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Risk Management: The Case of Aspen Music Festival and School

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Risk Management: The Case of Aspen Music Festival and School



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Abstract

Risk management is a critical part of event management. This section covers definitions of the key aspects of risk management and the steps taken by event management in creating a risk management plan. A case study is provided for students to apply the risk management process in an industry example.

Key Topics

Risk identification, risk assessment, risk management phases, risk management plan, music festival

Target Audiences

Students enrolled in an event management, hospitality, tourism, and/or a risk management course.

Pedagogy

This case study has been designed for use in an active learning pedagogy, such as team-based learning, case studies, peer teaching, debates, just-in-time teaching, and other active learning pedagogies.

Learning Objectives

1. Identify and describe the types of risks involved in the management of events
2. Understand the systematic process of identifying and assessing risks
3. Describe each phase involved in the development of a risk management plan
4. Develop a risk management plan.

Teaching Plan

	Element	Suggested Time
1	Reading of Case Study	45-50 minutes
2	Develop Risk Management Plan	45-60 minutes
3	Application Questions	15-20 minutes
4	Debriefing	30-40 minutes

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Disclaimer

This case study is to be solely used for educational purposes and is based on both factual and fictional information.

Risk Management

Risk management is a systematic process of assessing potential areas of risk that can potentially impose adverse effects on the successful conduct of special events. Risk management consists of the context (or background) of risks, risk identification, evaluation, and controls.

The Definition of Risk

In the context of event management, risk encompasses any type of incident, foreseeable, or unforeseeable that may hinder the ability of a special event or festival from achieving its desired objectives. Risk combines an analysis of the likelihood of a hazardous situation occurring with an assessment of the hazard's influence.

For risk management to be effective and communicable to all the parties involved, event managers must undertake a systematic approach to assessing all the anticipated risks at the event. Figure 1 shows the risk management process with a series of stages that culminates in a risk management plan. Within each step, the activities undertaken regarding risks should be documented and communicated to the individuals in charge.

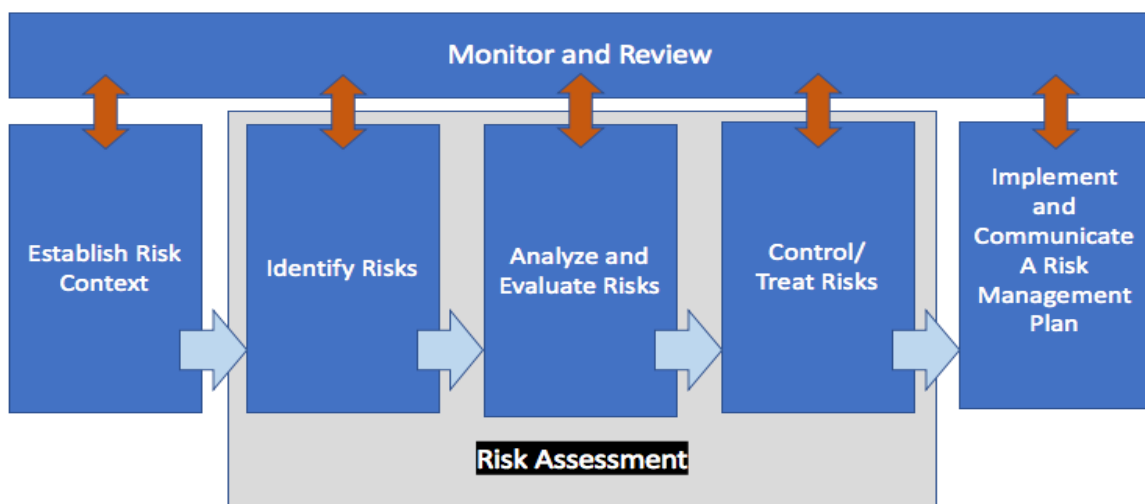


Figure 1. Risk management process.

Risk Context

Risk management is best prepared for when internal and external elements specific to an event are considered. Risk management involves managing the type of event, management structure, stakeholders' requirements, and the external environments of the event. Each event is unique regarding purposes and activities. The event can be a cultural or community event, or national or international event. In identifying these key elements of the event, event management responsible for managing risks should consider how the event fits with its organizational structures, available resources, and levels of risk. Stakeholders of the event come with their own

expectations in terms of managing risks. Therefore, the level of support they are willing to provide for risk management can vary from one stakeholder to another. Similarly, the extent to which stakeholders hold themselves liable for potential risks can vary greatly. Local authorities may cover the broad areas of the event with varying degrees of liability, while participating vendors may limit their liability to their immediate business premises. A change in the local economy conditions may also add to the equation of managing risks. The event management’s comprehension of the contextual factors relative to risk management will help them develop the most accurate risk management plan.

Identification of Risks

The process of identifying risks involves expertise and experience of event management teams. Although the possibility of risk in one area of an event may appear minimal to an event organizer, the specialist—using his/her/their knowledge and experience—may develop a different assessment of potential risks. Therefore, the identification of risks should be a collective process of recognizing risks by the people involved, and the best outcome can be achieved only when the knowledge and experience of members are pooled into the process.

Risk Analysis and Evaluation

Event managers must develop a methodical assessment tool which rates risks based on the likelihood of their occurrence and the severity of any consequences that come from the risks. The measure of consequence can be expressed in quantitative terms, such as the amount of cost levied against the event management in the actual occurrence of risk. Table 1 presents the matrix of risk assessment where the risks identified in the process are rated according to likelihood and consequence. Table 2 displays the severity of risk categorized as Catastrophe, Major, Moderate, Minor and Insignificant. This systematic presentation of risks facilitates prioritization and assessment of risks for event management.

Table 1

Risk Assessment Matrix

Likelihood	Consequence					
	Insignificant	Minor	Moderate	Major	Catastrophe	
	1	2	3	4	5	
A (Almost certain)	5	M	M	H	E	E
B (Likely)	4	L	M	H	E	E
C (Possible)	3	L	M	H	H	E
D (Unlikely)	2	L	L	M	H	H
E (Rare)	1	L	L	M	H	H

Notes. The determination of a risk rating is arranged by the likelihood of its happening, in the column, and by the extent of its consequence in the row. Ratings Indicators: E = Extreme risk: urgent action needs to be taken, H = High risk: senior managers’ immediate attention needed, M = Moderate risk: control measures specified, L = Low risk: handle with routine procedures and monitor regularly.

Table 2

Risk Severity Categories

		Severity
Catastrophe	5	May cause severe injury, disability or death, the complete loss of system, and major property or facility damage. May require immediate cessation of the event
Major	4	May cause injury or temporary disability. May result in extensive system failure. May incur significant financial loss and/or negative publicity
Moderate	3	Cause minor injury, illness, property damage, and noticeable financial costs. May result in minor system failure and/or negative publicity
Minor	2	May present less than minor injury or illness, negligible cost increases that can be absorbed by the project. If occurs, it can be controlled with a minor change to the event's schedule. May incur minor damage to the system as part of normal wear and tear
Insignificant	1	Hazards pose no threat to the safety or health of the audience or staff. If occurs, it may present no financial costs or no change to the event schedule

Control of Risks

The plan to control the risks occurs next in the process. The objective of managing risks is to minimize the risk where possible; however, risk management can be conceived of as having a hierarchical order of risk control. Table 3 shows the hierarchical order of controlling risks. Event managers can use this order to appraise the appropriate level of control to be implemented for each risk identified in a systematic fashion; for example, at the top of the hierarchy is the elimination of risk by addressing the source of the risk. If the elimination option is not feasible, substitution at the next level below can be considered. In other words, event managers can control risks by comparing them against the hierarchy of control options.

Table 3

Hierarchy of Risk Controls

Eliminate	Remove the cause or source of the risk
Substitute	Replace the source of risk with a safer option if possible
Isolate	Isolate the source of risk from the event venue to minimize the likelihood and the impact of the risk
Administer	Implement a policy, procedure, or training to ensure safety from the source of risk
Personal Protective Equipment	Provide protective equipment appropriate to the risk

Based on Tables 1, 2 and 3, a risk management plan can be drawn up. Table 4 shows an example of a risk management plan resulting from the previous phases.

Table 4

Risk Management Plan

1. ID. Number	2. Risk	3. Risk Treatment (how to control the source of the risk)	4. The consequences of the risk happening Likelihood Consequences from from Table 1 Table 1		5. Risk Rating From Table 1	6. Risk Control Measures	7. Person Responsible/ Timetable	8. Notes
ID.1	rain in the forecast	indoor concert hall	C	3	H	Signage & updates to attendees regarding the relocation	John Doe	Circulate the change of the venue among the managers

Crowd management vs. Crowd control

In the discussion of risk management for events, it is necessary to make a distinction between crowd management and crowd control, as they are designed for different purposes. Crowd management consists of measures taken to facilitate crowd movements. In comparison, crowd control concerns the steps to be taken when crowds are becoming disorderly or have gotten out of control (Abbott & Geddie, 2000). Crowd management focuses on preparing for any potential problems that hinder the facilitation of crowd management; therefore, crowd management is proactive with analysis and prediction of risks to ensure the comfort and enjoyment of people at the event. By contrast, crowd control is reactive as it becomes operational only when crowds are out of control (Li, de Ridder, Vermeeren, Conrado, & Martella, 2013). Li et al. (2013) suggested the scope of crowd management be broadened from mostly pre-event preparations to real time strategy by monitoring situational developments over the course of the event. Furthermore, the goals of monitoring the crowds for the purpose of situational awareness should extend beyond ensuring crowd security into the well-being of crowds at the event.

Other Risk Management Plans

Other risk management plans should be developed in consultation with agencies that have expertise and the authority to handle the situation if it occurs. Security, safety, and communication plans are provided below as examples. However, the event managers can develop additional plans if it is necessary to cover other areas of risk.

Security plan

The security plan indicates the response/procedure of security personnel so they can pre-empt potential risks. The plan also provides information on a comprehensive range of security measures to be taken when an incident arises. The information specifies who controls access to the site, how traffic is controlled, how an emergency response is formulated, and so forth. The on-site security liaison is given their contact information for an emergency.

Safety plan

Similar to the security plan, the safety plan identifies responses/procedures to deal with a number of safety-associated risks. The plan provides the capacity of a venue, shelters, safe movement between locations, and the procedures in the event of emergencies such as severe thunderstorms. The personnel in charge of the event venue are listed along with their contact information in the plan.

Communication plan

Communication is critical to the management of risks. Effective communication of risks to key stakeholders and attendees can minimize the severity of a risk. The flow of information is established with details on who, what and when to communicate. As a result, any confusion for missing information can be prevented in an emergency. Communication devices should be checked and maintained in excellent working order during the duration of the event. The provision of event updates and signage to keep attendees informed should be part of the communication plan.

Aspen Music Festival and School

Disclaimer: This case study is formulated to be used solely for educational purposes and based on both factual and fictional information.

Background

The Aspen Music Festival and School (AMFS) is an annual classical music festival held in Aspen, Colorado. The history of this world-renowned music festival goes back to its inception in 1949. The 8-week long music extravaganza highlights more than 400 musical events. The event programming is diverse in size and type, ranging from orchestral performances to solo performances. The AMFS has four featured orchestras performing each summer; two are entirely composed of Aspen Music School students. This annual festival draws more than 70,000 attendees, young and old, to Aspen for many unforgettable summer days of classical music.

The festival occurs on the pastoral 38-acre Bucksbaum Campus located just outside of Aspen. The grounds are surrounded by groves of aspen and fields bordered by a little creek. The event features family concerts and other daytime programming designed specifically for children as pre-concert activities in the Meadows hospitality tent. One of the highlights of this year is *Beauty and the Beast* presented by The Aspen Musical Production Group.

Aspen has a public transportation system that is free within city limits. In the summer, it operates special routes and schedules to serve concertgoers until 7 p.m. on weekdays and 6 p.m. on weekends. Each night during the festival, two or three events are performed after dusk that end almost at the same time. The festival organizers states that many festival attendees have preferred to walk along the path between the venues and the town center after the events, as the distances are short (about 20 minutes) and downhill for most visitors. The sidewalk is well lit after dark, but on one side of the two-lane road, and some sections of the sidewalk are too narrow for four people to walk comfortably abreast. There is no physical separation between the sidewalk and roadway except for the dividing lines. The speed limit in the area is 25 miles per hour; the local traffic is sparse after 6 p.m. Additional information about the festival is located in the Appendix.

Facilities

The facilities available are as follows:

- Benedict Music Tent accommodates 2,050 seats
- David Karetsky Music Lawn, open fields outside the Music Tent
- Harris Concert Hall holds 500 seats
- Castle Creek Campus, a 38-acre site with teaching studios, 68 practice rooms, two rehearsal halls

Food and Drinks

Food consumption is allowed only at the designated dining facilities in the concert venues. Food concessions, giveaways, and preparations are not permitted in the event area. No drinks are permitted in the event area. Similarly, no alcohol is distributed or sold in the event area. Bottled water is allowed in the concert venues.

Town of Aspen

Aspen is located in Pitkin County, Colorado, United States. As of 2015, 6,658 residents resided in Aspen. During the summer season however, the population can increase to more than 16,000. Aspen is 8,000 feet (2,400 m) above sea level and a 3.5-hour drive from Denver, Colorado. The average daily high is usually around 76 degrees.

Geologic hazards

In Table 5, the 2017 risk mitigation report prepared by the county officials lists the following hazards relative to their possible occurrence and severity. For further information, please refer to Table 1, 2 and 3 in the Appendix for risk probability and magnitude categories.

Table 5

Probability and Magnitude of Hazards for Pitkin County, Colorado

Hazards	Probability	Magnitude
Avalanche	Highly Likely	Critical
Wildfire	Likely	Critical
Flood	Occasional	Catastrophic
Winter Storm	Highly Likely	Limited
Lightning	Likely	Catastrophic
Dam Failure Flooding	Unlikely	Catastrophic
Drought	Occasional	Limited

Note. Probability refers to how likely the hazard is to occur in the future, accounting for historical frequencies or statistical assessment of probability. Magnitude is defined as the degree to which a hazardous event is severe in terms of its impacts on public safety, community, and personal assets and properties, key infrastructures, and natural resources.

Case Study Activity

Based on the case study you just read, demonstrate your understanding of the risk management planning process by filling in Tables 1, 2, 3 and 4. Start the activity by identifying at least three different risks for the Aspen music event and complete each of the risk management tables that follow.

List in Table 1 at least three potential risks that may arise from the event. If a risk is applicable, write in “Yes,” or “No,” if not applicable under the Applicability column. Make a note for the risks identified that need to be communicated in the risk assessment and control phases. An example is provided for the risk of food-borne illness which is listed with the identification number of “B1.”

Table 1

Risk Identification

Identification Number	A. Property Damage	Applicability		Notes
		Yes	No	
A1	Vandalism		No	
Identification Number	B. Personal Injury/Illness or Fatality			
B1	Food-born illness	Yes		<p>No incident of foodborne illness reported in the past 10 events</p> <p>Obtain the list of preferred vendors from Kim</p> <p>Should there be a suspected foodborne illness, contact Joyce and call CDPHE at (303) 692-3645</p>

Based on the risk identification in Table 2, assess each risk in terms of the likelihood of the risk and the severity of the consequence and allocate an appropriate risk rating for the risk. An example is provided for food-borne illness identified as “B1” in the previous Table 1.

Table 2

The Matrix of Risk Assessment

Likelihood		Consequence				
		Insignificant	Minor	Moderate	Major	Catastrophe
		1	2	3	4	5
A (Almost certain)	5					
B (Likely)	4					
C (Possible)	3					
D (Unlikely)	2					
E (Rare)	1				B1 (E)	

Notes. The determination of a risk rating is arranged by the likelihood of its happening, in the column, and by the extent of its consequence in the row. Ratings Indicators: E = Extreme risk: urgent action needs to be taken, H = High risk: senior managers’ immediate attention needed, M = Moderate risk: control measures specified, L = Low risk: handle with routine procedures and monitor regularly.

Table 3 shows a hierarchy of risk controls for determining an effective control measure to be implemented for the identified risk. For example, the risk of food-borne illness, B1 with E risk rating, may be greatly reduced by eliminating foodborne pathogens during food processing. Therefore, the most effective control measure for the risk in the hierarchy is elimination, for example, by selecting trusted food vendors.

Table 3

Hierarchy of Controls

Control Methods	Identification Number for Risk
Elimination	Food-borne illness - B1
Substitution	
Engineering/Isolation	
Administrative	
Personal Protective Equipment	

With the information you provide for each risk in Tables 1, 2, and 3, complete the risk management plan in Table 4. An example is provided for food-borne illness risk

Table 4

Risk Management Plan

1. ID. Number assigned to each risk	2. Risk	3. Risk Treatment (how to control the source of the risk)	4. Consequences of the risk happening from Table 2		5. Risk Rating from Table 2	6. Person Responsible/ Timetable	7. Notes
			Likelihood	Consequences			
B1	Food-borne illness	Screen food vendors for food safety practices and past violations	E	4	E	Susan Kim	Obtain the list of preferred vendors from Kim

Application Activity Questions

1. What types of risk are particularly pertinent to this event in the process of risk identification?

Select all that apply.

- a. Noise levels
- b. Electrical arrangements including extensions
- c. Lost kids
- d. Transportation of attendees to the site
- e. Drunk, disorderly crowds
- f. Lightening
- g. Pedestrian injuries
- h. All the above

2. Once the types of risk are determined for an event, they can be organized according to two key dimensions of risk. This method of risk organization allows the event management team to conduct an accurate assessment of the risks. Which of the following are the two key dimensions of risk considered in the risk assessment?

- a. Person responsible and risk likelihood
- b. The consequence of risk and time frame for risk treatment
- c. Person responsible and time frame for risk treatment
- d. Risk likelihood and consequence of risk

3. Based on your answers to Questions 1 and 2, rate the likelihood and consequence of each risk identified in Question 1 on the scale of 1 (e.g., *rare*) to 5 (e.g., *almost certain*).

- a. Noise levels
- b. Electrical arrangements including extensions
- c. Lost kids
- d. Transportation of attendees to the site
- e. Drunk, disorderly crowds
- f. Lightening
- g. Pedestrian injuries

4. In the hierarchy of risk controls, which of the following is the measure of risk control applied when power cords and electrical wires are properly covered, and uneven surface areas are visibly marked.?

- a. Substitution
- b. Isolation
- c. Administration
- d. Personal protection
- e. None of the above

5. Match the four descriptions below to either crowd management or crowd control.

1. Activities conducted to facilitate crowd movement and enjoyment of the crowd at the event	a. Crowd Management b. Crowd Control
2. The reactive measure	
3. The steps to be taken when crowds are becoming disorderly or have gotten out of control	
4. The proactive measure	

6. Which of the plans should contain the measures taken to safeguard files relevant to event management?

- a. Communication Plan
- b. Safety Plan
- c. Transportation Plan
- d. Medical Plan
- e. None of the above

Application Activity Instructor Key

Answer	Classroom Instruction
Question 1. Answers: h	Provide the past records of natural disasters that occurred in the area and discuss the appropriateness of the student's risk rating.
Question 2. Answer: d	Students understand the two key criteria for evaluating risks that are the likelihood and severity for the event
Question 3 Students identify the risks posed to the event 1. Noise levels – rare as the location is away from the residential area. However, kids should be advised about the level of noise they are exposed to depending on where they are seated (insignificant) 2. Electrical arrangements including extensions – likely and more likely in the event of significant weather (Major) 3. Lost kids – possibly (minor) 4. Transportation of attendees to the site – unlikely (minor) 5. Drunk, disorderly crowds – rare (insignificant) 6. Lightning – likely (major) 7. Pedestrian injuries – likely (moderate)	Students discuss the following question: Would the risk ratings from the residents be same?
Question 4 Answer: b isolation The measures taken are classed as isolating the risk.	Any other measures to be taken in controlling the risks: indoor vs. outdoor events
Question 5 Answer: a communication plan	Discuss other plans for what needs to be addressed in each plan

Case Study Activity Answers

Three risks identified from Table 1 of the case study provide the basis for answers for Tables 2, 3, and 4: lightning, wildfire, tripping and slipping hazards. Using the risks selected, each risk is assessed in Table 2 according to the likelihood of the risk and the severity of the consequences. In Table 3, determine an effective control measure for each risk from the hierarchy of controls. In Table 4, provide an overall summary of information about each risk based on the answers supplied in Tables 1, 2, and 3.

Table 1

Risk Identification

Identification Number	A. Weather risk	Applicability		Notes
		Yes	No	
A1	Lightning	Yes		
A2	Wildfire	Yes		
Identification Number	B. Personal Injury/Illness or Fatality			
B1	tripping or slipping hazards	Yes		

Table 2

Risk Assessment Matrix

Likelihood		Consequence				
		Insignificant	Minor	Moderate	Major	Catastrophe
		1	2	3	4	5
A (Almost certain)	5			Tripping or slipping hazards - B1 (M)		Lightning – A1 (H)
B (Likely)	4				Wildfire – A2 (E)	
C (Possible)	3					
D (Unlikely)	2					
E (Rare)	1					

Table 3

Hierarchy of Controls

Control Methods	Identification Number for Risk
Elimination	
Substitution	
Engineering/Isolation	Tripping or slipping – B1
Administrative	Lightening – A1/Wildfire – A2
Personal Protective Equipment	

Table 4

Risk Management Plan

ID. Number assigned to each risk	Risk	Risk Treatment (how to control the source of the risk)	The consequences of the risk happening Table 2		Risk Rating from Table 2	Person Responsible/ Timetable	Notes
			Likelihood	Consequences			
A1	Lightning	Relay Local weather updates	A	5	H	Ms. Gibson	
A2	Wildfire	Communication channels open with local authorities	B	4	E	Mr. Doyle	
B1	Tripping or slipping hazards	Barricades	A	3	M	Mr. Richado	

Appendix



Source: Google. (n.d.). [Google Maps, Aspen Music Festival and School, Music School Road, Aspen, CO]. Retrieved July 25, 2017, from <https://www.google.com/maps/place/Aspen+Music+Festival+and+School/@39.178086,106.8420577,17z/data=!3m1!4b1!4m5!3m4!1s0x8740396a925b1937:0xd2b4a50b02e0deaf!8m2!3d39.178086!4d-106.839869>

Table 1

Categories for Estimating Probability of Future Hazard Occurrences

Probability Categories	
Highly Likely	Near 100% chance of occurrence next year or it happens every year.
Likely	10-100% chance of occurrence next year or it has a recurrence interval of 10 years or less.
Occasional	1-10% chance of occurrence in the next year or it has a recurrence interval of 11 to 100 years.
Unlikely	Less than 1% chance of occurrence next 100 years (recurrence interval of greater than every 100 years).

Note. FEMA defined probability as the likelihood of the hazard occurring in the future, as based on historical frequencies or statistical probability models.

Table 2

Categories for Estimating Magnitude of Future Hazard Occurrences

Magnitude Categories	
Catastrophic	Multiple deaths; property destroyed and severely damaged; and/or interruption of essential facilities and service for more than 72 hours.
Critical	Isolated deaths and/or multiple injuries and illnesses; major or long-term property damage; and/or interruption of essential facilities and services for 24-72 hours.
Limited	Minor injuries and illnesses; minimal property damage; and/or interruption of essential facilities and services for less than 24 hours.
Negligible	No or few injuries or illnesses; minor quality of life loss; little or no property damage; and/or brief interruption of essential facilities and services.

Table 3

The 2017 Pitkin County’s Report of Aspen Natural Hazards – Estimated Probability and Magnitude

Hazard	Probability	Magnitude
Avalanche	Highly Likely	Critical
Wildfire	Likely	Critical
Flood	Occasional	Catastrophic
Winter Storm	Highly Likely	Limited
Lightning	Likely	Catastrophic
Dam Failure Flooding	Unlikely	Catastrophic
Drought	Occasional	Limited

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