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# ANALYZING THE INFLUENCE OF INFORMATION DISSEMINATION PRACTICES ON PLANNING OF CROWD MANAGEMENT

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**Abstract:** Planning and control of crowd management is an integral part of event management. Proper planning and execution of crowd management ensures smooth movement of people participating in the event and makes event successful. Studies conducted in the field of event management have explored various factors which constitutes the overall crowd management and micromanagement of these factors can lead to overall efficient management of the event. The present study has analyzed the influence of information dissemination practices on planning and control of crowd management with special reference to events organized in Madhya Pradesh, India. The results of the study may be utilized by the event planners and managers as it discloses the association of various attributes such as scale, frequency and nature of the event to validate the influence on the overall planning and crowd control.

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**1. Introduction:** Crowd management is one of many aspects of event administration which plays a key role in successful organizing an event. Proper planning and control of crowd is typically managing through many practices evolved over the time for efficient event organization. Information dissemination is one such important factor which is very much significant to crowd and event management. It is a continuous process which requires meticulous planning as well as perfect execution before and during the event to disseminate relevant information with flawless control.

It is obvious that with technological advancements many tools have emerged for effective communication, and therefore it becomes imperative to understand the association or relationship of event attributes such as nature, scale, frequency, and so on with information dissemination practices and planning of crowd management during the event. The role of information dissemination has also become very dynamic with the current trend of flexible strategies which are often modified as per the situational needs. In such scenarios the role of these tools become vital to communicate the important information to the participants for timely and effective execution of the event planning and crowd control. The event organizers rely on such flexibility for implementation specifically in case of emergency cases, transportation route blockages, safety and many more related issues.

It is also evident from the ongoing practices that the main objective of planning and control of crowd management is to ensure safety and comfort for participants coming for the event (Earl, Parker, Tatrai and Capra, 2004). The smooth flow of the crowd can be maintained if the various concerns related to it are planned appropriately such as provisions of bottleneck, adequate capacity at exit & entry points and proper display of signage. The events organized in countries where population density is relatively high such as in India, preparation becomes critical in terms of planning and control of crowd management; therefore, effective and timely communication plays a significant role in event management.

Present study is aimed to examine the role of information dissemination practices on planning and control of crowd management with special reference to events organized in Madhya Pradesh, India. This study is imperative because, in the present scenario, the effect of externalities in event organization is unavoidable with high potential vulnerability which can potentially affect the safety and comfort of the participants up to a significant extent. Thus, it becomes important to analyze the influence of

information dissemination with event attributes such as organizational scale, frequency and nature of the event.

**2. Literature Review:** Crowd management is a complex phenomenon and it includes collaboration of various fields of engineering and management. It also involves continuous operations involving decision making measures which are dynamically adopted as per crowd situation. The role of information dissemination involves both the aspects of crowd management which are crowd monitoring and crowd control. The crowd control measures can not be applied without proper information dissemination. A centralized approach for monitoring and control can effectively help the event organizers to take essential decisions and effectiveness of the system depends on the effectiveness of the information collection and dissemination (Sharma, Bhondekar, Shukla and Ghanshyam, 2016).

However, with the increase in the mega scale gatherings, the possibilities of crowd tragedies are also increasing across the world, specifically where the density of the crowd participation is very high. Considering the same event planners have embarked on new studies that offer different approaches in this regard (Sengupta and Bennett, 2003; Batty and Torrens, 2005). The new approaches can redefine the crowd management and examining role of information dissemination is also an attempt to add literature in such regard. Further, the increased popularity of events related to entertainment and sports all around the world is also indicating the integration of planning process of crowd management for a larger and diverse participations (Raineri and Earl, 2005).

The earlier studies for crowd management were majorly done on the sports events due to commercialization of sports tourism all around the world. Researchers have also preferred and attempted to study the sports events for understanding crowd planning and management for the ease of data collection as well. The available researches are predominantly confined to the safety aspect of the events (Abbott and Geddie, 2001; Rahmat et al, 2011; Seidler, 2006).

Based on the review of literature it can be clearly observed that there exists a research gap which indicate the need to focus on the underlying factors of crowd planning and management. Therefore, the present study is aimed to study the influence of information dissemination practices on planning of crowd management with special reference to events in Madhya Pradesh, India.

**3. Research Methodology:** The present study is descriptive in nature which attempts to analyze the influence of information dissemination practices on planning of crowd management through analysis of the collected data. For this purpose, primary data was collected from the individuals directly engaged in the event planning, coordination and control. The data was collected through structured questionnaire and the recorded responses were analyzed through SPSS. The data collection was done using the non-probability convenience sampling technique and a total of 200 filled questionnaires were used for analysis of the study. The research instrument was designed to capture responses for various independent and dependent variables. The following null hypothesis were formulated as mentioned below:

H<sub>01</sub>: There exists no significant association between nature of the event and impact of information dissemination practices on planning of crowd management.

H<sub>02</sub>: There exists no significant association between frequency of the event and impact of information dissemination practices on planning of crowd management.

H<sub>03</sub>: There exists no significant association between organizing scale of the event and impact of information dissemination practices on planning of crowd management.

Since, the data collected for the independent variable was of non-matric nature and the dependent variable data was of matric nature, therefore, one-way ANOVA was considered appropriate as the statistical analysis.

**4. Data Analysis and Interpretation:** The data was studied in various steps, the preliminary analysis was done through frequency observations which provided an overall understanding of the events

attributes and perception regarding information dissemination practices adopted by the organizers for various events. The stepwise data analysis is briefly presented as follows:

**Table 1:** Event Attributes

1. Nature of the event?		2. Frequency of the event?		3. Organizing scale of the event (in terms of public participation)	
Religious	93	Rare (More than a Year)	19	Low (up-to 10000)	56
Sports	21	Moderate (Yearly)	152	Moderate (10000-1 Lakh)	103
Commercial	86	Frequent (Week/Monthly)	29	High (Above 1 Lakh)	41
Total Responses = 200					

As shown in the above table, the data was collected from the events majorly related to commercial and religious nature whereas the sports events were comparatively less in numbers. Further, most of the events were found consistently repetitive in the nature as the majority of the events were occurring on yearly basis and the participation level for almost half of the events was found at moderate level exhibiting participation in between 10000 to 1 lakh.

The next table mentions the responses regarding the impact of information dissemination practices on planning of crowd management. The responses were recorded on five-point Likert scale ranging from strongly agree to strongly disagree. The summary of the responses is mentioned in the following Table:

**Table 2:** Responses Related to Impact of Information Dissemination Practices

Do you consider the information dissemination practices have an impact on planning of crowd management?				
Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
106	52	23	19	0

As shown in the above table most of the respondents were strongly agree on the impact of information dissemination practice except from a few respondents which mentioned uncertain and disagree in their responses. To further explore the impact of information dissemination practices as per the different event attributes, hypothesis testing was done through statistical tool one-way ANOVA and the results are mentioned as follows:

**Table 3:** Hypothesis Testing Results

H <sub>01</sub> : There exists no significant association between nature of the event and impact of information dissemination practices on planning of crowd management.						
	Sum of Squares	df	Mean Square	F	Sig.	Result
Between Groups	11.066	2	5.533	5.93	0.003	Null Hypothesis Rejected
Within Groups	183.809	197	0.933			
Total	194.875	199				
H <sub>02</sub> : There exists no significant association between frequency of the event and impact of information dissemination practices on planning of crowd management.						
	Sum of Squares	df	Mean Square	F	Sig.	Result
Between Groups	3.983	2	1.992	2.055	.131	Null Hypothesis Accepted

Within Groups	190.892	197	.969			
Total	194.875	199				
H <sub>03</sub> : There exists no significant association between organizing scale of the event and impact of information dissemination practices on planning of crowd management.						
	Sum of Squares	df	Mean Square	F	Sig.	Result
Between Groups	11.393	2	5.697	6.116	.003	Null Hypothesis Rejected
Within Groups	183.482	197	.931			
Total	194.875	199				

The hypothesis testing results clearly demonstrates that there exists a significant association between nature of the event and impact of information dissemination practices on planning of crowd management (significance value =0.003) whereas no significant association between frequency of the event and impact of information dissemination practices on planning of crowd management was found as exhibited by the significance value 0.131. Further, significant association was also found between organizing scale of the event and impact of information dissemination practices on planning of crowd management found as exhibited by the significance value 0.003. The results can be concisely interpreted as the information dissemination practices plays a significant role as per the nature and scale of the event irrespective of the frequency of the event.

**5. Conclusion:** Results reveal that relationship between information dissemination on planning and crowd control can enhance the event management experience for the administrators. Since it is practically difficult to conduct studies under such events due to practical reasons, there is a serious lack of experimental data regarding crowd planning and behavior (Helbing, Johansson and Zein, 2007). Therefore, such studies pave the way of further researches for better crowd management. This paper analyzed and evaluated the influence of information dissemination practices on different event attributes. The results shown that the organizers agree that nature of the event has an important role in information dissemination practices which can significantly influence on planning of crowd management. The study majorly considered the nature of the event as religious, commercial and sports event. Similar results were also exhibited to the other event attribute as scale of the event in terms of the participation size. This implies that the event organizers must consider the nature and organizational scale of the event and select their information dissemination tools appropriately as per the attributes of the event. Further, additional studies can be undertaken to explore the effectiveness of different information dissemination tools as per other attributes of the event for better planning and event management. The significant association was also validated through hypothesis testing for organizing scale and nature of the event for its influence on the information dissemination practices. The results of the study can be used by event organizers for better and efficient planning for information dissemination related to basic announcements, advisories, emergency communication and other essential information required to control crowd during the events.

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