CONTRIBUTIONS OF TOURISM TO DESTINATION SUSTAINABILITY: GOLF TOURISM IN ST ANDREWS, SCOTLAND

Richard Butler
University of Strathclyde

Tourism Review 2018
DOI(10.1108/TR-12-2017-0197

STRUCTURED ABSTRACT

The paper explores the role of golf tourism in contributing to the overall sustainability of the destination community of St Andrews, Scotland. It uses a primarily qualitative assessment of impacts supported by archive material from local sources including the local media. Golf tourism in the town of St Andrews has a long history and has been integrated into the development of the town for many centuries. This has meant that there has developed a positive relationship between golf and its organisation and the community and there is widespread support for golf tourism and acknowledgement of the importance of this activity for the well-being of the town. No direct quantitative assessments were made, but previous surveys of the impact of golf tourism on the town are used in drawing the conclusions. Extensive literary research was conducted on attitudes and perceptions of community residents to golf tourism. It is clear that the concept of sustainable development is context specific in terms of its validity and effectiveness and should be examined in terms of local conditions and arrangements. In this case an activity that has taken place in the community for five hundred years is widely accepted and improved through tourism development. While case studies are not always of benefit and often reflect only a single viewpoint at one time, this paper shows that implications can be drawn from case studies that reflect situations that exist in other destinations.

KEYWORDS  golf tourism; St Andrews; destination sustainability;

INTRODUCTION

Since the popularisation of the concept of sustainable development in the years following the publication of the Brundtland Report (WCED 1987), the “guiding fiction” of sustainable tourism has become akin to a “holy grail” (McCool and Moisey 2001). Many developments and destinations have claimed to be sustainable in terms of tourism, ignoring such major issues as the unsustainable nature of transportation and the absence of limits or capacity guidelines, and yet despite considerable academic criticism (Butler 2015; Wheeller 2007), the concept of sustainable tourism continues to hold support. In reality, because of its travel component alone, tourism can never be truly sustainable, but significantly, more sustainable
forms of tourism can certainly be developed and should be strongly supported. Of more importance, however, is the potential role of tourism in many of its forms to assist some destination communities to become more sustainable overall in terms of environmental, socio-cultural and economic criteria. Such a role is closer to the original concept of sustainable development, which is a holistic one rather than a thematic one. Thus tourism should be seen, developed, and managed as one element in the fabric of a community or destination, incorporated in a symbiotic relationship with other elements as argued by Budowski (1976) some years before Brundtland. This paper discusses the role of one specific form of tourism, golf, which is itself not generally thought of as a sustainable form of tourism (Neo 2009), in supporting the sustainability of the small town of St Andrews in Scotland. It argues that tourism should not be viewed automatically as a force which has mainly negative social and environmental, but positive economic effects on communities, but that specific forms of tourism can combine with elements of heritage, particularly of culture and environment, to help establish and maintain a level of stability in a community that allows it to approach sustainability in its overall form.

ST. ANDREWS AND TOURISM

St Andrews is a small (permanent population 18,000) coastal town in eastern Scotland, eighty kilometres north east of Edinburgh, between the two major estuaries of the Tay and Forth rivers. The location is relatively difficult to access, as rail access ceased in the 1960s as part of a national closure of many rail lines, and the access roads are mostly two lane rural routes. Despite this, the town has developed an international reputation in attracting visitors over the centuries based on three elements. The first of these was the role of the town as the centre of the Catholic Christian faith in Scotland (Putter and MacLean 1995), with its now ruined cathedral once being a major pilgrimage site with 33,000 visitors in 1337 (Willshire 2003) as well as being the largest cathedral in Scotland. The second element, both ancient and contemporary in relevance, is the University of St Andrews, founded in the early 1400s (Cant 1992), the oldest university in Scotland and third oldest in the United Kingdom, rated as one of the best universities in Britain (St Andrews Facts and Figures 2017) and in recent years best known as the place of education of the future king of the country. Today the University is the major employer in the town, and its student numbers now number over 12,000, mostly being resident from September until the end of May. The economic effect of the university on the town is of critical importance and retail, accommodation, and other services record a decline in business during the summer months when most students are absent. The third element, also both ancient and contemporary in the reputation and viability of the town is its appeal as a tourist destination, based on a combination of excellent sandy beaches, cultural built heritage and its reputation as “the Home of Golf”. The importance of tourism to the community is seen by the disproportionately large number of accommodation establishments that exist in the town (over fifty), and the fact that the large number (relative to the permanent population) of restaurants, cafes and bars that remain economically viable throughout the year. While tourists have visited the beaches (including the West Sands that was popularised in the film Chariots of Fire) for more than a century (Young 1969) and upwards of twenty coach loads of tourists visit the town daily in the summer, the major part of the tourism generated income in the town is from visitors who come to St Andrews to play golf, an activity that has been associated with the town throughout its history and development for the last seven hundred years. These three elements of this heritage provide the basis for the
economic viability of the town today. A significant part of this heritage is provided by the leisure, and now tourist, activity of golf, making a sometimes unsustainable activity a key agent in the overall sustainability of the town.

GOLF TOURISM

For much of its history golf has been an activity played mostly in the vicinity of the participants’ place of residence. Many of the oldest golf courses were established either by communities as public leisure amenities or by groups of individuals for generally private pleasure (Holt 1998), and in general players and club members lived in close proximity to the facility. Since the Second World War the rise in popularity of golf, coinciding with increases in income, leisure time and mobility, has given rise to golf tourism. For the purposes of this paper golf tourism is defined as that segment of tourism which involves visiting one or more destinations for the purposes of participating in and/or watching the game of golf. This activity now represents “the largest sport related travel market”, being worth a recently estimated $22.9 billion, and involving fifty million participants (Hudson and Hudson 2014 p. vii). From an elite minority leisure activity, golf has become a major sporting phenomenon, with major tournaments attracting audiences of several hundred thousand in person and several millions over their generally four day duration, and achieving recognition as an Olympic sport in 2016. The spread of golf tourism to many countries can be seen in the statistics provided by the International Association of Golf Tourism Operators (IAGTO) which has over 2500 members in 98 countries who control 87% of golf holiday packages (IAGTO 2017), and which runs annual conventions in both North America and Asia, the latter reflecting recent rapid growth in the provision of golf facilities, many of which are aimed at the golf tourism market.

Golf tourism has two major, often combined components as noted above, spectators at golfing events, and participants in the sport visiting specific destinations in order to play golf there. A review of golf science research (Farrally et al 2003) showed the early emphases in research to have been on course management, marketing and participation promotion. More recently, one strand of research has tended to focus on golf tourists themselves, with Kim and Ritchie (2010) identifying three basic types of travel motivations. These were golf intensive golfers, multi-motivated golfers and companion golfers, the first named being individuals whose primary purpose of travel was to play golf, and who were often on specific golf-focused packages. The second cluster were tourists who engage in other activities in addition to golf, and the third category, as its name suggests, being comprised of people accompanying golfers, and who may sometimes also participate in the game. Hennessey et al (2008) also found similar groupings of golf tourists, whom they described as dedicated, moderate and infrequent, with significant differences in attitudes, expenditure and behaviour being influenced by the frequency of participation in golf by their respondents. These findings about the motivations and behaviour of golf tourists reflected the overall conclusions of Gibson and Penniington-Gray (2007), who used role theory to describe and explain the behaviour of sports tourists, in particular, golf tourists.

Golf tourists, like most tourists, are subject to push and pull influences that affect both their decisions to travel and their selection of specific destinations (Hinch and Higham 2004). Humphreys (2014) used grounded theory to determine what factors influenced destination selection. In the case of golf she identified six strands that influenced destination selection:
construction of the holiday, emotional rewards of the trip, total expenditure, amenities and related facilities, characteristics of the course(s) visited and the reputation of the destination. As will be discussed below, St Andrews is well placed to score highly in terms of destination attributes that meet these criteria. Attracting visitors is of great importance to a destination but of equal importance is ensuring that the visitor achieves a satisfactory visit. As Petrick and Backman (2002 p.252) note “relatively little is known about the determinants of, and best way to measure, golf travellers’ satisfaction”, but went on to suggest that attributes related to resort experience had considerable influence on the level of satisfaction of golf tourists. Satisfaction of golf tourists with their visit to Scotland is at a very high level, VisitScotland (2016 p.3) notes that respondents to a survey in 2016 scored their golf experience highly, with a mean score of 8.93 out of 10, with 86% of respondents awarding a score of 8 or higher.

One of the unusual features of golf as a sporting activity is the fact that “ordinary” golfers (i.e. those who play golf, often at a relatively poor level of performance, for enjoyment and not as an occupation) are able to play golf on many of the same courses that the elite golfers play on in tournaments. This is particularly true in Scotland, where many of the courses are publicly owned, generally by the local municipality, or, where they are owned by private clubs, are also open to the public to play for an often low charge. In other countries, particularly those with major tourism industries, the provision of golf courses that are open to visitors has become a major feature of their tourism promotion and appeal. The Algarve in Portugal is perhaps the best example in Europe of a region that has developed a focus on golf to attract tourists (Videra et al 2006), while states such as South Carolina, Florida, Hawaii and Arizona in the United States all actively promote golf tourism, particularly to the golf market in the northern US states in the winter months when play is not possible there. Golf tourism development is not always welcomed in some locations (see for example Briassoulis 2010 and Neo 2009) and can result in local opposition on both environmental grounds (e.g. excessive consumption of water in arid areas) and also on social grounds of exclusion of local residents from areas reserved for golf for tourists (Hudson and Hudson 2014).

A considerable proportion of more recent research writings on golf have focused on two aspects of the activity, its potentially negative environmental impacts and the sometimes undesirable nature of associated developments (Aramburu and Escribano R. 1993: Lopez-Bonilla and Lopez-Bonilla 2016; Salgot and Tapias 2006). The environmental impacts of the development, maintenance and use of golf courses have been the subject of criticism for a considerable period (Sanderson 2006) and are well reviewed in the global context by Wheeler and Nauright (2006). Golf courses require a sizeable area of land and sometimes water, and in many cases this area is subject to major physical modification and landscaping in development, followed by the planting and maintaining of alien species of vegetation, the application of weed and pesticide chemicals, and continuous grooming and often irrigation (Priestley 2006). The resulting landscape is generally far from “natural” and hardly ever sustainable without considerable ongoing inputs of labour, capital and chemicals (Briassoulis 2009; Tapia and Salgot 2006). Thus to some residents of neighbouring areas and to environmental interest groups, such developments are seen as undesirable and certainly not sustainable in the sense of the term in the context of sustainable development (Neo 2009; Videra et al 2006). The second most frequent topic of research has been the nature of golf related tourist developments, which are generally associated with residential and sometimes
second home development, often distinctive from the local community, and thus potentially generating feelings of exclusion and loss of amenity (Hodges and Haydu 2004: Marwick 2000). In this context golf is similar to other sports which have been used as agents of tourism development (Gammon and Robertson 2010; Higham 2010), in that such development is not always successful in terms of balanced tourism development, local acceptance or permanent positive economic benefits. Misener and Mason (2006) also discuss the difficulties of developing long term local community involvement and tourism development by using sports events such as golf tournaments.

**GOLF IN ST ANDREWS**

Many of the above concerns do not readily apply in the case discussed here because of local geography and history. The four traditional golf courses in St Andrews (Old, New, Jubilee and Eden) of seven courses in total, are all what are known as “links” courses, that is, they have been developed on coastal sand dunes, and such modification that has taken place has been relatively minor and mostly undertaken a century or more (five hundred years in the case of the Old Course) ago (Price 1989). The right to play golf on the links at St Andrews were granted by the Archbishop of St Andrews in 1552 (Willshire 2003 p. 31), and royal patronage of the golf links can be traced back at least as far as Mary, Queen of Scots, who visited the town and played golf there in the sixteenth century (Lewis et al 1998). Thus unlike many settlements with golf courses, the town has developed with golf as an established part of life and with the golf links/courses belonging to the town and its residents, a very different situation to that found in many other locations, where golf courses are often privately owned and exclusive to members, few of whom may be local residents. This undoubtedly explains to some degree, the general support for the existence of the golf industry in St Andrews and the special arrangements that have been made to maintain control of this major tourism attribute.

The relationship between the town, its golf courses and tourism is long established and had continued relatively unchanged, with the town having responsibility for the management and maintenance of the courses, until the 1970s. At that time, the United Kingdom underwent local government reorganisation, and as part of that process, St Andrews appeared to be heading for a general loss of autonomy, being potentially in a new region with headquarters in Dundee. The potential loss of control over the golf courses implied by such a re-organisation caused great concern in the town (St Andrews Citizen (various dates); St Andrews Links Trust personal communication), to such a degree that an Act of Parliament (HM Government 1974) was sought which created a charitable body that was to own and manage the courses. This body is the St Andrews Links Trust, and it has responsibility for managing the now seven courses that fall under its control. The trust works closely with the Royal and Ancient Golf Club (R & A) of St Andrews which controls the Rules of Golf for most of the world apart from the United States and Mexico, and organises and manages the Open Championship, the premier golf event in Europe and the senior of the four “Majors” (the US Open, the US PGA and the Masters being the others). St Andrews has hosted more Open Championships than any other location in the United Kingdom, and generally hosts the tournament every five years on the Old Course (Fife Business Matters 2015). St Andrews is generally accepted as the “Home of Golf” by virtue of the unique importance of its history and of the Old Course and the Royal and Ancient Golf Club, and this has become its unique selling point (USP) for golf enthusiasts.
As noted earlier, golf is almost unique among sports in that “ordinary” players can play the game on exactly the same facilities as the stars of the golfing world, as the Old Course and several other championship courses in Scotland, in particular, are open to the paying public. The idea of playing a round of golf on the most iconic (Weidenfeld et al. 2015) golf course in the world that hosts one of the “Majors”, in the Home of Golf, is a major international attraction for enthusiasts of the game, and visitors regularly comment on “feeling blessed” at being able to play at the “cathedral” of golf (personal comments to the author). Such enthusiasm is not confined solely to the masses, as on a recent (2017) visit to Edinburgh for a charity occasion, former US president Barack Obama travelled immediately to St Andrews after landing in Scotland and played a round of golf on the Old Course. In so doing he was following the pattern of most US presidents over the past sixty years, and many other famous visitors. Such popularisation of the course and the town generates invaluable publicity for St Andrews and encourages awareness and visitation by other tourists (Tobert 2000).

GOLF TOURISM AND SUSTAINABILITY IN ST ANDREWS

Briassoulis (2009) applied what she termed a “soft sustainability test” to golf development in coastal Mediterranean Europe, using criteria including resource maintenance and use efficiency, livelihood efficiency and opportunity, and intra and intergenerational equity. In the context of this paper, the significance of golf tourism to St Andrews can be assessed using the three traditional elements of sustainability (Butler 2015), namely, environmental, social, and economic aspects of associated development, with reference to Briassoulis’ criteria where relevant. The overall impacts of golf and golf tourism on St Andrews is summarised in Table 1 which indicates major negative and positive impacts in the three elements of sustainability.

In environmental terms, two major issues are normally considered, the modification of the landscape and resources in the creation of the golf facility and the aspects of maintenance and use. As noted above, golf course development is often criticised for excessive consumption of land and water resources, as well resulting in change and loss of indigenous habitat and wildlife (Videra et al. 2006). It would be inaccurate to claim that there has been no modification of the landscape related to the development and maintenance of the golf courses in St Andrews, but the major concerns over landscape modification are both ancient and relatively insignificant in this case. The four main courses are located on a sand spit to the north of the town and utilise the natural forms of the landscape in the design and format of the courses. Such is the nature of links courses that local landscape features are integral to the courses. Bunkers or sand traps are generally natural hollows which have been deepened and shaped, and greens, the putting surfaces, have been rolled and flattened and the surface maintained by mowing and rolling. Otherwise the greater part of the courses has been little modified over the past century.

In terms of vegetation, local grasses and plants have been retained, and as links courses have few if any trees, with gorse and broom bushes being the tallest vegetation, these are maintained as natural hazards and replanted if they die out. The range of flora and fauna existing on the links is considerable, with over three hundred species being recorded on the courses and the adjoining Eden estuary (Scottish Golf Environment Group 2005). Wildlife therefore continues to exist on the links, rabbits (traditionally very common) and hares are
regularly present, and resident bird species number over twenty identified on the courses. Fertilisation is mostly of natural elements rather than manufactured chemical ones and a high degree of recycling and self-contained composting and waste management is carried out. Water is obtained from a direct link to the local reservoir, formally being drawn from wells on the links, and replacement sod is grown on nearby fields. There is certainly considerable maintenance and grooming of the four traditional courses, as the level of use, over 200,00 rounds of golf on average per year, with 60% being played by locals (St Andrews Links 2000), makes this inevitable, but such work primarily involves repairing wear and tear on the courses. Finally, the Links Trust has been actively involved in sand dune and shoreline protection actions in conjunction with Scottish Natural Heritage (the Scottish Environment Protection Agency) and other environmental groups to stabilise the sand dunes on the eastern edge of the spit to prevent erosion and to manage the links area appropriately. Their actions were recognised with an award of the pan-European Committed to Green Environmental Excellence Certification. Thus environmental concerns are rarely raised in the town about the operation of the golf courses and the Links Trust is widely recognised as a positive environmental force in the town (Clarke 2007; Ferrier 2016). It is clearly in the interests, as well as the obligation of the Links Trust to maintain the sustainability of the environment of the courses, both because of their heritage significance and appeal to visitors and locals, and because of the duty of care embodied in the Trust’s legislation (HMG 1974). In terms of Briassoulis’ criteria of resource maintenance and use efficiency, the facilities at St Andrews are appropriately managed in terms of sustainability.

In terms of social and cultural criteria, golf facilities have been criticised as being exclusive, geared to non-residents, and sometimes causing a loss of amenity and resources from local residents (Briassoulis 2010; Neo and Savage 2002) The possibility of exclusion of local residents from golf courses does not occur in St Andrews. The public ownership of the land on which the courses lie, which was granted by royal decree in 1123 (St Andrews Links 2000), means that they are viewed as part of the town, and the public have general rights of access to them when tournaments are not being played. Traditionally the Old Course has been closed on Sundays except for certain tournaments and it is a popular area for tourists and residents to walk when there is no play. As well, as part of the arrangements made when the Links Trust was established, it was agreed that a number of starting times for the Old Course would be reserved for local residents, with them having priority over visitors. The numbers of these reserved slots has been reduced over time, to the frustration of some residents (Butler 2011), in part due to the establishment of agreements made with a commercial company to provide guaranteed playing times to paying visitors who purchase golf inclusive packages. Residents of the town have access to the courses at extremely low annual rates, so that while a round of golf on the Old Course currently (2018) costs £150 for a visitor, a town resident can obtain an annual ticket giving unlimited access to all courses for £550 without the additional cost of any membership fees. Those children under the age of sixteen who are resident in St Andrews can play most courses except the Old Course and Castle Course free of charge. These attributes compare well with Briassoulis’(2009) criteria of intra and intergenerational equity. As well, there is a driving range, a golf academy for teaching golf, and dining facilities open to the public adjoining the courses (Thorntons 2015).

The Links Trust, as a charity, is prevented from making a profit, and thus invests heavily in the upkeep of the courses and also in providing funds for other activities in the town through
contributions to the Common Good Fund of the town. There are a considerable number of competitions held on the courses during an average year, which imposes some restrictions on access for residents who are not involved in these competitions, although local golf clubs are involved in many of these. Some tournaments, such as the annual Dunhill Cup (an international competition for professionals and amateurs) attract considerable numbers of spectators and are generally free to watch except for the final day. Such tournaments, and particularly The Open, which attracts around a quarter of a million spectators over its four days of formal play, cause some inconvenience to town residents. The issues involved include restrictions on traffic movement, particularly on parking on streets in the town, and on pedestrian access to the courses and areas adjoining them. Road traffic and pedestrian congestion in the town itself, however, is limited to the north east segment of the town (particularly adjoining the starting and finishing holes of the Old Course) only. There is also some congestion on roads and rail services to the town during the week involved of The Open tournament, which occurs roughly every five years. However, the police and other agencies involved have well established patterns of control and management during these events, and a review of the local newspaper (St Andrews Citizen) over the periods prior to, during, and immediately following the past six Opens (1990, 1995, 2000, 2005, 2010 and 2015) has failed to find any criticism of the organisation or handling of the Open event. The livelihood efficiency and opportunity criteria are therefore met to an acceptable degree. There has been some criticism as to whether the town itself was in a suitable condition to host such events because of issues of access to public toilets, garbage collection and the general cleanliness and appearance of the town, but these criticisms apply equally to tourist visitation in general.

In economic terms there is little doubt that golf tourism has positive impacts upon St Andrews, as it does for Scotland as a whole (VisitScotland 2017). The town residents have access to what are frequently ranked as some of the best golf courses in the world at what are comparably very low prices and the town in general benefits financially from the contributions from the Links Trust. The Links Trust itself employs over three hundred permanent and part time staff, with many additional workers involved during a major tournament, such as The Open. The local media frequently records the economic expenditure of golf tourists in the town, particularly during The Open and other tournaments (Cameron 2016; St Andrews Citizen 2015, 2017). VisitScotland and other tourist agencies promote both Scotland and St Andrews as “the home of golf”, and the British Golf Museum adjoining the Royal and Ancient clubhouse is one of the top paid visitor attractions in Scotland, and has recently expanded its facilities to meet increased visitor and local demand. The town has six golf retailing outlets, including one (Auchterlonies) noted historically for club production and the majority of accommodation establishments acknowledge depending on golf tourists to maintain their economic viability (Bennett 2008). During The Open particularly, and some other major tournaments, upwards of a hundred residents rent out their properties to visitors (including competitors and media crews) at relatively high rates (£4000 to £7000 for a 4-bedroom house in 2015 for the two-week minimum rental period of The Open), both through authorised agencies and privately (personal communications). Other services, including taxis, retailers and entertainment offerings make considerable amounts of money during such events, and the hotel and restaurant enterprises are always fully booked (Ferrier 2014), with overspills going to surrounding small towns and villages and even as far as Dundee. At the time of writing (February 2018) rooms in St Andrews have already been booked by
spectators and others planning to attend the 2018 Open which will be held at Carnoustie (Argo 2016), a few miles north of Dundee (around 16 miles from St Andrews) in July 2018.

DISCUSSION AND CONCLUSION

Thus after examining the role of golf tourism through the traditional three “lens” of sustainable tourism, it is reasonable to conclude that golf tourism to St Andrews is positive for the town in all three areas, with few environmental issues, a number of positive social elements arising from the availability of golf facilities in the town, and very significant economic benefits derived from golf and golf tourism by the town and its residents. Issues of competition for playing times on the Old Course, congestion during major events and some restrictions on elements such as parking certainly occur but generate very little protest or complaints in the local media or in the political arena. Complaints about the attitude of the Links Trust over such items as it having gained legal rights to the name “St Andrews” and how it allocates some of its funds do arise but overall are infrequent and often very specific in nature, and do not pertain specifically to golf tourism. As to the question of the sustainability of St Andrews and whether golf tourism has supported the concept in the case of the town, the conclusion is that tourism in general and golf tourism in particular have played a major role in sustaining the viability of the town. St Andrews is clearly a special case in terms of the relationship between the town and its golf facilities; it is widely known as “the Home of Golf” and the management and ownership arrangements of its golf facilities are unique. Thus generalising from this one specific case to other communities is fraught with problems, particularly as the concept of sustainability is recognised as being place specific in terms of its application (Twining-Ward and Butler 2002). However, it is clear that golf tourism, while not always sustainable in any sense of the term, can play positive role in enabling communities to maintain their viability when it is appropriately integrated with community desires and preferences and other forms of tourism and general economic activity.

While St Andrews is experiencing the problems common to many urban centres in Great Britain such as disappearance of local shops, parking issues and the high cost of residential properties (St Andrews Citizen various dates), these problems are not due to tourism, but are both symptomatic of general British urban problems, and also, in the case of St Andrews, the existence of a very high rental market for accommodation for an increasing number of university students because of the expansion of the university and the attraction of the town as a retirement centre. Plans to improve public services at the two major beaches and a high level of maintenance of the ruins of the castle and cathedral and the other historic urban fabric generally reflect awareness of the importance of presenting an attractive and unique heritage destination to potential visitors. Despite its relatively poor location in terms of access by visitors, the history and geography of the town and its surrounding communities and their facilities (harbours, golf courses, distilleries, and beaches) combine to allow tourism to make a major contribution to the overall sustainability of the town. Golf tourism comprises a major part of the overall tourism activity in St Andrews and its existence as an element of town life for several centuries can be argued to support the conclusion that it is both sustainable in its own right, and contributes to the general well-being of the town. While specific elements of the tourism experience of visitors to St Andrews may not be sustainable, particularly as most tourists arrive entirely or partly by private transport, overall there is little doubt that tourism provides major support for the overall sustainability of the community of St Andrews.
REFERENCES


Cant, R.G. (1992) The University of St Andrews A Short History Oliver and Boyd: Edinburgh


Ferrier, M. (2014) St Andrews is full up for next year’s Open St Andrews Citizen p.31 October 7

Ferrier, M. (2016) Digging out the sand to dig in the dunes St Andrews Citizen p.3 February 19


Higham, J. (1999) Commentary-Sport as an Avenue of Tourism Development: An analysis of the Positive and Negative Impacts of Sport Tourism *Current Issues in Tourism* 2 (1) 82-90


IAGTO (2017) *IAGTO The Organisation* IAGTO: London


Links Trust (undated) Unpublished and untitled report on sustainability project.
Lopez-Bonilla, L.M., and Lopez-Bonilla, J.M. (2016) From the new environmental paradigm to the brief ecological paradigm: revised scale in golf tourism Anatolia 27 (2) 227-236


St Andrews Citizen (2015) The rain fell, the wind blew and the tills rang The story of the Open in St Andrews St Andrews Citizen p.6-7 24 July

St Andrews Citizen (2016) Scottish Golf Tourism Week St Andrews Citizen p.14 October 17


St Andrews Facts and Figures (2017) http://www.st-andrews.ac.uk/about/Factsandfigures/

Accessed October 2 2017
St Andrews Links (2000) *The most famous eighteen holes in the world*: Links Trust: St Andrews


Thorntons (2015) *A Celebration of the Open Championship and matters pertaining to the historic tournament, the game of golf and their links with the esteemed City (sic) of St Andrews in Scotland* Thorntons Law: St Andrews


| Environmental | Minor modification of landscape  
| Regular maintenance of courses  
| Natural fertilisers/pesticides | No major modification in last century  
| Retention and replanting of indigenous species  
| Local grass replacement  
| Local water supply with no issues  
| Dune rehabilitation and stabilisation  
| Continuous litter collection |
| Social | Some congestion in town during major tournaments  
| Old Course closed to walkers on Sundays during tournaments | Very low fees for locals, free for children  
| Provision of seven golf courses and related facilities open to residents  
| Priority starting places for locals  
| Safeguarding of St Andrews name  
| Civic pride as Home of Golf |
| Economic | Slight increase in some prices during major tournaments | Major economic benefit through tourist expenditures on play and spectating  
| Local employment, full and part-time  
| Rental possibilities for local residents  
| Wider range of retail and service establishments than would be expected for size of town |

Table 1 Major Impacts of Golf Tourism on St Andrews