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## **Organization of a mass sport event on the example of the XII Shotokan FSKA Karate World Championships**

### **Abstract**

The subject of the research was the description and explanation of the role, significance and course of logistics processes in organizing a mass sports event on the example of the XII Shotokan FSKA Karate World Championships, which took place in Poland in Kowary and Karpacz on September 23-26, 2010. The purposeful selection of the sample was dictated by the subject of the study, which includes activities related to the preparation, organization and settlement of a mass sports event. A feedback model was adopted to describe and explain the functions of the organization of a mass sports event and the processes occurring in it. The analysis carried out was based on the identification of logistics processes divided into basic, supporting and management. Then a logical design of the consequences of individual activities was formulated and maps of relations between individual areas of logistics activities were designed. Networks of actions implemented were built and the earliest and latest dates of events were established. Time gaps as well as critical and strategic processes were identified. Events that initiated processes and were critical to the organization of the 12th Shotokan FSKA Karate World Championships were identified.

**Keywords:** sport management, logistics, mass sports event, shotokan karate

### **Introduction**

Mass events stand out from other events because of the security risks associated with the presence of a large number of participants in the area where the event takes place. Bearing in mind the potential threats and the need to prevent them, many requirements have been foreseen that must be met by the organizers for such an event to take place (Witkowski et al., 2015). The rules for organizing and carrying them out, as well as the organizer's obligations and rights are set out in the Act on the Safety of Mass Events. A mass event can also be organized by a non-governmental organization. Pursuant to the Act of 2011 (Article 3 (1)) on the organization of mass events in Poland, "a mass event is an artistic and entertainment event or sport event if it is of a mass nature" and "organized public viewing of television broadcasts on screens or

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devices that allow to obtain an image of diagonal exceeding 3 m", which takes place, among others at a stadium housing at least 1000 people or in a sports hall or in another building that can accommodate at least 500 people (Journal of Laws of 2009 No. 62, item 504, as amended). It follows that events that are not sports or arts and entertainment (e.g. mass religious, social events) are not mass events, even if very many people participate. In addition, recognizing an event as massive depends on its nature. This means that its "mass" depends on the number of participants:

- an artistic and entertainment event is a mass event if the number of places for participants is not less than 1000 at the stadium or open area and 500 in the sports hall or in another building;
- in the case of sporting events, the number of places is not less than 1000 at the stadium or other open area and 300 in the hall or other building;
- due to the special rules of organization and ensuring safety, mass matches also distinguish football matches, during which the number of seats made available by the organizers to spectators is not less than 1000 (Cieśliński et al., 2015; Jędrzejak, 2017).

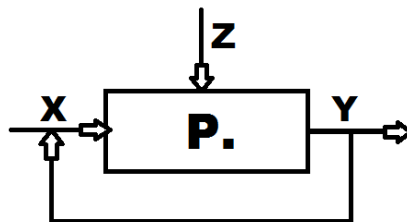
So a mass event will be, for example, a concert for 1,000 people at the local stadium. But it will no longer be a concert of the same star organized by the association for 200 people - its members and supporters. For a paid event, the number of seats can be determined based on the number of tickets for sale. At a free event taking place in the open air, if the entrance to the event area is not by invitation or is not limited in other ways (e.g. by identifiers), it is necessary to carry out estimated calculations taking into account the area intended for spectators and occupied by one person. To qualify a given event as a mass event, it is also irrelevant whether it is paid or free. Safety must be ensured at every event - also free (Cieśliński et al., 2016a, 2016b).

Sporting events are processes that have a rigid time frame. The quality of their organization depends, among others on logistic quality, which is influenced by the problem of time and value for fans. Fast transport of ordered materials, or the movement of players, their teams and fans, from one point to another, become more important if the event takes place in a large area or is organized in a crowded urban agglomeration. Good transport connections can encourage or discourage a significant number of supporters from attending the event. Organizers of large sporting events take into account various communication problems, therefore they have to cooperate with various services, creating a kind of logistic support system for mass sporting events (Piepiora and Zakrzewska, 2016; Zakrzewska and Piepiora, 2016). Sports activists are beginning to notice that logistics can greatly reduce the duration of expensive investments, and help athletes succeed. Logistic support of a sporting event include infrastructure support. Infrastructure is a material (technical) base that ensures the efficient implementation of all logistics processes and includes line infrastructure (communication routes connecting sports facilities) and point infrastructure (railway stations, airports, seaports, border checkpoints, venues, rooms) accommodation, etc.) (Witkowski et al., 2016a).

## Material and method

The subject of the research was the description and explanation of the role, significance and course of logistic processes in the organization of a mass sports event on the example of the XII Shotokan FSKA Karate World Championships. This mass sports event took place in Poland in Kowary and Karpacz on September 23-26, 2010 (Janisławska et al., 2010; Piepiora, 2010; Piepiora and Piepiora, 2011, 2013). The organizer of this mass sports event was the Funakoshi Shotokan Karate Sports Club (Piepiora, 2009; Piepiora and Piepiora, 2019). The purposeful selection of the sample was dictated by the subject of the study, which included activities related to the preparation, organization and settlement of a mass sports event - i.e. source documents related to the organization of a mass sports event, in this case the 12th Shotokan FSKA Karate World Championships (Piepiora et al., 2016a, 2016b).

A feedback model was adopted to describe and explain the functions of the organization of a mass sports event and the processes occurring in it (Fig. 1). The feedback takes place in three stages from building standards to making it more flexible - implementing the human factor to the systematic development of logistics processes related to the organization of mass sports events. The feedback model is a dynamic relationship between the phases of logistics processes. Input "X" (supply) is based on building tools standardizing logistic processes of a certain level of maturity, which will allow obtaining repeatable runs under certain conditions. Such a process is subject to "P" (transformation) through the built-in configuration. It is subject to change, which often causes uncertainty about the result of its action. Also the variable "Z" (disturbances) - elements of the environment of logistics processes, deforms the course of this process, and therefore there must be a phase of flexibility (Agile), enabling the integration of human factor directly into the process. "Exit" - the result of the "Y" process should be a new model of logistics processes (Frykberg, 2002; Cieśliński, 2011).



**Fig. 1.** Model of feedback organization of a mass sports event.

Source: own study based on Cieśliński, 2011.

Finally, the above model can be formally written:

$$Y = P(X, Z, Y), \text{ where:}$$

P - IMPLEMENTATION PHASE - course of activities in the process of organizing a mass sports event;

X - PREPARATORY PHASE - entry logistics, i.e. processes that take place in the phase of preparation for the organization of a mass sports event;

Z - INTERFERENCE - the impact of the environment as an element disturbing the course of logistics processes in the organization of the event,  
 Y - SETTLEMENT PHASE - exit logistics, i.e. processes taking place at the end of the organization of a mass sports event.

FEEDBACK (from Y to X) - a meeting of the management of a sporting event in the assessment of its course and formulation of conclusions on how to improve the efficiency of future events.

The above model uses practically other systems, including quality systems standardizing process operations, IT systems supporting the achievement of synergies in the communication of people in the organization, as well as efficiency improvement systems based on the theory of efficient operation. In addition, this model assumes that on the basis of feedback (negative), input communication processes (X-data) are obtained for information and communication purposes. Data is transformed by the generator (P-transformation of data into information). The output of this process (Y-knowledge) is knowledge as a result of the process of communication. Negative feedback is to give the generated new knowledge a "screen" for the acquisition of new data and their selection. Therefore, it is necessary to identify the elements configuring the organization and architecture of processes (Freeman, 2004; Rhee et al., 2012; Witkowski et al., 2016b).

In order to diagnose areas of optimization of the processes of organizing a mass sports event, it is necessary to initially describe and explain the issues that constitute the critical scope of research issues, namely:

- integrated logistics processes, including networks and the logistics activities implemented in them must be customer-oriented Customer Relationship Management (CRM);
- integrated logistics processes must model and implement customer service quality standards (use quality systems including ISO 9001: 2000, TQM, KAIZEN, KANBAN);
- optimization of Enterprise Resource Planning (ERP) planning and resource management processes;
- optimization of providers - trends and directions of improvements in purchasing and procurement processes (CPM);
- optimization of supply processes (Manufacturing Execution Systems (MES));
- optimization of warehouse processes, Manufacturing Resource Planning (MRP);
- optimization of transport processes (e-OPS);
- optimization of logistics costs using the methodology (ABC);
- optimization of the logistics process measurement system (BSC) (Boyle and Haggerty, 2009; Cieśliński et al., 2019).

## Results

Input logistics (variable X):

1. establishment of the Organizational Office, assignment of tasks by the Tournament Director;

2. developing a draft expenditure estimate;
3. selecting contractors for external orders by tender:
  - development and protection of the hall,
  - medical and sanitary protection,
  - purchase of medals and cups,
  - board of players and guests,
  - artistic performances;
4. signing agreements with partners of the FSKA Karate Shotokan World Championship;
5. signing contracts with sponsors of the FSKA Karate World Shotokan Championships;
6. signing contracts with media patrons;
7. obtaining the consent of the Marshal of the Lower Silesian Voivodship, Staroste of the Jeleniogórski Powiat, the Mayor of Kowary and the Mayor of Karpacz to organize a mass event;
8. event insurance;
9. verification of sports halls and adjacent areas by the Technical Commission, Championship Coordinators in cooperation with representatives of the Police, City Guards, MPK, Designer and Contractor of event security, verification of the adopted design solutions of sports halls and current traffic organization in the Jelenia Góra region, assessment of the effectiveness of the adopted design solutions for the safety of competitors and participants, writing protocols of reconciliation;
10. placement and assembly: tatami mats, judges' tables, auditoriums, places for officials, podiums, sound system, hall marking;
11. placement and assembly in the places of road signs forbidding parking B-36 indicated in the project together with T-24 tables and information about their date of validity, assembly of information boards about traffic difficulties and planned detours in places designated in the project in the Jelenia Góra region;
12. importing and storing all materials for starter packages;
13. packing starter packages for competitors;
14. verification of competitors in the competition office;
15. opening of the TOURTEC Fair;
16. electrician's maintenance call and making the necessary electrical connections;
17. setting up stage, flagpoles and platforms for cameras on Pergola and guest stands;
18. artistic performances on the pergola stage for event participants;
19. bringing all banners, advertisements and decorations as well as information boards
20. bringing equipment for storage and storage in the hall;
21. providing additional security for the hall by a security company;
22. duty of the water and sewage system conservator;
23. placing a tent with a floor for a VIP cafe;
24. performance of energy connections to the stage, judges' tables, cafes;
25. publishing Guidebooks for championship organizers;

26. meeting of all organizers of the championships in the sports hall;
27. receiving VIPs, guests and journalists at the VIP Cafe;
28. direct supervision of the battlefield and the stage;
29. medical support for the championships by paramedics;
30. medical support for the championships by the Ambulance Service in Kowary (2 ambulances);
31. taking seats by invited VIPs on the grandstand next to the start;
32. the position of championship participants in the designated zones;
33. coverage on the internet of fighting and awarding awards on stage;
34. report from the Tournament Director to the Mayor of Karpacz about the readiness of competitors, referees and organizers to start the event;
35. the ceremonial opening of the championships by the Marshal of the Lower Silesia, Staroste of the Jeleniogórski Powiat, the Mayor of Kowary and the Mayor of Karpacz.

Transition logistics (variable P):

1. the eliminations and finals of kata and kumite, team kata and team kumite;
2. monitoring of karate games - safety, communication with security institutions, control of the technical condition of all components;
3. dispensing meals and drinks for competitors, referees and guests;
4. physiotherapy treatments for participants;
5. giving medals and cups as well as statutory prizes to all winners on stage;
6. collection of deposits by competitors upon presentation of the starting number in the hall.

Output logistics (Y variable):

1. disassembly and collection of equipment from equipment and storage in the hall;
2. disassembly and collection of signs and storage in the hall;
3. cleaning the hall and garbage collection;
4. disassembly of all firewalls, road signs, audiences, stage after receiving the instruction of the Police Security Chief;
5. performance of artistic groups at the end of the championship;
6. social meeting of all FsKA employees, championship organizers and guests in the VIP cafe;
7. supervision of a cafe by 2 security guards;
8. dismantling all banners, advertisements and decorations;
9. dismantling of the hall sound system;
10. disassembly of own devices, transport to warehouses;
11. cleaning of the hall and adjacent areas;
12. dismantling and transporting mats, stage, platforms, stands and other equipment in the hall;
13. loading and returning borrowed banners and advertisements of sponsors, co-organizers and media patrons;
14. loading and returning rented other equipment;

15. sending the results of the championship by e-mail to event participants and journalists.

Identification of disturbances in logistics processes (variable Z):

1. fainting the player;
2. injuries and injuries of players
3. waterway rupture;
4. the collapse of the audience;
5. terrorist threats in places related to the organized event;
6. power supply failure;
7. food poisoning of competitors and staff during the event;
8. theft of valuable items (medals, cups, prizes, etc.) from the warehouse on the eve of the event;
9. improper securing of the event by the contractor;
10. atmospheric discharges;
11. anonymous phone call with a bomb;
12. sound failure;
13. delayed start due to unforeseen conditions;
14. player's death.

Feedback:

1. meeting of the leadership of the championship;
2. discussion on the organization of the championships and evaluation of the event by the organizational office and the Tournament Director;
3. sending a survey via e-mail to the participants of the event to learn about its organization.

## **Conclusion**

Logistics streamlines the management of the processes of organizing mass sports events. It reduces time, costs and improves the quality and safety of event organization. The use of a logistic approach increases the likelihood of its effective implementation and, in addition, improves the organizational system by pointing to input elements, organizational transitions and exit elements. It is easy to divide activities into tasks in such a system, indicating milestones and critical phases of organizing a sporting event. Contemporary sports competitions are increasingly having a mass event scale. For a given event to take place efficiently from the point of view of: supporters, athletes, media, sponsors and from a security point of view, it must be well prepared and monitored. Example of the XII Karate Shotokan World Championships FSKA proves that logistics is a tool that allows you to control activities and processes in such a way as to be able to achieve the planned results in the organization of a mass sports event.

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