Managing temporal variations at visitor attractions

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Chapter 12

Managing Temporal Variation at Visitor Attractions

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Aims

The aims of this chapter are to:

- Review concepts and components of temporal variation in tourism demand and their application to visitor attractions.
- Examine the operational implications of temporal variation to visitor attractions.
- Highlight a range of attraction management responses to temporal variation and the expectations of visitors.

Introduction

The economic and symbolic importance of visitor attractions in local, regional, and national destination area economies has been well documented over time (Connell and Page, 2015; Donoghue, 2020; Swarbrooke, 2002; Wanhill, 1998). Primary flagship attractions such as the Guggenheim Museum Bilbao, the Taj Mahal in Agra, and Machu Picchu, Peru, represent both iconic and significant economic draws to the immediate attraction locality and to a much wider hinterland. Attractions influence visitor flows and hence destination-pull elements in rural destinations (Paulino, Prats, and Whalley 2020). Their ability to underpin tourism-dependent businesses and supply chains in remote locations has been documented (Robinson and Murray, 2017).

Many attractions include all-weather facilities and attract increasingly diverse markets, generating market demand throughout their daily, weekly and annual hours of operation. Theme parks and other large-scale commercial attractions are generally geared to all-year, all-weather activity that enables them to utilise their resources evenly for 12 months, seven days a week. This does not, however, represent most of the world's visitor attractions, especially those away from large cities and in cool, temperate, geographically peripheral locations. Temporal variation, through imbalances in demand and supply, remains endemic in the visitor attraction

sector, despite evolution in the growth and nature of tourism across the world during the past decades (Connell, Page and Meyer, 2015).

Visitor attractions are typically at the mercy of the seasonal and periodic nature of market forces, which can manifest in predictable or sometimes chaotic demand patterns during the course of an operating day, week, month, or year. They can collectively and sometimes individually contribute to, reinforce, or combat patterns of demand disparity in a tourism destination, especially where major attractions, or clusters of attractions, play a key role in promoting and sustaining their destination.

There are a growing range of options to attractions to assist them to respond to temporal challenges. It is within these contexts that this chapter explores the implications of temporal variation in tourism and, specifically, to visitor attractions. Before exploring such relationships and options, it is pertinent to consider the meaning and parameters of 'temporal variation'.

Understanding temporal variation in tourism

Historically, the term 'seasonality' has been used as shorthand to convey the peaks and troughs of temporal imbalances in tourism, particularly from a visitor-demand perspective. Visitor attractions face operational challenges that are more complex than responding to such 'seasonal' variations. The resource inventory and space of commercially operated permanent attractions is *temporally perishable* throughout the operating day, from day to day and across the spectrum of weeks, months, and 'seasons' (Pender and Sharpley, 2005). This differs from many other core touristic services, such as overnight guest accommodation, aviation, or coach day-trip tours, where 'perishability' is usually associated with a single, specific point in time, such as an unfilled aircraft seat at the point of flight departure.

For many attraction operators, moreover, the disparity in demand between quiet and peak visitation periods can generate external (e.g. local community) costs as well as internal costs arising from variable service operation. Temporally concentrated demand patterns and trading periods, irrespective of the timescale, do not provide optimal economic conditions for attractions with high fixed costs (Wanhill, 1998).

For the purposes of this study, temporal variation is deconstructed into 'seasonality', implying demand pattern variations over a relatively long period, e.g. months or quarters, and short-term 'periodic' variation, implying daily and weekly variations.

'Seasonality' defined

Seasonality pre-dates the mass movement of people for leisure purposes and the growth of service providers to serve their needs. Short-term mass movements of pilgrimages to prominent places of worship have been apparent for centuries, giving rise to periodic demand peaks, supply shortages (in accommodation and transport capacity) and visitor management issues. European mass leisure travel since the nineteenth century has significantly developed around distinct 'seasonal' activities such as coastal summer tourism and winter sports tourism. From the second

half of the twentieth century, inclusive tours from northern Europe to Mediterranean seaside destinations developed as distinct 'summer' and 'winter' operations.

Seasonality is a pattern of movements in a time series during a particular time of year that recurs annually (Frechtling, 2001). Bar On (1999: 437) emphasises that these recurrences have '*more or less the same timing and magnitude*'. 'Seasonality' in a tourism context is therefore usually understood to refer to market-derived temporal imbalances, whereby *months* are taken as the standard seasonal unit of measurement (Duro and Turrión-Prats, 2019). Grant, Human and Le Pelley (1997) refer to the peaks and troughs of visitor numbers during a calendar year, while Butler's (2001: 5) definition of 'seasonality' is broader:

> '*[a] temporal imbalance … 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 transportation, employment and admissions to attractions*'.

Public authorities often present tourism seasonality data as monthly trip or occupancy data aggregated to three-monthly (i.e. quarterly) periods. This simplifies the task of year-on-year trend analysis. Figure 12.1 depicts WTO international visitor arrival seasonality data for five leading destination countries for 2019. Disparities, in terms of monthly share of annual arrivals, illustrate the extent of temporal variation. In this example, China exhibited the least seasonal disparity across the year.

** Figure 12.1 here **

However, presentation of seasonal tourism data in such formats may misrepresent individual visitor attraction operators whose market performance varies significantly from the destination, regional, or national norms within any given month or quarter of the year. For example, local attractions may host exhibitions or activities at non-peak times of the year which draw in significant income and visitor numbers from their locality but which do not represent visitor arrival patterns recorded at national (or regional) levels.

Moreover, terminologies applied to seasonality are inherently vague. The term 'shoulder' period is used extensively in tourism to denote a period of time linking 'peak' demand and periods of least demand (Beaver, 2005), although there is often little evidence of what the characteristics of the 'shoulder period' are. Similar vagueness applies to the terms 'off peak', 'high season', 'mid-season', and 'low season'. This can be significant, given the market peculiarities of individual attractions, since public agency interventions or destination-wide collaborative initiatives invariably promote seasonal extension policies, 'low-season' market growth and seasonal employment. The 'twin peaks', 'multi-peaking', 'plateau' or 'non-peak' characteristics of demand (Butler and Mao, 1997; Chen and Pearce, 2012) may even render concepts of 'shoulder' or 'low season' obsolete in some locations.

Seasonality is thus generally understood to be a demand-driven phenomenon in which the vagaries of the market dictate opening and closing patterns of businesses and facilities and the

levels of service provided at certain times of the year. However, a reliance on demand patterns and characteristics to explain seasonality is an oversimplification. In addition to demand-led market forces, factors that collectively influence the seasonal nature of tourism to a location and its attractions include a range of underlying *causal factors* over which attractions have limited or no control:

- Institutional: relates to holidays (e.g. national holidays, religious festivals, bank holidays, labour days) and academic-year structures (school term times, half terms). In 2020, the Coronavirus pandemic was a major cause of temporal variation, through the sanctioned closure of visitor attractions at various times during the year in many places. This signalled government enforced temporal restrictions on business operations and on travelling, as an additional 'institutional' factor.

- Climate and weather: arguably the most pervasive influences on visitor movements, more widely. They act as both 'pull' and 'push' influences on visitation patterns. Hurricane and tropical storm 'seasons', for example, dictate travel patterns to the Caribbean, southern USA, parts of east Asia and the Indian Ocean region, and cause business shut-downs during severe weather. The Tourism Climatic Index includes temperatures, humidity, precipitation, sunshine and wind speed as elements influencing travel patterns (Amelung, Nicholls, and Viner, 2007).

- Localised supply-side factors such as local labour availability, planning constraints, transport access.

- Evolving patterns of work-life balance increasingly impact upon temporal patterns in visitation.

- Where attractions are managed as part of a corporate 'estate' (such as the National Trust properties in the UK), decisions on opening and closure may be taken centrally and remotely, off-site.

- Wider community and resource implications, such as the role of local stakeholders in determining facility use across the year; and of environmental constraints and policy: for example, seasonal closure (conservation/community recovery) or spreading demand and facility use across the year to accommodate local stakeholders.

Figure 12.2 illustrates the inter-connectedness of determinants and influences on seasonal patterns.

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Periodicity

Temporal imbalance needs to be recognised as being more than a 'seasonal' effect. Apart from seasonality, it is important to consider the implications of short-term periodic temporal variation (Bar On, 1999; Su and Wall, 2016) that have a more immediate impact on the day-to-day operations of attractions.

The phenomenon of *monthly fluctuation* in tourism is inherently predictable (Frechtling, 2001). However, unusual or *ad hoc* events not occurring annually, such as the ten-yearly Oberammergau Passion Play, hosting Olympics, localised one-off events or special temporary 'flagship' exhibitions in museums and galleries – these will distort the temporal balance of tourism in the host locations. Furthermore, *calendar effects*, such as the number of weekends in a month and movable festivals such as Easter, will also distort short-term periodic performance, as measured by weekly and monthly visitor arrivals in attractions. Other short-term irregularities such as a demand-surge following the opening of a new facility also impact on visitor numbers and revenue.

Contrarily, the relevance of 'periodic' fluctuations within the wider context of seasonality is rejected by Getz and Nilsson (2004), who suggest that the effect of 'seasonality' during a calendar year must be differentiated from short-term changes arising from daily and weekly patterns. The inclusion of periodic variation relating to shorter-term fluctuations in demand, such as within the course of a day, from day to day or weekday to weekend variations, is still far from widespread under the umbrella of temporal performance imbalances in tourism analysis.

A study by Su and Wall (2016), of visitor patterns by local residents, domestic and international tourists to a World Heritage site in Beijing, emphasised the importance of attractions differentiating periodic visitation patterns by different market segments. The study revealed that local visitors generally arrived earlier in the morning and also later in the afternoon than other visitors, in order to avoid the crowds. Local residents' spatial use patterns, dwell times, interactions, and visitor experience perceptions likewise varied from visitors from further afield. With such intelligence, attraction managers can understand better the significance of periodic/diurnal variations and act upon any visitor experience issues for the different segments.

Periodic patterns of tourism activity such as traffic flows, visitor numbers, and throughput at destinations, are generally less stable than seasonal patterns. While the concept of a 'high' and 'low' season for an operator may be seemingly unrelated to fluctuations in business during a day or between two consecutive days in a week, such fluctuations may form part of a more definable longer-term cyclical pattern of temporal variation (Lundtorp, 2001). It is also acknowledged that many small tourism amenities in seasonal operating environments experience periods of intense daily work patterns during peak seasons (Getz, Carlsen, and Morrison, 2004). For independent proprietors, this may impact on their trading behaviours and operating decisions at other times, especially the desire for periodic rest and relaxation (Goulding, 2006; Connell and Page 2015). Figure 12.3 provides an illustrative summary of temporal variation.

** Figure 12.3 here **

Since 2020, societal changes during the Coronavirus pandemic have been generating new opportunities for attractions regarding periodic visitation patterns. Attractions consumer research company BVA-BDRC (2020) has noted two key trends:

- '*Rescuing the home workers*'**:** an increase in people working from home is resulting in *more flexibility in working patterns*. People want to explore their local area more and visit attractions during their working hours or in lieu of commuting. Visitation patterns to large museums and galleries are changing and more workers are visiting between 9am and 5pm or between 5pm and 7pm (typically commuting time).

- '*Locking-in the locals'*: Related to the first opportunity, home workers may choose to visit attractions to escape their home working environment during quieter working weekdays to recharge and engage in different, non-work activities. People who are facing financial challenges due to the pandemic also need to be considered.

Knowledge of periodic visitation patterns therefore contributes to an understanding of temporal cycles in tourism that may be distinct from longer term patterns of *seasonality*.

Operational implications of seasonality for visitor attractions

Irrespective of the forms, causes or manifestations of temporal variation, the phenomenon gives rise to several fundamental challenges for attraction operators. Two key ones are labour-force-related and capacity-utilisation issues.

Labour-force issues

A highly seasonal tourism market can create instabilities in a local destination's labour market, especially, as previously noted, in tourism-dependent rural or peripheral locations or where the visitor base is restricted in terms of visitor type. In a study of tourism in peripheral regions of northern Europe and maritime Canada, Baum and Hagen (1999) noted the negative impact on the quality of service delivery caused by the short tourism season, which subsequently reduced the competitive edge of the amenities and visitor attractions in those places. In a study of seasonal employment in tourism in southern and eastern Europe, Rahimić, Črnjar, and Čikeš (2016) identified several management challenges which mirrored the situation in the northern peripheral regions, indicating the pervasiveness of the human resource challenges posed by seasonality.

Recruitment of staff

The recruitment costs to a seasonal attraction of hiring staff for relatively short operating periods (for example May-September operating periods) can be disproportionate compared with recruiting staff working all year. Short working seasons are also seen to inhibit the development of progressive remuneration packages for those employees. Furthermore, short

seasonal working contracts may limit the pool of local labour willing and able to undertake such work. In the case of the Swedish island of Gotland, Baum and Hagen (1999) noted a dependence of visitor attraction operators on school and university students to fill vacancies. The end of the island's tourism season is therefore determined as much by the 'flight of seasonal labour' at the start of the academic year (mid- August) as by consumer demand.

Attractions featuring specialist craft skills (for example at industrial heritage attractions) that authenticate the visitor experience, may find such skills in short supply within the local workforce. Faced with seasonal employment offers, people with such skills may take up permanent posts elsewhere rather than seasonal or temporary ones locally (Deery and Jago,2001, Rahimić et al., 2016).

Cost of training and development

Given that training and development activities are spread over a shorter timespan in attractions operating part-year, operators may be less willing to invest in training and development for their seasonal staff, particularly where the work pattern is predominantly part time. In the UK, the Association of Scottish Visitor Attractions (ASVA) and the Association of Leading Visitor Attractions (ALVA) encourage their members to demonstrate commitment to raising service quality through extending training opportunities to all staff, both seasonal and permanent.

Commitment of seasonal workers to the operation

While a proportion of the salaried labour force will prefer short-term full- or part-time contracts, for other job starters there remains an issue of commitment to the organisation. Faced with competition from other sectors offering the prospect of more permanent employment opportunities, seasonal attractions may have to carry the costs of relatively high staff turnover rates. Seasonality inhibits staff retention among attraction operators, however limited comparative research has been done into the retention and turnover of seasonal staff in this sector. According to Rahimic et al. (2016), retention and loyalty strategies include instigating policies to increase employee recognition, opening up promotional opportunities to short-term staff, improving the integration of new employees through mentorship programmes and working with other businesses to assist employees to find alternative work at the end of the operating season.

Volunteer staff

Heritage attractions, particularly those operated by membership organisations often rely considerably on volunteer staff. As volunteering has become increasingly recognised as important to individuals' personal development and life experiences, so too has the range of volunteering roles in many visitor attractions (Smithson, Rowley, and Fullmore., 2018). Volunteer participation can be classified as 'episodic' (i.e. 'as and when required'), ongoing (e.g. for a short time duration), or fully seasonal (i.e. for the duration of the season) (Holmes and Smith, 2012). Accordingly, seasonal attractions relying on such staff may increasingly find

themselves addressing issues around volunteer management and development to ensure their commitment to return the following season. Retaining volunteer staff from year to year is intrinsically uncertain. In their study of a large heritage attraction in England (Dunham Massey estate) managed by the National Trust, Smithson *et al*. (2018) reported on a successful retention strategy in which volunteers experienced a structured 'values-based' training programme, socialising and networking opportunities, and community-building activities, as well as ongoing out-of-season communications: measures which served to increase volunteer engagement, commitment and retention.

Capacity utilisation

Although 'problems' associated with temporal imbalances are often considered in terms of under-utilisation, demand-peaking can be just as problematic for visitor attractions. Indeed, extreme demand-peaking, where visitor numbers approach or exceed an attraction's natural carrying capacity, is recognised as a characteristic of 'overtourism' (Milano, Cheer, and Novelli, 2019). Symptoms of peak period over-utilisation include:

- Congestion, including overflowing car and coach parks, on-site traffic congestion, visitor bottlenecking and pressure on onsite facilities such as washrooms. An example of this is Stonehenge and Avebury in England. Around one third of this site is owned and managed by three conservation organisations. The impact of roads, traffic and visitor flows during the summer peak months of July and August (which comprise a significant proportion of annual visitor arrivals) are major challenges in managing this site. *(Please refer to the chapter on Managing Visitor Impacts for a more extended discussion of impacts more generally)*.

- Diminished visitor satisfaction from the peak-time experience: excess queuing, limited dwell time in popular areas, limited access to guides or other on-site staff, diminished service in retail or catering units, and limited access to toilets and childcare facilities, all contribute to lower satisfaction levels.

- Heightened wear and tear on the core resource and its ancillary infrastructures, including degradation of the physical fabric of buildings, exhibits, furnishings, gardens and parkland attributable to the volume of visitor throughput. This may be compounded if visitor management and control is poor during peak times.

- Externalities (community costs) including off-site parking, grass verge degradation, traffic congestion and resultant costs of extra traffic management to the local community; increased levels of litter and noise.

Visitor attractions can employ a range of supply-rationing methods to overcome capacity constraints during periods of peak demand. Most typically these include queue management, cordoning car parking and limiting access once carrying capacity is reached. A growing trend the world over, during the past decade has been for popular large attractions to introduce timed

ticketing to smooth demand peaks. Effective queue management has become even more important during pandemic times. Sites need to implement physical distancing measures at their entrance points, retail and catering facilities (DCMS, 2020). The requirement to book entrance tickets in advance has helped sites to better predict queues and manage them accordingly.

On the other hand, temporal under-utilisation remains a bigger issue for many attractions, particularly in shoulder and low seasons and at periodic points. Characteristics of under-utilisation include:

- Perishability of the unit of production:
    - The physical design and structure of attractions mean that most are relatively inflexible in adapting to lower scales of operation during quiet periods. Closure of rooms within historic houses or parts of museums or galleries, for example, may have little impact on lowering variable costs but risks lowering visitor satisfaction.
    - Few visitors during certain times of the day or during lean operating months equates to under-achievement of revenue-earning potential.
    - Low temporal demand or periodic closure in core attractions render ancillary revenue generating components perishable (for example on-site catering, garden centres). There is a clearly defined inventory in cost and revenue generating terms in many attractions (e.g. theme park rides, special exhibitions), the contributions of which can be temporally measured.
- Cashflow, revenue and profit contribution are concentrated into a short operating period and must subsidise fixed costs over the full financial year. Hence, operating seasonal closures or restricted opening patterns during parts of the year can reduce variable costs such as staffing and stock levels.
- Idle space, equipment and under-utilised staff during the operating period, where the attraction is operating below its fixed capacity to produce, carry opportunity costs. Finding alternative productive uses for such resources may mitigate this.
- Capital investment: the income-concentrating effect of temporal variation can deter capital investment in tourism infrastructures and at destinations generally. For private- sector attraction operators, shorter seasons mean greater risks in recouping investment costs and longer payback time.

In the increasingly competitive national and international marketplace for leisure, overcoming the issues outlined above requires ever more resourceful and imaginative measures. A selection

of management responses to temporal variation for visitor attractions is discussed in the next section.

Management responses to temporal variation

It must be acknowledged from the outset that the need or case for 'solving' or 'overcoming' temporal imbalances is not universally accepted, especially for nature-based attractions. Indeed, there are arguments that endorse maintaining periodic and seasonal market conditions, including periods of closure to visitors. Attractions serve a variety of purposes and may have diverse stakeholders, whose view of commercial optimisation may differ according to their cause or interest. Mathieson and Wall (1982) were among the first to advocate the cause for dormant periods being necessary for the recovery of social and ecologically fragile environments, many of which may be heritage-based resources. Clearly, temporal operation may be necessitated where a nature-based attraction is built around a natural cycle such as breeding.

However, the sustainability debate has swung strongly towards 'managing' temporality through adaptation to seasons and periodic variations. In their study of operators on the Danish island of Bornholm, Getz and Nilsson (2004) observed three types of operator response to 'dealing with' extended periods of low demand. These include 'capitulating' to the condition, which can lead to business failure; adopting 'coping' strategies, which concerns accepting prevailing temporal conditions, but adapting to them; or more positively, adopting 'combating' behaviours, tactics and strategies to actively reduce demand disparities and operating levels.

'Coping' with temporal variation

This approach suggests that attraction operators may either maintain the operational *status quo* or concentrate their efforts on redeploying resources more efficiently. This could involve either devoting more effort to tackling visitor management issues in peak periods, while maintaining services in low seasons or quiet times, or attempting to *shift demand* within existing peak periods. Strategies include:

- Extending daily opening and/or closing times.
- Negotiating with tour groups and coach parties to vary arrival and dwell times as appropriate.
- Incentivising such arrival shifts through pricing, promotional packaging, parking tariffs.
- Instigating pre-booking systems for peak periods.

During 2020, for example, Blackpool Pleasure Beach, one of England's most visited commercial attractions, extended its seasonal closure from early November until mid-December at

weekends. Throughout the year, it also organised a series of Late Night Ride events, with rides opening until 10pm. The Association of Leading Visitor Attractions reported that during 2020, in response to temporary closures during the pandemic, some of their members extended their operating seasons until the autumn. In response to the restrictions imposed by the pandemic, pre-booking entry to attractions has become the norm (BVA-BDRC, 2020). This allows attractions to monitor patterns of visitor demand over the course of a day or longer, and to better manage peaks and troughs in demand. However, advance booking requires a change in booking habits for some and may result in more spontaneous visitors missing out because they have not planned ahead.

Another 'coping' approach is to optimise the use of the 'low season', quiet days, early mornings or late afternoons, or non-trading periods, as appropriate, for maintenance and repair tasks, attending trade fairs, or other forms of business networking, training, business planning, marketing, inventorising, or recuperation (Goulding, 2006; Connell *et al*., 2016).

'Combatting' temporal variation

Here, a more strategic view of the attraction's purpose and mission guide its approach to optimising the temporal utilisation of its resources. While maximising revenue and income opportunities will be paramount for commercial attractions, a more diversified approach, including embracing community, social and environmental objectives may be key to addressing temporal rebalancing. A number of 'tactical' approaches may be embedded into a more strategic 'refocusing'.

Market diversification

Market diversification can be a key combatting response. As an example, The Scotch Whisky Experience (formerly Scotch Whisky Heritage Centre) in Edinburgh successfully developed lucrative corporate hospitality, meetings and small functions markets. Initially on the back of its core attraction, these have become self-sustaining and separate markets in their own right. Participation in 'Heritage Open Days' in September, 'Open Garden Days' and similar schemes, can extend secondary revenue generation (e.g. through merchandise, retail spend) beyond peak periods. Space management strategies can be used to help diversity markets and fill low-use times: for example, hosting weddings and private family events.

Investment in facilities, interpretation and service

To achieve the above market diversification, the Scotch Whisky Experience converted office space into prestigious meetings rooms. A further investment phase established a restaurant and whisky bar, extending the facility to an evening market. Recently created Gulliver's Valley Theme Park Resort in the Rother Valley, Yorkshire, has invested in on-site accommodation, following the trend of primary theme parks such as Alton Towers, Disney and Legoland to become 'resorts'. Much of the Gulliver's Valley site has been developed under cover to mitigate climate and weather constraints, so that it can open all year round.

Product extension and events

Most attractions have the capacity to host special events to supplement their core product, appropriate to their scale and nature. For example, historic houses stage *ad hoc* events where space permits, such as seasonally themed horticultural shows, classic vehicle rallies, food and drink demonstrations, craft fairs, antiques fairs and, farmers' markets. Such events utilise otherwise unemployed ground space that can be sub-let for commercial activities. Many seasonally operating historic houses and industrial heritage sites across the UK use the winter and early spring 'down time' for non-touristic revenue-generating activities, such as promoting themselves as film locations, hosting seminars and extended corporate hospitality events. The National Trust has various venues which are used as film locations. As examples, The Secret Garden was filmed at NT venues including Fountains Abbey (North Yorkshire), Bodnant Garden (North Wales) and Osterley Park (London).

Museums, galleries and themed commercial attractions can develop educational and community events to coincide with otherwise quiet periods, around the school curriculum or with local businesses, media and charities, for example hosting fundraising activities. Product-extension initiatives in quiet periods may focus on the non-core features of the attraction, for example retailing and food/beverage provision, where these are seen as independently viable revenue centres.

Connell et al.'s (2015) study of events in Scottish visitor attractions focused largely on heritage attractions that opened during the 'off-season' period, either on a partially reduced basis (limited hours, limited days, or a combination of both) or were open all year without temporal variation. They found that most attractions have embraced events as a form of product extension to balance temporal variations. The principal reasons for attractions' off-season opening included**:**

- An acknowledgment of the role of attractions in stimulating the local or destination economy in 'low-season' periods, to sustain a critical mass of open visitor amenities and hence an incentive for visitors to dwell in the local destination area.

- An obligation to the local community, where a significant element of the visitor base was local. For example, supporting school visits in term time, where the attraction is deemed to be an educational resource.

- For membership organisations (such as the National Trust for Scotland), off-season opening represents an obligation to deliver a service to supporters, i.e. extended opening adds value to the benefits of being an NTS supporter.

Pricing

Temporally based dynamic pricing, as widely employed by transport operators, remains a relatively under-utilised tool among attraction operators, especially for small independent operators. This is particularly so with seasonal pricing differentiation. Customers' perception of value for money is known to be an issue here (Wanhill 1998), resulting in many attraction operators keeping seasonal price differentiation narrow, while concentrating instead on offering additional product benefits in non-peak periods. For example, entry to temporary exhibitions or craft demonstrations can be included in the gate price in shoulder or low season periods or during quiet periods during the week. Though the cost structures of most attractions reflect high fixed to variable cost relationships, there is scope for attractions operators to be more responsive to temporal revenue contributions.

'Periodic' pricing is increasingly employed as a reward for early morning or late afternoon arrival during quieter periods of the year, to encourage greater spread in visitor flows. However, where time differentiated pricing is used, the main objective is often to shift existing demand away from peaks rather than to create additional off-peak demand. Walt Disney World introduced 'late entry' ticketing in 2019 to encourage such temporal rebalancing towards the afternoons.

To survive the challenges arising in recent years from the policy of free entry to prominent museums in public ownership in some countries, commercial operators will have to employ ever more creative temporal pricing policies designed not simply to meet fixed cost contributions or other financial targets, but as importantly to encourage repeat visitation and customer loyalty in the longer term. Annual passes to encourage repeat visits throughout the year are increasingly used by some attractions to engender loyalty, Salisbury Cathedral and Bletchley Park being two diverse examples.

Time constrained '*flash sale*' pricing is one option used extensively in other touristic service sectors that can appeal particularly to local, spontaneous and time-rich market segments, but little used by visitor attractions. Legoland Windsor and the cities of Bath and Bristol's cultural venues have used 24-hour notice 'flash sales' to boost sales in low demand periods.

Attractions as diverse as Salisbury Cathedral and Kiplin Hall (a historic house in North Yorkshire, UK) have changed their ticketing models from 'one-time only' tickets to annual passes. These passes provide visitors with free repeat visits, and also encourage visits throughout the year. They also 'lock -in' visitors who are motivated to experience attractions but have limited financial resources.

Collective responses

Partnering with community groups, charities, educational establishments, environmental and sports organisations to promote public health and wellbeing through access to attractions' grounds and facilities is a way of addressing periodic under-utilisation of their resources. Recently there has been a growth in such activities in response to growing public health agendas, particularly where attractions provide an alternative 'public space'.

In parts of the UK, the National Trust holds weekly park runs (in non-pandemic times) at 25 of their venues. These are organised in partnership with Parkrun UK. The Trust10 initiative is a national programme of free 10km trail runs at different National Trust venues, which take place early in the morning when the grounds are closed to the public. Although these events do not directly generate income for the Trust, runners often spend money in the cafes after their run. Partnering with Cotswold Outdoor, the National Trust also offers a programme of Night Run events during the autumn and winter. These fee-charging seasonal events help to support conservation work at different NT locations.

Numerous collective response channels are available to visitor attractions to mitigate the effects of temporal variation. 'Multi-attraction explorer pass' initiatives depend on attractions buying-in to the schemes. Their appeal for operators lies in the expectation that pass subscribers will spread temporal visitation. However, participation in such initiatives may result in exacerbating existing demand patterns if they succeed in generating more business at peak times. Accordingly, attraction operators need to be mindful of their main priorities between generalised or temporally targeted demand generation.

While the shoulder or low seasons may offer a natural 'space' for collaboration compared with the peak season, commercial sensitivities can limit their effectiveness. For example, collective seasonal extension pricing promotions by locally competing attraction operators can be a double-edged sword. Fyall, Leask, and Garrod (2001) noted the reluctance of larger, higher profile attractions to engage in off-season joint ticketing initiatives, when the risk of reduced dwell time and secondary expenditure by visitors has a greater impact than in peak season periods.

Finally, the role of governments and their public-sector agencies must be considered as part of the overall management response to temporal variation in tourism, which has been seen as a symptom of market failure and as such forms the rationale for government agency intervention. The issue has been addressed in a wide range of public policy issues beyond direct tourism initiatives, including proposals to stagger academic holidays, rural development and transport policy. Table 12.1 identifies a range of public sector as well as attraction specific (supply-side) responses to seasonality.

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Conclusions

This chapter has demonstrated that for visitor attractions operators, temporal variation in demand and supply can be deconstructed into temporal components of 'seasonality' and short-term periodic variation. Temporal variation should be treated as a broad and complex phenomenon, rather than seen purely in terms of fluctuations in visitor numbers or spend. As demonstrated, it encompasses a variety of perspectives beyond the immediacy of the marketplace. For attraction operators, these perspectives raise many issues in identifying and possibly influencing the wider causes of temporal imbalances; in managing visitor demand and

acknowledging the destination-based impacts of seasonality, as well as those specific to the individual attraction. However, 'coping' strategies may be as appropriate in 'living with' temporal imbalance as the need to 'combat' temporal variation. Some causal factors, such as climatic conditions and seasonal daylight hours are clearly beyond the control of tourism attractions. However, attractions can capitalise on short days or inclement weather.

Moreover, they are not powerless to extend the temporal basis of the operations, even if a 12-month operating season or a seven-day operating week remains unrealistic. Attractions in or close to urban areas may be best placed to take advantage of wider markets and the 'honey-pot' effect of visitor attraction clusters. Nevertheless, all attractions can benefit from considering their responses tactically or strategically, or indeed by accepting or adapting to temporal 'down time' in a proactive way in which the centrality of managing realistic visitor expectations is paramount.

Self-test questions

1. What distinguishes 'seasonality' from 'periodicity' as components of temporal imbalance?

2. How and why might the seasonal pattern of visitation to a destination differ from that to an attraction within that destination? Think of examples to illustrate your answer.

3. How does temporal variation contribute to 'perishability' of an attraction's resources?

4. 'Causal factors' of temporal imbalance are many and varied. Thinking of (i) climate and weather factors, and (ii) 'institutional' factors, what examples of either can you think of that affect visitation patterns to attractions in your own locality?

5. What approaches can a small independent attraction (with limited resources) take to shift demand from its peak visit times to less busy times during the day and week?

6. How might a small attraction engage with external stakeholders to develop a 'combative' strategy to reduce the effects of temporal variance?

Student projects

Make a list of all the public holidays, religious and cultural festival days and periods that occur during the course of a year in your country. How spread out are they?

Now research a selection of visitor attractions online and check how, if at all, they respond to those holiday and festival periods. Do they close or restrict their operating times on those days?

Do they use the public holidays and festivals as opportunities for attracting visitors through themed events, activities, etc? If so, how?

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Figure 12.1: Seasonal distribution of international visitor arrivals to five major destination Countries in 2019
Source: WTO (2020)

Demand-oriented factors

Market characteristics: temporal characteristics of existing market sectors by volume and value
Consumer intelligence: travel-timing characteristics, trip decisions, motivational research, work-life balance changes, destination image analysis, additional holiday/break analysis
Development of market segment profiles by temporal flexibility
Consumer responsiveness to temporal marketing and the development of season-extending new products

Causal factor analysis

Natural influences:

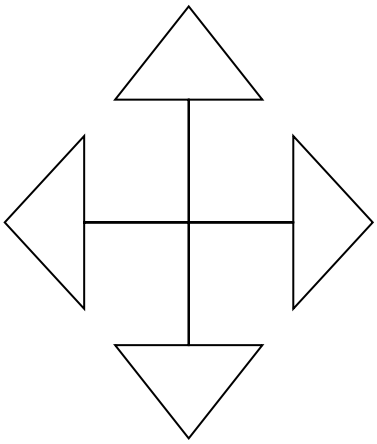
- *climatic* variables at point of trip generation and destination
- *spatia*l attributes (remoteness, access, distance)

Institutional influences:

- public holidays, government interventions on travel, religious festivals, calendar effects, holiday entitlement, tax year, business customs

Socio-cultural factors:

- inertia/habit/mind-set
- fashionableness
- social necessity
- working from home



Resource Implications

'**Over-tourism' induced environmental factors**:

- overuse/degradation of natural resource in peak season
- degradation of physical resource in peak season

Resource competition:

- demands of other seasonal economic activities on labour force, land, capital

Socio-cultural factors:

- community recovery
- tourism versus socio-cultural conflicts, e.g. religious observance in peak seasons

Supply-driven perspectives

Capacity limitations: destination carrying capacity, fixed on-site capacity, transport access and capacity
Operating decisions: e.g. corporate opening/closure policies (heritage attraction agencies, local authorities);
marginal cost/revenue relationships; threshold cost/revenue targets; utilisation thresholds

Labour force: availability, training needs, flexibility

'**Lifestyle' or 'hobby' businesses** - not necessarily profit/target-driven

Figure 12: Perspectives of tourism seasonality
Source: Authors

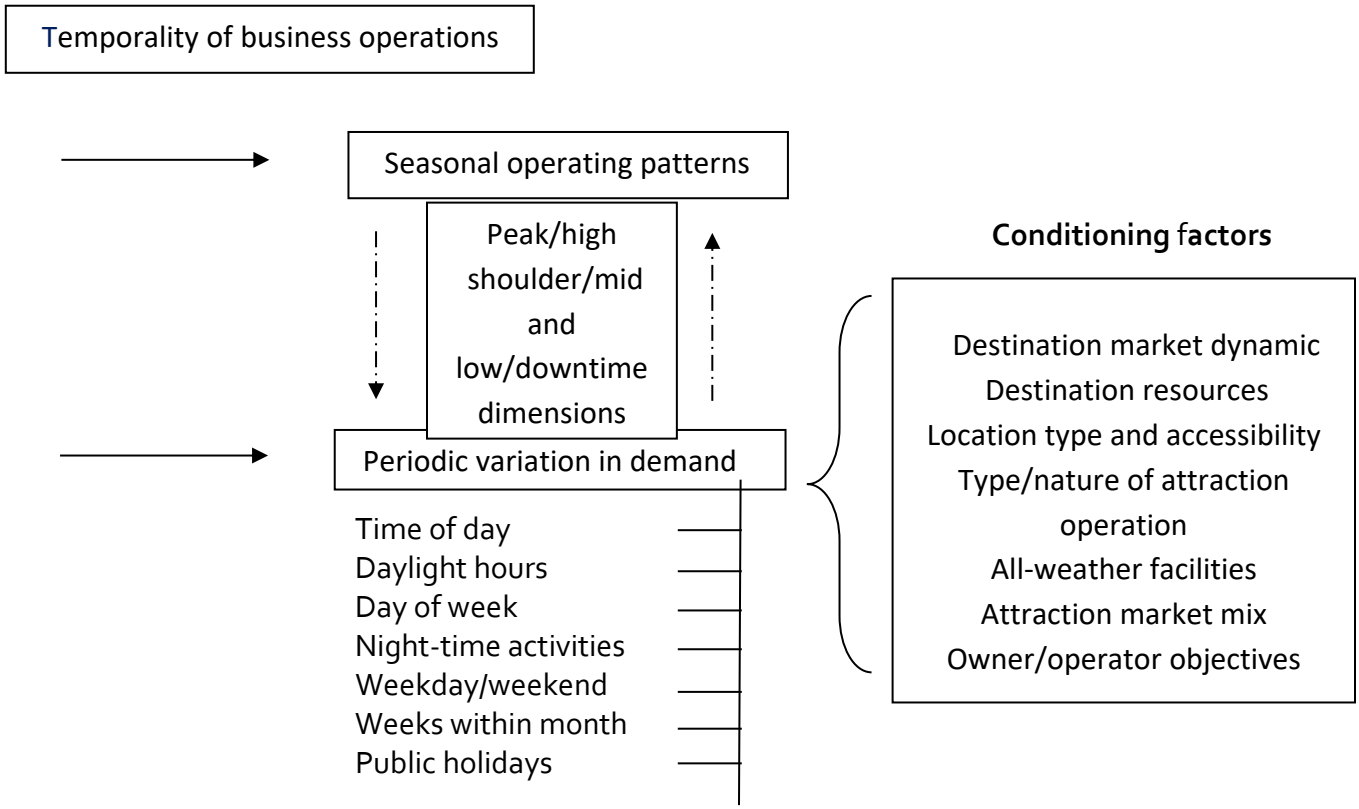


Figure 12.3: Conceptual framework of temporality for visitor attractions
Source: Authors:

Table 12.1: Supply-side strategies for coping with or combating temporal variation

Attraction responses	**Public policy responses**
'Combat' responses: Adoption of temporal extension strategies and practices: - Year-round opening - Extended hours/days of opening - Temporal pricing - Market diversification, e.g. educational trips, local communities - Product extension/diversification - Events strategy - Promotional activities (quiet period awareness raising) - Participate in collective promotions and business networks (e.g. destination marketing initiatives, travel trade incentive visits)	*'Combat' responses: Adoption of temporal extension policies and practices:* - Fiscal incentives - Labour force incentives, e.g. training initiatives - Staggering of school holidays - Business support services geared to seasonal extension, e.g. marketing, financial advice - Creation, support or participation in seasonal extension programmes (e.g. events strategies) - Weather-friendly planning policies (e.g. towards wet weather facilities)
Acceptance of/coping with temporal disparities: - Offer reduced capacity in line with resource limitation (e.g. reduced staffing level) - Lower service level, e.g. part closure of non-essential amenities - Full seasonal closure of all facilities - Temporary closure (e.g. during lowest revenue periods) - Restrict opening/closing times - Use downtime for maintenance, repair and upgrading work - Manage customer expectations	*Acceptance of/coping with temporal disparities:* - Environmental regeneration initiatives - Infrastructural repairs, road repairs etc during low seasons and non-event periods - Focus business support on high season initiatives - Support off-season community initiatives (e.g. local arts festivals)

Source: Authors