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Integrated Safety Management for Mass Arts and Entertainment Events Based on an Outdoor Concert in Poland: A Case Study

Abstract

Objective: This article aims to conduct a detailed analysis of the activities carried out within the framework of integrated safety management of a specific arts and entertainment event. Moreover, it seeks to verify the hypothesis that the security sequence applied during the individual phases of the event, based on changes in the number of security and information services, ensures an appropriate level of safety for the participants.

Research Design & Methods: The study utilised a case study methodology in conjunction with in-depth interviews and document analysis techniques for data collection and analysis. The utilisation of this diverse array of research methods facilitated the acquisition of a holistic understanding of the processes that support the maintenance of public order during the event. Additionally, it enabled the evaluation of the practical effectiveness of integrated security management.

Implications/Recommendations: The implications of this study extend to the realm of public governance. It highlights the need for robust regulatory frameworks to effectively manage mass events. The law plays a crucial role in establishing guidelines and standards for ensuring participant safety and public order. Moreover, effective coordination between different stakeholders, including event organisers, security services, and information providers, is essential to achieve an appropriate level of safety.

Contribution/Value Added: This article contributes to the understanding the importance of integrated safety management in mass events and its implications for entities organising mass events. It provides valuable insights into the processes and measures necessary to maintain public order and ensure participant safety. By addressing the gaps in knowledge regarding safety management systems for mass events, it offers recommendations for policymakers, event organisers, and other stakeholders involved in public governance.

Keywords: mass events, safety management, integrated safety, event organisation, integrated security management, public safety

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Introduction

Each year, the number of mass event supporters increases significantly. This is because such occurrences are treated as a cultural good, displaying a universal character both in the eyes of the public as well as on the grounds of the Constitution (Constitution of the Republic of Poland, 1997, Article 6). A diverse array of event types comprises a broad spectrum, encompassing at least eleven distinct 'genres,' which span from business and festivals to social gatherings and sports events (Berridge, 2020, p. 273). They play an important role in social, cultural, and political life (Ziakas & Costa, 2011). Their diverse nature has a special effect on participants, making them feel part of an extraordinary spectacle, evoking emotions ranging from excitement to despair, from sadness to euphoria.

Understood in the context of an open, dynamic, and socio-technical system, a mass event enables the achievement of an objective, measured by the degree of satisfaction of its participants, which not so much depends on the success of the show itself, but is a result of social and living conditions, respect towards guests and the environment, as well as safety in general (Szymonik, 2011, p. 322).

Safety is one of the basic human needs, and its absence instills a sense of insecurity in the individual, resulting in reduced trust in both subjective and objective factors. Consequently, organisers are constantly taking measures to ensure incident-free mass events. This obligation stems from the law, precisely regulating any type of issue that could affect public order (Rosa & Cabandié, 2018), putting at risk the life or health of the participants of the event in question.

Safety management of mass events is, therefore, implemented by ensuring a state of security, resulting from the fulfilment of certain statutory requirements, guaranteeing an authentic sense of safety, perceptible by the participants, granting the possibility of tranquil participation in the event (Kąkol, 2018, p. 189).

The purpose of this article is a detailed analysis of the activities carried out within the framework of integrated safety management of a specific arts and entertainment event, taking into account a number of processes conducive to maintaining public order within the event area. Thus, it enables the verification of the hypothesis that the security sequence applied during the individual phases of the event, based on changes in the number of security and information services, was developed in a manner ensuring the appropriate level of safety for the participants of the event. The rationale behind the choice of the above topic is directly linked to the development of safety management systems for mass events and the renaissance that sports matches, concerts, and music festivals are experiencing after the SARS-Cov-2 pandemic.

Literature review

The safety of mass arts and entertainment events in Poland

The legal act regulating the safety of events of a mass character is the Act of 20th March, 2009, on the safety of mass events, according to which an event of an artistic or entertainment nature, including a television broadcast on screens meeting certain technical parameters, is generally considered to be an arts or entertainment event. One must bear in mind that in order for a given event to obtain this title, the number of its participants must exceed 500 (if the venue is a closed facility such as a sports hall) or 1000 (in open-air facilities) (Safety Act, 2009, art. 3, point 2).

Depending on their size, events have a specific impact on their surroundings. Local events require a different level of commitment from public authorities than regional or national events. Moreover, the organisation of mass events is not possible without the participation of three stakeholders – public, private, and social, cooperating simultaneously at several levels, among which the most important one is ensuring the safety of people, both those actively and passively involved in the event (Parszowski & Kruczyński, 2015, p. 16).

The organisers of this type of event are, therefore, obliged to maintain public order by taking measures to counteract problematic situations (Kostrubiec, 2021, p. 116), including acts of violence and aggression, and to provide medical assistance for the event, if such a need should occur. These obligations mainly include the preparation of hygiene and sanitary facilities and the organisation of a communication system between the entities securing the event, as well as the provision of the necessary equipment aimed at securing the event in terms of rescue and firefighting activities and the marking of evacuation routes, including routes making way for rescue services and the police.

The organisers of mass events are also obliged to undertake actions aimed at appointing a safety manager and selecting and determining an appropriate number of security services whose task is to maintain public order, as well as information services aimed at keeping the participants informed about the adopted organisational solutions (Safety Act, 2009, Article 19, points 1–2). The coordination of the above activities, with particular emphasis on the determination of the number and stationing of security and information services, together with the ongoing supervision over the course of a given event, is referred to as mass event safety management.

The number of the mentioned services depends on the status of the mass event. Events not classified as mass events of higher risk are characterised by the allocation of at least 10 members of security and information services in total for every 300 participants, and at least 1 member of the services for every additional 100 persons, assuming that the members of the security services constitute at least 20% of their total number. On the other hand, in the case of events bearing the name of mass events of higher risk, the appropriate number of security and information services is no less than 15 members for every 200 participants and at least 2 representatives of the services for every additional 100 persons, provided that the members of the security services should constitute at least 50% of all the persons present at the event who are responsible for maintaining public order (Safety Act, 2009, Art. 6, point 2).

The standard locations of security service posts include entrances and exits, car parks, stands, the stage, the pitch, as well as the catering area and communication routes. However, the determination of the actual stationing of the services is updated on an ongoing basis, showing a direct link to the phase of the mass event and the resulting changes in the number of participants of the event, functioning under the concept of dynamic stewarding (Polish Football Association, 2019, p. 10). The safety management of an arts and entertainment event, centred around ensuring adequate numbers of security and information services, should, therefore, follow the three essential phases of the event, shown in Table 1.

In the occurrence of events that cause public order disturbances and may lead to injuries of event participants, the organisers are also obliged to provide appropriate medical assistance for the event, in accordance with the Regulation of the Minister of Health of 6th February, 2012, on the basic requirements for medical assistance of a mass event.

The process of medical assistance provision is ongoing, starting with the official start of the event and ending with the departure of all spectators from the venue and its consequent

closure to unauthorised persons. The cited regulation also lays out a number of guidelines relating to the required qualifications of personnel, the maintenance of proper attire and the necessary equipment at medical points, and in the case of mass events with more than 10,000 participants, obliges organisers to appoint a medical coordinator, reporting directly to the safety manager, responsible for the development of an appropriate plan for the medical provision of the event and ongoing supervision of the activities of medical services, including ambulance teams, rescue patrols, and medical assistance points (Regulation of the Minister of Health, 2012, §1–5).

Table 1. The stationing and duties of security and information services during different phases of a mass arts and entertainment event

Setting	Location of safety services	Tasks of the security services	Tasks of the information services
Pre-concert	• entry and exit gates, • car parks, • traffic routes.	• supervising the safety of participants entering the mass event area, • checking participants' identification, • implementing security screening of the individuals, • vehicle inspection.	• supervising the safety of participants entering the mass event area, • ongoing enforcement of the event regulations, • directing the audience to the right places, • providing necessary information, • assisting people with disabilities.
Concert	• sectors, • pitch, • stage, • sanitary and production facilities, • traffic routes.	• preventing overcrowding, • ensuring the safety of artists and staff, • giving instructions for the maintenance of public order of the mass event, • demanding persons disrupting the event to leave the area of the mass event, • detaining individuals whose behaviour endangers the health and life of the event participants and handing them over to the police.	• providing the necessary information, • referring to medical, sanitary and catering facilities, • in the event of danger, taking the necessary precautions and informing security services of the situation immediately.
Post-concert	• sectors, • pitch, • entry and exit gates, • car parks, • traffic routes.	• indicating the nearest exit route, • directing traffic in car parks, • checking the site for any damage, • final inspection round.	• indicating the nearest exit route, • directing traffic in car parks.

Source: Own elaboration.

The safety management of mass events is an ever-evolving process, requiring ongoing supervision and the implementation of a number of tasks that exhibit a varied nature from one phase of the event to the next. However, the development of procedures alone may not be sufficient. What is important is their proper implementation and adaptation to the dynamically-changing environment. This requires event organisers to present not only sound planning and coordination, but also a high organisational culture and experience. In order to guarantee the highest level of safety for participants, it is, therefore, necessary to include qualified professionals and services

responsible for ensuring safety and public order in the organisational process, whose ongoing cooperation enables achieving the synergy effect (Marjański & Ropęga, 2019, p. 68).

Integrated safety management for mass events in Poland

In recent years, there have been significant changes in the approach to managing safety at mass events. Until now, the focus had been mainly on confrontation-oriented activities, countering the occurrence of public disorder. However, the importance of other threats and the connection between the safety level and other organisational elements had been overlooked. A model assuming a comprehensive integration of the three main components – safety, security, and service (Parszowski & Kruczyński, 2015, p. 16), presented in Table 2, is brought forth alongside the concept used so far.

Table 2. The components of the integrated safety management for mass events

Safety	Service	Security
An efficient and effective information policy	Comfort of the participant during the mass event and concern for his/her well-being	Professional security plan
Modern infrastructure	Professional organisation and logistics of the event	Integrated, ongoing risk analysis
No fences or railing around sectors	Convenient access to the facility enabling the venture to take place	The use of police operational information
Appropriate signposting of the mass event area	Professionally prepared parking	Security for everyone (participants, journalists, etc.)
Integrated management and developed contingency plans	Programmes for participants of the mass event	Ongoing surveillance to prevent negative events
Security screening at the entrances	Professional Stewards	The segregation of participants based on risk analysis
Crowdflow management	Friendly facilities I buffets, sanitary facilities, etc.	Crisis plans
The interaction of Police and Stewards with participants	Entertainment – accompanying events	The prevention of terrorist threats
Emergency medical services	Efficient and friendly service	Reducing the participation of violent and aggressive people

Source: Adapted from Parszowski & Kruczyński, 2015, p. 17.

Integrated safety management of mass events is, therefore, an approach combining all areas of management, with the aim of ensuring proper security of the event and minimising the risks associated with the organisation of mass events, focusing on the updated and effective flow of information, the coordination of the activities of the entities involved in the organisation of the event, and the creation of an environment conducive to multi-stakeholder cooperation. This concept, extending the notion of classic mass event safety management to include activities beyond 'putting out the fire', is based on project management, introducing the division of the venture into smaller projects, the implementation of which is determined by the availability of human and financial resources as well as the time perspective (Sabat, 2017, p. 122).

The approach presented was initially applied during the preparations for the Final Tournament of the UEFA EURO 2012 European Football Championship. The success of the security measures executed during that period was significantly dependent on meticulous planning and seamless collaboration. This encompassed a comprehensive analysis and risk assessment of the services and security forces involved. Furthermore, it entailed continuous coordination and diligent oversight of these service activities (Falkowski & Liberek, 2019, p. 10).

Subsequently, in the course of the 2012 Olympic Games in London, initiatives founded upon the principles of integrated safety management were undertaken, yielding a range of notable outcomes. This encompassed the effective coordination between private security personnel and volunteers to oversee the orderly movement of participants. Additionally, measures were implemented to establish both human and physical barriers, thereby ensuring adherence to prescribed routes and pathways while maintaining event safety (Ludvigsen & Hayton, 2022, p. 138).

Gaining more and more popularity, the concept of integrated safety management for mass events has in a way become a standard applicable in the implementation of various types of ventures all around the world.

Research methodology

An effort to implement the concept of integrated safety management for mass events was undertaken by one of the cultural centres in the Świętokrzyskie region. This initiative revolved around the organisation of an outdoor concert, which serves as the central reference point for this case study.

This approach facilitated a comprehensive analysis of the practical implementation of integrated security management within a specific artistic and entertainment event. By immersing into the specifics of this individual case, it became possible to scrutinise and gain insight into the actions and protective measures that were instituted across various phases of the event. The case study, therefore, furnishes both context and intricate data, affording a profound comprehension of the contributing factors to safety management in practical application, as well as whether the sequence of actions employed genuinely underpins the assurance of safety during an artistic event.

The research method enabling the collection of data on the implementation of the presented approach was an in-depth direct interview. Here, respondents are allowed to express themselves freely based on the associations and facts related to the process of organising mass events (Guion et al., 2011, p. 1). In addition, internal documents were used as research material (Bowen, 2009, pp. 27–28), enabling a thorough analysis of the methodological aspects of security management. The applied research approach, which is a combination of data collection techniques, provided a comprehensive and thorough understanding of the idea of the integrated safety management of mass events.

In accordance with the methodology of organising mass events presented by employees of the cultural centre in a direct interview, the implementation of the above-mentioned concept began with the development of relevant documents, which included instructions on security service procedures, a graphic plan of security, the event script, rules and regulations of the event, instructions on how to behave in case of a fire or other local hazard at the place and time of the mass event, the schedule of opening and closing the event area to the participants, as well as the communication conditions between the entities taking part in securing the mass event.

The documentation prepared made it possible to request a relevant statement from the District Police Headquarters, Fire Brigade, Sanitary Inspection, as well as the Medical Rescue and Sanitary Transport Centre. A letter was also sent to the Healthcare Facility, informing them of the concert hosting several thousand participants, in order to for them to prepare the medical services for any unforeseen circumstances that might arise during the event, necessitating the admission of a large number of patients.

At the same time, an identical set of documents, supplemented with information that the statements of the above-mentioned institutions had previously provided, was presented to the Mayor of the City. The obtained rulings were then delivered to the Department of Civil Affairs at the City Hall, granting the permission to organise a mass event.

Obtaining the approvals initiated making the process of organising the outdoor concert a reality. This resulted in the need to determine the planned number of people taking part in the three main phases of the event, established by the Organiser on the basis of the number of participants, using a different criterion of division than that proposed by the author of this publication.

Conducted forecasts predicted that in the first phase of the mass event, the number of interested persons would reach 1,000, in the second – 3,000, while in the third phase, the total number of participants would oscillate around 8,000. The rotation of guests entailed the necessity of an ongoing increase in the number of security and information services, whose number in the culmination of the event reached 87 persons. This figure was determined on the basis of guidelines derived from the Act of 20th March, 2009, on the safety of mass events.

A summary analysis of the number of services in the different phases of the mass event, taking into account the planned number of participants in the event, is presented in Table 3.

Table 3. The phases and number of security and information services during the outdoor concert

Phase	Time interval	Number of participants	Occupied area	Number of services		
				Security	Information	Total
Phase I	15:00–17:00	1,000	500 m ²	4	13	17
Phase II	17:00–19:00	3,000	1,500 m ²	8	29	37
Phase III	19:00–23:30	8,000	4,000 m ²	18	69	87

Source: Own elaboration.

The introduction of the three phases of the mass event called for the planning of a proportional number of security service briefings and the dislocation of the fixed and mobile posts occupied by them. These activities were carried out in real time at the respective hours:

- 14:00–14:30 – involving 17 members of the security and information services;
- 16:00–16:30 – involving 20 members of the security and information services, bringing the total number of safety personnel to 37;
- 18:00–18:30 – involving 50 members of the security and information services, which resulted in an increase in the total number of safety personnel, eventually reaching 87.

While the implementation of processes aimed at determining the location of posts and estimating the appropriate number of security and information services required detailed calculations, the organisation of medical assistance went much more smoothly. It was determined that in the case of adverse occurrences during the arts and entertainment event, it would be sufficient to provide

two rescue patrols and ambulance teams, among which, in accordance with the Regulation of the Minister of Health of 6th February, 2012, on the basic requirements for medical assistance provision of a mass event, there should be at least one medical doctor. In addition, the Organiser decided to provide a Medical Assistance Point, despite the fact that the referred regulation does not impose this obligation in the case of a mass event with less than 10,000 participants (Regulation of the Minister of Health, 2012, §3, point 3).

Discussion of the results

These measures were carried out with the concept of the integrated safety management of mass events in mind, allowing the results presented in Table 4 to be compiled.

Integrated safety management for mass events is crucial when organising an open-air concert due to several reasons:

1. *Legal and Regulatory Compliance* – organising a concert involves adherence to various legal and regulatory requirements related to safety. Integrated safety management ensures compliance with these regulations, which may include obtaining permits, licences, and certifications, meeting fire safety codes, adhering to building and occupancy limits, and complying with health and safety standards. Failing to comply with these requirements can lead to legal consequences, reputational damage, and, most importantly, it can jeopardise the safety of the attendees.
2. *Crowd Management* – concerts attract large crowds, and ensuring the safety and well-being of attendees is paramount. Integrated safety management involves planning and implementing measures to effectively manage the crowd, including crowd flow, entrance and exit strategies, and emergency evacuation procedures. Given that the efficacy and efficiency of crowd management strategies hinges upon pedestrian conduct, it proves invaluable for stakeholders to possess insights regarding the anticipated, and ideally observed, behaviour of the pedestrian assembly (Gong et al., 2020, p. 192). Consequently, this knowledge holds the potential to offer significant advantages in the realm of crowd management. This helps prevent overcrowding, stampedes, and other potential hazards that can arise from a poorly managed crowd.
3. *Risk Assessment and Mitigation* – concerts involve numerous risks, such as fire hazards, structural collapses, medical emergencies, and even terrorist threats. Integrated safety management requires conducting comprehensive risk assessments to identify potential hazards and implementing appropriate mitigation measures (Silvers & O’Toole, 2020, pp. 20–23). This involves ensuring proper infrastructure, such as sturdy stages, adequate emergency exits, fire suppression systems, and medical facilities, to minimise risks and respond effectively in case of emergencies.
4. *Health and Safety* – organisers have a responsibility to protect the health and safety of concert attendees, staff, and performers. Integrated safety management encompasses measures to address health and safety concerns, including first aid provisions, medical personnel on-site, crowd monitoring for signs of distress, and addressing potential health hazards such as extreme weather conditions or contagious diseases. This promotes a safe environment and minimises the risk of accidents, injuries, or health-related incidents (Memish et al., 2019).
5. *Communication and Coordination* – integrated safety management emphasises effective communication and coordination among all stakeholders involved in the event, including organisers, security personnel, emergency services, and local authorities. Clear communication

Table 4. The results of the implementation of integrated safety management for mass events

Safety	Organiser's tasks	Service	Organiser's tasks	Security	Organiser's tasks
An efficient and effective information policy	• event schedules posted on the premises, • site plan posted at the entrance.	Comfort of the participant of a mass event and concern for his/her well-being	• an adequate number of properly trained information services, • proper medical assurance provision of the performance.	Professional security plan	• a security plan including fixed and shifting security posts, • instructions to be followed in the event of fire or other local threat at the place and time of the mass event.
Modern infrastructure	• event held in a modern stadium, • modern sound and lighting systems.	Professional organisation and logistics of the event	• a facility tailored to the planned number of participants of the event, • designated communication routes, • access to car parks.	Integrated ongoing risk analysis	• ongoing monitoring of the number of participants of the event, • security and information patrols, • dynamic stewarding.
No sector fences or railings	• properly prepared sectors to ensure good visibility and unconstrained mobility around the event area, • properly marked spaces inaccessible to event participants.	Convenient access to the facility enabling the event to take place	• access to the event site by car – parking provided, • location allowing convenient transport by several lines of public transport.	The use of police operational information	• information used to investigate the volume of vehicle traffic showing a direct link to the phases of the mass event, • reporting to the safety manager after the event.
Appropriate signposting of the mass event area	• markings for emergency exits, communication routes, entrance and exit gates, • good signposting and visibility of sanitary, medical and catering facilities.	Professionally prepared parking	• the venue's car park designated only for participants and event organisers, • ongoing traffic management.	Security for all persons present at the event (participants, journalists, etc.).	• security services informed of the different categories of participants taking part in the event, • awareness of possible dangers and how to counter them.
Integrated management and prepared contingency plans	• integrated safety management by ensuring communication between the organiser and representatives of the security and information services, • ongoing exchange of information.	Programmes for participants of the mass event	• event programmes with a paper map accessible to the participants, • detailed schedule of the event available online.	Ongoing surveillance to prevent negative occurrences	• security and information patrols, • alterations of the number of services at individual stations, • responding to undesirable situations.

Table 4 – continued

Safety	Organiser's tasks	Service	Organiser's tasks	Security	Organiser's tasks
Control at entrances	• implementation of security screening according to the gender of the participants, • confiscating items that do not comply with the regulations of the event.	Professional Stewards	• representatives of the security services who are on the list of qualified security personnel, • experienced members of the information services, • safety services trained in dynamic stewarding.	The segregation of participants based on risk analysis	• additional security screening in the case of persons suspected of carrying items breaching the regulations, • no persons under the influence of alcohol or drugs may enter the event area.
Crowdflow management	• information services directing event participants to the appropriate sectors, indicating the nearest exits and communication routes, • professional venue access and exit plans.	Friendly facilities – buffets, sanitary facilities, etc.	• access to food courts offering a varied menu, • listed allergens contained in the each of the dishes, • modern sanitary facilities.	Crisis plans	• prepared plans in the event of a fire or other situation calling for evacuation, • properly marked emergency exits.
The interaction of Police and Stewards with event participants	• the presence of security services among the public, • issuing ongoing messages to prevent undesirable situations.	Entertainment – Accompanying events	• Additional children's play area with inflatable slides, • hair dyeing and braiding activities.	Prevention of terrorist threats	• prepared crisis plan available for security services, police, and fire brigade, • training of security services in counter-terrorism operations.
Emergency medical services	• the provision of two emergency patrols and ambulance teams with a doctor, • the presence of an additional Medical Assistance Point.	Efficient and friendly service	• qualified staff, suitable for working at mass events, • security services patrolling the site during the dismantling of equipment.	Reducing the participation of violent and aggressive persons	• refusing entry to persons who pose a danger to other participants, • ejection from the event area of persons breaking the rules.

Source: Own compilation based on Parszowski & Kruczynski, 2015, p. 17.

channels and well-defined roles and responsibilities ensure a coordinated response in case of emergencies. This facilitates quick decision-making, prompt evacuation if necessary, and overall enhances the effectiveness of the safety management system (Guide on the Security of Major Sporting Events, 2021, pp. 39–41).

In summary, integrated safety management for mass events such as an open-air concert is essential to ensure the well-being of attendees, mitigate risks, respond effectively to emergencies, and comply with legal and regulatory obligations. It helps create a safe and enjoyable environment for everyone involved while minimising potential hazards and ensuring a successful event.

Conclusions

General summary

The concept of integrated safety management for mass events implemented by cultural centre in the Świętokrzyskie voivodeship, based on the ongoing exchange of information between the security services and the event organiser, led to the minimisation of the risk of adverse events. Public order authorities remained fully aware of their role in the incident prevention process, responding quickly and effectively to any threats.

The estimated number of security and information services present at individual stations fully complied with the existing requirements, not infringing the principles stemming from the act on safety of mass events. In addition, medical assurance carried out by mobile rescue patrols, supplemented by an additional Medical Aid Station, led to the appropriate preparation of the area covered by the mass event in case of emergency.

Therefore, the presented activities enable a positive verification of the hypothesis, proving that the concept of the integrated safety management of mass arts and entertainment events implemented by the organiser, based on the idea of dynamic stewarding, had been developed in a way that ensured an appropriate level of event participant safety.

Recommendations for practice

Based on the experience of one of the Świętokrzyskie cultural centres regarding the integrated security management of artistic and entertainment events, the following recommendations for mass event organisers were developed:

1. *Conduct a comprehensive risk assessment* – before organising the event, perform a thorough risk assessment to identify potential security threats and vulnerabilities. Assess the venue, crowd capacity, access points, infrastructure, and external factors that could impact security (Koski et al., 2020). This assessment will serve as the basis for developing a robust security plan.
2. *Develop a security plan* – create a detailed security plan that encompasses all aspects of the event. This plan should include measures for crowd management, access control, perimeter security, emergency response, communication protocols, and collaboration with local law enforcement and emergency services. Make sure that the plan is tailored to the specific event and takes into account the identified risks.
3. *Collaborate with relevant stakeholders* – establish strong relationships and effective communication channels with all relevant stakeholders, including local law enforcement, emergency services, venue management, event staff, and security personnel. Foster collaboration and

make sure that everyone is aware of their roles and responsibilities in maintaining security during the event.

4. *Implement access control measures* – implement robust access control measures to prevent unauthorised entry and maintain crowd safety. This may include ticketing systems, ID checks, bag searches, metal detectors, and security personnel stationed at entry points. Clearly communicate entry requirements to attendees in advance to streamline the process and minimise delays.
5. *Deploy visible security presence* – ensure a visible security presence throughout the event venue. This includes uniformed security personnel, surveillance cameras, and signage indicating security measures in place. Visible security measures act as a deterrent and help reassure attendees that their safety is a priority.
6. *Monitor and manage the crowd* – continuously monitor crowd behaviour and flow throughout the event. Use trained personnel to identify potential issues such as overcrowding, aggressive behaviour, or signs of distress. Implement crowd management strategies to prevent bottlenecks, maintain orderly movement, and address any emerging safety concerns promptly.
7. *Provide emergency preparedness and response* – develop and communicate clear emergency protocols to all event staff and attendees. Establish procedures for evacuations, medical emergencies, and response to potential threats. Conduct drills and train staff on emergency response to ensure preparedness. Maintain close communication with local authorities and emergency services for swift coordination if needed.
8. *Conduct post-event evaluations* – after the event, conduct a thorough evaluation of the security measures and response. Identify any shortcomings or areas for improvement and implement necessary changes for future events. Collect feedback from attendees, staff, and relevant stakeholders to gain insights and enhance security practices.

However, each mass event has a unique character. Therefore, the presented recommendations should be appropriately adapted to the environmental conditions, enabling the highest possible level of safety for participants.

Research limitations and suggestions for future directions

Further research on the integrated management of safety at mass artistic-entertainment events may encounter certain limitations. One of the key constraints is data availability. Therefore, further research should focus on collecting and analysing data not only from event organiser documents, but also from police and medical reports. Such data can provide valuable information for future research.

Another limitation is the complexity of the system itself. The integrated management of safety at mass arts and entertainment events involves various entities and agencies working together. Understanding the interactions between these entities and finding ways to improve communication and coordination among them is crucial. Future research should thus delve into this aspect, exploring effective strategies for collaboration and communication within the complex system.

Furthermore, research should assess the effectiveness of different actions undertaken within the framework of integrated safety management. By evaluating the impact of specific actions on enhancing safety and responding to crisis situations, valuable insights can be gained. This evaluation can inform future practices and help identify areas for improvement.

Lastly, considering the international nature of these events, research should incorporate aspects of international collaboration and information exchange in safety management. Mass artistic-entertainment events often attract participants and artists from different countries, necessitating coordination and cooperation at the international level. Exploring effective models of international collaboration in safety management can greatly contribute to the overall success of these events.

In conclusion, systematic extension of scientific research with the described directions may enable the creation of a comprehensive safety management system for mass artistic and entertainment events, increasing the level of safety of all entities participating in a given project.

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All data will be available and shared upon request.
