as one of the main environmental problems of tourism seasonality (Butler, 1994). These problems are regarded as a strain on the social carrying capacity of the destination, which might result in resentment from the local community towards all tourism activities (Manning & Powers, 1984). Another problem that have been neglected, is the fact that visitor enjoyment might be reduced due to overcrowding at attraction sites and the lack of capacities during the peak demand periods, but in contrast, in the off-peak season, many facilities and attractions might be closed and the full range of services may not be available (Butler, 1994), which not only affects potential visitors, but also lowers the reputation of the overall image of a destination (Flognfeldt, 2001). The private and social costs of tourism seasonality can be reduced only by common strategies from the public and private actors' involved, joint action and a close co-ordination between them.

However, under some circumstances, tourism seasonality can produce some private benefits, for example, in rural areas, where tourism and agriculture are complementary, and in any destination where the rate of unemployment is high and the opportunity-cost of labor is low. Some people choose seasonal occupations to suit their non-market activities during the off-peak periods, e.g. students, artists or housewives (Mourdoukoutas, 1988). Farmers, through seasonal involvement in tourism might not only receive increased revenues, but also a higher status (Mill & Morrison, 1998). Maintenance work on buildings and attractions is typically scheduled for the off-peak periods and support construction jobs and specialist trades. In the case of superstar art cities that usually do not suffer from seasonality, but experience high tourism pressure throughout the year, seasonality could bring some benefits because in the off-seasons the local communities could take a break from tourists (Butler, 2001). The lengthy "dead" season is the only chance for the ecological and the social environment to fully recover and it allows the community relief from stress and helps to preserve its identity, this because traditional social patterns in a community are sometimes

disrupted during the summer peak (Hartmann, 1986; Mathieson & Wall, 1982). Strategies in order to lengthen the main season or to attract more visitors in the off season need the full support of host communities if they are to be successful in all aspects (Butler, 1994).

2.3.3 - Strategies to reduce seasonality impacts

We can conclude that seasonality pattern results from the interaction between the demand factors (response to natural seasons, vacation traditions, institutionalized holidays, changing tastes) and supply side attractions (weather conditions, social/cultural events, activity opportunities, alternative use of touristic resources) and it is over these two sides of the industry that the strategies have to be drawn and executed to match supply and demand in order to mitigate seasonality. To reduce the negative effects of seasonality and in the interest of future generations, policy-makers should determine the optimal degree of seasonality that depends on the carrying capacity of each destination. Different strategies and actions can be considered related both with direct monetary instruments (such as the introduction of a tourism tax on arrivals) and with non-monetary ones, such as the regulation of tourism flows. Strategies can be taken to redistribute demand throughout the whole year. Also, the same can be done regarding the supply side such as through product differentiation and new attractions and events. Policy-makers might encourage domestic tourism in shoulder-season and offseason, designing nuanced strategies to capture the differentiation in tourism demand, based on cultural, religious, sports, business tourism (Baum & Hagen, 1999; Higham & Hinch, 2002). The strategy chosen to address seasonality has to consider the destination location, characteristics and attraction, potential markets and such a decision should also include the social and environmental factors besides the economic ones, mainly in these days. A better understanding of market segmentation and the tourist's motivation is essential to the development of products or marketing approach that encourage greater visitation during the low season (Baum & Hagen, 1999). Some researchers have indicated four main forms to counter seasonality in peripheral and island destinations: events and festivals, market diversification, product diversification and structural and environment response (Baum & Hagen, 1999). Cultural tourism is commonly recognized as a segment of tourism industry that can smooth the seasonal demand waves during the year, although this fact is difficult to prove (Cuccia & Rizzo, 2011).

2.4. Cultural Tourism

Richards (2009) has considered Culture and Tourism as the two of the major growth industries of the 20th century and has stated that towards the end of the century, the combination of these sectors into cultural tourism had become one of the most desirable development options for countries and regions worldwide. The "sun-lust" tourism (or 4S tourism: sea, sun sand and sex) responsible for the emergence of mass tourism, continues to lose its appeal, although the role of the 4S in mass tourism will still be dominant. Considering recent changes in tourism trends it is obvious a stronger involvement in cultural activities than earlier and these trends seems to keep going (Csapó, 2012). Cultural tourism and ecotourism are rapidly emerging as the predominant forms of tourism worldwide, gradually replacing "sun-lust" mass tourism (Ivanovic, 2008). The United Nations Educational, Scientific and Cultural Organization (UNESCO) and WTO, are committed to preserve cultural differences between people, since the drive toward globalization and its concomitant homogenization towards a "global culture" are destroying the cultural differences between communities around the world. Tourism is one of the most interested in cultural diversity considering that the existence of cultural tourism and tourism travel in general, depends on the unique qualities of cultures around the globe and tourist's desire to experience something different from their daily routine. Ensuring cultural diversity among different communities for many generations, will secure tourism's survival. The main challenge facing the cultural tourism developers is to maintain an equilibrium between the culture authenticity preservation on the one hand and tourism use on the other.

Before talking about cultural tourism, it is important to find a consensual definition of culture, the cultural tourism unit analysis. Because of the complexity, extension and scope, the concept of culture is difficult to summarize in an acceptable definition (Richards, 1996; Meethan, 2001), but we have to consider that tourism is one of the agents of traditional culture change. In a recent approach culture was identified as a cumulative deposit of knowledge, experience, beliefs, values, attitudes, meanings, hierarchies, religion, notions of time, roles, spatial relations, concepts of the universe, and material objects and possessions acquired by a group of people in the course of generations through individual and group striving (Hofstede, 1997). So, we can assume that culture is present in daily life of a community and it is seen as a "product" when certain specific meanings are attached to the intellectual and artistic works and practices and all of them serve as tourism attractions. In tourism, culture is regarded as a commodity through experiences specially designed for

tourist's consumption and although there are a lot of culture definitions, from a tourism perspective, the element of diversity and heterogeneity adds attractive value to a particular culture. It is considered as a dynamic system, since culture is constantly changing and is influenced by both endogenous and exogenous elements. It can be seen as human constructs, shaped by evolutionary processes that are unique for each social group, so cultures are distinctly different in different societies and this is the reason for the existence of cultural tourism, since people are attracted by differences and not for similarities. Culture plays a major role in cultural tourism: first in the supply side each destination has its own, unique cultural elements, which are part of its distinctive cultural tourism offering that distinguish one destination and in the demand side, the desire to experience a destination's culture is the main motivator of culture tourism travel (Organization for Economic Co-operation and Development, OECD, 2009).

There are two approaches to define cultural tourism: the "sites-and-monuments" or technical one and the "conceptual activity" or process-based approach. A lack of understanding of cultural tourism has generated some definitions, and we are to highlight the one resulting from the Research Project launched in 1991, by the ATLAS (the European Association for Tourism and Leisure Education) encompassing both the approaches. The technical approach: "All movements of persons to specific cultural attractions such as heritage sites, artistic and cultural manifestations, arts and drama outside their normal place of residence" (Richards, 1996:23). The conceptual one: "The movement of persons to cultural attractions away from their normal place of residence, with the intention to gather new information and experiences to satisfy their cultural needs" (Richards, 1996:23). The first one is more product-based, not referring the experience or meaning, but the two approaches seem to complement each other since the cultural tourist seeks the information and experience to satisfy their cultural needs in the cultural attractions and daily life manifestations of the visited destinations. The International Council on Monuments and Sites (ICOMOS) have defined cultural tourism as that activity which enables people to experience the different ways of life of other people, thereby gaining at first hand an understanding of their customs, tradition, the physical environment, the intellectual ideas and those places of architectural, historic, archeological and other cultural significance which remain from the past. It differs from recreational tourism in that it seeks to gain an understanding or appreciation of the nature of the place being visited (ICOMOS Charter for Cultural Tourism, Draft April 1997). It is a significant definition because it highlighted for the first time the relevance of respect other

cultures, not relying just on the man-made attractions. The UNWTO (2008), in a broader definition has emphasized that in cultural tourism should be included all movement of persons because they satisfy the human need for diversity, tending to raise the cultural level of the individual and giving rise to new knowledge, experience and encounters.

According with a research data published by OECD in 2009 (The Impact of Culture on Tourism), it seems that approximately 40% of all global tourism, were generated by cultural tourism in 2007, (OECD, 2009:23), thus there is an increasing recognition of the culture's importance for tourist motivation, behavior and experience. The referred study also stated that the cultural tourist spent is estimated to be one third more on average than other tourists (Richards, 2009). Cultural tourism embraces all the nuances and complexities surrounding the various tangible and intangible aspects of culture regarded as attractions in cultural tourism, it covers all aspects of travel where visitors can appreciate and learn about another area's history and way of life (McIntosh & Goeldner, 1990). Cultural tourists are usually thought to spend more, stay longer, travel more frequently and participate in more activities than the others (Stronge, 2000; Keefe, 2002). Culture and Tourism can have a mutually beneficial relationship, which can enhance both attractiveness and development, since culture can be a differentiation factor for a destination in an increasingly competitive tourism marketplace. Simultaneously Tourism can promote and reinforce culture besides it can provide means to withstand and recover cultural heritage. So for the destinations, it is very enriching to create strong ties between culture and tourism in such a way that advantages of the synergies generated by the relationship can be fully taken (Costa, 2005). Cultural tourism is one of the largest and fastest growing global tourism markets and it is an industry increasingly used to promote destinations (OECD, 2009). In a globalized world, culture is increasingly being used differentiating identity and image of the destinations. But the complexity of the two sectors, the cultural and tourism industry, demands partnership, public and private collaboration in order to not only attract visitors as well as promote regions and investment. Cooperation is needed in order to develop market-oriented cultural tourism products and promote them to potential visitors. At this time, even in those destinations for which the promotion traditionally rely heavily in their natural assets, like sun and beach, culture, in both tangible and intangible forms, has been gaining expression in the tourism product and image promotion. Moreover, tourists interested in culture, visit destinations that the others usually do not go and sometimes in different periods, helping to spread demand to new areas combating in this way, seasonality (OECD, 2009).

3. CAPE VERDE TOURISM DESTINATION

3.1. The Role of Tourism Industry for Cape Verde economy

This section is about Cape Verde, based mainly in information from the Overseas Development Institute (ODI) study realized in 2012, data from World Bank, INECV, WEF (World Economic Forum) Travel & Tourism Competitiveness Report, Strategic Plan for Tourism Development 2010-2013 and some other governmental documents and thesis that will be specified in references.

Cape Verde is a volcanic origin archipelago of ten islands and eight islets, located off the west coast of Africa, in the Atlantic Ocean, between three continents, which have given a geostrategic position to the country in times. It has around 500.000 inhabitants with a total area of 4033Km², and although it is heterogeneous ethnically and a country of immigrants, it is also homogeneous in terms of religion and culture. Since 1975 Cape Verde is an independent country, being previously a Portuguese colony, and in 1990 the multiparty democracy was introduced, being actually the first time that the President and Prime Minister represent different parties: the Movement for Democracy (MpD) and African Party for the Independence of Cape Verde (PAICV), respectively.

The country has few natural resources and suffers from serious water shortages. The climate is tropical dry, with temperatures around 25° C, divided in two seasons: the rainy season from August to October and the dry season from December to June, being November and July considered the transition months. Cycles of long-term droughts have contributed to significant emigration throughout Cape Verde's history and it is believed that at least as many Cape Verdeans live abroad as on the islands, but the Diaspora maintain close relations with the country contributing with the GDP increment through remittances. These same conditions also place the country at a disadvantage for agricultural production, depending heavily of external importation. However, the country's tourism industry is developing and the government is making efforts to turn the islands into a trade and transport hub. The service sector, centered on tourism, remains the engine of growth, but businesses across sectors have become relatively pessimistic. Both agriculture and manufacturing industries only play a minor role in Cape Verde. Services as in the previous years, constitutes the backbone of Cape Verde's economy, contributing for 3.2% to growth in 2012. Tourism exports have been the

silver lining, but the lackluster recovery in Europe, with low inflation and weak demand, plains strains in the sector, so the continued strength of tourism exports depends on the economic situation in Europe. The country ranked 132nd out of 186 countries in the 2012 United Nations Development Programme (UNDP) Human Development Index and it registers one of the highest social development indicators of the Sub-Saharan Africa. The economic growth has continued to translate into poverty reduction, cutting the poverty rate from 37% in 2000 to 27% in 2012, poverty fell particularly in areas where tourism, a key source for jobs, is concentrated (Mitchell, 2012). In 2007, Cape Verde has attained middle-income country status. Growth in real income per capita reached more than 5% during 2005/08, well above the average for Sub-Saharan Africa and for Small-Island States. But in 2012 the economic growth has slowed down, which reflect the fall in private investments in consequence of the drop in Foreign Direct Investment (FDI) flows and tighter monetary conditions. Benefiting from tourism trade diversion, tourism exports have remained robust and increased by 12.3%, this accordingly with a study provided by African Development Bank – Cape Verde: A success story.

Cape Verde is classified as a SIDS by UN-OHRLLS (United Nations Office of the High Representative for the LDCs, Landlocked Developing Countries and SIDS), developing countries facing specific social, economic and environmental vulnerabilities. The common challenges faced by SIDS can be identified bellow: narrow resource base depriving them of the benefits of economies of scale; small domestic markets and heavy dependence on a few external and remotes markets; high costs for energy, infrastructure, transportation, communication and servicing; long distances from export markets and import resources; low and irregular international traffic volumes; little resilience to disasters; growing populations; high volatility of economic growth; limited opportunities for the private sector and a proportionally large reliance of their economies on their public sector; and fragile natural environments. And as such, transitioning to middle-income status in an uncertain global environment, Cape Verde faces a set of complex development challenges that have become with the status in addition to dealing with the obstacles that come with being a Small Island economy. Its resilience has been hampered by constrains imposed by size and by geographic isolation among others. Bertram & Watters (1986) have synthesized the main characteristics of these societies operating model through the term MIRAB - Migration, Remittances, Aid and Bureaucracy. The development of an income economy it is fundamentally harmful and unworkable in the long term, since it is not based on the community's own resources and it hampers the development of so-called productive factors, it can be risky besides it does not provide a sustainable development (Poirine, 1995b). This kind of model is harmful because aid and remittances do not necessarily lead to a sustainable development, keeping in contrary the economy "frozen" in a state of low productivity (Duncan, 1994; Browne, 1995).

As Poirine (1995b:204-216) has emphasized, "...this model is in the way to the exhaustion, and then it is essential to find alternative ways to mitigate the excessive dependence on foreign aid. The islands usually receive more aid than other economies due to their geostrategic relevance and there is a greater control of the territory, the aid per capita it is inversely related with the islands population, and finally, it varies inversely with the level of political autonomy". The export of tourism services it is a strategy to be highly considered as alternative in islands, because it has some advantages, such as job generation, including too little qualified workforce, employs people in the rural areas contributing to the fixation of them preventing rural exodus and so on. But of course, if not accompanied with certain precautions and right management, it can be harmful too (Poirine, 1995). Another threat to the tourism sector in Cape Verde relates to the great necessity of importation in order to satisfy the final demand, which can eliminate partially the positive effects on the payment balance. Even so, we can argue in favor of tourism development since the SIDS importations are high, independently of the tourism development, so investing in tourism development keeps being a considerable alternative. Thus, we can conclude that it seems to be the strategy that best adapts to many of the island economies, but those willing to develop a good transport infrastructure, telecommunication, qualified workforce and adequate places for tourism development. It seems like a viable alternative, since the tourist will consume on the spot (Poirine, 1995). Through tourism, there is a possibility of these economies to overcome the isolation to which they are confined and achieve greater integration into the world economy or in the international trade with the difference that in this case it is the international trade that will come (Gortázar & Marin, 1999).

The services industries, particularly tourism, will be the main focus of the majority of SIDS in order to sustain long-term economic and social development. So tourism industry is widely recognized as the key engine of growth in SIDS. Although a positive trend in SIDS's tourism has been observed, the competitive position is still a major issue, since they are uncompetitive in terms of price (Craigwell, 2007).

3.2. Tourism in Cape Verde

We can say that tourism in Cape Verde has started in the 60's, after the construction of the international airport and the "Morabeza Pousada" by the Belgian family Vynkier, which have marked the beginning of tourism in the island of Sal. Although the movements date from ancient times, only from 1990 Cape Verde has opened to visitors through cooperation and protocols. Before 1995, international tourism to Cape Verde was restricted mainly to members of the vast diaspora returning to visit friends and relations – a regular annual flow of 20.000 to 30.000 a year.

Between independence in 1975 and the late 1990s, the economy of Cape Verde was driven by the primary sector, some industry and migrant remittances. The end of one-Party rule, in the multiparty election in early 1991, marked a turning point in the Archipelago economy, becoming more dynamic and liberalised. The structural transformation of the Cape Verde economy since the late 1990s is striking and perhaps even more, has been the transition from an agricultural and light industry-dominated economy in the late 1990s to one in which 80% of national output is in the service sector by 2010. The dominance of tourism in the national economy, in terms of tourist receipts themselves and also the air transport and FDI, to which tourism activity is intimately-linked, now comprises about 40% of the national economy in Cape Verde. The two traditional staples of the Cape Verdean economy, remittances from emigrants and official aid, are in a process of relative and absolute change, respectively. Remittances have been gently growing in money terms but, as the economy grows, their share of the expanding national economy will contract. More dramatically, the elevation of Cape Verde from Least Developed Country (LDC) status will mean that Cape Verde loses access to concessionary international aid in 2013 (Mitchell, 2012).

In the new Millennium, international arrivals have grown rapidly and, despite the global financial crisis, international arrivals are estimated to have exceeded 400.000 in 2011 as illustrated:

Tourist arrivals

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Fig. 1 – Evolution of tourist arrivals in Cape Verde

Source: World Bank and INECV (adapted)

The graphic was done based on data from World Bank and INECV and the data from the first one is more reliable since it does not take into account all the arrivals as Air Service Authority (ASA), which includes visitors who are in transit and who are migrant workers, in other words, people that are not necessarily tourists. In other hand, the INECV data, used in the quantitative analysis, comes from tourism accommodation establishments and that is why they differ.

An adequate response to the increase of demand was made possible by a surge of construction activity during the mid-2000s and almost all of these projects were undertaken by foreign investors, that is why part of the tourism gains does not benefit the community. We can notice throughout some statistics in FDI (annex A), the dominance of tourism investment compared with investment in other sectors and also the steep decline in FDI projects approved after the on-set of the global financial crisis in September 2008. This fast growth of tourism in a small island archipelago as Cape Verde has been identified as a remarkable achievement, culminating in the exit of Cape Verde from LDC status in December 2007. The direct contribution of travel and tourism spending to the Cape Verde economy is estimated at €210m, or 18% of GDP. However, taking into account the wider effects, which include the indirect effects of tourist spending outside the narrowly-defined tourist sector, capital investment and the induced impact on the local economy of tourist workers spending their incomes in the destination, it is estimated that the contribution rises to €583m − or 49% of GDP of €1.18bn (CVE130bn) in 2011. But the truth is that the out-turn figures for tourist contribution to GDP in 2011 are some 20% higher than the estimate (see annex B) -

CVE27.8bn or €253m - reflecting the surge in visitor numbers in 2011 as a result of the displacement effect of the Arab Spring. Tunisia and Egypt has experienced a massive drop in tourism, being Cape Verde an alternative destination. This resulted in a 27% increase in the contribution of tourist spending on GDP. An analysis of the factors contributing to economic growth in Cape Verde 1981-2010 indicates that almost 70% of growth was due to physical capital accumulation, much of which was related to the tourist sector. The current account deficits for Cape Verde have been financed by concessional lending and FDI, thus it is a major concern that both these sources of foreign exchange have limited future prospects. This will make the economy increasingly dependent upon tourist receipts as the main source of foreign exchange with which to finance imports. This suggests that Cape Verde does not only have a very high dependency on the tourist sector, but that this sector has driven much of the impressive recent growth in the economy and has, through FDI, financed the considerable current account deficits. Tourism statistics suggest that Cape Verde is the 12th most tourist-dependent economy globally (Mitchell, 2012: 5-7).

Cape Verde has been heavily promoted as a "Sun & Sea" destination, being the other strands neglected in relation to the one considered as traditional, which means that Cape Verde tourism has not been fully exploited, but as the demand is changing the challenge is to diversify the product as much as possible keeping quality. The tourism is because of this concentrated in few islands, in particular Boa Vista and Sal, and it is essentially an all-inclusive mass tourism, so to change this the flow of tourists must be decentralized through the promotion of the potential existent in each island. To do this, the basic infrastructure that facilitates the assessment to each has to be created and improved. The tourism is concentrated in terms of both supply and demand (Europe market).

3.3. Cape Verde position according to the competitiveness index

Tourism development trends point to the globalization of the targets, a demand increasing diversification and product differentiation. IMF (International Monetary Fund) projections for the development of tourism revenue for the period 2009-2016, shows that the path already traversed seems to be heavily reinforced over the next few years. Indeed, in the referred period, these revenues should grow more than 110%, exceeding EUR 400 million in 2016, approximately 45% of goods and services export (Rosa, 2012:13).

The indices created by the World Travel and Tourism Council (WTTC), which focuses in different aspects of tourism performance and the operating environment for tourism enterprises and activity, provide a valuable alternative to assessing the level of competitiveness of tourism in SIDS. To ensure comparability between countries, the tourism price indices employed have taken into account purchasing power parity and exchange rate considerations, as well as the variables were transformed into a 1-7 scale, taking care to preserve the order and relative distance between countries score. The Travel & Tourism Competitiveness index (TTCI) objective is to measure the many different regulatory and business related issues that have been identified as drivers to improve T&T competitiveness in countries around the world (WEF - World Economic Forum, 2011). The index is based on three broad categories of variables, namely the regulatory framework, business environment and infrastructure and finally the human, cultural e natural one. The global index results from an unweight average of the three referred sub-indexes, which are calculated also as an unweight average of the fourteen pillars (see annex C).

From the 139 countries included in 2011 TTCI ranking, Cape Verde has occupied the 89th position in the overall rank, with a score of 3.77 (going the scores from 2.56 performed by Chad to 5.68 that correspond to Switzerland score). The regional ranking also is publicized, being Cape Verde in the 4th position within the sub-Saharan Africa group.

Cape Verde performs against its key competitor destinations in the European charter markets of Turkey, Tunisia and Egypt. These are the markets against which Cape Verde has to successfully compete in order to win new business and retain the arrivals in 2011 which were displaced from the political volatility in Tunisia and Egypt. In addition, we compare the performance of Cape Verde with a Caribbean charter destination, Dominican Republic, and an aspirational target of a middle-income country which has a dynamic tourist sector together with a thriving industrial and financial services sector, Mauritius. Comparing the rankings of these different destinations is revealing. In terms of overall competitiveness, Cape Verde's ranking of 89th is significantly less competitive than Egypt (75th), Dominican Republic (72nd), Mauritius (53rd), Turkey (50th) and Tunisia (47th). Analyzing the reasons for this overall lack of competitiveness, three issues stand out:

• Cape Verde is not a cheap destination – in fact at a ranking of 126th, it is one of the least price competitive destinations globally. This is important partly because the European charter market is highly price sensitive and also because the large destination markets against

which Cape Verde is competing are some of the most prices competitive in the World (i.e. Egypt 5th and Tunisia 9th).

- The human, natural and cultural resources of Cape Verde are very poor, attracting a ranking of 114th in the WEF index. Obviously this partly reflects factors which cannot be changed quickly, such as the fact that the main tourist flows are to previously almost uninhabited islands (Sal and particularly Boa Vista) and largely bypass the rich urban culture in S. Vicente and rural culture in Santo Antão.
- The regulatory and enabling framework scores are poor in several areas which are significant for Cape Verde tourism visa requirements; property rights; enforcement of environmental regulation; lack of available airlines; and, the extent of taxation of tourism.

In the 2013 TTCI ranking, from the 140 countries now included, Cape Verde position has raised to 87th, with a score of 3.87, which reflects some improvements. Cape Verde position and score has improved in all the three categories, but it has maintained the 4th position within the sub-Saharan countries.

The index can be useful since through the analysis of the pillars, businesses and governments can access the strengths and weaknesses of the country and address the challenges as well as design new strategies to overcome the obstacles in the sector sustainable growth. It gives indication about what they should focus their efforts on. It is a very complete analysis of the countries competitiveness regarding all the country's performance elements considered. It provides useful comparative information and a relevant benchmarking tool for making decisions.

As was statistically showed (WEF, 2011), the index is quite highly correlated with both the number of tourists actually travelling to various countries and the annual income generated from T&T sector, which reflect and support the idea that the index captures factors that are really important for developing the T&T industry. However, given that the TTCI measures the overall "stock" of T&T competitiveness rather than improvements over time, "the flow", advanced economies rank higher on the index, reflecting their better overall conditions. So in future editions of the index, in order to show improvement of existing situations, it should add to the absolute indicators (stock) more relative ones (flow) that reflect the progress in certain areas. But the Cape Verde's tourism results show that some constrains still must be overcome (WEF T&T Competitiveness Report 2011).

3.4. Cape Verde touristic offer

The policies and the tourism is focused in international markets, Cape Verde has been functioning as a receptor destination based essentially on All Inclusive Resort, allied to Tour Operators which are mostly foreigners. The packages are sold overseas and include circuits between the islands, accommodations, leisure activities, excursions between others. Notwithstanding the potential of the Cape Verdean destination, the tourism offer still not very diversified considering the touristic products available. The tourist commodity further explored so far in the country is the traditional "Sun and Sea", even though it is conditioned by some factors such as high prices, low quality services and professionalism. The normal functioning of the central activities of tourism depends on a variety of related activities that allow the functioning of the first and they have a direct relation with the offer of the tourist product, but they do not play necessarily key roles. The tour operators/travel agents, transports sector, accommodation, bars and restaurants and finally the local shopping are considered as central sectors of tourism. Because of the insularity, Cape Verde has potential for circuit tourism, and we can stress the potential type of tourism that can be explored:

Table 1 – Potential types of tourism to explore in Cape Verde

Islands	Types of tourism
S. Antão, Fogo and Brava	Ecotourism, sport, cultural and gastronomy tourism;
Santiago and S. Vicente	Ecotourism, "Sun & Sea", sport, cultural, business,
	gastronomy and event tourism;
Maio, Boa Vista and S. Nicolau	Ecotourism, "Sun & Sea", sport and cultural tourism
Sal	Ecotourism, "Sun & Sea", sport and business tourism

Source: Adapted from Strategic Plan for Cape Verde Tourism Development 2010-2013

3.4.1. Culture as a differentiation factor

In recent years there has been a trend of increasing demand for other types of tourism, besides the traditional "Sun and Sea", in a movement identified as "internalization of tourism", namely the so-called tourism in rural areas, but also the cultural, business and sports tourism. Today people travel more to visit places and monuments with historical interest and/or cultural, there is equally a growing movement of people for sporting reasons, particularly because of the big sporting annual events now realized, and the increasing globalization of corporations and firms is having a considerable impact on increasing professional travel and the so-called business tourism. Recent studies of WTO have revealed

that tourists, particularly the ones from Europe to developing countries, tend to choose destinations where they can live experiences and learn about the local people lifestyle. They prefer simple hotels, with a local atmosphere, they rather travel independently or out of touristic packages, they like to have contact with the host people. This market, which can be referred as the cultural tourist one, has been growing in average 15% by year in the last decade, which means that the traditional products designed thinking in mass tourism, have to be modified accordingly, in order to allow a greater interactions between the visitors and the community (WTO, 2000).

Cape Verde has a particular and rich culture. The process of settlement of the islands, the slavery and the Portuguese colonial system gave way to the elaboration of a culture with its peculiar characteristics. The language, literature, dance technics, musical art, culinary, forms of facing the country and world's reality, reflect a specific identity and for that have contributed some peoples and cultures. There are unique aspects of the cultural tradition of the Cape Verdean people, which are susceptible to be protected, disseminated and promoted as an integral part of the definition of tourist product of Cape Verde. Furthermore, the miscegenation and particular character of the Cape Verdean culture can be considered as a critical success factor. We can quote some of them, through an inventory realized about the most important cultural aspects of Cape Verdean population life, although it does not resume only in these ones, since cultural tourism encompasses to know the daily life of the cape Verdean:

Urban centers of historical and cultural interest – Cidade Velha, Mindelo, Vilas de Santa Maria, Sal Rei and Maio, S. Filipe, Vila da Ribeira Brava, Vila Ribeira Grande, Ponta do Sol and finally Vila de Nova Sintra.

Music and dance – one of the essential characteristics of each musical genre in Cape Verde is their form of expression simultaneously three-dimensional, i.e. music, singing and dancing. The musical genres more indicative of the Cape Verdean musical life (they are closely linked with to the daily life of his Men, in sadness and in joy, at work and at leisure...) are: morna, coladeira, batuque, fináçon, funaná, colá, landum, instrumental solos, "cantigas de trabalho", contradanças, mazurcas, polcas "schottischs", valsa, tango, and we also hear about taca, galope and manilhas as being typically Cape Verdeans, between others. Nowadays the morna, funaná and coladeira can be considered as the kinds of national status, since the others have regional character.

Popular festivals – they can be classified as:

- Religious they take place in churches and obey to a liturgical calendar such as Christmas, Easter and New Year's Day;
- Profane-religious also called as popular, includes elements of religious order as the mass and procession and other components such as dance, sports and recreational activities (saint festivals such as Sto. António, S. João and so on).
- Official they obey a timetable set by the State such as National Heroes Day, Independence Day, worker's day and so on.

Crafts – from any country with the level of development of Cape Verde and where the mode of production is essentially handmade is expected a rich and varied crafts industry, but it does not happen in Cape Verde, which reflects in the Census of artisans and their works. The more developed areas are ceramics, basketry and weaving.

Gastronomy – the exoticism of Cape Verdean cuisine results from a phenomenon that interferes in everything that is Cape Verdean, miscegenation, which reveals itself in the preparation of food, cooking utensils, even their own food whose origin is diverse. Maize is the staple food, although it is currently yielding place to rice, and there are thousand ways to prepare it. Using the pestle or grinder, we can do some dishes, but the more recognized, typical national dish is "catchupa", which has transposed the borders to travel with the Cape Verdeans abroad. We cannot forget the national beverages such as "grogue", obtained from sugarcane; it is one of the unique drinks produced in Cape Verde, besides wine from the island of Fogo.

The music and dance are considered one of the greatest features of Cape Verde, present in all cultural manifestations. The growth of tourism as an economic activity relevant to the development process in Cape Verde is fairly recent, driven by a number of factors which we can highlight the growing visibility afforded by the phenomenon Cesaria Évora and the "discovery" of the islands by investors in the sector. So culture can assume a differentiation factor for Cape Verde as a destination, exactly because of this miscegenation phenomenon and the unique identity of the people besides it can lead the country beyond borders.

3.4.2. Transport

Until recently, the air link of Cape Verde with the rest of the world was processed through the international airport of Sal (the only one existing in the country until 2005) and controlled by the air companies "Transporte Aéreos de Cabo Verde" (TACV) - meaning Air transportation of Cape Verde - which is the national one and "Transportes Aéreos Portugueses" (TAP – Portuguese Air Transportation). In order to boost the tourist sector and to facilitate the access to Cape Verde, the government has decided to liberalize the airspace, allowing thus, the charter flights by other companies (Câmara de Comércio, Indústria e Turismo Portugal Cabo Verde). In 2005, the new international airport of Santiago was inaugurated and in 2007 the international airport of Boa Vista, that have passed since then to receive charter flights from various European countries, increasing substantially the tourist flows to the country. Now Cape Verde has four international airports, since they opened in 2009 another one in S. Vicente, and three domestic aerodromes in each of the remaining islands, excluding Santo Antão and Brava. They are managed by ASA and the national links are made by TACV and Halcyon Air, but the two referred islands are accessible only by waterways. The international airport of Sal, "Amílcar Cabral", is still representing the main gateway of the country for foreign passengers. Another of access of tourists to Cape Verde from the outside has been via maritime connections, such as cruise ships and recreational yachts. Indeed, this is a type of tourism that has been growing very fast in recent years, due to a more aggressive promotion of ENAPOR (Empresa Nacional de Administração dos Portos, SA), mainly in the island of São Vicente, which have the main port of the country.

The archipelago has about 1.350km of roads, of which 932km are asphalted. One-third of the road network is distributed between the islands of Santiago and São Vicente, which in turn, account for two-thirds of the country's population. Relatively to the port infrastructures, actually the country has ports in all of the inhabited islands, being the more important ones located in Praia and Mindelo. But the irregularity of maritime transport between the islands represents constraints for tourism development.

3.4.3. Accommodation

In 2011, there were a total of 195 hotel establishments, offering an accommodation capacity of 7.901 rooms, 14.076 beds and 17.025 places, which represents a big increase considering the 79 establishments existing in 1999 in the whole country. The graphic below is

done based on statistical data from INECV along the years, adapted in this dissertation in order to show the evolution in accommodation capacity.

Fig. 2 – Establishments and accommodation capacity evolution

Source: Adapted from INECV

Accordingly with the data from 2011 statistics, the accommodation capacity is concentrated in the islands of Sal and Boa Vista, with 42% and 31% respectively, followed by Santiago and São Vicente. But Santiago is the island with the highest number of touristic establishments, followed by São Vicente, Santo Antão and Sal, which means that the establishments of Sal and Boa Vista have more capacity and are bigger. The biggest increase has been registered in São Vicente, with 5 more establishments relatively to the previous year.

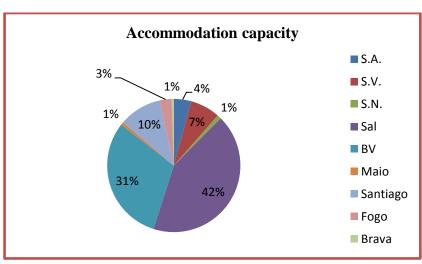


Fig. 3 – Accommodation capacity by island

Source: Adapted from INECV, 2011

Pensions are the establishments of greater weight, representing about 34.4% of the total, being followed by residential and hotels with 27.2% and 22.6% respectively. By the final of

2011, accordingly with the inventoried establishments, the number of persons employed was approximately 5.178, corresponding to an increase of 27.6%. The types of establishments we have in Cape Verde in 2011 are:

Table 2 – Tourist establishment types

Types	Hotels	Pensions	Hostels	Hotels- apartments	Tourist villages	Residential
Number	44	67	8	13	10	53

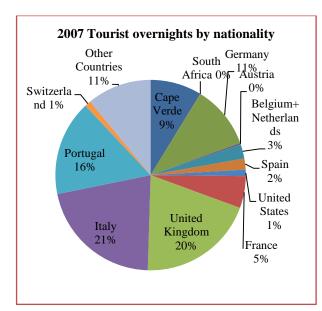
Source: Adapted from INECV, 2011

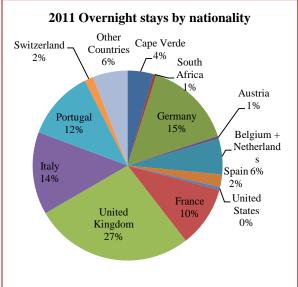
Relatively to the offered services included in the establishments, in 2011, 89.3% of the bedrooms had private bathroom with both hot and cold water and the rooms with air conditioning air, telephone and TV represented 77.2%, 80.8% and 72.3% respectively. More than 50% of the establishments offer restaurant services and bar, some of them have their own discos, and more than 10% have their own gymnasium, meeting rooms and swimming pools. The prices are higher in Sal and Boa Vista since the demand is bigger and they are lower in Santo Antão and Brava. In 2012, the hospitality industry has recorded around 534 thousands guests, more than the expected half million, corresponding to an increase of 12.3% compared with the previous year. The hotels still being the most wanted accommodation type, picking up approximately 85% of the total entries, followed by pensions and residential. The bed occupancy rate was bigger in Sal and Boa Vista, with 57% and 82% respectively.

3.5. Cape Verde tourist profile

As we can see by the INECV data on tourist arrivals and overnight stays, European people has been the major market for Cape Verde. But there have been some changes over time in their preferences what can be influenced for diverse factors. We are to carry a description of Cape Verde tourism demand, assuming overnight stays as the proper measure, comparing the first and the last years analyzed in order to try understanding their behavior and choices, the differences from one year to the other and the possible reasons for them.

Fig. 4 – Tourist overnight stays by nationality in 2007 and 2011





Source: Adapted from INECV data 2007 and 2011

In 2007, the Cape Verde residents detained 15% of arrivals and 8.7% of overnight stays. In terms of overnight stays, the Italian people owned 21% of the tourist issuer market share being closely followed by the British (20%) and the Portuguese (16%). This means that although the last ones have the major slice in arrivals they stay in the country less time than the other two nationalities, being the Italians who spend more time in the country, approximately 6,5 days against 3,7 days stay of Portuguese and British 5,9 days. The Belgians, Dutch and Swiss people follow with 4,7; 4,3 and 4,2 respectively being the hotels the accommodation of choice for all nationalities, even for Cape Verde residents representing 77.6% of arrivals followed by residential (9%) and pensions (4.9%).

In 2011, the last year analyzed, the arrivals have increased to 475.294 and the overnights stays have reached 2.827.562, approximately 52% more arrivals and almost twice the overnight stays relatively to 2007. As we can see the patterns have changed a little bit, although the Europeans still being the largest market for Cape Verde as a holiday destination. The Cape Verde residents have represented 10% of arrivals, but only 4% of overnight stays, less than in 2007. The Cape Verde residents demand has not grown at all in these analyzed years, decreasing in 2008 may be because of the international crisis effect. Another reason that can be mentioned is also the growing trend in travel abroad instead of inter-islands. The United Kingdom (UK) tourists owned 27% of the overnight stays total, followed by Germany (15%) and Italy (14%), which means that the Italians have spent a great time in the country with an average of 6,7 nights. The Portuguese has represented 12% of the overnight stays, but

they stay in average 4,9 nights. Also the British people were the ones, who have spent more time in Cape Verde staying in there for an average of 8,4 nights, followed by the Austrians and the residents from Belgium/Netherlands, with 7,2 and 7 nights respectively. The Cape Verdeans have spent only 2,5 nights in hotel establishments.

We can see that both arrivals and overnight stays have increased exponentially, which became possible because of some factors such as the opening of the three international airports in Santiago, Boa Vista and S. Vicente and the charter flights direct from European cities, the increase of infrastructures in order to respond to this growth, the increase of FDI from some European countries, the recognition of tourism relevance for the country development by the government, which have triggered some strategic plans and investment to boost the sector and so on. The recent conflicts that occurred in the Middle East and North Africa opens to Cape Verde, a unique opportunity for growth in the sector since some of its competing destinations were affected. Besides this, although the economic crisis in Europe, they are not willing to give up on their holidays and in visiting new destinations. Cape Verde benefits from the fact of the proximity from European market. The UK has become the main market issuer of tourists and the trend is for a continuing increase in the British demand. The increase in British tourists demand may be explained mainly because of the recent new opened direct flight routes from Gatwick and Manchester and the increase of investment in the country by British investors, in other words there has been a major cooperation between the two countries being Cape Verde now more known there. The Travel Trends Report 2012 realized by ABTA (Association of British Travel Agents) has indicated Cape Verde as one of the mid-haul hot destinations for the British people in the key market trends 2012/2013. The referred report has carried a study on 2011 travel market overview and the 2012 travel market outlook for the Britons. The UK travelers have begun to take decisions considering sustainability not only in terms of environment, but also in terms of helping people from the destination they choose. Another opportunity for Cape Verde is that in UK the cruise tourism is turning very popular. The ABTA feedback on the Consumer Trends survey has showed that holiday or foreign break is the last one to go when the public is cutting back on spending. The focus when choosing a destination is on value for money, so finding the lowest prices comes much further down people's list of priorities. The most popular times for Britons to book a holiday, are January and February, which confirms the results found from the INECV data. So they are a promising market to maintain and consolidate, promoting and disseminating heavily, Cape Verde as destination, since they show some resistance to changing its tourism

practices despite economic crisis. The Cape Verde residents have to be motivated to travel inter-islands, i.e. the domestic tourism is a segment of tourism to be boosted by some strategies and accessibility facilitation.

Now we are going to show through the demand plots over the two compared years to see how the demand from foreigners and nationals was distributed in monthly terms and islands. It also gives an insight if there is seasonality presence in each demand segment.

Monthly Overninght stays 180.000 160.000 140.000 120.000 100.000 80.000 60.000 40.000 20.000 Jan Feb May Jun Jul Aug Oct Mar Apr Nov Dec Cape Verdean Foreigners

Fig. 5 – 2007 Monthly Overnight stays by residents and non-residents

Source: Adapted INECV 2007 data

The peaks on Cape Verde destination demand were from October to January, March and in August representing these months about 57% of the overnight stays, but the two months with a more significant flow of tourists were November and December, corresponding to 11.1% and 10.3% respectively. The Cape Verde resident's peak was on July and August representing 13.7% and 11.5% respectively, while the Foreigners have preferred November and December counting for 22 % of their overnight stays, but we can notice three peaks in the foreign demand. The most visited island was Sal with 77% of overnight stays for both foreigners and Cape Verde residents, followed by Santiago (9.3%), Boa Vista (6.3%) and S. Vicente (4.9%) and the less one was Brava (0.04%). The demand of Cape Verde residents was distributed between Sal (38%) and Santiago (30%) being these followed by S. Vicente (12%) and Boa Vista (10%), while the Foreigners have concentrated mostly on Sal (81%) followed far behind by Santiago (7%), Boa Vista (6%) and S. Vicente (4%). The residents demand is more spread in terms of chosen islands.

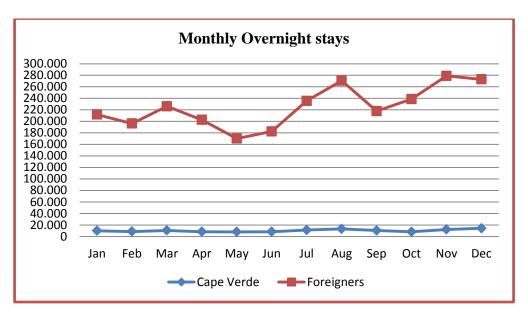


Fig. 6 – 2011 Monthly overnight stays by residents and non-residents

Source: Adapted from INECV 2011 data

The most visited months in 2011 were November and December with 11.4% and 10.6% of arrivals. But in terms of overnight stays August matches these referred months all with approximately 10% each, which means that possibly in August the tourists have spent more time in the islands. The Cape Verde residents have travelled more in December and August, which are the dates that matches the official holidays in the country, representing these months 11.5% and 10.7% of their overnight stays. The foreigners demand had three peaks namely in November (10.3%), December and August both with 10% being May the month less visited by both Cape Verde residents and Foreigners. The demand was almost all divided between two islands, Boa Vista and Sal. Boa Vista has turned the most visited island corresponding to 39% of the arrivals, followed by Sal (35%), Santiago (13%) and S. Vicente (6%). In terms of overnight stays the order is the same being Boa Vista the responsible for 47% of the total, closely followed by Sal with 43% and far behind Santiago (4,6%) and S. Vicente (2,4%). The Cape Verde residents demand is more spread among the islands, Sal still being the most visited representing 27% of overnight stays followed by Santiago (20%), Boa Vista (17%), S. Vicente (14%), S. Antão (10%) and the rest of the islands corresponding to the remaining 12%. The Foreigners demand has been concentrated in the two islands, Boa Vista (49%) and Sal (44%) followed far behind by Santiago (4%). The trend in 2012 until September is the same, the UK still being the main issuer market and Boa Vista keeps being the most visited island.

From the analysis of the tourist that visits Cape Verde profile and demand characteristics, we can say that there is seasonality in demand and that the trend is for its accentuation instead of the reverse, both geographically and temporal, i.é., the concentration of tourists in few islands and in some seasons (Europe's winter and summer). Through the graphics we can clearly see the concentration of demand in some months, mainly for foreign tourists that have been accentuating along the years. The national demand is more spread having a peak in summer time and it has almost maintained during the years, so can we assume that seasonality is more intense in foreign demand than in national? This hypothesis is to be verified in the quantitative approach of seasonality measurement. After the opening of the international airport in Boa Vista, it has been replacing Sal in the tourist's choices and although the nationals demand is more spread through the islands, the trend is the concentration in Sal and Boa Vista for both nationals and foreigners. With the growth of the industry and the concentration of demand the risk is that Cape Verde is unable to respond to all tourists needs in peak seasons, thus harming not only the tourists but the environment and residents, which would affect the destination image and competitiveness. Thus is becoming crucial for the country to tackle tourism seasonality. The only alternative is to spread this growth demand attracting tourists in off-seasons and in the less visited islands. The tourism product segment with potential to provide attraction during the year is and in all islands is the cultural one.

3.6. Cape Verde tourism sector dynamic SWOT analysis

The SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis it is a general tool designed to be used in the preliminary stages of decision-making process and as a precursor to strategic planning in various kinds of applications (Johnson et al., 1989; Bartol et al., 1991). Dynamic SWOT is a useful technique and tool for understanding your strengths and weaknesses, and identifying both the opportunities open to you and the threats you have to face. Crossing all these elements some strategies can emerge to boost the industry and improve the destination competitiveness. It is highly used by the organizations in management, and can be identified as an internal and environmental analysis, which assists strategic plans development. As we can see, Cape Verde still facing some constrains to tourism development, mainly in terms of infrastructures, both general and touristic, accessibility, institutional structures, sustainability and monitoring despite the clear potential and available opportunities.

We point some strategies to improve the destination competitiveness, in order to overcome some of the constraints. The accommodation capacity and public services has to follow the growth of the tourism industry in order to satisfy with quality the needs of the demand increase without neglect the local population ones, but considering the carrying capacity of the country. In this sense it is important the cooperation between public and private agents, planning and monitoring the sector in a sustainable way. That is way the SWOT analysis is important, in order to be aware of the external environment opportunities and threats to the sector development and giving an insight of how to use the internal strengths to overcome the weaknesses, avoid the threats and take advantage of the opportunities.

Table 3 – Cape Verde destination dynamic SWOT analysis

Strengths	Weaknesses
 Location, volcanic origin Security Sea, Sun, Wind force and Climate - sports Wind and solar renewable energy Diversity of landscape Culture and history richness Inhabited islands and islets Economic and Political Stability Hospitality "morabeza" Labor force availability and low cost 10 different destinations in one Good performance of main issuer market (UK, Germany, France) National currency pegged to the Euro Investment incentive law Cape Verde recognition as one of the 10th sexiest destinations by City Guide and one of the 10th best ethical by Ethical Traveler "Cidade Velha" recognition by UNESCO as World Heritage Diaspora dimension 	 General and touristic infrastructures constrains Inter-islands and intra-islands accessibility constrains to intern mobility Limited qualified Human Resources Expensive destiny (price/quality relation) Lack of statistics and monitoring Energy, water, health system and sanitation insufficiency (not adjusted) Weak regulation and control of Cape Verde brand products and no MKTG plan Need policy for culture promotion Weak and disjointed external divulgation of the destiny "Urban shift" Strong external dependence Lack of entrepreneurship Difficulty in credit access Lack of direct flights from some markets Deficient coordination between public and private sector Weak local and national component in the tourist commodity Bureaucracy Centralization of FDI Service delivery undeveloped High cost and bad quality
Opportunities	telecommunication Threats
 Cruise tourism growth New touristic products exploration (cultural/creative product, eco-tourism and so on) Tourism sector growth trend Doing Business 2012 position Increasingly exigent tourist 	 Cruise tourism growth Sexual Tourism Fierce competition Foreign culture's influence Increasingly exigent demand Continuous crisis in the European market New destinations emergency

- Tourism demand trends
- Europe proximity and ageing people
- Potuguese as official language
- FDI increase
- Increasing environmental and preservation concern
- New promotion and Marketing technologies
- Conflicts occurred in the Middle East and North Africa
- Continuing globalization process

- Increasing criminality
- Increasing environmental and preservation concern
- Importation costs
- External shocks
- Globalization process
- Global warming/climte changes

Strategies designed by crossing SWOT

- Promotes coordination and/or integration between air, sea and land transport to maximize and extend the stay of tourists to all the islands taking advantage of the 10 destinations in one;
- Promotion of low cost companies;
- Integrate the inhabited island, islets and the less promoted islands in the tour circuits to decentralize the concentrated demand;
- Consolidate the "Sun & Sea" tourism product taking advantage of other islands such as Maio;
- Programs of professional qualification in diverse tourism segments and promotion of fair conditions of access to the available labor force from all islands;
- Develop local population qualification in new technologies available and integrate them in the tourism industry development social cohesion;
- Develop products concerning the environment considering the trend toward preservation betting in renewable energy (solar and wind energies);
- Coordination and joint action between stakeholders in the country image's promotion;
- Decentralize FDI in order to boost demand in other islands avoiding rural exodus and urban overcrowding and thus criminality growth;
- Create and position the image of the country based on its critical success factors such as stability and security, cultural richness and miscegenation, exoticism in ten destinations;
- Develop adequate and decentralized infrastructures to follow the growth demand trend;
- Create programs for the cruise tourist's reception promoting the country culture;
- Encourage, support and certificate local products made in Cape Verde;
- Implement policies for energy, water, health system and sanitation management/adjustment;
- Create an entity exclusively engaged with a strategy of promotion and brand marketing;
- Benchmarking of other well succeeded SIDS:
- Develop a cultural touristic product in "Cidade Velha" that can generate flow the whole year;
- Create a market monitoring system and studies support tourism satellite account;
- Implement an efficient border control system;
- Promote health tourism taking advantage of the resources and attract the senior tourist segment;
- Create links and more integration between tourism and other sectors (culture/creative industry, agriculture, finance system, transport, education and so on);
- Product diversification taking advantage of the potential of each island;
- Create fiscal incentives to investment and facilitate credit access, encourage entrepreneurship;
- Diaspora as a source of tourists and investors as well as vehicles for culture dissemination abroad through associations;
- Free transit for citizens of certain countries new market attraction, and existent consolidation;
- Channeling of funds to finance the tourism sector and guarantee mechanisms for financing;
- Provide the country with protection mechanisms against external shocks.

4. FRAMEWORK AND METHODOLOGY

The objective of this section is the indication of the hypothesis to be empirically verified and the description of the procedures used to do the statistical analysis, how the data was collected and the theoretical basis underpinning the model. The investigation was carried in both a qualitative and quantitative base. Besides the characterization of the tourist profile and their behavior along the years analyzed in order to have an insight of the demand trends and a superficial view of seasonality presence, interviews were carried. This qualitative part of the work purpose was to know if cultural tourism is recognized as a differentiation factor of Cape Verde destination, if it has been used to attract a more stable flow of tourists to the country and if they recognize that cooperation between the sectors, cultural and the tourism sector is relevant. These purposes have oriented the respondent's choice. Based on the literature review and both primary and secondary data, the results of the qualitative analysis some hypotheses are proposed to verify and a model to access seasonality presence in tourism and to verify them is defined. In this study, we investigate whether the offer of a cultural tourism can influence in tourism demand seasonality reduction, starting by the seasonality presence in Cape Verde assessment, second trying to understand in which segment it is more intense, the foreign demand or the national, finally to find out if the cultural relevance (if there is relevance) can be used as strategy to mitigate seasonal variation. As seasonality is a phenomena that affects tourism, makes sense to find some strategies to reduce its impact and do it in a sustainable way based on existing and critical success resources as culture for Cape Verde. Thus, the hypotheses to verify along this quantitative approach are:

H₁: There is seasonality in Cape Verde tourism demand.

H₂: The seasonality pattern is the same for both national and foreign tourists

H₃: The Tourism Seasonality is stronger in the "Sea and Sun" Cape Verde islands than in the others (assuming that Sal represents the 1st, S. Antão a cultural island and S. Vicente both)

4.1. Data collection method

As mentioned before, the data collection was carried in both, a qualitative and a quantitative way. In this section, we will emphasize the way things were done.

4.1.1. Primary data

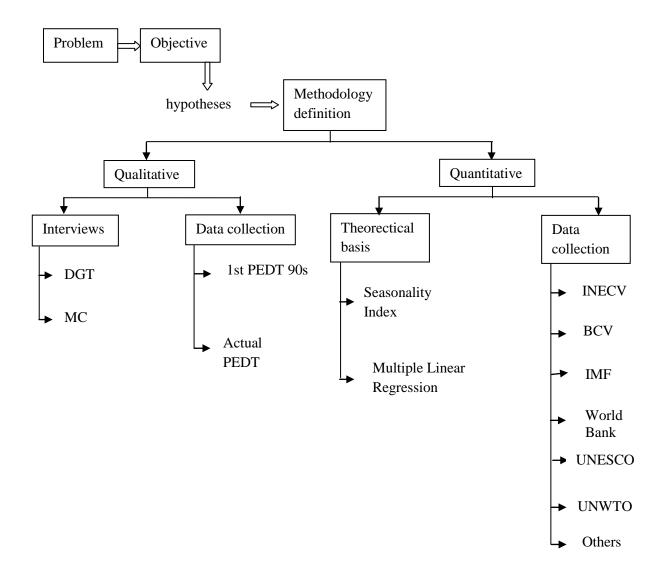
We have carried out interviews (see interviews guide in annex E) with Dra. Zilca Paiva, Director of Monitoring Services of Tourist Activities (that belongs to DGT), another with Débora Aborraia from the Ministry of Culture, and with Adilson Dias the responsible for the Museum of Archeology. This in order to find their opinion firstly about culture impact on Cape Verde's attractiveness and seasonality mitigation, the aspects that have been more exploited and the ones that can be leveraged, and then the general tourism development in Cape Verde as well as to know what they have been doing in cooperation in this direction. We have chosen those three peoples to carry the interviews based on some reasons: the two first ones, from the relevant ministries to this study accordingly with the objective, being influential experts, in order to understand the level of coordination and agreement between them, as well as the level of awareness they have about the culture impact in tourism seasonality mitigation; in other side, we have carried the interview with the Museum responsible, a technical expert, who is daily linked directly to one of the aspects of the country culture and in contact with the public, trying to understand the level of tourists adherence, if there is a government support to their initiatives and how it is promoted. This in order to complement the results of the quantitative approach to understand the context and what have been done, then to formulate some strategies to tackle seasonality through cultural marketing.

4.1.2. Secondary data

The quantitative linear regression model will be highly supported by secondary data. At the beginning an overview and characterization of tourism offer in Cape Verde, the market trends and a brief insight of the Cape Verdean competitiveness position is presented. In this sense, the investigation will assume a more descriptive level and occurs based on secondary data, clarifying the nature and evolution of the phenomenon under study. Preceding the seasonal phenomenon quantification, there is a brief characterization of the tourist who visits the country profile. It is based on INECV monthly data concerning tourist presence, as measured by arrivals and overnight stays discriminated by nationality and islands in order to access their behavior in terms of choice in a more descriptive statistical way through some graphics and tables. Evaluating the demand pattern it is possible to notice that there are some peak seasons, i.e., it seems there is a presence of seasonality in Cape Verde tourism. Then the quantitative model will be based in the same INECV monthly data, through Eviews program, in order to verify the proposed hypotheses. INECV has provided most of data used in this dissertation,

namely, arrivals, overnight stays per island and nationality and some other important statistics related to the topic. But we have tourist's overnight stays concerning tourist presence in our analysis. The data was collected directly in Cape Verde, in 2012 summer, which is why we do not have completed data for the year 2012.

Fig. 7 – Data collection method



4.2. Research framework

4.2.1. Interval and variables choices

We analyze monthly official data over the period January 2007 to December 2011, collected by the local statistics institute, INECV, concerning tourist's presence as measured by overnight stays. Although limited, the sample might be sufficient to draw some conclusions on seasonality. The interval choice (the last 5 years statistics) was conditioned since the major data production is restricted to the last decade and in those years it was possible to obtain a complete data series. For 2012 we have only got the three first quarters. Additionally, we are using data from other sites that produce countries relevant development indicators such as World Bank, IMF (International Monetary Fund), World Economic Forum, UNWTO, Cape Verdean Central Bank and so on. There are some a wide range of factors that could be considered as explanatory variables, which influence the overnight stays, but we have included in the model besides seasonality to detect its presence, trend in order to control it. The variables included on the regression model are:

- \checkmark The linear trend (T_t) , since the arrivals and overnight stays are increasingly growing at a constant level and we have to include the trend in the equation in order to control it.
- ✓ Seasonality, since we are to assess if there is deterministic seasonality in Cape Verde tourism, we have to consider eleven dummy variables to represent the months, being the 12th the basis to which compare, avoiding the dummy trap estimation problem.

4.2.2. Theoretical basis

The depiction of seasonal fluctuations in tourism has been mostly limited to the following indicators and graphic representations: the number – single peak, two-peak or non-peak demand patterns – and timely order of the respective seasons and their duration; ratio of summer and winter seasons in a form of a simple statistical measure and the annual curve, based on monthly values, which presented graphically is a more simpler format (Butler & Mao, 1997). Although these kinds of representation are useful in order to recognize, in a certain degree, the course of seasonal variations, it cannot fully explain, the extent of seasonality and it just allows a limited comparison between regions seasonality.

There are some more recent theoretical basis and methods for the seasonality assessment and measurement since it is a phenomenon widely studied by researchers. Some researchers such as Butler (1994) or Hylleberg (1992) between others have contributed in this area using tourist arrivals, by estimating average monthly seasonal factors and by computing several statistical indicators (BarOn, 1975): seasonal range (the difference between highest and lowest monthly indices); seasonality ratio (highest seasonal value divided by the lowest); the peak seasonal factor (highest monthly seasonal factor). Some statistical measures such as the coefficient of variability, the coefficient of variation, the concentration indices, amplitude ratios and similarity indices are used to compare the acuteness of seasonality for different regions. Other researchers have used a classical time series approach to identify the structure, characteristics and intensity of temporal fluctuations in international visitor's arrival (Wall & Yan, 2003). Some monthly ratios are used to assess seasonality variations, such as each month number of visitors in a year divided by the average monthly number of visitors for that year along with their deviation and the seasonality index.

The model we propose in this study is based on the Cuccia & Rizzo (2011) methodology as our objective is almost the same, trying to detect if culture can reduce seasonality, searching for differences in seasonality intensity present in more and less cultural islands. Cuccia & Rizzo (2011) suggests also some other seasonality measures considered in tourism seasonality literature (for a review see, for example, Lundtorp, 2001). Being X_1 , X_2 , ..., X_{12} the representation of tourist presence in a destination for each month, X^{min} and X^{max} the lowest and the highest values respectively and \overline{X} the monthly average, there are some simple indicators for seasonality that can be used: seasonality ratio (X^{max}/\overline{X}) or the seasonality intensity $(X^{max} - X^{min})$, being the seasonality as greater as higher the index; the coefficient of variation that is the standard deviation of X divided by the sample mean (the higher it is, the greater the seasonality); the Gini index is also highly used, and the higher it is, the higher the concentration of visitors distribution and thus the greater the seasonality. In spite of being simple to compute, the robustness of these measures is questionable (Wanhill, 1980).

The alternative generally proposed is to use pure time series models and regression analysis, considering unadjusted or adjusted data (Lim & McAleer, 2000; Candela *et al*, 2007). In this case, the starting point would be to interpret X_t (the number of visitors time series data) as the combination of trend (T_t) , cycle (C_t) , seasonal (S_t) and irregular components (R_t) , and multiplicative or addictive structures can be assumed: $X_t = T_t \cdot C_t \cdot S_t \cdot R_t$ or $X_t = T_t + C_t + S_t + R_t$ To model and measure seasonality, there are different potential approaches, such as the standard deterministic model (with seasonal dummy variables) or stochastic models to disentangle the components. In Cuccia & Rizzo

(2011) they have chosen to use the last one, by using the X12 program to derive the seasonal factors (S_t). The referred program, the X-12-ARIMA Seasonal Adjustment Program, is the widely used seasonal software, which is produced, provided and maintained by U.S. Census Bureau. So if we denote $O_t = T_t \cdot C_t \cdot R_t$, then $X_t = O_t \cdot S_t$ and the O_t series can be interpreted as seasonality-free series while the seasonal factor is $S_t = X_t / O_t \cdot If S_t = 1$, this means that the seasonal component is absent, but in case of seasonality presence, the S_t distribution can be used as a measure of seasonality. Then carrying the correlation between the original series X_t and the seasonality corrected one (O_t) , they could interpret and compare the intensity of seasonality presence in each island, being lower when the higher is the correlation between the two series. The program also provides some tests on the significance of seasonality and stability across years.

In this work we have chosen the deterministic regression model considering dummy variables to represent the months in the equation. Estimating a regression model for Cape Verde and for each of the three chosen island, in order to compare the intensity of seasonality between them, we then compare the explanatory power of each one, through a statistical regression test for the coefficient of determination comparison. We have adopted the same procedure to compare the seasonality intensity between different tourist nationalities (residents and non-residents). First of all as a way to see if it is reasonable to talk about tourism seasonality in Cape Verde, the simple plot of time series can be useful to get a first impression about the seasonal concentration or to analyze the Seasonality Index (SI) first for the country as a whole. The seasonality index is computed by picking a time period (2007 to 2011 in this case), a season period (month) and calculate the average overnight stays by month and the average overnight stays over the 5 years. Then we divided the monthly average by the overall year's average and multiplied by a hundred. The months for which the SI surpasses a hundred, constitute the peak seasons.

Table 4 – Seasonality index (SI) by month

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SI	103	96	107	93	80	82	103	117	92	96	116	118

These three peaks - from November to January, March and in July and August - correspond to Christmas time (winter in European countries), Easter time and summer

respectively. After computing the simple plot of time series for Cape Verde we can conclude that it makes sense to tell that there is seasonality in the sector because there are always peaks of the same order of magnitude, in identical periods over the 5 years under analysis. As we can see in the data collected for the 5 years, Cape Verde has almost three peaks per year in which the overnight stays exceeds the global average and they have accentuated themselves, throughout the years, but this can be because of the trend and that is why it must be controlled. The pattern of demand in each island does not differ significantly. But we can see also that peaks are not so high and the range at which oscillates the demand is not so large.

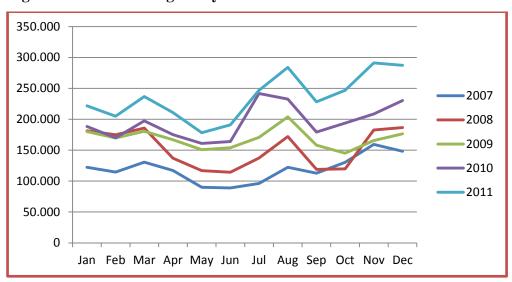


Fig. 8 – Tourists overnight stays series from 2007 to 2011

Source: INECV, 2011(adapted)

4.3. Statistical methods – The Model

In order to test if there is seasonality in Cape Verde tourism demand, the possibility of the seasonality being stronger in "Sun and Sea" destinations than in the others and if there is different seasonality intensity among national and foreign tourists, a multiple linear regression model is estimated by using OLS (Ordinary Least Squares). This regression establishes the linear relationship between the dependent variable Y (the overnight stays) and more than one explanatory variables X_i , representing the trend and seasonality, employing seasonal monthly dummy variables and assuming that seasonality is constant per each month. Also, in this regression, each month is a dummy variable where JAN assumes the value 1 in January and 0 otherwise, MAR assumes the value 1 in March and 0 otherwise, APR assumes the value 1 in April and 0 otherwise, MAY assumes the value 1 in May and 0 otherwise, JUN assumes the

value 1 in June and 0 otherwise, JUL assumes the value 1 in July and 0 otherwise, AUG assumes the value 1 in August and 0 otherwise, SEP assumes the value 1 in September and 0 otherwise, OCT assumes the value 1 in October and 0 otherwise, NOV assumes the value 1 in November and 0 otherwise and DEC assumes the value 1 in December and 0 otherwise. The objective is to analyze the X_i explanatory force and the equation to be carried out is:

Equation I

$$Y = \beta_0 + \beta_1 T_t + \beta_2 JAN_t + \beta_3 MAR_t + \beta_4 APR_t + \beta_5 MAY_t + \beta_6 JUN_t + \beta_7 JUL_t + \beta_8$$

$$AUG_t + \beta_9 SEP_t + \beta_{10} OCT_t + \beta_{11} NOV_t + \beta_{12} DEC_t + e_t (1)$$

February was chosen as the reference month to which compare the others, and it is excluded from the model in order to avoid the dummy variables trap. In order to validate the regression results in terms of Markov and OLS conditions, some tests have to be carried out such as the White test to conclude about the errors heteroskedasticity, the RESET test for the functional form, among others. Next, and if necessary, we adopt correction measures making possible to interpret the results with more confidence (these validation tests can be viewed in annex F). Testing the third hypothesis give us the opportunity to conclude if cultural tourism can be considered as a differential in seasonality reduction. In order to do it, as in the Cuccia & Rizzo (2011), we have chosen three islands to represent each one a different type of destination, based on the touristic promoted image, although all of them are located near the sea. Sal represents the pure sun-and-sea destination, since it is promoted and demanded exclusively because of the white sand and beautiful beaches. Destinations that fall into both sun-and-sea and cultural categories are represented by S. Vicente, which is widely recognized as the cultural and art island, from carnival and other cultural manifestations, being considered the cultural capital of Cape Verde and in parallel is endowed with beautiful white sand beaches that are attractive. And finally S. Antão, which beaches have no touristic appeal, recognized as "the green island" has to offer a daily life full of traditions and cultural manifestations, although not very organized (Santos, 2008). The hypothesis to verify is that in Sal, the pure sun-and-sea, the seasonality is expected to be more intense with more accentuated picks, than in the other two islands and this is done through a Cramer's coefficient of determination difference test to see in which island the explained variable, overnight stays, is estimated to be more explained by seasonality considering the trend.

5. ANALYSIS AND RESULTS DISCUSSION

From the three interviews there are disagreements in some aspects, mainly because each one of them has a different vision of the same question and prioritize culture at expense of tourism or vice versa, or even because some of them do not like the restrict vision of culture as a tourist product. But we can draw some conclusions, or find some common points.

5.1. Interviews Conclusions:

- Although Culture is increasingly being recognized as a differentiation factor for the Cape Verdean tourism industry sustainable development, it still has to be organized in order to explore all the potential. The aspect of culture more promoted and known is the music, accordingly with all the respondents, but there are a lot of other aspects that can be also leveraged in order to take the country's name abroad.
- With globalization and increasingly fierce competition in the tourism industry, culture is the differentiation factor for excellence, the identity of a country, a people, the daily life, the traditions, habits, everything of more natural in the day-by-day and history of the country.
- There is some evidence that foreign tourists have sought ever more a cultural tourism, but not the nationals, what can be seen by the culture promoter interview.
- Culture can be used to mitigate the seasonality in tourism, by organizing a cultural agenda for the country, which properly disseminated and promoted internationally, can attract tourists along the whole year, since there are cultural events. Cape Verde has potential to reduce seasonality, but there is not an efficient divulgation in this sense. So we cannot assume that is more than coincidence the peak seasons corresponding to cultural events.
- There is little cooperation between the private and public initiatives, or we can say, initiatives are carried isolated and disclosure is very poor and have been done under the tourist's agencies.
- Only now, Cape Verde has a more organized Culture Ministry that in cooperation with Tourism Ministry and Tourism General Direction is developing some strategies and actions in order to leverage the cultural potential and resources existent in Cape Verde, in order to develop new touristic products. In this the country will differentiate from other destinations, as a mixed culture, which cannot be copied.
- The two ministries directors interviewed have agreed that the emigrant and Cape Verdean students abroad can be vehicles disseminating and promoting the country's culture, thus attracting more tourists.

• What we can see is that partnership and jointly actions are still missing and some strategies are already in plans. They are aware that is necessary to explore this segment of culture, but are missing studies around that objective and to turn that resource in a product, to have a strong cultural agenda with a program designed to be included in a tour package.

5.2. Quantitative analysis results

In order to complement the interview conclusions and confirm the prepositions some hypotheses have to be verified. After the validation, we can interpret the estimation results and conclude about the veracity of the hypothesis, being the following the first one to test:

H₁: There is seasonality in Cape Verde tourism demand

Table 5 – Cape Verde tourism seasonality analysis

Dependent Variable: LO	G(OS)					
Method: Least Squares						
Date: 03/18/13 Time: 13	Date: 03/18/13 Time: 13:42					
Sample (adjusted): 2 60						
Included observations: 5	9 after adjustm	ents				
Convergence achieved at	Convergence achieved after 3 iterations					
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
TREND	0.013468	0.001768	7.618179	0.0000		
JAN	0.087656	0.042026	2.085774	0.0427		
MAR	0.092680	0.041475	2.234584	0.0305		
APR	-0.068458	0.053104	-1.289121	0.2039		
MAY	-0.238623	0.059201	-4.030701	0.0002		
JUN	-0.238887	0.062551	-3.819083	0.0004		
JUL	-0.050776	0.064262	-0.790138	0.4336		
AUG	0.084502	0.064831	1.303411	0.1991		
SEP	-0.165989	0.064417	-2.576800	0.0133		
OCT	-0.135223	0.062908	-2.149535	0.0370		
NOV	0.050046	0.059871	0.835893	0.4076		
DEC	0.056383	0.054307	1.038233	0.3047		
C	11.66686	0.075737	154.0434	0.0000		
AR(1)	0.633696	0.115284	5.496835	0.0000		
R-squared	0.931002	Mean depend	dent var	12.03557		
Adjusted R-squared	0.911070	S.D. depende	ent var	0.279442		
S.E. of regression	0.083333	Akaike info	criterion	-1.928242		
Sum squared resid	0.312498	Schwarz crit	erion	-1.435267		
Log likelihood	70.88315	Hannan-Qui	nn criter.	-1.735805		
F-statistic	46.70733	Durbin-Wats	1.864695			
Prob(F-statistic)	0.000000					
Inverted AR Roots	.63					

We can say that the total variation in the dependent variable, logarithm of overnight stays in Cape Verde is approximately 93% explained by trend and seasonality. Besides Trend, just January, March, May, June, September and October estimated coefficients are statistically significant and there is a positive difference for the two first months and a negative one for the others relatively to February, the month considered for reference, and then we can assume that there is seasonality at least in some of the months. Next we refer the interpretation of the coefficients estimates which are statistically significant:

Accordingly to the OLS estimates, the logarithm of overnight stays in Cape Verde are expected to be growing, in other words, they have an increasing trend along the years. In fact, both the arrivals and overnight stays have been growing along the years in absolute terms being Cape Verde increasingly recognized as a destination option and one of the "World's 10 Best Ethical Destinations 2013" due to the Human Rights, the Environment and Social Welfare promotion by the Ethical Traveler Organization in California (Source: www.ethicaltraveler.org).

Considering the signal and the value of the estimates, on average, the logarithm of overnight stays are expected to be approximately 9% higher in January and March when compared to February, considering trend. On the other hand, the months where the logarithm is expected to be lower are May, June with a negative difference of almost 24%, September and October with 16,6% and 13,5% less than February, respectively. The month with highest positive difference for February is March while the month with the highest negative difference for February is June closely followed by May. Probably this may happen because the main tourist market for Cape Verde is the European. They usually demand for the destination in the winter months, in order to escape from the cold, since Cape Verde has a mild climate, so they can actually take advantage of the beaches. Another important reason to consider is the fact that the period matches with the Christmas holidays and some other events such as Carnival and Easter.

Analyzing the results, since we have statistically significant differences in logarithm of overnight stays between months we can conclude that based on the estimates of OLS, in Cape Verde tourism there is seasonality verifying the veracity of the first hypothesis thus confirming the series plot and SI results above.

H₂: The seasonality pattern is the same for both national and foreign tourists

First, in order to verify the veracity of the second hypothesis, we carry the same tests with the Cape Verde overnight stays data, but separately for nationals and foreigners tourists demand. And then a Cramer's test on coefficient of determination differences between these two types of tourists is realized, in order to conclude if seasonality affects more the nationals or foreigner's tourists' demand since it can help to see in which one to focus the efforts. After the validation, we have noticed that there is no misspecification error in the linear regression for nationals, so we can interpret the estimated values starting with the national tourists:

Table 6 – National or resident tourist's demand seasonality analysis

Dependent Variable: OS						
Method: Least Squares						
Date: 03/18/13 Time: 13	3:55					
Sample: 1 60						
Included observations: 6						
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
TREND	4.394444	12.56882	0.349630	0.7282		
JAN	-51.20556	1045.028	-0.048999	0.9611		
MAR	1673.806	1045.028	1.601685	0.1159		
APR	464.2111	1045.255	0.444113	0.6590		
MAY	767.0167	1045.633 0.733543		0.4669		
JUN	499.2222	1046.161 0.477194		0.6354		
JUL	3225.228	1046.841 3.080916		0.0034		
AUG	4378.033	1047.670	4.178828	0.0001		
SEP	1527.239	1048.650	1.456386	0.1519		
OCT	1162.844	1049.779	1.107704	0.2736		
NOV	2318.050	1051.057	2.205446	0.0323		
DEC	1863.856	1052.484	1.770911	0.0831		
C	8597.944	807.9320	10.64192	0.0000		
R-squared	0.435448	Mean depend		10217.67		
Adjusted R-squared	0.291307	S.D. depende		1962.625		
S.E. of regression	1652.215	Akaike info criterion		17.84676		
Sum squared resid	1.28E+08	Schwarz criterion		18.30053		
Log likelihood	-522.4027	Hannan-Quinn criter.		18.02425		
F-statistic	3.020985	Durbin-Wats	son stat	1.487958		
Prob(F-statistic)	0.003285					

For the nationals, based on the OLS estimates, the R² is low, which means that lesser than 50% of the national tourists overnight stays is explained just by seasonality, since although there is a positive trend, its estimated coefficient is not statistically significant. Considering

the signal and the value of the estimates, on average, the overnight stays for the national tourists are expected to be higher in July, August and November when compared to February. They are the unique months for which the estimated values are statistically significant. On the other hand, the only month where the stays are expected to be lower is January, but the negative difference is not statistically significant. The month with highest positive difference considering February, is August. This might happen because the residents holidays usually is in summer time, which covers July and August and then it is the elected period to travel, since beside beaches there are other attractions during the summer as festivals and so on.

For the foreigners we found some misspecification errors, so after the validation tests, the estimated values can be interpreted:

Table 7 – Foreign or non-resident tourist's demand seasonality analysis

Dependent Variable: LO	G(OS)					
Method: Least Squares						
Date: 03/18/13 Time: 14	1:06					
Sample (adjusted): 2 60						
Included observations: 5	9 after adjustn	nents				
Convergence achieved at	Convergence achieved after 3 iterations					
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
TREND	0.014393	0.001911	7.533226	0.0000		
JAN	0.090629	0.047478	1.908868	0.0627		
MAR	0.087490	0.046829	1.868266	0.0682		
APR	-0.074736	0.059707	-1.251699	0.2171		
MAY	-0.260128	0.066345	-3.920835	0.0003		
JUN	-0.258500	0.069935 -3.696274		0.0006		
JUL	-0.083076	0.071747	-1.157900	0.2530		
SEP	-0.185825	0.071905	-2.584325	0.0131		
OCT	-0.152180	0.070302	-2.164656	0.0358		
NOV	0.041072	0.067040	0.612650	0.5432		
DEC	0.050330	0.060969	0.825502	0.4134		
AUG	0.062762	0.072344	0.867558	0.3902		
C	11.58524	0.082351	140.6805	0.0000		
AR(1)	0.619085	0.116933	5.294339	0.0000		
R-squared	0.923791	Mean depen		11.97035		
Adjusted R-squared	0.901776	S.D. depende		0.298797		
S.E. of regression	0.093645	Akaike info		-1.694906		
Sum squared resid	0.394624	Schwarz crit	-1.201931			
Log likelihood	63.99974	Hannan-Qui	-1.502469			
F-statistic	41.96034	Durbin-Watson stat		1.853723		
Prob(F-statistic)	0.000000					
Inverted AR Roots	.62					

The variation in the dependent variable, logarithm of overnight stays in Cape Verde, for foreign tourists, is approximately 92% explained by trend and seasonality. We can say that accordingly to the OLS estimates, the foreigners overnight stays in Cape Verde are expected to be growing, in other words, they have an increasing trend along the years. In fact, both the foreigner's arrivals and overnight stays have been growing along the years, being Cape Verde increasingly recognized abroad as a destination choice.

Considering the signal and the value of the estimates, on average, the foreigner's logarithm of overnight stays are expected to be higher in January, March, August, November and December when compared to February, but the positive difference is not statistically significant. On the other hand, the months where the logarithm is expected to be lower are May, June, September and October, being the negative difference statistically significant. The month with the highest negative difference for February is May. Probably this may happen because, as mentioned before, the main foreign tourist market for Cape Verde is the European and they usually demand for the islands in the winter months, in order to escape from the cold, since Cape Verde has a mild climate, i.e., they seek the "Sun & Sea" tourism.

Analyzing the results, since we have statistically significant differences in overnight stays between months we can conclude that based on the estimates of OLS, in Cape Verde tourism there is seasonality in both the national and foreign touristic market, at least in some months. Next we test, which segment this phenomenon affects more. For that we compare the coefficients of determination from the two independent samples (national and foreign tourists) and we test if the observed difference is statistically significant. For that we use a test resulting from the statistical properties of R² (Cramer, 2011). In the null we state the equality between the coefficients of determination. The results are shown in table:

Table 8 - Nationals versus Foreigners coefficient of determination test

R^2 test differences	
Test value	-5.311569
p-value (one-tail)	5.43E-08
========	
Adjusted R^2 test differences	
Cramer test value	-5.506648
p-value (one-tail)	5.43E-08
R-quad st=0	0.295408
R-quad st=1	0.882806

Considering the results, we can say that the negative difference between the R² of the National and Foreigner's tourists is statistically significant, and then we assume that the R² of Foreigners is statistically higher than the one from the National tourists. We can conclude that there is a stronger seasonality in the foreign segment relatively to the other, since the foreign overnight stays in the country are better explained by seasonality than the national overnight stays (both including trend or not). The results indicate that the national demand is more spread along the year while the foreign one is more concentrated mainly in the winter months, from November to February, and also in summer time, July and August, thus constituting two peak seasons. So the efforts to reduce seasonality have to be more focused in that segment, foreigners, since the national demand is more spread, but it is not to be neglected.

H₃: The tourism seasonality is stronger in the "Sea and Sun" destinations than in the others (assuming that Sal represents the 1st, S. Antão a cultural island and S. Vicente both)

First of all we will present the OLS estimation results for each island, about the presence of seasonality and the coefficient interpretations, and then the comparison of seasonality intensity throughout the Cramer coefficient's of determination comparison test. After the validation tests, the estimated values can be interpreted:

Table 9 - S. Antão tourism seasonality analysis

Dependent Variable: LO	Dependent Variable: LOG(OS)					
Method: Least Squares						
Date: 03/17/13 Time: 05						
Sample (adjusted): 2 60	Sample (adjusted): 2 60					
Included observations: 5	9 after adjustn	nents				
Convergence achieved at	ter 3 iterations					
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
TREND	0.024366	0.005101	4.776818	0.0000		
JAN	0.011002	0.122991	0.089457	0.9291		
MAR	0.105245	0.121345	0.867317	0.3904		
APR	0.025942	0.154729	0.167659	0.8676		
MAY	-0.192491	0.171963	-1.119378	0.2689		
JUN	-0.420124	0.181319	-2.317050	0.0251		
JUL	-0.497955	0.186084	-2.675974	0.0104		
AUG	-0.074663	0.187720	-0.397737	0.6927		
SEP	-0.632327	0.186691	-3.387028	0.0015		
OCT	-0.275200	0.182672	-1.506527	0.1389		
NOV	0.030610	0.174389	0.175530	0.8615		
DEC	-0.194478	0.158899	-1.223913	0.2274		
C	7.179876	0.214756	33.43276	0.0000		
AR(1)	0.618583	0.127728	4.842982	0.0000		
R-squared	0.819681	Mean depend	dent var	7.747696		

Adjusted R-squared	0.767589	S.D. dependent var	0.503201
S.E. of regression	0.242588	Akaike info criterion	0.208800
Sum squared resid	2.648211	Schwarz criterion	0.701775
Log likelihood	7.840393	Hannan-Quinn criter.	0.401238
F-statistic	15.73519	Durbin-Watson stat	1.916830
Prob(F-statistic)	0.000000		
Inverted AR Roots	.62		

We can say that, based on OLS estimates, the variation in the dependent variable, logarithm of overnight stays in Santo Antão is approximately 82% explained by trend and seasonality. The overnight stays are expected to be growing through the years, i.e., there is an increasing trend in the island as in the whole country, but faster in S. Antão. Besides Trend, only June, July and September coefficients' estimates are statistically significant and there is a negative difference relatively to February, the reference month. Then, based on the OLS estimates, we can assume that there is seasonality in S. Antão tourism demand, at least in some months.

Considering the signal of the estimates, on average, the logarithm of overnight stays are expected to be higher in January, March, April and November when compared to February, but the positive difference is not statistically significant. On the other hand, the months where the logarithm is expected to be lower are June, July and September, which means that in these months, the logarithm of overnight stays in this island are less than in February, since the negative difference is statistically significant. The month with the highest negative difference for February is September, with approximately 63% fewer logarithm of overnight stays than in February. Probably this may happen because the main tourist market for Cape Verde is the European. They usually demand for the destination in the winter months, in order to escape from the cold, besides the island is not a typically "Sun and Sand" destination and is more demanded for traditional parties, mainly in Easter. "The Easter holydays arrived in good time to warm up the touristic branch in Santo Antão" (in Asemana, 2013).

Since there were no misspecifications in the S. Vicente series, we can interpret the results:

Table 10 - S. Vicente tourism seasonality analysis

Dependent Variable: OS							
Method: Least Squares							
Date: 03/17/13 Time: 14:3	2						
Sample (adjusted): 2 60							
Included observations: 59	after adjustments						
Convergence achieved afte	r 4 iterations						
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
	2.45.60.52	5 00 50 5	0.010500	0.7550			
TREND	-2.476952	7.895377	-0.313722	0.7552			
JAN	-834.0603	384.3013	-2.170329	0.0353			
MAR	-343.0015	365.0617	-0.939571	0.3525			
APR	-1232.863	422.1788	-2.920240	0.0054			
MAY	-1948.404	439.7656 -4.430550		0.0001			
JUN	-1862.745	445.5688 -4.180599		0.0001			
JUL	-1319.144	447.5813	-2.947274	0.0051			
AUG	560.8388	448.3068	1.251016	0.2174			
SEP	-1693.383	448.3425	-3.776984	0.0005			
OCT	-1629.672	447.1773	-3.644353	0.0007			
NOV	676.8163	442.4702	1.529631	0.1331			
DEC	-414.5031	426.5944	-0.971656	0.3364			
C	6212.671	395.8618	15.69404	0.0000			
AR(1)	0.331853	0.137020	2.421938	0.0195			
R-squared	0.720939	Mean depende		5306.610			
Adjusted R-squared	0.640321	S.D. dependen		1105.820			
S.E. of regression	663.1957	Akaike info cr		16.03572			
Sum squared resid	19792284	Schwarz criter	ion	16.52869			
Log likelihood	-459.0537	Hannan-Quinn	criter.	16.22816			
F-statistic	8.942701	Durbin-Watson stat		2.101367			
Prob(F-statistic)	0.000000						
I (IAD D)	22						
Inverted AR Roots	.33						

For S. Vicente the R^2 is high, which means that, based on the trend-seasonal regression model, approximately 72% of the overnight stays are explained by the model, mainly due to seasonality since the decreasing trend suggested by the associated significance is not statistically significant.

Considering the signal of the estimates, on average, the overnight stays in S. Vicente, are expected to be lower in January, April, May, June, July, September and October when compared to February, and the negative difference is statistically significant. On the other hand, the months where the stays are expected to be higher are August and November, but the positive difference is not statistically significant. The month with the highest negative difference for February is May. Probably this may happen because the island, which is the cultural capital of the country, is very demanded in Carnival period that is always followed by

a theatre festival called "Mindelact". We can found some articles in national newspapers "The hotels and pensions of the islands of S. Vicente, Sal and S. Nicolau are crowded during the Carnival 2013 week" (in Asemana, 2013).

Table 11 – Sal tourism seasonality analysis

Dependent Variable: LOG(OS)						
Method: Least Squares						
Date: 03/17/13 Time: 18	3:43					
Sample (adjusted): 2 60						
Included observations: 5	9 after adjustn	nents				
Convergence achieved at	fter 3 iterations					
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
TREND	-0.001257	0.002749	-0.457390	0.6496		
JAN	0.085440	0.002749	1.952440	0.0430		
MAR	0.083440	0.043761	1.828918	0.0371		
APR	-0.139880	0.056770	-2.463967	0.0740		
MAY	-0.410838	0.064632	-6.356613	0.0000		
JUN	-0.392139	0.069329	-5.656217	0.0000		
JUL	-0.200758	0.071895	-2.792376	0.0077		
AUG	-0.039228	0.072795	-0.538881	0.5926		
SEP	-0.218549	0.072183	-3.027716	0.0041		
OCT	-0.140193	0.069963	-2.003812	0.0511		
NOV	-0.009555	0.065756	-0.145305	0.8851		
DEC	0.003154	0.058693	0.053744	0.9574		
С	11.64688	0.115257	101.0518	0.0000		
AR(1)	0.742469	0.091593	8.106194	0.0000		
D 1	0.044047	M 1	1	11.46004		
R-squared	0.844245	Mean depend		11.46804		
Adjusted R-squared S.E. of regression	0.799250 0.089815	S.D. depende		0.200457 -1.778425		
Sum squared resid	0.089813	Schwarz crit		-1.778423		
Log likelihood	66.46353		-1.285430			
F-statistic	18.76277	Hannan-Quinn criter. Durbin-Watson stat		2.181357		
Prob(F-statistic)	0.000000	Duroni- wats	on stat	2.101337		
,						
Inverted AR Roots	.74					

The R² is high, which means that approximately 84% of the overnight stays logarithm in Sal is explained by the model. We can confirm with more confidence that although there is a decreasing trend in logarithm of overnight stays in this island, it is not statistically significant.

Considering the signal of the estimates, on average, the logarithm of overnight stays in Sal, is expected to be lower in April, May, June, July and September when compared to February, and the negative difference is statistically significant. On the other hand, the months where the logarithm is expected to be higher are January, March and December, but the positive

difference is not statistically significant. The month with the highest negative difference for February is May. Probably this may happen because the island, which is one of the more promoted "Sun and Sand" destinations, is highly demanded in both the winter and summer months by foreign tourists in order to take advantages of the beaches.

What we can conclude from the results is that seasonality is present in all the three islands, but just S. Antão has been experiencing an increasing and significant linear trend, although the country overnight stays has a growing trend, but this might be explained in the Sal case, by the fact that the island is losing ground relatively to Boa Vista. Another conclusion is that in all the three islands, February is one of the months with more overnight stays, since from the statistically significant coefficients we can mostly note negative differences, being May one of the less visited. It might be one of the peak seasons and one of the reasons why is, as mentioned before, because Cape Verde major tourist's source is the Europe and they demand for the country as destination in their winter season, approximately from November to February, in which Cape Verde has the major number of arrivals. August also represents a peak, but since it is not a statistically significant coefficient, we cannot conclude.

The principal objective in order to verify the proposed 3^{rd} hypothesis was to compare the level of seasonality between these three islands. To conclude about it, we have computed the Cramer test in order to check if the R^2 of the three island's linear regressions differences are statistically significant. The null hypothesis states for the R^2 equality.

Table 12 - The islands coefficient of determination difference Cramer's test

	S. Antão vs S. Vicente	S. Antão vs Sal	S. Vicente vs Sal
R^2 test differences			
Test Value	0.775778	-0.449018	-1.217930
p-value (one-tail)	0.218940	0.326709	0.111625
Adjusted R^2 test differences			
Cramer test value	0.782716	-0.482340	-1.260665
p-value (one-tail)	0.218940	0.326709	0.111625
R-quad st=0	0.708367	0.708367	0.642373
R-quad st=1	0.642373	0.743423	0.743423

As we can see, we do not reject the null of R^2 equality for none of the cases, so we can assume no difference between the R^2 of the three islands, since the differences are not statistically significant. None of the islands overnight stays is more explained by seasonality than the others, the overnight stays for the three islands are statistically equally explained by seasonality.

In the first case, S. Antão vs S. Vicente, we could refer the fact that R² from S. Antão, has the effect of trend while the others do not, but excluding it from the regression the results do not change. There is a positive difference, which means that S. Antão demand was more affected by seasonality, but not statistically significant. In the other two cases, although there is a negative difference from the other islands relatively to Sal, which was the expected result, it is not statistically significant. Thus, based on the OLS results, we can assume that Sal overnight stays is not more explained by seasonality than the other two islands overnight stays. As we never reject the null in none of the cases, the differences verified are not statistically significant, and then we cannot assume that there is more seasonality in one island relatively to the other. The hypothesis 3 stated the possibility of a stronger seasonality in the "Sun and Sea" destinations, which were represented by Sal, but based on the OLS results we can assume that there is not a significant difference between the seasonality that affects the tourism in the three islands analyzed. So we cannot conclude, based on these OLS results, that culture can be a reducing factor of seasonality effects, but some reasons can be pointed, since Cape Verde has been promoted heavily as a "Sun and Sea" destination besides there is not an effective co-operation between the Culture and Tourism sectors nor an effective cultural agenda widely spread abroad. In this case, the demand for all the islands end up being more because of the "Sun & Sea" product that everyone knows, so that is one reason why the seasonality intensity might not be different from one island to another. The image promoted abroad is a "Sun & Sea" destination, not highlighting the specificities of the islands.

Another limitation is the fact that in the linear regression we just have considered that the explained variable, overnight stays, were explained by trend and seasonality, not controlling other variables that might influence the overnight stays in the country in both demand and supply side of the industry such as transports, security and some motivational factors in the demand side.

6. CONCLUSION

6.1. Main conclusions of the investigation

Considering the relevance that tourism sector has been assuming in Cape Verde's economy, the objective of this dissertation was to analyze seasonality presence in Cape Verde tourism and to evaluate the cultural tourism contribution in reducing and enhancing a more stable demand for the destination. In order to do this, we have carried a regression. Based in the results we could conclude that there is seasonality in Cape Verde's tourism and that it is more present in foreign tourist's demand than in residents, which represents the great piece of the total demand for the destination. The demand from residents is more spread during the year and relatively to islands visited also, constituting the months of July and August a usual peak, this because of institutional reasons. When referring to the foreigners demand, they have almost three peaks along the year, namely in the European winter, summer and also in March and their demand is very concentrated in few regions. So a mild or favorable climate during the whole year does not constitute sufficient condition to avoid seasonality in tourism, although it is necessary. Considering the mild climate of Cape Verde the "Sun & Sea" product can be "sold" during the whole year. We can conclude by the behavior of the tourist that visits the country that the seasonality is more influenced by institutional causes than natural ones.

When the hypothesis to verify was the role that cultural tourism could have in reducing seasonality effects, the results were a little bit inconclusive. First we found out that there is not a statistically significant difference of seasonality intensity between the destinations chosen in Cape Verde, being each of them differently endowed in terms of culture experiences. The overnight stays variation is equally explained by seasonality in each of the three chosen islands, when was expected that seasonality in Sal was more intense since it is a "Sun and Sea" destination by excellence. In fact the variation of overnight stays in Sal is more explained by seasonality than in the other two islands, but the difference is not statistically significant. But since they can all be attractive for seaside tourism, it can overwhelm the cultural tourism role in tourist flows attraction. In other hand, analyzing the interviews, we can conclude that culture can be recognized as a differentiation factor by excellence in this increasingly globalized world, which well promoted and organized can contribute in the reduction of concentration in demand, both geographically and in terms of season peaks. This same conclusion can be drawn based on literature about seasonality and strategies.

The fact that cultural tourism is an increasing segment of tourism demand that may contribute on seasonality mitigation is commonly accepted even if it is difficult to prove (Cuccia & Rizzo, 2011). Some facts can make us believe that cultural events during the year can attract some segments of demand, thus smoothing the waves in tourists demand. Indeed, Cesária Évora, through the music, was one of the ambassadors of Cape Verde abroad, creating an interest to know the home of the "Diva dos pés descalços" - as she was known – (PEDT, 2010/2013). Through the behavior of the tourist that visits the country we can notice that the peaks coincide with some cultural events in the country. For example in the summer season, there are some popular and music festivals that usually attracts tourists both residents and foreigners and particularly the immigrants, starting from June extending until September. In March there is a smooth peak, that begins at the end of February and extends until the following month, and this is the period of Carnival, followed by the Easter celebrations and in the particular case of S. Vicente, March is the theatre month during which happen the "Mindelact" festival. But the reality is that these festivals are not so known abroad, particularly the popular ones and we cannot consider them as the main motivation.

So as we can see, the results show that the contribution of cultural tourism in reducing tourism seasonality is limited in destinations close to the sea and there are some reasons we can point. Cape Verde destination product is heavily positioned as "Sun and Sea", so we can say that the touristic product is not well defined, nor totally explored considering the potential coming from each island. Considering the richness of the country culture we can say that the potential is not well explored and that there is not a cultural product organized in such a way it can be promoted. So the country is demanded as a "Sun and Sea" destination as a whole and that is why the seasonal concentration is not different from island to island. There is not an organized cultural agenda to show internationally in order to attract tourists in other periods of the year. In this sense we can assume that although based in the data analysis it seems like culture has no role in the seasonality minimization, the facts point to bet in cultural tourism as a differentiation factor to promote Cape Verde as a whole and each island abroad. Cape Verde cannot differentiate as a destination based in "Sun & Sea" product since there is no competitive advantage and there is a strong competition, but it can differentiate based on its own characteristics and culture, which is something unique that identifies the whole country.

The analysis of the tourist profile has shown a trend for increase in tourism seasonality and concentration in few islands, so it becomes crucial to tackle seasonality and smooth the variations waves. Cape Verde has to diversify the offer betting on the existing, not well

explored resources as culture and influence the demand through promotion. The diversification of the touristic offer passes through the transformation of culture in concrete products and promotes it abroad (since the foreigner's flows are more seasonal). An example should be a transformation of "Cidade Velha" in a living museum, since it could attract more tourists besides the fact of the recognition as UNESCO World Heritage or also the promotion of some traditional gastronomy festivals. But before start to try attracting more tourists Cape Verde should try to provide an adequate infrastructure and to bet more in quality in order to satisfy the tourists needs. But it is hard to decentralize the demand when there is no integrated destination to promote and the infrastructure is concentrated in a few islands themselves as well as the transport inter-islands is poor. Tourism sector could be used in the reduction of regional imbalances, since there are attractions in all the islands. But it is clear that to enter new markets and develop new products it is necessary to create the conditions in the country in order to satisfy the tourists while continuing to answer the needs of the population. But these objectives are contemplated in the Tourism Strategic Plan.

6.2. Implications for management

Seasonality depends on the characteristics of tourism demand and tourism destination supply considering the services and products offered, and that is the reason why it was important to carry an analysis of the tourist behavior besides the Cape Verdean offer as a destination. The geographic concentration of demand it is also an organization problem since the infrastructures are located in few islands, which are also the more promoted. While for competing destinations, encourage tourist sector constitutes a key instrument of economic policy, in Cape Verde, until then it had not been so contemplated in the strategic plans for development of the country, only recently it has been recognized as an economic motor. In order to take some decisions and manage the destination is very important first to recognize the relevance of tourism for Cape Verde development, second to know where Cape Verde is, then where it wants to be and finally position the country creating a common vision and strategy for all the stakeholders, both public and private. In the dissertation we provide an overview of the Cape Verde actual position - their destination competitiveness position mainly based on 2011 data. Based on the SWOT analysis and the destination offer was possible to notice the weaknesses and strengths as well as the opportunities and threats Cape Verde has to face. There are a lot of constrains to overcome in the supply side before anything else and some of them are factors which cannot be changed quickly. Cape Verde is now awaking for this reality and the actual Strategic Plan for Tourism Development is contemplating some actions in the sense to improve quality in services and to solve some of the constrains such at general and touristic infrastructure, coordination and monitoring levels, at least in a long-term perspective. But the policy makers should define tourism policy goals and identify the strategy to pursue them taking into account seasonality costs. As we demonstrated here, seasonality is a phenomena present in Cape Verde tourism and it can entail costs, which reduction must be considered as an objective. It is important for a country that depends a lot in tourism, as in the case of Cape Verde, to contemplate seasonality effects reduction in its strategic plans. De-seasonality can be oriented to the demand side or to the supply side. Seasonality can be reduced using market analysis (demand side) that can suggest private actors appropriate marketing strategies for the segmentation of the demand and the creation of different tourism products for different seasons (Andriotis, 2005). For example, knowing which markets are more affected by seasonality phenomena, the foreigners, there have to be a strategy of marketing and promotion tailored for them, monitoring the market and trends it is possible to know where to put the efforts on. But the domestic tourism has to be boosted also through some policies: they could promote some prices incentives to cultural events inter-islands.

On the supply side, the seasonality phenomena could be addressed concentrating efforts on the destination's endowments, in which policies to lessen seasonality effects can be based on encouraging tourism in off-season and shoulder-season by promoting different kinds of tourism such as cultural, religious, sports and business tourism. As in this study, we analyzed cultural tourism, and we have seen that it is accepted that it can contribute to reduce seasonality, government can intervene to overcome some of the negative effects of the phenomena through cultural policies to foster cultural tourism and there is room for that since the cultural potential of Cape Verde is quite far to be fully exploited. In the TTCI, one of the categories analyzed is the human, natural and cultural resources in which Cape Verde has been performing very poor, attracting a rank of 114th in 2011 in the WEF index, although the pearl of Cape Verde is the culture, a source of pride, of distinction. Culture is one of the country strongest and unifying factors, which identifies and differentiates it, and it is seen as a sector of growth. This is why investments have been made in the consolidation of the cultural economy. The search for cultural destinations is a trend in the European market, the principal tourism issuer.

The study carried here is important to management exactly because until very little while ago culture in Cape Verde was not associated to tourism, as one of the potential attractions and types of tourism offering, and so the promotion of culture to increase demand in off-seasons is not usually taking into account. Tourism is a growing sector and if the seasonality is not well managed it can be extremely harmful to all the stakeholders. The most attractive cultural events that take place in Cape Verde are concentrated in the peak seasons, for example the summer festivals (Baía das Gatas, Santa Maria and so on). The idea of an organized cultural agenda promoted abroad, with cultural events spread during the whole year would probably call more tourists since the climate is very cool through the year.

6.3. Limitations

Sometimes the investigations about Cape Verde are not encouraged by the entities, which constitutes a great limitation and we had some difficulties in collecting data and getting interviews. To get the collaboration of responsible for tourism activities in the country was no easy task, so often we have been indicated to subordinates who sometimes did not know the answers we needed. Another difficulty was the knowledge level of some of them and the conceptual interpretation. The intention was to carry interviews not only with the Museum responsible, but other cultural operators didn't show availability, or when they had, they did not have the knowledge to answer the questions.

In Cape Verde, the data collection and publication is done by INECV and only recently they started to have things in a certain level of organization. So the period to be analyzed is conditioned to the data interval they have. I have gone to Cape Verde and was difficult to gather information directly with them. It is difficult to meet a responsible since it was difficult to access information by internet. By the way the attendance in Cape Verde is very poor in a lot of services. There is a certain resistance in providing data and information, even though that work can help somehow the country.

But the greater challenge and limitation was in complete the work within the lay time, since it could be a lot more extended, but in a greater work, but the proposed objectives were accomplished. The other ones will be recommended for further investigations.

6.4. Recommendations for future investigations

The problem of seasonality could be more usefully addressed looking at the carrying capacity of the tourism destination and the installed capacity, because if pressure overcomes

carrying capacity, the private and social costs of tourism will be higher than the benefits. So one of the recommendations for future investigation could be to determine methodologically the carrying capacity and installed accommodation capacity of Cape Verde destination, considering all the islands. It would be useful to management in order to determine the level of seasonality it could reach.

Another investigation that could be carried is the segmentation of the demand and entry in new target markets. With the objective to reduce seasonality the senior tourism market would be a great bet since this senior market is a promising one considering that the trend in Europe is a growing aging population. So this group of tourists is expected to grow fast, spend relatively well and could bring visitors to destinations during the off season. They have both purchasing power and leisure time, and are more willing to spend in terms of both time and money - a fact that creates more opportunities for the development of off-season products. The sector has to change in order to meet those people's needs. The ageing population with an increasing concern for health are likely to drive a growth in demand for health tourism products and spa services, area in which Cape Verde has some constraints, as well as there should also be growing interest in cultural tourism and specially designed programs for the older traveler.

Besides to keep some of the actual markets such as UK and Germany tourists, Cape Verde should diversify in terms of targeted markets in order to reduce the dependence in terms of both demand and investment. The actual economic crisis has showed this point. Other continents, other countries in which Cape Verdeans also are residents, such as Brazil or other Asian countries such as China which are growing so fast, the youth population is also increasing and they have purchasing power. Another future investigation could be to verify the hypothesis of Cape Verdean emigrants as vehicles for transmitting the culture of the country creating interest for Cape Verde abroad. Cause Cape Verdean emigrants are not only ambassadors of the country out here but mostly the marketers and brand managers Cape Verde. This could be done through the students in Brazil for example.

Finally a useful future investigation could be to analyze the financial viability Cape Verde in increase the accommodation capacity in other islands, but keeping in mind the carrying capacity each one has and also considering market studies in order to avoid under-exploitation of resources in off-seasons.

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ANNEX

Annex A

It must be highlighted that to say that they are approved FDI project does not mean that they are completed, some of them have not yet been built and others have been abandoned and that data from 2009 was not available (ODI, 2012:3). We can see the dominance of tourism sector investments comparing with the other sectors.

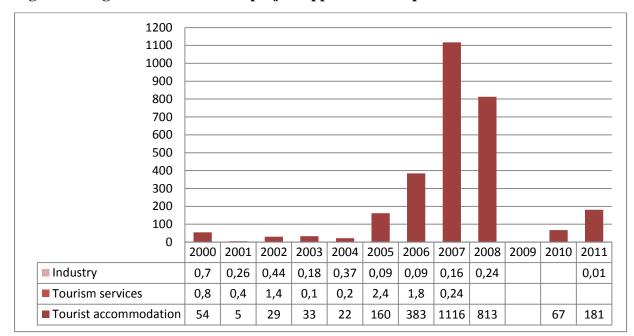


Fig. 1 - Foreign Direct Investment project approvals in Cape Verde 2000-2011

Source: ODI 2012 study based on Cape Verde Investments 2012

Annex B

It presents the estimates of the direct contribution of Travel & Tourism sector to Cape Verde's economy and the estimates of the contribution when considering the wider effects of the sector.

Fig.2 - Tourism Satellite Account for Cape Verde estimate for 2011

Item	Explanation	CVE	€
1.Visitor exports	Spending in Cape Verde by foreign visitors	36.6bn	
2.Domestic expenditure	Domestic tourist spending in Cape Verde – including the domestic element of outbound travel (i.e. a Cape Verdean booking a flight to New York on the local airline)	1.9bn	
3.Government individual spending	Spending by government on services directly linked to visitors, such as hotels or national parks	0.2bn	
4.Internal tourist consumption (=1+2+3)		38.7bn	
5.Purchases by tourism providers including imported goods	All supply chain purchases by tourism service providers (whether from domestic of imported sources) in order to estimate 'value added' by tourism	-15.7bn	
6.Direct contribution to travel & tourism to GDP (=4+5)	Closest estimate of tourist contribution to national income in the standard national accounts	23.1bn	€210m
Broader impacts of touris	t sector (indirect and induced)		
7.Domestic supply chain	Good purchased by tourism providers from the local economy – estimated from trade data	13.8bn	
8. Capital investment	Private sector purchases, like aircraft or building a new hotel – estimated from aircraft purchase and hotel room number statistics	16.6bn	
9.Government collective spending	Providing services to the 'community at large' such as destination marketing or infrastructure to support resorts	1.6bn	
10.Imported goods from indirect spending		-0.9bn	
11. Induced spending	Spending of the wages earned by tourist workers – estimated by adapting standard multipliers to take account of characteristics of local economy	10.0bn	
12. Total contribution of travel & tourism to GDP (=6+7+8+9+10+11)	Best estimate of the impact of travel and tourism taking into account the wider effects	64.2bn	€583m

Source: ODI 2012 study (p.6) adapted from World Travel and Tourism Council (2011) Travel & Tourism Economic Impact 2011

Annex C

The contribution to the Cape Verde economy of each tourist, by taking account of the goods imported to service the tourist sector. One-third of the potential benefit of each tourist is lost as a result of imports. However about two-thirds of gross tourist spending is retained to the benefit of the national economy (ODI, 2012:8).

Fig 3 - Gross tourists spend and contribution to GDP per arrival, 2005 to 2011

Year	2005	2006	2007	2008	2009	2010	2011
Gross spend per tourist	€717	€938	€1,026	€1,035	€889	€932	€1,134
GDP contribution per tourist	€477	€595	€648	€653	€564	€587	€720

Source: ODI 2012 study derived from WTTC (2012) figures for 2011 derived from Central Bank and ASA (2012)

Annex D

The TTC Index is based on three broad categories of variables, namely the following subindexes:

- (A) T&T regulatory framework sub-index that refers to the elements related to policies and in general is under government competences;
- **(B)**T&T business environment and infrastructure sub-index, which includes elements of the business environment and the "hard" infrastructure of each economy;
- (C)T&T human, cultural and natural resources sub-index, which is related with the country's resource endowments in terms of human, cultural and natural elements.

The global index results from an un-weighted average of the three sub-indexes, which are calculated also as an un-weighted average of the fourteen pillars.

Fourteen pillars compose the three sub-indexes, in which some components are evaluated:

	Sub-index A		Sub-index B		Sub-index C
1.	Policy rules and	6.	Air transport infrastructure	11.	Human resources
regulati	ons	7.	Ground transport	•	Education and training
2.	Environmental	infrastru	ıcture	•	Availability of qualified
sustain	ability	8.	Tourism infrastructure		labor
3.	Safety and security	9.	ICT infrastructure	12.	Affinity for Travel
4.	Health and hygiene	10.	Price competitiveness in	& Touri	sm
5.	Prioritization of Travel &	the T&	T industry	13.	Natural resources
Tourisi	m			14.	Cultural resources

Source: Adapted from WTTC Report 2013

Annex E

Presenting the interview guides, which is different from the museum responsible relatively to the one for two other interviewed, since he is a more technical expert which a different perspective of the industry, so the interview objective was slightly different. The interview guides are in Portuguese since the interview were carried in that language. The guide for the Ministries members will be called interview guide A and the one for the museum responsible will be identified as interview guide B.

Interview guide A

- 1. Até que ponto considera que a cultura seja um fator diferenciador na promoção e atratividade de Cabo Verde como destino turístico em alternativa ao turismo de praia e sol? Que aspetos da cultura cabo-verdiana têm sido mais bem explorados como recurso turístico e que outros acham que também poderiam ser?
- 2. Cabo Verde possui uma cultura bastante rica, pensa haver uma diferenciação cultural significativa entre as ilhas? São Vicente é a ilha tipicamente promovida como cultural, em que já há uma estrutura mais organizada e que tem resultado. Acha que poderia ser utilizada como benchmarking para se fazer o mesmo a nível nacional?
- 3. A nível das festas populares, há efetivamente duas quadras festivas: uma que é constituída pelas festas dos santos populares que começa no dia 1 de Maio e se prolonga até 29 de Junho (que geralmente se têm prolongado com festivais musicais e de teatro) classificadas como as festas de época quente e outra que engloba as festas de Natal, Ano Novo, Reis e Carnaval classificadas como festas de época fria. Sendo estas das manifestações culturais cabo-verdianas mais completas (em termos de folclore, centros históricos, música, dança, gastronomia, religião, tradição...) e considerando dados estatísticos estes são os períodos mais procurados pelos turistas. Acha que poderemos especular que a oferta cultural destas épocas é a principal motivação da escolha de Cabo Verde como destino? Neste caso como pensa que se possa promover mais as referidas festas?

- 4. Sabendo que atualmente a preocupação com a preservação do património histórico-cultural vem aumentando a nível internacional e que cada vez mais turistas procuram no destino especialmente a vivência e tradições da população local. Há um certo paradoxo, exploração turística do produto versus preservação, visto que a identidade cultural pode ser perdida por influências estrangeiras. Há construções modernas que não se enquadram nos centros históricos, muitas danças e músicas, tradições caindo em desuso (sendo conhecida já apenas pelos mais antigos), como acha que se pode incentivar a população jovem neste sentido de aprender e preservar as tradições? Que medidas têm sido tomadas neste sentido em Cabo Verde?
- 5. Até que ponto acha que o reconhecimento da Cidade Velha como património mundial pela UNESCO, teve impacto no presente crescimento da procura turística?
- 6. A CI (Cabo Verde Investimento) é a entidade responsável pela promoção do país como destino turístico bem como de investimento, mas claramente se nota que está mais vocacionada para atrair o investimento. Não há propriamente um plano de Marketing para o destino e embora há já 2 anos que exista a marca CV, a divulgação têm-se notado fraca. Pensam investir mais na promoção ou mesmo criar uma entidade só para isso vocacionado?
- 7. Quanto ao turismo de cruzeiro que tem tido um crescimento substancial particularmente na ilha de S. Vicente, como pensam o aproveitar a curta estadia dos turistas de modo a suscitar-lhes o interesse em voltar? Que tipo de oferta cultural têm em mente sendo que esta representa uma ótima oportunidade?
- 8. O emigrante cabo-verdiano tem sido considerado importante para o sector do turismo essencialmente como mercado (turista em visita ao próprio país), mas também como fonte de investimento. Não seria sensato o considerar também como veículo de transmissão da nossa cultura lá fora? Como pensam aproveitá-lo como tal (desde os estudantes fora até os emigrantes a tantos anos fora da Terra Natal)?

Interview guide B

1. Até que ponto considera que a cultura seja um fator diferenciador na atratividade de turistas para o país? Que aspetos da cultura cabo-verdiana têm sido mais bem explorados como recurso turístico e que outros acham que também poderiam ser?

Acredita então que lá fora têm plena consciência desta nossa identidade cultural?

- 2. Há quanto tempo vem promovendo atividades culturais no país? Que tipo de atividades promove? A divulgação das mesmas é algo acessível e de algum modo facilitada visto a importância nacional?
 - 3. Tem reparado numa forte adesão por parte dos turistas? E dos nacionais?
- 4. Ao longo de todo esse período, considera ter havido uma mudança significativa em termos de consciencialização do papel da cultura e património histórico para o turismo?
- 5. Há algum tipo de apoio ou incentivo para empresários que trabalham na promoção da cultura? Há cooperação entre o privado e o público em volta deste objetivo?
- 6. O que pensa da criação de um regulamento para o sector emergente, que promovesse formações, cooperação entre promotores e maior apoio aos projetos ligado ao Ministério da Cultura?
- 7. Na sua opinião como se pode promover a cultura como um produto turístico sem perder a sua identidade? Tendo em conta possíveis influências.
 - 8. Em média, quantas atividades realizam anualmente?

Annex F

In this annex we present the steps of the validation tests of the OLS Linear Regression for Cape Verde to provide a better understanding of what was done, since in the principal test we have put just the results and interpretation. The same validation tests are carried then for national and foreign tourists and in the end for the three chosen islands, S. Antão, S. Vicente and Sal. We cannot interpret the results with any validation tests.

Fig. 1 - Cape Verde Tourism Seasonality analysis

Dependent Variable: 0				
Method: Least Square	es			
Date: 03/18/13 Time:	11:16			
Sample: 1 60				
Included observations	: 60			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
TREND	2294.943	142.7960	16.07148	0.0000
JAN	14265.94	11872.69	1.201576	0.2355
MAR	17166.66	11872.69	1.445894	0.1548
APR	-9917.086	11875.27	-0.835104	0.4079
MAY	-34241.23	11879.56	-2.882365	0.0059
JUN	-33577.37	11885.57	-2.825055	0.0069
JUL	299.0847	11893.28	0.025147	0.9800
AUG	22404.54	11902.71	1.882306	0.0660
SEP	-23397.60	11913.84	-1.963901	0.0555
OCT	-17988.14	11926.67	-1.508229	0.1382
NOV	14014.11	11941.19	1.173594	0.2465
DEC	16063.77	11957.40	1.343416	0.1856
С	107105.5	9179.015	11.66852	0.0000
R-squared	0.877206	Mean dep	endent var	174192.3
Adjusted R-squared	0.845854	S.D. deper	ndent var	47810.33
S.E. of regression	18771.02	Akaike info criterion		22.70715
Sum squared resid	1.66E+10	Schwarz criterion		23.16093
Log likelihood	-668.2146	Hannan-Quinn criter.		22.88465
F-statistic	27.97951	Durbin-Watson stat		0.749568
Prob(F-statistic)	0.000000			

In order to test misspecification errors in the linear regression model estimated before, we compute and interpret next, some tests for this purpose. We start the validation tests, with the Reset, to conclude about the occurrence of three types of specification errors, the omission of important explanatory variables, incorrect functional form or correlation between the explanatory variables and the errors of the model:

Fig. 2 – Reset functional form validation test

Ramsey RESET Test				
	Value	Df	Probability	
F-statistic	5.656030	(2, 45)	0.0064	
Likelihood ratio	13.45477	2	0.0012	

As we can see, we reject the null of correct model specification, considering that the significance value is less than 0.05, which means that at least one of the 3 assumptions checked by Reset test is violated, including the incorrect functional form. To deal with the problem we suggest the regression transformation in the Log-Lin alternative functional form and we do the Reset again:

Fig. 3 – Cape Verde overnight stays Log-Lin functional form

Dependent Variable: I				
Method: Least Square	s			
Date: 03/18/13 Time:	11:27			
Sample: 1 60				
Included observations	: 60			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
	0.010.711		1 1 0 2 1 1 0	0.000
TREND	0.013541	0.000803	16.85648	0.0000
JAN	0.082017	0.066792	1.227937	0.2256
MAR	0.096227	0.066792	1.440700	0.1563
APR	-0.062690	0.066807	-0.938382	0.3528
MAY	-0.231475	0.066831	-3.463600	0.0011
JUN	-0.230890	0.066865	-3.453106	0.0012
JUL	-0.042269	0.066908	-0.631754	0.5306
AUG	0.093305	0.066961	1.393421	0.1700
SEP	-0.157025	0.067024	-2.342835	0.0234
OCT	-0.126183	0.067096	-1.880646	0.0662
NOV	0.059106	0.067178	0.879846	0.3834
DEC	0.065430	0.067269	0.972659	0.3357
C	11.65507	0.051638	225.7057	0.0000
R-squared	0.886826	Mean depe		12.03021
Adjusted R-squared	0.857931	S.D. deper		0.280165
S.E. of regression	0.105600	Akaike inf	o criterion	-
				1.469180
Sum squared resid	0.524114	Schwarz c	riterion	-
				1.015405
Log likelihood	57.07540	Hannan-Quinn criter.		-
				1.291684
F-statistic	30.69086	Durbin-W	atson stat	0.732487
Prob(F-statistic)	0.000000			

We do not reject the null, so we can assume that the Log-Lin functional form is the correct one to establish the relationship. Since n>30, normality is not a problem to worry about.

To detect the presence of perfect or strong linear relationships between the explanatory variables, we can carry the VIF, TOL, Matrix condition index or variation decomposition and based on these, we can conclude that there is no multicollinearity since the VIF values are all less than 10, the condition index numbers are also less than 30, so we can assume for the absence of multicollinearity problems among the explanatory variables. This occur not just for the country as a whole, but for all the island and types of tourists, the results are the same, so we can conclude that in the data there is no multicollinearity problem (the test will not be repeated).

Fig.4 – Multicollinearity tests

Model		Collinearity Statistics		Eigenvalue	Condition Index
		Tolerance	VIF		
1	(Constant)			2,783	1,000
	TREND	,960	1,041	1,005	1,664
	JAN	,545	1,834	1,000	1,668
	MAR	,545	1,834	1,000	1,668
	APR	,545	1,834	1,000	1,668
	MAY	,545	1,836	1,000	1,668
	JUN	,544	1,838	1,000	1,668
	JUL	,543	1,840	1,000	1,668
	AUG	,543	1,843	1,000	1,668
	SEP	,542	1,846	1,000	1,668
	ОСТ	,540	1,850	1,000	1,668
	NOV	,539	1,855	,171	4,033
	DEC	,538	1,860	,041	8,262

To conclude about error's heteroskedasticity, the White Heteroskedasticity test is carried on, although it is not a problem that usually occurs in time series data.

Fig.5 – Error's White Heteroskedasticity test

Heteroskedasticity Test: White				
F-statistic	1.241595	Prob. F(12,47)	0.2847	
Obs*R-squared	14.44202	Prob. Chi-Square(12)	0.2734	
Scaled explained SS	8.820336	Prob. Chi-Square(12)	0.7182	

We don't reject the null of error's homoscedasticity, as the significance associated with the White test is higher than 0.05, then we can conclude that there is no error's heteroskedasticity.

Now we will test the error's autocorrelation of first order through the Durbin-Watson statistic, which is given above in the regression estimation: Durbin-Watson = 0.732487. With n=60 and k=13 (including the intercept) the critical values are: d_L = 1.14505 and d_U = 2.07873, the D-W test is on the region I so we reject the null of no first order autocorrelation, the residuals point for positive first order autocorrelation. To confirm the residuals autocorrelation we can compute also the Breusch-Godfrey test:

Fig.6 – BG Autocorrelation test

Breusch-Godfrey Seria				
F-statistic	15.43791	Prob. F(2,4:	,	0.0000
Obs*R-squared	24.41554	Prob. Chi-S	quare(2)	0.0000
Test Equation:				
Dependent Variable: I	RESID			
Method: Least Square	s			
Date: 03/18/13 Time:	13:33			
Sample: 1 60				
Included observations	: 60			
Presample missing val	ue lagged resi	duals set to ze	ro.	
Variable	Coefficient	Std. Error	t-Statistic	Prob.
	255505	0.000.522	0.042442	0.06
TREND	2.75E-05	0.000633	0.043442	0.9655
JAN	0.004213	0.052576	0.080137	0.9365
MAR	0.000746	0.052579	0.014185	0.9887
APR	0.000718	0.052591	0.013659	0.9892
MAY	0.000691	0.052610	0.013132	0.9896
JUN	0.000663	0.052638	0.012603	0.9900
JUL	0.000636	0.052672	0.012072	0.9904
AUG	0.000608	0.052715	0.011541	0.9908
SEP	0.000581	0.052765	0.011009	0.9913
OCT	0.000553	0.052822	0.010477	0.9917
NOV	0.000526	0.052887	0.009944	0.9921
DEC	0.000498	0.052959	0.009412	0.9925
C	-0.001488	0.040644	-0.036613	0.9710
RESID(-1)	0.702390	0.148199	4.739511	0.0000

RESID(-2)	-0.110378	0.149102	-0.740284	0.4630
R-squared	0.406926	Mean depe	endent var	3.52E-15
Adjusted R-squared	0.222414	S.D. deper	ndent var	0.094251
S.E. of regression	0.083112	Akaike int	fo criterion	-
				1.924949
Sum squared resid	0.310839	Schwarz criterion		-
				1.401363
Log likelihood	72.74847	Hannan-Q	uinn criter.	-
				1.720146
F-statistic	2.205416	Durbin-Watson stat		1.995060
Prob(F-statistic)	0.022839			
		_		

We clearly reject the null of autocorrelation absence. In order to deal with the problem, we assume a first order autocorrelation for the errors, since the RESID (-2) is not statistically significant, introducing AR (1) in the estimated regression:

Fig. 7 – Final Cape Verde OS Linear Regression

Dependent Variable: I	LOG(OS)					
Method: Least Square	s					
Date: 03/18/13 Time:	13:42					
Sample (adjusted): 2 6	0					
Included observations	: 59 after adjus	stments				
Convergence achieved after 3 iterations						
Variable	Coefficient	Std. Error	t-Statistic	Prob.		
TREND	0.013468	0.001768	7.618179	0.0000		
JAN	0.087656	0.042026	2.085774	0.0427		
MAR	0.092680	0.041475	2.234584	0.0305		
APR	-0.068458	0.053104	-1.289121	0.2039		
MAY	-0.238623	0.059201	-4.030701	0.0002		
JUN	-0.238887	0.062551	-3.819083	0.0004		
JUL	-0.050776	0.064262	-0.790138	0.4336		
AUG	0.084502	0.064831	1.303411	0.1991		
SEP	-0.165989	0.064417	-2.576800	0.0133		
OCT	-0.135223	0.062908	-2.149535	0.0370		
NOV	0.050046	0.059871	0.835893	0.4076		
DEC	0.056383	0.054307	1.038233	0.3047		
С	11.66686	0.075737	154.0434	0.0000		
AR(1)	0.633696	0.115284	5.496835	0.0000		
R-squared	0.931002	Mean depe	endent var	12.03557		
Adjusted R-squared	0.911070	S.D. deper	ndent var	0.279442		
S.E. of regression	0.083333	Akaike inf	o criterion	-		
				1.928242		
Sum squared resid	0.312498	Schwarz c	riterion	_		
				1.435267		
Log likelihood	70.88315	Hannan-Q	uinn criter.	-		
				1.735805		

F-statistic	46.70733	Durbin-Watson stat		1.864695
Prob(F-statistic)	0.000000			
Inverted AR Roots	.63			

To conclude about the persistence of error's autocorrelation the B-P test:

Fig. 8 – BG Autocorrelation test

Breusch-Godfrey Serial Correlation LM Test:				
	•			
F-statistic	0.246912	Prob. F(2,43)		0.7823
Obs*R-squared	0.669879	Prob. Chi-Square(2)		0.7154

Now we don't reject the null and we can assume for the error's autocorrelation absence. Then we can proceed with the results interpretation. And we did this for all the regressions, with the ones for National tourists and S. Vicente island we did not find none functional misspecification, nor the other errors being the interpretation carried with no functional transformation. In the dissertation we have included just the final result with interpretations.