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University of
Bedfordshire

International Tourism Sustainability Conference 2011

Mauritius, 21-24 September 2011

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The present paper, although the result of a common research, has been developed as follows:

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Seasonality and management of tourist demand in sustainable tourism development

1. Introduction

Seasonality characterises the typology of tourism developed in a number of destinations worldwide. The impact on the environment, the economy and the communities may be highly significant for host countries, requiring appropriate public and private policies to preserve the natural environment, respect the communities and guarantee the development of economies and businesses.

According to the World Tourism Organization (2004) the limitation of seasonality can favour the sustainability of tourism. Typical indicators of the problematic effects of the phenomenon of seasonality (Choi and Sirakaya, 2006; Logar, 2010), like seasonal incomes, the number of tourists per square kilometre or the amount of consumption of resources, can be regulated through the use of suggested strategies and public policies: niche products, product differentiation, management of events, pricing policies, eco-taxes and quotas, among others (Butler and Mao, 1997; Getz, 2008; Jang, 2004; Taylor, 2003; Weaver and Oppermann, 2000).

This study appreciates the effectiveness of pricing policies in reducing seasonality, within the managerial system of revenue management (RM), as well known in transports and hospitality industries. Revenue management is regarded as a strategic approach for the maximization of profits and financial performance in the tourism industry. Specifically the efficacy of the system is based on dynamic pricing models in consideration of different market segments and their sensitivity to price and time in the purchase of tourism services (Kimes, 1989).

The research is based on a case study approach focusing its attention on two different destinations in Italy: Villasimius, a popular destination among Mediterranean islands where seasonality constitutes a characteristic in the tourism activities developed, in particular during winter time (from November to March); and the city of Milan in the north of Italy, where seasonality is a problem in the summer period (from July to September) and where leisure and business tourism live together during the year.

The study aims to give an answer to the following questions: 1) Among the set of possible strategies for reducing seasonality, is the dynamic pricing a managerial tool to manage different flows of tourist during the year? 2) Is the dynamic pricing a managerial tool to limit seasonality and favour the sustainability of tourism? 3) Is the dynamic pricing able to support the tourism policies?

The literature on seasonality and sustainable tourism related measures, revenue management and dynamic pricing is considered and forms a foundation to the research. In the case study of the

coastal destination was considered the impact of tourism during the high season, and interviews were held with hospitality industry managers regarding price management practices, and their effects on demand. Public policies for reducing seasonality were investigated through interviews with leading stakeholders in the destination. The interviews also ascertained the private and public stakeholders approach related to the implementation of management practices at a destination level within a meta management planning. The case study of the urban destination comprises interviews to private stakeholders based on the effects of dynamic pricing models in reducing seasonality and their potential to support the tourism policies.

The paper presents a brief background in the second paragraph and the literature review in the third. The fourth paragraph provides the methodology of the research. The fifth paragraph analyses the results emerged from the two case studies. In the last paragraph the conclusion and possible development of the research are considered.

2. Background

2.1 Background of the first case study destination

Villasimius is located in the south-eastern coast of Sardinia, a destination for summer holidays appreciated by both Italian and foreign tourists. Tourism is the leading sector of the local economy, but seasonality penalizes the sustainable development of the region. Two months ó July and August ó see the majority of arrivals of the whole year. In August the population can increase rapidly from 3,500 to about 30,000 inhabitants registered in official accommodation and an estimation of 10.000 inhabitants in second homes. The model of tourism developed is connected to seaside activities and there are attempts from both the local government and the tourism industry to promote strategies in terms of the differentiation of the tourism products offered, including golf tourism, conference, incentive and wellness tourism.

2.2 Background of the second case study destination

Milan is considered the financial and economic capital of Italy. In the last three years, Milan has registered about 5 million tourists and 11 million overnight stays. The average length of stay is about 2 days (IULM, 2010).

In Milan 62% of arrivals and 54% of overnight stays are concentrated in 4 and 5-star hotels with an average length of stay of 1.8 nights; 30% of arrivals and 36% of overnight stays are concentrated in 3-star hotels and in apartments within hotels with an average length of stay of 2,5 nights; 6,7% of arrivals and 6,1% of overnight stays are concentrated in 1 and 2-star hotels with an average length of stay of 1,9 nights. This data shows clearly the prevalence of business tourism in the city of Milan and the effects of seasonality. The low season is concentrated in July and August in summer and in

December and January in winter. The high season is concentrated in spring and autumn with monthly peak of over 1 million of overnight stays. The seasonality data trend is constant from 2001 to 2010.

3 Literature review

Tourism seasonality is a temporal imbalance in the phenomenon of tourism, and may be expressed in terms of dimensions of such elements as number of visitors, expenditure of visitors, traffic on highways and other forms of transportation, employment and admission to attractions (Butler, 2001:5).

Causes of tourism seasonality are different (Lundtorp, 2001). Literature indicates institutional causes, climate, social pressure and fashion, tradition and sporting seasons, business customs, (Butler, 2001; Frechtling, 2001) as the more significant reasons. In the Mediterranean coastal areas seasonality depends largely on the weather patterns, as it is in the case study of Villasimius considered in this research. The low season can be identified in winter, when the weather is unfavourable for beach activities. Instead, the high season can be connected with summer, with the ample rose of sea activities entirely available and enjoyable. In the city of Milan, as in other urban centres, tourism is mainly related to the business environment and the organization of national and international exhibitions. In Milan the high season is concentrated mainly in autumn and spring, while the low season is concentrated during the summer period and from December to January.

As the World Tourism Organization points out (WTO, 2004), seasonality produces negative impacts on the environment, the economy and the residents welfare of tourism destinations (Blancas et al., 2010; Choi and Sirakaya, 2006; Logar, 2010; WTO, 2004). In coastal destinations the intense concentration of tourists arrivals can generate problems to the use of public services, such as scarcity of water, degradation of the ecosystem, biodiversity modification and pollution, traffic congestion and a general condition of stress for residents. In addition, a seasonal flow of tourists conducts to seasonal tourism employment and incomes, concentrated in few months of the year. Seasonality in urban centres could create social conflicts between local communities and tourists arrivals with significant inconveniences in terms of access to services, an increase in prices (Cuccia and Rizzo, 2011), and time to reach destinations.

Different indicators can be used to measure tourism seasonality and its effects on destinations. The following table indicates some significant indicators for the measurement of seasonality of tourism in destinations, with specific indicators suitable for coastal areas, identified by literature, according to international organizations (Blancas et al., 2010; Choi & Sirakaya, 2005; Hughes, 2002; Logar, 2010; WTO, 2004).

Environmental		Economic		Socio-cultural	
1.	trend of arrivals during the year	7.	number and percentage of tourist industry jobs which are permanent or full-year	12.	perception of pollution and roads congestion
2.	trend of attendances during the year	8.	% of tourism industry permanent jobs compared to temporary ones	13.	crime rate per month
3.	number of tourists per resident	9.	percentage of business establishments open all year	14.	sports facilities and health services per inhabitant per month
4.	number of tourists per square kilometre of the site	10.	percentage of total tourism revenues earned in the peak period		
5.	m2 of beach area per tourist	11.	occupancy rates for official accommodation per month		
6.	trend of waste water and solid wastes outflow per month				

Table 1 Some significant indicators for measuring seasonality of tourism

In order to reduce tourism seasonality in destinations and the consequent negative effects, different strategies can be adopted (McEniff, 1992), like the diversification of tourism products, the identification of new market segments, the launch of events and festivals, the use of differential pricing and the application of different public instruments able to affect seasonality (Butler, 2001; WTO, 2004).

In order to promote the spreading of demand during the year a useful strategy is the *differentiation of price* on base of season (Butler and Mao 1997). It is known that tourists have different approaches to price. Some tourists are price insensitive, they are not interested to move in the off-peak period and are not attracted by the reduction of prices. Others are price sensitive and are characterized by more flexibility, expressed in terms of time insensitivity. This typology of tourist has a certain willingness to move in unusual periods of the year. In some cases the discounted prices can generate two circumstances. The first circumstance is referred to the possibility that a reduction of price can be connected with a insufficient quantity or low quality of services offered (Grant et al., 1997). It is evident that the price cutting must not depend on inadequate quality or quantity of services offered by the tourism operators. Tourists which move in the low season require satisfying attractions, facilities and services. Second the discounted policies, òin some situationsö (Butler, 2001:13) do not always increase tourist demand in the low season, but contribute to shift tourism demand from high to low season, producing a reduction of the net gain of the destination.

This study proposes a scientific system ó *revenue management* ó as a method able to maximize revenues and jointly limit seasonality. Revenue management manages a composite set of strategic levers ó capacity, time, price and customer ó favouring revenues, profits and performance in the tourism industry (Anderson and Carroll, 2007; Donaghy et al., 1995). The managerial method is based on consumer behaviour prediction derived from an accurate knowledge of clientele segments. An appropriate use of available units of inventory conducts to a system of variable prices depending on tourist demand and related characteristics. Demand based pricing represents a key aspect to be managed (Nagle and Hogan, 2006; Phillips, 2005). The typical RM indicators, considering

specifically the hotel industry, are the occupancy rate ó OR ó and the average daily rate ó ADR. Through the combination of the two indicators can be obtained the revenue per available room ó RevPAR ó (Shoemaker, 2003; Mainzer, 2004). The RM indicators are appropriate to emphasize the economic performances and are fundamental in decision-making process. The OR is an efficiency index and defines the hotel capacity utilization. Tourist demand influences significantly the OR, affecting the number of room nights sold. In this sense the OR can be considered a demand measure. The ADR depends on the price proposed and the number of nights sold. The ADR, depending on tourism demand and price, can be considered a measure of tourism demand value (Slattery, 2002). In order to measure hotel economic performances, considered the whole capacity, hotel managers utilize the RevPAR. The revenue per available room is the ratio of room revenues and the number of available rooms or, alternatively, it can be calculated by multiplying the OR by ADR (Cross et al., 2009). RM can control the exchange between average rate and occupation (Orkin 1989). In fact, hotel revenue managers, through the RM system, are able to select the opportune mix of OR and ADR in order to obtain the maximization of profitability, given a specific cost level. It is highlighted (Jones, 2000) that managers, through the RM system, can improve jointly the ADR and the OR. This means that, in order to improve the utilization of the capacity is not necessary negatively affect the average rate. The RevPAR, depending on OR and ADR, can be considered an ðeffective indicator of hotel room supply and demand performanceö (Slattery, 2002: 145).

Due to the strict relationship between tourism demand and the OR, this study considers the OR as index of seasonality, able in giving information about seasonal trend of tourism demand. The other two indicators, the RevPAR and the ADR, analyzed month by month, can highlight hotel economic performance realized in presence of seasonal demand.

4 Methods

The research intends to investigate the relationship between seasonality and sustainability of tourism, and suggests management practices, specifically dynamic pricing models suitable for the tourism industry, as possible strategies useful to mitigate the negative effects of seasonality in destinations worldwide. The study is based on the following research questions: 1) Among the set of possible strategies for reducing seasonality, is the dynamic pricing a managerial tool to manage different flows of tourists during the year? 2) Is the dynamic pricing a managerial tool to limit seasonality and favour the sustainability of tourism? 3) Is the dynamic pricing able to support the tourism policies?

A case study approach was used to explore the phenomenon of seasonality, its effects on destinations, and public and private behaviours and policies for facing its negative impacts. The case study, through the collaboration of hotel managers, allowed in particular to evaluate dynamic pricing models and their potential to manage tourist demand. The use of a case study approach is considered appropriate in this research as this method photographs a real context (Yin 2009), in this case a coastal destination in the middle of the Mediterranean sea ó Villasimius ó and an important urban destination ó Milan.

The case study has followed a serious of steps, characterized by interviews with public and private leading people in the destinations, and questionnaires addressed to key informants in different hotels and public administrations in Villasimius and Milan.

5 Results

5.1 *The case study of the coastal destination*

In order to analyse the phenomenon of seasonality in the case study based on the coastal destination the indicators listed in table 2 were utilized.

Environmental		Economic		Socio-cultural	
1.	trend of arrivals during the year	7.	number and percentage of tourist industry jobs which are permanent or full-year	11.	perception of pollution and roads congestion
2.	trend of attendances during the year	8.	% of tourism industry permanent jobs compared to temporary ones		
3.	number of tourists per resident	9.	percentage of business establishments open all year		
4.	number of tourists per square kilometre of the site	10.	occupancy rates for official accommodation per month		
5.	m2 of beach area per tourist				
6.	trend of waste water and solid wastes outflow per month				

Table 2 Indicators adopted in the study for measuring seasonality of tourism in Villasimius

Seasonality characterizes significantly the tourism phenomenon in Villasimius. Traditionally literature utilizes number of visitors, arrivals, departures and staying guests for measuring tourism seasonality (Lundtorp, 2001). In this study, the trend of arrivals and attendances in the destination from 2007 to 2010 was analyzed.

As figure 1 shows touristsø arrivals are concentrated in the summer months. In the years considered 79% of arrivals are concentrated in June, July, August and September. As figure 2 shows, attendances have the same trend with a concentration of 88% in the summer months.

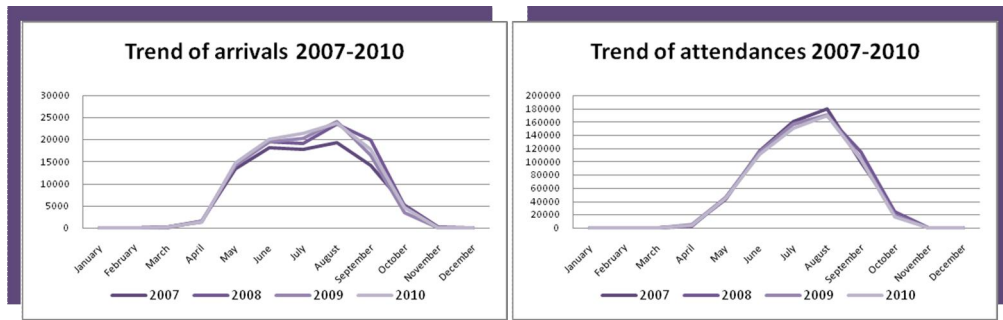


Figure 1 Trend of arrivals 2007-2010
Source: Tourism statistics Office of the Province of Cagliari

Figure 2 Trend of attendances 2007-2010
Source: Tourism statistics Office of the Province of Cagliari

If the distribution of the arrivals during the year is considered, months can be grouped in three different seasons, as table 3 shows.

Seasons	Months
Peak season	June, July, August
Shoulder season	May, September
Off-Peak season/Off season	October to April

Table 3 Seasons defined by monthly series. Source: adapted for the case study of the coastal destination from Kennedy et al., 1999

Tourists concentration can be emphasized analysing the number of tourists per resident. As table 4 shows in summer the number of tourists per day are on average more than the number of residents. The population of Villasimius in June, July and August becomes more than double. The concentration of the attendances, reinforced by the sudden growth, determines some problems like roads congestion, increase of pollution, stress for the environment and residents and difficulty for the municipality in managing public services.

Months/years	2009	2010
January	0.2%	0.1%
February	0.2%	0.2%
March	0.3%	0.5%
April	5.2%	3.9%
May	42.6%	41.3%
June	105.3%	101.9%
July	144.5%	138.5%
August	157.0%	155.3%
September	96.6%	95.1%
October	18.2%	15.3%
November	0.2%	0.3%
December	0.1%	0.2%

Table 4 Number of tourists per resident per month expressed in percentage 2009-2010

The density of residents in Villasimius per square kilometre is 62,65. Table 5 shows the growth of the average density in summer in the territory of Villasimius.

months/density	2007	2008	2009	2010
June	129.25	128.09	128.60	126.52
July	155.24	152.94	153.18	149.45
August	166.14	160.43	161.04	159.97
September	120.24	128.67	123.17	122.25

Table 5 Density of population in Villasimius in summer: Inhabitants per square kilometre

Tourism seasonality produces important effects on the management of the destination. For example, the growth of the number of tourists in the peak season generates serious problems for the local administration in managing the improvement of the solid waste and wastewater outflow in summer. As figure 3 and figure 4 show, the amount of waste-water treated and re-used and of outflow of solid wastes during 2010 increases rapidly in June and remains high until September.

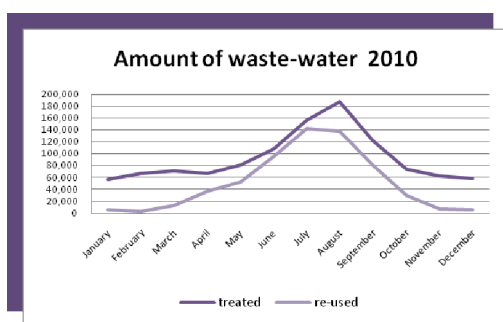


Figure 3 Amount of waste-water treated and re-used during the year 2010. Measure unit 6 cubic metre
Source: Municipality Environmental Office

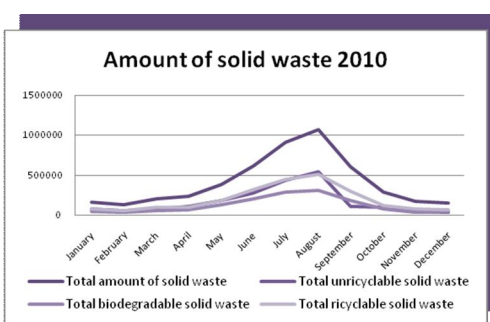


Figure 4 Amount of solid waste during the year 2010. Measure unit 6 kg
Source: Municipality Environmental Office

Seasonality generates important impacts which involve the local economy, with regard to the state of employment and the enterprises performance. 74% of resident workers are employed in tourism; 91% of employed in tourism are seasonal. The quality of training and schooling of resident workers is very low. For this reason managerial staff and administrative personnel, which are frequently permanent workers, are not usually residents (Source: Statistics from the Employment Office of Villasimius).

Seasonality also impacts negatively on the occupancy rate of Villasimius tourism industry. In 2011 official accommodation has registered 8,358 beds. There are 43 hotels and resorts and 1 three star camping. The hotel supply includes: 1 five star hotel, 9 four star, 26 three star, 5 two star and 2 one star (Regione Autonoma della Sardegna, 2011). Only 8 hospitality enterprises are opened all the year. The rest of the hospitality supply is opened only in summer.

Table 6 shows the occupancy rate per month in 2007-2010 in the destination considered. As the table shows, the occupancy rate increases in the summer months, from June to September and decreases rapidly in spring and autumn. In winter the occupancy rate is near zero. The seasonal

utilization of the above mentioned industries produces revenues concentrated in few months, difficulties in managing operational activities and a low operative efficiency.

Months/years	2007	2008	2009	2010
January	0.09%	0.06%	0.08%	0.06%
February	0.10%	0.09%	0.09%	0.07%
March	0.18%	0.27%	0.15%	0.21%
April	1.89%	1.46%	2.68%	1.68%
May	20.92%	21.81%	22.07%	17.98%
June	55.07%	54.11%	54.53%	44.34%
July	76.56%	74.65%	74.86%	60.26%
August	85.57%	80.85%	81.35%	67.56%
September	47.62%	54.58%	50.04%	41.37%
October	11.98%	11.48%	9.45%	6.67%
November	0.40%	0.15%	0.08%	0.14%
December	0.08%	0.12%	0.05%	0.09%

Table 6 Occupancy rate in official accommodations per month in Villasimius

Tourism in Villasimius is prevalently linked to the environment. Tourists select Villasimius for the uncontaminated sea and the beauties of the landscape. For this reason the municipality is particularly careful to the issues related to sustainable tourism development and the conservation of the environment. In the last years the municipality attempted to apply different measures able to reduce tourism seasonality. In 1998 the *Protected Coastal Area* – PCA ó was instituted. The mayor asserts that the PCA is crucial for the development of tourism and that, through the PCA, in the last years tourism demand has increased, although the worldwide crisis of the sector (see table 7).

months/ Δ	2007-2008	2008-2009	2009-2010	2007-2010
June	7%	-1%	3%	11%
July	8%	6%	6%	20%
August	21%	3%	-1%	23%
September	39%	-17%	8%	25%

Table 7: Trend of arrivals - rate of change 2007-2010

Other measures were adopted in the last year. A seasonal *eco-tax* has been applied in 2011 from the 1st of July to the 31st of August. In the next years the tax will be applied from the 1st of June to the 30th of September. The eco-tax is differentiated depending on the typology of accommodation and the age of tourists (from 0,50 € to 2 € per person, per night). The aim of this taxation is that tourists must pay for the damage caused by tourism activities and must contribute to the conservation of the environment, with specific attention to the protection of the biodiversity. In addition, a lower local taxation is established for hospitality enterprises which are opened all year.

In three local beaches a seasonal limitation of the number of users – *quotas* – has been applied from the 15th of June to the 15th of September. A restricted fee parking space is present and only 180 cars can park near the beaches. Studies about the carrying capacity of these three local beaches

determined that only about 600 daily users can be admitted. The only seasonal *user fees* currently applied are the parking fees in the urban centre (0.50 €, per hour) and near some beaches (5 € per day, per car). For the next years other fees for the services supplied by the PCA, e.g. diving and fishing activities will be introduced. The 30-40% will be destined to the management of the PCA, the rest to investments for environmental protection.

For the future the municipality intends to create a prepaid card, through which tourists can purchase in advance different services, usable during their journey with discounted tariffs and preferential admission to natural attractions and facilities. The local administration, well conscious of the importance of the conservation of the natural environment and especially of the wide appeal that the environmental territory of Villasimius has on tourists, encourages the development of new tourism products, which can combine the lengthening of tourism season and jointly the environmental sustainability. According to the municipality, *differentiation of tourism products* should be based on the creation of different environmental tourism packages, able to attract tourists interested in nature and environment. As the director of the local PCA emphasizes, the territory of Villasimius is characterized by geomorphologic, geographic and meteorological conditions favourable to receive tourists during all the year. In the territory are present environmental beauties not strictly connected to the sea. For this reason packages based on *events* linked to water sports, as sailing and diving, can be organized, but also cycling and horsing tours and ecological excursions can attract *new segments of demand*, specifically from the north of Europe. The mayor points out that, in order to actuate these programs different measures must be applied. First of all it is necessary to stimulate supply operators in opening tourism structures all the year. For encouraging the diversification of tourism products, the municipality will promote meetings with the local tourism operators, which are opened all year round, in order to create packages able to attract the regional demand in the low season. Second, the *differentiation of price*, is considered fundamental in the opinion of the public stakeholders. The fixing of diverse tariffs for using tourism services based on the different period of the year, the month and the week, can contribute, jointly to the other public and private practices above mentioned, to shift tourism demand and reduce seasonality. Third, the requalification of hospitality structures is considered very important. Most of the tourism structures, built in the last decades, are appropriate only for summer tourism. They are not able to receive tourists in the cold season. Heating plants and areas where entertaining tourists when the weather is not fine and warm are inadequate. Fourth, the regional government should solve the critical problem of the cost of transport from and to Sardinia. The cost of the transport weights significantly on the total cost of the trip. Ship and air passengers pay tariffs too high considering the worldwide current transport tariffs and this discourages tourists, which prefer destinations less expensive. The same problem is

noticeable with regard to the cost of the local transport. The transportation from the nearest airport to Villasimius costs 150 € for a distance of 50 km. Another important future initiative is the creation, with the collaboration of the University of Cagliari and the PCA, of a tourism observatory, able to gather statistical data regarding tourism demand flows and tourist demand characteristics, behaviour and perception. The observatory, through the PCA undertaking, will have the aim of defining the carrying capacity with regard to the sailing and beach activities and promoting a new awareness for the environmental issues, through educational and informative actions addressed to tourism operators, tourists and scholars.

The process of reducing seasonality in Villasimius needs the involvement of private and public stakeholders, in order to apply jointly and effectively the measures above listed. As regards a coordinated action aimed to the adoption of the different strategies, public stakeholders interviewed are optimistic, because they ascertained that tourism operators are sufficiently susceptible to sustainability issues and in the last years they showed themselves cooperative enough.

In order to consider the efficacy of the differentiation of tourism products, the capture of new segments of demand and the dynamic pricing policies within the revenue management system, a semi-structured interview was conducted with the sales and front office manager of a four star hotel located in Villasimius.

The manager refers that strategies of *differentiation of tourism products and the differentiation of market segments* are applied. The hotel provides hospitality services for two different typology of tourism. The hotel attracts leisure and wellness tourism demand, specifically from June to September. In the off-peak season, in April, May and October, the hotel obtains good economic performance accommodating leisure tourists and organizing conventions and meetings for business travellers. In this way the hotel management achieved to lengthening the opening period from 4 months per year to 7 months. The two different tourism segments have significantly diverse characteristics as regards the booking customs and the sensitivity to price and time. This condition influences considerably the management of clientele segments. Leisure national and international tourists, accommodated in August, are price insensitive and time sensitive. Instead, business tourists and leisure tourists accommodated in the other months are price sensitive and book many months in advance. The sales manager considers the *differentiation of price* an important instrument able to influence and control the trend of tourist demand. The hotel has been applying dynamic pricing policies within the revenue management system since 2006. The system began to produce its effects in 2007 with the consolidation of the increase in the following years. A systematic collection of historical demand data and detailed segmentation of demand is conducted in order to know and estimate the customers behaviour and demand trend. Prices are modified according to the

information derived from the frequent analysis of demand trend. The manager refers that, before the introduction of revenue management, prices were seasonal and unchangeable. After the introduction of the RM system, the hotel adopted a dynamic pricing policy which produced different positive effects as regards the economic performance, the extension of the opening period and the trend of demand flow. Table 8 and 9 summarize what the hotel management ascertained related to the relevant measures in the RM system.

Months/ OR%	2007	2008	2009	2010
April	29	34	46	45
May	30	33	48	46
June	69	85	80	84
July	79	90	88	92
August	88	92	95	98
September	79	78	83	89
October	42	44	59	61

Table 8 Occupancy Rate trend after the introduction of revenue management

Months/ Δ RevPAR%	2007-2008	2008-2009	2009-2010	2007-2010
April	13	1	0	15
May	4	1	1	7
June	-3	1	9	7
July	2	7	26	37
August	1	1	17	19
September	5	4	5	14
October	10	4	4	19

Table 9 Revenue per Available Room rate of change

Table 8 shows the trend of the occupancy rate from 2007 to 2010. The occupancy rate improved constantly from 2007-2010 and the increase is more considerable in April, +55%, and in October, +45%, which are months of the off-peak period. In August, a typical month of the peak season, the growth registered in the same years is only 11%. This means that the application of the dynamic pricing policies produces a reduction of the phenomenon of seasonality, with a better distribution of tourism demand during the year, through a more relevant growth of the attendances in the off-peak season and a limited growth in the peak season. Table 9 emphasizes the rate of change of the revenue per available room realized by the hotel from 2007. If the overall trend from 2007 to 2010 is considered, it is evident that the RevPAR increases as regards each month of the year. This implies that the hotel's economic performance is not negatively influenced by the pricing policies and that the increase of the occupancy rates does not determine a diminution of revenues. The revenue management system in the hotel considered is not based on a general discounting strategy, but, is able to improve the occupation levels, maintaining a good level of revenue performance,

through a correct definition of the price levels for the different market segments and for each time of the year. As regards the aspect investigated with the public stakeholders ó the mayor and the director of the PCA ó about the possibility of a coordinated action aimed to the adoption of different strategies at a destination level, the opinion of the manager is in accordance to that of the public stakeholders interviewed. The sales manager highlights that, for this aim, an adequate information addressed to hospitality operators is necessary.

The case study pointed out that different measures can be applied by the public and the private stakeholders in order to reduce seasonality. The differentiation of prices, the identification of new market segments, the launch of events and festivals, the use of differential pricing, specifically within the revenue management system, and the application of different public instruments like eco-taxes, user fees and quotas, can together produce significant and positive effects on the destination and can contribute to develop a sustainable form of tourism.

5.2 *The case study of the urban destination*

The analysis of seasonality in the case study of Milan is based on the use of the *dynamic pricing* with particular care to the hospitality industry.

Some evidences about Milan as one of the most important Italian urban destination. *Visitor origin*: there is a general balance between domestic overnight stays and foreign overnight stays, with a mild prevalence for the first from 2001 to 2005 and with a light turnaround since 2006. With respect to origin, following is the top ten: UK 8%, Germany 7%, USA 7%, Japan 6%, France 6%, Spain 6%, Russia 5%, The Netherlands 3%, Brazil 3% and China 3% (IULM, 2010). The future prospects see a growing trend from Asian countries and in particular, China and India. *Price of a weekend*: a fact useful in understanding the positioning of Milan compared to other international destinations is the price of a weekend in Milan, including two evening meals with wine, an overnight hotel stay for two, car rental costs (100 km), public transport, taxis and various entertainment. The cost of a weekend stay in Milan is USD 780 against USD 1000 in London, USD 990 in Paris, USD 930 in Amsterdam, USD 910 in Frankfurt, USD 830 in Copenhagen, USD 870 in New York and USD 820 in Rome (UBS, 2009).

In 2008 the Italian urban destinations considered in the table below, with the exception of Turin, registered a decrease of the occupancy rate and a decrease of the revenue per occupied room with a national average of 59,20% and of 132,15 Euros. Both the decreases had a negative impact on the RevPAR which at the national level registered an average of p 78,26 with a decrease of 11,02% in 2008.

Performances	Occupancy rate	Var. %	Average Revenue	Var. %	RevPAR	Var. %		
Bologna	47,60%	-4,1	⌐	95,79	-1,87	⌐	45,63	-9,63
Firenze	61,00%	-6,1	⌐	126,93	-5,27	⌐	77,37	-13,9
Genova	63,90%	-0,2	⌐	107,22	-2,11	⌐	68,53	-2,35
Milano	62,90%	-2,6	€	137,53	-0,3	€	86,50	-4,24
Napoli	54,70%	-7,2	⌐	83,43	-4,68	⌐	45,61	-15,76
Roma	66,80%	-8,5	⌐	153,29	-4,02	⌐	102,34	-14,85
Torino	57,40%	3,1	⌐	96,84	5,55	⌐	55,57	11,56
Venezia	59,70%	-9,2	⌐	174,90	-10,8	⌐	104,36	-22,77
Italian Average	59,20%	-4,5	€	132,15	-4,24	€	78,26	-11,02

Table 10 Performances in 2008 of the Italian Hotels in some significant urban destinations

An important issue that emerges from the research is that in urban destinations with a business vocation as Milan, seasonality is not only distributed along the year. There is the coexistence of the business and leisure dimension even with a different distribution in the high and low season. During the high season the business dimension is more significant than the leisure one, while in the low season the leisure dimension is more significant than the business one. Business tourism in Milan is concentrated from Monday to Friday and it involves mainly five and four stars hotels. Leisure tourism in Milan is concentrated in the high season and in the week-end and it involves all the different kinds of accommodation. In the business segment the booking process could start only few days in advance, while in the leisure segment the booking process starts few weeks in advance. Business tourism in Milan can be divided in four different segments: individual business tourism, meetings, exhibitions and incentive.

To describe the complexity of seasonality in urban destinations with a business vocation as Milan, it is not sufficient to consider the coexistence of the business and leisure dimensions in the tourism industry. In these destinations seasonality is also distributed in the same week: in the high season business activities are more concentrated in the first part of the week from Monday to Thursday/Friday, while in the second part of the week, the composition of tourism demand uses to change its shape with a significant presence of leisure tourism. Seasonality during the same week can be demonstrated through the dynamic pricing policies applied by the hotels. Below it is described an example of dynamic pricing policies with regard to two 4 star hotels located in the centre of Milan.

In table 11 it is possible to verify the pricing policies of the two 4 star hotels in Milan; the first one located near the Central Station and the second one located near the Dome. Both the hotels have two different rates: a flexible rate and a fixed rate that customers can book in advance.

HIGH SEASON				
Hotel X - 4 star near the Central Station				
Junior Suite Classic				
	Flexible Rate	Var.	Booking in Advance	Var.
Check In 09.10.2011 - Check Out 11.10.2011	€ 125,50	7,57%	€ 106,68	8,19%
Check In 14.10.2011 - Check Out 16.10.2011	€ 116,00		€ 98,60	
Check In 06.11.2011 - Check Out 08.11.2011	€ 125,50	7,57%	€ 106,68	8,19%
Check In 11.11.2011 - Check Out 13.11.2011	€ 116,00		€ 98,60	
Hotel X - 4 star near the Dome of Milan				
Classic				
	Flexible Rate	Var.	Booking in Advance	Var.
Check In 25.09.2011 - Check Out 27.09.2011	€ 421,00	51,78%	€ 357,85	51,78%
Check In 30.09.2011 - Check Out 02.10.2011	€ 203,00		€ 172,55	
Check In 06.11.2011 - Check Out 08.11.2011	€ 236,00	13,98%	€ 200,60	16,26%
Check In 11.11.2011 - Check Out 13.11.2011	€ 203,00		€ 172,55	

Table 11 High season dynamic pricing policies in 4 star hotels in Milan

In order to verify the pricing policies during the week the research took into consideration two weeks in the high season. For each week the research investigated the price in the first part of the week, from Monday to Wednesday, and in the second part of the week, from Friday to Sunday.

Both the hotels apply a different pricing policy during the week: the hotel near the Central Station practices a reduction in the second part of the week, that is around 7,57% for the flexible rate and 8,19% for the fixed rate; the hotel near the Dome accords a reduction in the second part of the week, that is around 13,98% for the flexible rate and 16,26% for the fixed rate. In this case the reduction could be up to 51,78%. The research did the same investigation in the low season as indicated in table 12.

LOW SEASON				
Hotel X - 4 star near the Central Station				
Junior Suite Classic				
	Flexible Rate	Var.	Booking in Advance	Var.
Check In 07.08.2011 – Check Out 09.08.2011	€ 125,50	7,57%	€ 106,68	8,19%
Check In 12.08.2011 – Check Out 14.08.2011	€ 116,00		€ 98,60	
Check In 11.12.2011 – Check Out 13.12.2011	€ 125,50	7,57%	€ 98,60	0,00%
Check In 16.12.2011 – Check Out 18.12.2011	€ 116,00		€ 98,60	
Hotel X - 4 Star near the Dome of Milan				
Classic				
	Flexible Rate	Var.	Booking in Advance	Var.
Check In 07.08.2011 – Check Out 09.08.2011	€ 178,00	0,00%	€ 151,30	0,00%
Check In 12.08.2011 – Check Out 14.08.2011	€ 178,00		€ 151,30	
Check In 11.12.2011 – Check Out 13.12.2011	€ 211,00	3,79%	€ 179,35	3,94%
Check In 16.12.2011 – Check Out 18.12.2011	€ 203,00		€ 172,55	

Table 12 Low season dynamic pricing policies in 4 star hotels in Milan

Table 12 shows the same dynamic pricing policies also in the low season even if the dimension of the reduction could be different than in the high season: in the hotel near the Central Station in the second week there is not reduction for the fixed rate like in the first week for the hotel near the Dome.

The investigation of dynamic pricing policies in the hotels located in the centre of Milan points out that during the weeks all the year there is a seasonality effect: in the first part of the week, from Monday to Thursday/Friday, prices are higher than in the second part of the week, from Friday to Sunday. An exception is represented by the organization of events (sport, music, drama, art) or exhibitions during the week-end: in these cases the pricing policies could be higher in the second part of the week. The reduction of prices is not the same in the high and in the low season. In the high season, when the leisure tourism is more developed, the reduction of prices from the first part to the second part of the week could be very significant. In the low season when the leisure tourism is not so strong the reduction of prices from the first part to the second part of the week, usually, is less significant.

The importance of dynamic pricing policies has been confirmed also by the interviews to opinion leaders involved in the hotel management in Milan. Few points are considerable:

- Dynamic pricing policies are strictly related to the implementation of revenue management systems, because the hotel's products are perishable, hotel's fixed costs are higher than the variable costs, and the demand varies over time. Advantages of revenue management systems are represented by the opportunity to use science and not guesswork and to achieve market leadership.

- The revenue management systems are based on the measurement of the occupancy rate, the average revenue per room and the RevPar.

- In the hotels investigated the performances registered are:

RM indicators/years	2007	2008	2009	2010
% Occupancy	76.9%	74.5%	66.8%	69.3%
ADR (€)	124.22	123.26	116.63	117.16
RevPAR (€)	95.53	91.79	77.97	81.14

Table 13 Performance trend 2007-2010 in the hotels investigated in Milan

- The best performances are registered during the year in February, March, May, June, September and October. During the week they are registered on Tuesday, Wednesday and Thursday (not including peak dates).

-Hotel managers use to estimate future demand taking into consideration events/fairs and past year performance.

-Opinion leaders think that to reduce the effects of seasonality in Milan ó as in other urban destinations ó price differentiation policies are not sufficient. It is necessary an integration between public and private actors in order to promote the territory with several activities in every period of the year.

The second issue concerns the combination between dynamic pricing policies and events, exhibitions, congress, etc. These combinations are strategic for the realization of strategies able to reduce the effects of seasonality during the year and during the second part of the week. Following this perspective in urban destinations is very important the integration policies among private and public actors in order to protect the territory and to develop the economic environment. In urban destinations tourism is part of a combination of several activities that may have important positive or negative effects on the territory and on the community that on the territory lives.

6 Conclusion and recommendation

The study highlights the efficacy of public and private strategies in order to limit the phenomenon of seasonality that can affect tourism destinations. The research is based on a case study approach, considering two destinations in Italy. The first case study examines a coastal destination, Villasimius, located in Sardinia, characterized by a significant concentration of tourists from June to August. The second case study observes an important Italian urban destination, Milan, characterized by a prevalence of business tourism concentrated in spring and autumn.

Literature indicates public and private measures able to limit seasonality and its effects on destinations. The case study of the coastal destination focuses on public instruments ó eco-taxes, user fees and quotas ó, the diversification of tourism products, the identification of new market segments, the launch of events and festivals and the use of differential pricing. Semi-structured interviews were held with the mayor of Villasimius, the director of the PCA and hotel managers. The case study of the urban destination is particularly focused on the strategy of price differentiation and tends to ascertain the effects of the revenue management system on tourism demand and the economic performance of city hotels. For this purpose semi-structured interviews with hotel managers were conducted.

The research evidences that RM in hospitality enterprises, is able to modify the trend of tourists demand flow, encouraging price-sensitive tourists to select destinations in slow periods without penalizing the economic performance.

With regard to the case study of the coastal destination, the analysis of the hotel's demand data and performance emphasizes different interesting results. First of all the application of the dynamic pricing policies, depending on demand trend and insert within a RM system, produces a better distribution of tourism demand during the year, the lengthening of the opening period and a consequent more efficient utilization of the hotel capacity. Second, the increase of the occupancy rates is associated to an improvement of revenues all the months of the year. Third, the prolongation of the opening period and the improvement of revenues justified the permanent employment of the staff of workers from April to October. The managerial method can contribute to reduce the negative effects of seasonality on the local economy and community. In order to produce general positive effects in destinations, the utilization of the managerial instrument should be extended to the hospitality industry as a whole. For this purpose a significant involvement of public and private stakeholders is crucial and a public and private coordinated action should be realized.

With regard to the case study of the urban destination, seasonality is a complex phenomenon and it is important to create a governance model involving public and private actors, able to reduce the impact of seasonality during all the year. The problem of seasonality in urban destinations as Milan is not only the distinction of low and high season. The problem concerns the optimization of the arrivals during all the year following the principles of the modern revenue management systems. To optimize the arrivals during the year, without any exception for the high season, it is necessary to combine public policies to private actors business strategies. Public actors need to create a coordinated supply system in term of events (sport, music, drama, art and lyrics), business exhibition and conference, congress, etc. Private actors need to combine their services ó transports, hospitality, intermediation, tour operating, etc. ó to the supply created by public actors. The integration of public and private actors can stimulate a system able to optimize the arrivals in the territory.

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