

Part 3: Event operations and logistics



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Disclaimer:

These notes are adapted from the University of Cape Town and GetSmarter's course notes for Module 2 of the Events Management elective offered as part of the blended version of the UCT Postgraduate Diploma in Management and Marketing.

Learning Outcome:

LO4: Practice management techniques to work with suppliers, service providers, participants and attendees.

1. Introduction

The ins and outs of managing guests at an event should be considered, as guests form the most vital part of any event, and ensuring that they are safe, comfortable, and satisfied with their event experience is crucial to the financial and reputational success of any event.

2. Infrastructure management

Infrastructure management is basically the management of the various facilities and services (temporary or permanent) involved in the event. This phase of the management process is generally during the build-up and breakdown of the event. However, an infrastructure manager or team should always be on standby during an event in case of any problems.

2.1 Temporary structures

Temporary structures can include marquees, gazebos, Bedouin tents, archways, stages, scaffolding, broadcast or viewing towers, raised decks, inflatable domes, and many others. Temporary structures are generally specially designed and brought in for the event. Each event will have different temporary structures depending on their size, scope and requirements.

For example, the J&B Met hospitality village, which is set up on the Kenilworth Racecourse fields, requires a lot of temporary infrastructure. Marquees of various sizes are brought in to house corporate guests. They are generally floored, carpeted, air-conditioned, and draped. Fencing, screening, and landscaping, as well as stages for fashion shows and walkways used as entrances, are also brought in.







Figure 1: Temporary structures erected at the J&B Met. (Source: Courtesy of Mandy Mulder)

Temporary structures may require complex load ins. They are generally brought into the venue in large trucks or containers and take time to build. A freestanding aluminium frame marquee will take longer to build than a freeform Bedouin tent. The type of temporary infrastructure will depend on the nature of event, the budget and the look that needs to be achieved.

A freestanding aluminium frame marquee is a hardier structure, for example, providing a heavier look but also better protection against the elements. A freeform Bedouin tent creates a softer look but is not suitable in windy or heavy rainfall conditions. Freestanding aluminium marquees also need to be secured into the ground and may not be able to be accommodated at all venues, whereas freeform tents can be secured to existing buildings and fixtures depending on the weather. The freestanding marquee option is more expensive, but always a safer option. Marquees are used frequently in the wedding industry, with more brides wanting an outdoor wedding reception. Marquees do lend themselves to weddings, as they are a blank canvas that can be decorated at the client's discretion.





Video 1: An example of how a wedding marquee is constructed by Chattels Infrastructure Solutions. (Source: https://vimeo.com/104993989)

Smart tip:

It is vital for event managers to have a very good understanding of event infrastructure. Event managers are often called upon to make choices regarding infrastructure and to answer questions relating to infrastructure. Event infrastructure can be highly technical at times, which is why it is important for the event manager to consult their site manager on all things relating to technical issues. At each event, the event manager should learn something new relating to event infrastructure.

Temporary structures such as marquees and Bedouin tents can provide an atmosphere that an existing venue cannot. They can blend in and enhance a site and allow the guests to experience an event in an unusual location. There are always new products entering the marketplace, which are more elaborate and quicker to build. Where there is a big budget, nothing is impossible, and state-of-the-art temporary venues can be built to a client's exact specifications.

Temporary structures require special permission and approval from local authorities. Most require certified engineering sign off, and full technical drawings need to be produced and submitted to council before construction begins.

There should always be a safety officer present during the build and breakdown of temporary structures, as erecting and dismantling these structures can be hazardous work. Specialised equipment will often be required to erect infrastructure. All safety precautions need to be taken when overseeing the handling of this equipment.

Examples of local companies that provide temporary structures include local companies such Chattels and SGB Cape, as well as international companies such as De Boer and Arena Group.



Smart tip:

Always use a reputable and experienced marquee company, even if it is more expensive. When it comes to marquees, you pay for what you get. Infrastructure is one area where you should not be cutting costs, as the results can be disastrous.

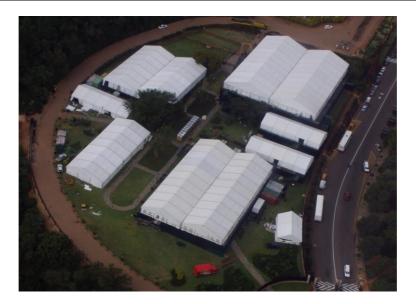


Figure 2: Freestanding aluminium frame marquee structures at the Union Buildings in Pretoria. (Source: Courtesy of Mandy Mulder)



Figure 3: Marquee structures during build-up at the J&B Met in Cape Town. (Source: Courtesy of Mandy Mulder)





Figure 4: Marquee built onto a raised deck as a viewing platform at the A1 GP in Durban. (Source: Courtesy of Mandy Mulder)



Figure 5: An inflatable dome-shaped tent is ideal in good weather conditions. (Source: Courtesy of Mandy Mulder)



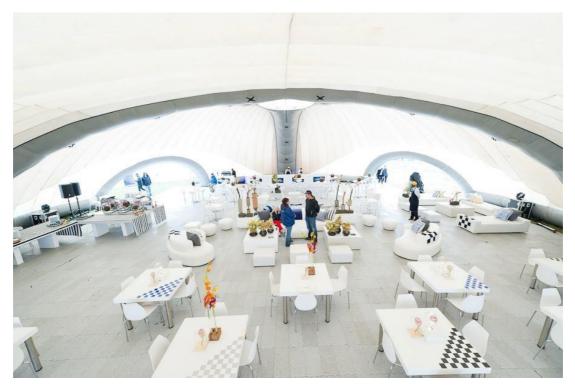


Figure 6: The inside of an inflatable structure has a different look and feel to contemporary marquee structures. (Source: Courtesy of Mandy Mulder)



Figure 7: An inflatable structure in action at a sporting event. (Source: Courtesy of Mandy Mulder)





Figure 8: An example of a bedouin tent at a BAT function in Cape Town. (Source: Courtesy of Mandy Mulder)



Figure 9: Example of a branded stage at an event. (Source: Courtesy of Mandy Mulder)





Figure 10: Grandstand at the South African Open Golf Tournament in PE. (Source: Courtesy of Mandy Mulder)



Figure 11: Aerial view of the J&B Met hospitality village. (Source: Courtesy of Mandy Mulder)

2.2 Signage

Event signage takes careful planning. A signage plan should be drawn up to detail the various types of signs and their locations. There are various types of signage:

- **Directional signage:** These indicate directions to certain facilities, such as catering points, parking, or exits.
- **Global event signage:** These indicate exit and entrance points, and areas of the event, such as hospitality villages.
- **Internal emergency signage:** These are inside a venue (permanent or temporary), and include illuminated exit signs, no smoking signs, etc.



• **Health and safety signage:** These include "enter at your own risk" and indemnity signage. This type of signage helps to protect the event organiser against any potential lawsuits.

There are strict laws regarding signage and these need to be adhered to at all costs. Signage should be visible at all times. Green Exhibitions is an example of a signage company that may be used for events.



Figure 12: Example of marquee signage at the SA Open Golf Tournament. (Source: Courtesy of Mandy Mulder)

Smart tip:

Good, clear signage alleviates traffic at the event's information centre and allows for free-flowing crowds.

2.3 Traffic and parking management

When guests and other stakeholders commute to and from an event venue, this creates a considerable amount of traffic and places extra strain on existing public transport systems. For some events, such as large road races for instance, road closures are also necessary, which can result in even greater traffic flow obstructions.

According to Bromley et al. (2010:303) event managers need to keep two traffic principles in mind when planning for an event:

- 1. Public safety is of first importance (this includes the safety of guests and the wider public).
- 2. Traffic disruptions must be kept to a minimum and both the affected areas and duration of the disruption must be taken into account. Adequate safety procedures must also be adhered to.

Some events will cause considerable disruption to traffic; examples of this are the opening of parliament and the Cape Town Cycle Tour. In both these events, the prolific road closures are





well managed and well advertised. Road closures are only granted after proper consultation with the relative parties, being local municipalities and traffic departments. They are only performed where necessary for the operation of the event.

Traffic management plans also need to consider the flow of traffic within an event venue or site. The traffic of vehicles and people needs to be managed at all times. Often, only supplier vehicles are allowed on site when delivering or collecting goods, and this is controlled and limited. Event design needs to consider the flow of people so as not to cause catchment areas with high levels of concentration. Emergency vehicles should always have clear access routes in and out of a site.

Effective parking management is also essential, because this is usually the first interaction that guests have with the event and, as such, may set the tone for the start of the event (Bromley et al., 2010:303). Parking facilities should always be as close to the event venue as possible to avoid the use of shuttles and for added convenience. Additionally, these parking areas should be monitored at all times to ensure there is enough parking available, and staff members should be assigned to sections of the parking area to direct guests. At large-scale events, there may be different parking areas for staff and guests, as well as separate lots for different event areas. For example, hospitality guests may have a designated parking area. Parking areas closest to the event are generally assigned to VIPs and event organisers.

Smart tip:

Always make sure that there is sufficient parking, as guests dislike nothing more than having to drive around in vain looking for a parking space.

2.4 Medical and emergency services

Medical personnel must be present at public events in order to assist with emergencies and first-aid procedures when necessary (Bromley et al., 2010:303). Medical personnel should be assigned in proportion to the number of guests at the event.

A medical facility needs to be designated; it may be in an existing building or in a temporary structure. It should always be in close proximity to the centre of the event so that it is easily accessible. First-aid points should always be clearly marked and first aid venues should always have access to designated running water points and toilets. At public events, there should always be fully-equipped ambulances. Again, the number needed is relative to the number of attendees. On large-scale events, provision will often be made for a helicopter to airlift emergency cases to hospital. The helipad area needs to be a fair distance from the event itself as helicopter landings and take-offs can disrupt temporary infrastructure.

For smaller events, such as weddings or birthday parties, a medical kit may be sufficient. Sporting events require more attention to medical care and greater areas are therefore dedicated to medical enclosures. For example, at the Two Oceans Marathon and Argus Cycle Tour, there are large medical tents, and tents where physiotherapists are available to massage participants suffering from cramps, dehydration, or more serious conditions. With sporting events that are track or route based, there needs to be medical attention at strategic points throughout the route or track in case of emergency.





On large-scale events, other emergency services such as SAPS and the fire department may need to be in attendance. They might require areas to park their vehicles and perhaps a small meeting area where they can base themselves. A disaster management team may also be appointed to manage the risks. They generally function from what is called a venue operations centre (VOC) or joint operations centre (JOC).

This is the central emergency services point and these role players will be in contact with each other and the event manager at all times by radio.

Considerations for disabled attendees:

It is very important not to discriminate against physically disabled guests. Special needs groups should be identified and planned for in the initial stages of the event. By law, a public event must have disabled access in the form of ramps or lifts. Space should be accommodated for viewing purposes, if necessary (for example, at a concert). Obviously, if the event is by invite only and none of the guests have a disability, then no planning is necessary (but always enquire first).

2.5 Waste management, cleaning and ablution facilities

Events tend to generate large quantities of waste and the event manager must therefore ensure that thorough waste management strategies are put in place. These are necessary not only for guests to enjoy the event and move in a clean space, but also to encourage sustainability and environmental conservation (Bromley et al., 2010:304).

2.5.1 Containing waste

Some examples of common types of waste that are generated at events include the following:

- Paper and packaging
- Food and beverage containers
- Leftover food
- Glass, metal cans, and plastics
- Remains of fires (charcoal, burnt wood)
- Construction materials
- Human waste (vomit, urine, and faeces)
- Medical waste such as syringes and bandages
- Water waste, from showers, toilets, hand basins, etc.





(Bromley et al., 2010:304)

For large events, waste containers (skips) need to be brought in to accommodate the large accumulation of waste matter and products. These skips should be strategically placed throughout the event. They should not be in the line of sight of the guests and also not close enough that guests may be offended by the unpleasant odour. Wheelie or Otto bins should also be provided throughout the event for general litter. These bins need to get emptied into the skips on a regular basis to avoid overflowing.

A waste management company should supply dedicated cleaners to do this task and the general clean-up of the event site. It is essential to always have enough cleaners on an event site and they should be given designated areas to take care of.

As the world becomes more environmentally conscious, many event companies are considering more sustainable practices when planning their waste management. They may be recycling the waste, which requires carefully planned processes and can be quite costly. The issues around sustainability and event greening will be discussed in more detail in Module 9.

2.5.2 Cleaners

Cleaners may also be responsible for cleaning existing or temporary venues. These may require vacuuming, glass cleaning, and dish washing. It is important that the designated cleaning company is fully briefed on its responsibilities in order for it to bring in the right equipment to perform its jobs. A cleaning manager should always be employed to make sure that all staff members are working correctly. It is almost impossible for an event manager to spend their time checking that each cleaner is doing their job.

Kitchens, especially temporary ones, produce a considerable amount of waste. All grey water (soapy water that may have remnants of food products) should be taken off site, either through plumbing that connects to the municipal sewerage system or, in cases where the site is grassed, by being dumped on the grass (naturally this is quantity dependent). Oil waste from cooking, however, needs to be removed off site in special waste drums, which the waste company can provide. Large waste trucks will come after the event to transport all the waste and containers away. Most waste companies do not specialise in event cleaning, but do offer the service.

2.5.3 Ablution facilities

It is always important to have enough ablution facilities (toilets) at an event. Existing venues should already have permanent toilet facilities, in which case, a cleaning assistant should ensure that they are presentable and stocked with consumables throughout the event. Outdoor events require portable toilets to be brought in.

There are various options when it comes to portaloos; there are standard plastic units that come either with or without hand basins, but it is always advisable to use those with hand basins for sanitation reasons. There are also more upmarket toilets that are known as trailer units, because they are generally secured to a trailer. They house one female and one male toilet with a hand basin. They are far more appealing than standard portaloos and are generally used at private functions and for corporate hospitality areas at a large event. The





standard portaloos are generally used as public toilets at an event as they are reasonably priced and prolific in the marketplace. Companies such as Econoloo provide various toilet options for hire. There are more upmarket toilet units, some complete with music and airconditioning, being developed due to the increased demand for executive toilet facilities at events.

Toilets always require a janitor to make sure they are stocked with consumables and that they are clean at all times. VIPs and dignitaries must always have their own designated toilet. Guests do not want to stand in long lines when they need the toilet; it impairs their experience of the event. Toilets should be positioned strategically throughout the event and not placed in one big area. This allows for less congestion.

Toilets should always be placed in positions where they can be accessed easily by a pumper truck. The pumper truck is necessary if the toilet becomes blocked or too full. The hose on the truck is only 20m long and so the toilets should never be more than 20m away from an access point for the truck.



Figure 13: Public toilet enclosure at the SA Open Golf Tournament in Pearl Valley in Cape Town. (Source: Courtesy of Mandy Mulder)

2.6 Security management

It is very important to appoint a reliable security company that has experience in the event industry. A shopping mall security company will not have the skills to work as event security. The role that a security company needs to fulfil within an event is quite specialised. In this regard, an experienced event security company can be an asset to an event manager and the event as a whole. Security teams need to be fully briefed on the role they are expected to fulfil, and they need to have visited the site before the event so that they are familiar with it on the day. There should always be a security manager on site during the event.

The number of security guards will be relative to the nature of the event and the number of attendees. For example, a concert will have more security personnel than a wedding, where





there may only be the need for a car guard. Security personnel should be strategically distributed throughout key areas of the site, with larger numbers at the entrances and exits to help with crowd control. Security is required during build-up and breakdown of an event to ensure the protection of the goods and structures on site. Event sites aren't always the most secure areas, which put them at high risk for crime and therefore necessitates more security. Security companies also provide VIP protection if need be, and they liaise and work in conjunction with the police on public events.

Not many of South Africa's top event security companies have websites, but examples of highly-experienced event specialists are CP Security and Eyethu Security.

2.7 Lighting and audiovisual systems

Organisers must supply adequate lighting systems so that attendees can enter, exit and move around the event site safely at all times. This is especially important during night-time events. There should also be a backup power source, such as a generator, that kicks in automatically to run the lights if there is a power failure. Strategically placed lighting can also help with security, especially during the build-up of the event. Outlying areas such as back-of-house areas (for example, storage areas, kitchens and offices), parking lots, and access routes (this can be costly on a large-scale event due to the distances between areas) also need to be well lit.

Examples of companies that specialise in event lighting, audiovisual, and staging in South Africa are Gear House and AV Direct and Kilowatt AV.

Smart tip:

It is always tricky to determine what falls under the umbrella of infrastructure. Here are a few things to consider when planning an outdoor event (specifically, what would fall under infrastructure management):

- 1. Toilets and showers
- 2. Fencing
- 3. Marquees, gazebos, inflatable domes, and structures
- 4. Landscaping
- 5. Water supply and distribution
- 6. Power supply and distribution
- 7. Kitchen tents and catering equipment
- 8. Storage areas for extra equipment and in the case of exhibitions for exhibitors
- 9. Information centres





- 10. VOCs
- 11. Corporate hospitality suites or marquees
- 12. Waste management and cleaning
- 13. Lighting
- 14. Signage
- 15. Staging and seating
- 16. Ticketing points

3. Attendee and participant management

Managing the attendees at an event correctly is essential, as how people are managed determines their perception of the event, which directly influences the success and future (if it is recurring) of the event (Bromley et al., 2010: 307). Each interaction that the attendees have with the event organisers and the venue needs to be well managed in order to ensure that from the time they arrive in the parking lot to the time they leave, they have a positive experience.

Smart tip:

The best way to make sure you are managing the attendee or participant experience at all times is to put yourself in their shoes and do a mental walk through of the event from start to finish.

3.1 Crowd management

Crowd management ensures that events are safe, comfortable, and enjoyable for attendees, and it involves understanding and influencing attendee behaviour in order to produce desired results (Bromley et al., 2010:307). Managers can make use of design and information tools, and staffing systems to manage crowds, and their focus should be on managing crowd access, circulation, and exit.

Note:

Crowd management should not be confused with crowd control, which deals with limiting and controlling unruly behaviour and disorder.

When planning how to manage crowds, an event manager should consider the "five Cs" of crowd management as set out by HSE (1996, cited in Bromley et al., 2010:307):

- Capacity
- 2. Crowd behaviour





- 3. Controls
- 4. Contingency
- 5. Communications

The first four elements are discussed in more detail in the sections that follow.

3.1.1 Capacity

Capacity refers to the number of people that can safely enter, occupy, and exit an event space (Bromley et al., 2010:307). It is important to ask the following questions:

- What overall space is available?
- How much of the overall space is made up of temporary or existing structures and how much is viewing space?
- How can people get to the designated space?
- What are the approximate queuing times for each activity?
- Where are the evacuation points?
- How long would it take to evacuate the site?
- What does the historical data, if there is any, show regarding capacity?

Established entertainment venues such as theatre and concert halls have set capacity figures. These types of venues also have population certificates, which state the maximum number of people allowed. Outdoor venues, such as a concert area on an open field, may not have any historical data regarding capacity and therefore capacity will always require careful evaluation.

Event space is generally worked out according to square meterage. Every event differs in terms of the ratio of people to square meters. Factors that affect the ratio are the following:

- The amount, type and size of infrastructure: For example, marquees, furniture staging, buffets, etc.
- The nature of the event: For example, a cocktail party will require less space for guests per square metre than a sit-down dinner.
- Duration of the event: Some events are all-day events where attendee numbers
 fluctuate throughout the day. In this case, there should always be a maximum
 number of attendees set and this number should never be exceeded. This takes
 careful crowd monitoring of entrance and exit points.



For example, a wedding that involves guests seated at round tables, a stage for speeches, a dance floor, two buffet stations and a lounge area, would require more square metres per person than a plated gala dinner with no dance floor, stage, or lounge area.

Economies of scale often apply when working out space requirements. For example, using 2m² per person for a wedding of 100 people is fine in that 200m² is a good amount of space. However, applying that same ratio of 2m² per person to a wedding of 1,000 people would be excessive, as 2,000m² would be much too big. It is sometimes difficult to get the ratio right, and event managers will develop a better feel for how much space is required as they gain experience in the field.

3.1.2 Crowd behaviour

Each crowd has a unique set of characteristics, which in turn will influence their behaviour. It is important for management to remember that these crowds are made up of individuals, and that treating the people attending the event as individuals and not simply as "one of the masses" will result in more positive responses from the crowd (Bromley et al., 2010:307).

Managers can ask themselves a few key questions about the crowd in order to assess why they are behaving in a certain way:

- Why is the crowd at the event?
- Does the crowd have knowledge or experience of the event?
- What does the crowd want to do and see?

Lastly, it is important to remember that learned behaviour influences people's actions, and that an individual who has attended an event before will be more likely to make proper use of entrances and exits, queues, and other on-site facilities than someone who has never been to that event (Bromley et al., 2010: 307).

3.1.3 Controls

Controls are designed to influence crowd behaviour. They are planned for in the early stages of the event planning process. There are two key ways of implementing controls (Bromley et al., 2010:312):

- 1. The layout design of the event: The event layout needs to be designed to facilitate crowd control. It needs to accommodate the expected movement of people, taking into account the comfort of the attendees. Factors such as entrance points, exit points, and queues must be considered. Concession stands and toilets all impact on how, when, and where a crowd may move. Careful placement of services will allow for easy flow of human traffic and also result in less bottlenecking and congestion in certain areas. Physical measures such as fencing, screening, and delay towers are often used to manage the flow of people at an event.
- 2. **Information dissemination:** It is very important to inform the crowds of delays, changes in entertainment schedules, opening and closing times, and other important





details. An informed crowd member is generally a less aggressive one. There are various ways information can be disseminated at an event site. Audiovisual equipment such as loudspeakers and big screens could be used, as could staff using loudhailers (handheld public address systems), or even SMS or Bluetooth could be used, depending on the size and nature of the event.

It is useful to get information out to the public before a large-scale event. For example, information on dress code, parking facilities, start times, end times and cost will help the crowd management process, as informed crowds are more manageable than uninformed ones.

Staffing:

The staffing of an event is important as it affects the event's image and management. Staff should be fully trained and their roles and responsibilities clearly outlined before the event. They should be fair and friendly at all times. It is important to note that if an issue does arise, it is best for the event management team to deal with it in a diplomatic way.

3.1.4 Contingency plans

Contingency plans, or "plan Bs", are always necessary in order to know how to respond to and manage situations that deviate from the original plan. Having proper management systems in place at an evnt, including decision-making processes and accountability in case of the unexpected, will assist managers in dealing with these situations more effectively as they arise.

4. Conclusion

Events do not operate in isolation; they are affected by many internal and external factors, from weather to poor management practices. The operations and logistics planning of an event allows for the management of all contributing factors to an event. It not only deals with the "on-the-ground" matters, but it also looks at all the planning that happens before an event takes place. Without planning, the delivery of the event would fall flat. Event managers are tasked with finding the correct logistics and operations managers for their events, and they must also ensure that a thorough operations plan is established before the event set-up commences to streamline processes and ensure an efficient and smooth build-up, presentation, and breakdown of the event.

5. Bibliography

Bromley, M., Moss, C. & Edward G. 2010. Events operations management. In *Events management: A developmental and managerial approach* 3rd ed. D. Tassiopolous, Ed. Claremont: Juta. 293-315.

Dhoul, T. 2014. What is Operations Management? Available: http://www.topmba.com/mba-programs/what-operations-management [2016, January 20].





Gasche, J. & Ellis, M. 2010. Catering management design for events. In *Events management: A developmental and managerial approach* 3rd ed. D. Tassiopolous, Ed. Claremont: Juta. 225-248.

MIT Sloan School of Management. 2016. What is *Operations Management?* Available: http://mitsloan.mit.edu/omg/om-definition.php [2016, January 20].

Shone, A. & Parry, B. 2013. *Successful Event Management: A Practical Handbook.* 4th ed. Cengage Learning.