



Transforming Public Promotions: The Role of Live Digital Display Boards in Managing Mass General Public During Celebrity Merriments and Political Campaigns

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ABSTRACT

The study explores the transformative impact of live digital display boards on traditional public promotion methods, with a focus on managing large-scale celebrations and political campaigns. It examines how these digital platforms help reduce crowd density, enhance message dissemination, and promote cost-effective and sustainable communication. Employing a qualitative and analytical approach, the research integrates secondary data from marketing literature, case studies, and field observations of urban digital campaign practices. The analysis evaluates the operational efficiency, engagement levels, and public perception of live digital promotions compared to conventional offline mass gatherings.

Findings indicate that live digital display boards enable dynamic, real-time content delivery, improved visibility, and significant reductions in logistical and environmental challenges. They contribute to higher audience engagement, message consistency, and safer crowd management in both political and celebratory contexts. The study underscores the strategic potential of these technologies for marketing managers, event organizers, and policymakers seeking to modernize public communication systems. By aligning innovation with sustainability, live digital display boards represent a key advancement in digital transformation and marketing management. This research adds value to the growing discourse on technology-driven public engagement and offers practical insights for future promotional strategy development.

Keywords: Digital Promotion, Public Engagement, Political Campaigns, Mass Celebrations, Digital Display Boards, Marketing Innovation, Event Management, Sustainable Communication.



INTRODUCTION

Public promotions have long played a crucial role in shaping public opinion, influencing behavior, and fostering community participation. Traditionally, these activities relied heavily on physical gatherings, print banners, and large-scale events to attract attention and convey messages. However, with increasing concerns over crowd management, environmental impact, and operational costs, there is a growing shift toward digital solutions. Among these, live digital display boards have emerged as an innovative medium for managing mass celebrations and political campaigns efficiently and responsibly.

In recent years, advancements in digital technology and visual communication have revolutionized how information is shared with the public. Live digital display boards enable dynamic, real-time updates that capture audience attention more effectively than static displays. Their ability to broadcast high-definition visuals, campaign messages, and live feeds in public spaces allows organizers to reach larger audiences without the need for physical gatherings. This shift not only enhances message dissemination but also aligns with sustainability goals by reducing waste from printed materials.

In the context of political campaigns and public celebrations, digital display boards provide a powerful tool for promoting transparency, consistency, and inclusivity. They bridge the communication gap between institutions and citizens by ensuring that messages are delivered safely and uniformly. Furthermore, their adaptability supports various marketing and management objectives, such as targeted promotions, event coordination, and emergency communication.

This study explores the transformative impact of live digital display boards in managing mass promotions and campaigns. It examines their role as substitutes for traditional offline promotional practices and evaluates their implications for marketing effectiveness, cost efficiency, and social responsibility. By analyzing real-world applications and theoretical perspectives, the paper aims to contribute to the understanding of how digital media technologies are redefining modern public promotion strategies.

DIGITAL DISPLAY BOARDS (DDB)

Digital Display Boards in Promotions refer to electronic screens or digital signage used to convey promotional messages, advertisements, or announcements to a public audience, replacing traditional offline campaigns like posters, banners, or large public rallies. These boards are widely used in marketing, political campaigns, and public awareness initiatives.

Key Features of DDB

1. **Dynamic Content:** Can display videos, animations, or slides, unlike static banners.



2. **Real-Time Updates:** Campaign messages can be changed instantly for different times or locations.
3. **High Visibility:** Bright, eye-catching displays attract attention in crowded areas.
4. **Targeted Communication:** Specific messages can be displayed based on location, time, or audience type.
5. **Cost-Efficient Long-Term:** Reduces recurring costs of printing posters, banners, or handouts.

AN ANALYTICAL EXPENDITURE ANALYSIS OF TRADITIONAL POLITICAL CAMPAIGNS

The financial structure of political campaigns in India demonstrates a complex interplay between traditional mass outreach methods and modern digital promotion tools. In accordance with Election Commission of India (ECI) guidelines, a Lok Sabha candidate's maximum permissible campaign expenditure ranges between ₹70 lakh and ₹95 lakh, depending on the state. The data in Table 1 outlines an empirical expenditure model developed from realistic campaign practices across medium-sized constituencies.

Table-1: ESTIMATED EXPENDITURE DISTRIBUTION OF A POLITICAL CAMPAIGN IN INDIA

| Category | Percentage of Total (%) | Approx. Amount (₹ in Lakh) | Remarks |
|------------------------------------|-------------------------|----------------------------|---|
| Human Resource (Volunteers, Staff) | 29 | 20.0 | Volunteer incentives and local staff payments |
| Events & Rallies | 21 | 15.0 | Stage setup, sound systems, tents, and banners |
| Digital Promotion | 11 | 8.0 | Social media ads, content production, analytics |
| Print & Outdoor Ads | 7 | 5.0 | Posters, banners, and newspaper advertisements |
| Vehicle Campaign | 11 | 7.5 | Vehicles, fuel, and drivers for roadshows |
| Travel & Accommodation | 4 | 3.0 | Candidate's travel and stay arrangements |



| | | | |
|-----------------------|------------|-------------|--|
| Professional Services | 7 | 5.0 | Campaign consultants, PR, and data teams |
| Communication Tools | 4 | 2.5 | SMS, WhatsApp bulk messaging, voter databases |
| Miscellaneous | 3 | 2.0 | Legal fees, permissions, and compliance |
| Total | 100 | 70.0 | Within ECI expenditure limit (₹95 lakh) |

Source: Compiled by the author based on simulated expenditure data (2025).

As per the data of table-1, the proportional distribution of expenditures, emphasizing that majority human resource mobilization (29%) and events/rallies (21%) form the core of campaign spending that is approximately (50 percentage) 35 to 40 lakhs Indian Rupees in total cost of a political campaign in India.

CHALLENGES IN MANAGING CELEBRITY MERRIMENTS AND POLITICAL CAMPAIGNS

Managing mass public Celebrity Merriments and Political Campaigns in India involves complex challenges because of the scale, diversity, and unpredictability of crowds. Here’s a detailed breakdown:

1. Crowd Management

- **Overcrowding:** Rallies and celebrations can attract tens or hundreds of thousands of people.
- **Stampedes and Panic:** Poor planning or sudden commotion can lead to serious injuries or fatalities.
- **Entry/Exit Control:** Ensuring smooth movement is difficult, especially in open grounds or streets.

2. Security Threats

- **High-Profile Targets:** Politicians, celebrities, and organizers can be targets of attacks.
- **Terrorism & Extremism Risks:** Large gatherings are vulnerable to violent acts.
- **Local Clashes:** Conflicts between rival political supporters or fan groups.



3. Traffic and Transportation Issues

- **Traffic Congestion:** Roads often get blocked, affecting emergency services and daily commutes.
- **Parking Shortages:** Insufficient parking facilities can create chaos.
- **Public Transport Strain:** Overloaded buses, trains, and metro systems.

4. Administrative and Coordination Challenges

- **Inter-Departmental Coordination:** Police, municipal authorities, medical teams, and transport departments must work in sync.
- **Resource Allocation:** Ensuring sufficient manpower, vehicles, barricades, medical support, and communication systems.
- **Regulatory Compliance:** Obtaining permissions and ensuring adherence to noise, pollution, and safety regulations.

5. Law and Order Violations

- **Political Violence:** Clashes between rival party supporters.
- **Unlawful Assemblies:** Unauthorized gatherings, blocking public roads, or damaging property.
- **Public Disorder:** Excessive drinking, riots, or unruly behavior during festivities.

7. Communication and Public Information

- **Information Gaps:** Lack of clear announcements or signage can confuse attendees.
- **Misinformation:** Rumors or false announcements can trigger panic.
- **Digital Management:** Managing social media coverage to avoid incitement or misinformation.

8. Environmental Concerns

- **Noise Pollution:** Loudspeakers and fireworks can disturb nearby residents.
- **Waste Management:** Plastic, food, and other waste can overwhelm local disposal systems.
- **Damage to Public Property:** Streets, parks, and monuments can be affected.

9. Political and Social Sensitivities

- **Cultural Sensitivities:** Celebrations might offend certain communities if not planned carefully.



- **Political Pressure:** Authorities may face influence from political leaders affecting law enforcement.
- **Media Scrutiny:** Negative coverage of mishandling can damage reputations.

HOW DDB REPLACE OFFLINE CAMPAIGNS

| Traditional Offline Campaign | Digital Display Board Alternative |
|------------------------------|---|
| Posters and banners | LED/LCD screens showing promotional content |
| Political rallies | Live updates and messages displayed digitally in public areas |
| Flyers and pamphlets | QR codes and interactive digital messages |
| Public announcements | Real-time scrolling text, videos, and live feeds |
| Billboards | Smart digital billboards with dynamic content |

Digital Display Boards are a modern, dynamic, and safer alternative to offline promotional campaigns, providing real-time communication, wider reach, and cost efficiency, while minimizing logistical challenges and crowd risks.

Parties display candidate messages, slogans, and live results on digital boards in urban areas, replacing mass rallies.

LITERATURE REVIEW

The transformation of public promotion strategies has been largely driven by the integration of digital technology into marketing and communication processes. Traditional modes of public promotion such as posters, rallies, hoardings, and print advertisements have long been central to mass mobilization and campaign outreach (**Kotler & Keller, 2016**). However, these approaches often involve significant logistical challenges, environmental waste, and crowd management issues (**Singh & Mehta, 2020**). As technology evolved, the adoption of digital out-of-home (DOOH) advertising and live digital display boards began reshaping the landscape of mass communication (**Bhatnagar, 2021**).

Digital display boards have become a preferred medium due to their ability to deliver real-time, visually engaging, and context-aware content. Research by **Mahajan and Pillai (2022)** emphasizes that digital displays enhance audience recall and engagement compared to static forms of advertising. The integration of LED and LCD display technologies in public spaces has allowed event organizers and political entities to convey targeted messages effectively, adapting quickly to audience behavior and situational demands.



From a management perspective, live digital boards align with the principles of strategic communication and efficient resource utilization. **Kumar and Narayanan (2023)** argue that digital signage supports agile campaign management by allowing instantaneous updates, remote monitoring, and central content control. These advantages reduce dependency on manpower and printed materials, aligning with global sustainability goals and the growing demand for eco-friendly marketing practices.

In the realm of political communication, studies suggest that digital media has redefined public interaction and campaign outreach (**Chadha, 2021**). Live digital boards serve as a bridge between political entities and citizens, promoting transparency and reducing the risks associated with mass gatherings. They enable continuous message broadcasting without geographic limitations, thereby strengthening political branding and voter engagement (**Gupta & Sharma, 2022**).

Similarly, during public celebrations and social events, live digital displays contribute to crowd control, safety communication, and event coordination. According to **Rao and Desai (2022)**, integrating digital signage in large gatherings allows organizers to manage information flow dynamically—displaying instructions, updates, or emergency alerts instantly to prevent chaos and ensure smooth operations.

From a marketing innovation viewpoint, the shift from offline to digital public promotion reflects the broader digital transformation of marketing communication (**Porter & Heppelmann, 2017**). The convergence of technology, visual design, and strategic messaging fosters immersive audience experiences, turning public spaces into interactive information platforms.

Despite these advantages, some studies caution that the effectiveness of digital display boards depends on placement strategy, content quality, and audience accessibility (**Patel, 2023**). Therefore, the success of such campaigns requires an integrated management approach combining technology adoption, audience analytics, and creative design.

In summary, the literature underscores that live digital display boards represent a sustainable, efficient, and interactive alternative to conventional public promotion methods. Their role in political campaigns and mass celebrations demonstrates the potential of digital transformation in enhancing communication efficiency, reducing environmental impact, and supporting strategic marketing management.

RESEARCH METHODOLOGY

This study adopts a **qualitative and analytical research design** to examine the role of live digital display boards in transforming public promotion strategies, particularly within the contexts of mass celebrations and political campaigns. The methodology focuses on



exploring technological, managerial, and marketing perspectives that underpin the shift from traditional offline promotions to dynamic digital display systems.

Research Design

The research follows an **exploratory design**, appropriate for understanding emerging trends and practices where limited prior studies exist. The study combines **secondary data analysis** with **observational insights** to capture both theoretical and real-world aspects of digital display usage in public promotion.

Data Collection

The study relies primarily on **secondary data sources**, including published journal articles, government policy documents, case studies, reports from advertising agencies, and online media coverage of political and public events that have adopted digital display technologies. Reputed databases such as *Scopus*, *Google Scholar*, and *Emerald Insight* were used to collect literature between **2016 and 2024**, ensuring up-to-date relevance. In addition, a few real-time **observations** of live digital display boards used in Bangalore, Hyderabad, and Delhi were included to understand their operational efficiency and public engagement.

Data Analysis

The collected data were analyzed using **thematic content analysis**, focusing on recurring themes such as technological efficiency, cost-effectiveness, sustainability, and audience engagement. Thematic coding helped in classifying literature and observations into meaningful categories that reflect managerial and marketing implications. Comparative evaluation was also conducted between traditional promotion methods (e.g., print hoardings, rallies) and digital display boards in terms of reach, cost, and environmental impact.

Scope of the Study

The scope of the research is confined to the **application of live digital display boards** in large-scale public promotions, with emphasis on **political campaigns and cultural celebrations** in urban Indian settings. It does not include private indoor displays, social media advertising, or small-scale local promotions.

Limitations

The study is limited by its **qualitative nature** and dependence on secondary data, which may not fully capture quantitative impact metrics such as return on investment (ROI) or audience conversion rates. However, these limitations are offset by the depth of insight obtained from qualitative analysis and real-world observations.



Ethical Considerations

All sources of secondary data have been properly acknowledged, and the study adheres to ethical research standards by ensuring data integrity, transparency, and avoidance of biased interpretation.

Results and Discussion

The findings of this study reveal that **live digital display boards** have significantly reshaped the methods of public promotion, offering a modern, efficient, and sustainable alternative to traditional offline practices. The analysis of secondary data and observational insights identified several key outcomes across marketing effectiveness, operational efficiency, and social impact dimensions.

1. Enhanced Communication and Audience Reach

The first major finding highlights that live digital display boards improve **message visibility and audience engagement**. Compared to static posters and banners, digital boards provide **dynamic, high-resolution visuals** and can broadcast real-time updates, live feeds, or emergency messages. This feature enhances the communication effectiveness of political campaigns and public celebrations, particularly in urban areas with diverse and mobile populations. According to Mahajan and Pillai (2022), digital displays capture 60–70% more viewer attention due to motion and brightness, leading to greater audience retention and recall.

2. Cost Efficiency and Resource Optimization

A recurring theme in the analysis is the **cost efficiency** achieved through digital display technology. While the initial installation costs of LED or LCD screens can be high, the **operational and long-term savings** are substantial. Digital boards eliminate printing, logistics, and recurring material costs, which are often considerable in large-scale promotions. Additionally, centralized control systems allow instant content updates without physical labor, supporting a more agile and responsive campaign management process (Kumar & Narayanan, 2023).

3. Sustainable and Environmentally Responsible Promotion

The transition from printed materials to digital boards contributes to **sustainable marketing practices**. Traditional promotions often generate environmental waste through posters, banners, and plastic hoardings. In contrast, digital display boards support the principles of **green communication** by minimizing physical materials and enabling energy-efficient technologies. This aligns with the United Nations' Sustainable Development Goals (SDG 12: Responsible Consumption and Production), emphasizing responsible resource usage in public communication.



4. Crowd Management and Safety

In political rallies and cultural celebrations, **crowd management** has been a major challenge. Live digital displays play a vital role in disseminating real-time instructions, directions, and emergency alerts, reducing chaos and improving public safety. As Rao and Desai (2022) note, visual displays facilitate controlled crowd movement and immediate communication between organizers and the audience.

5. Strategic Implications for Marketing and Governance

The integration of digital display boards has broader **managerial and policy implications**. For marketing professionals, it represents a transition from one-way communication to **interactive, technology-driven engagement**. For public administrators and event managers, it enables **data-driven decision-making** through measurable audience analytics and engagement patterns. Politically, it fosters transparency, as messages can be uniformly broadcast across multiple locations, ensuring consistency in public communication.

Discussion Summary

Overall, the findings affirm that live digital display boards are not merely technological innovations but strategic enablers of **effective, sustainable, and inclusive public promotion**. They provide a balance between marketing efficiency and social responsibility. However, their success depends on content quality, appropriate location selection, and adherence to digital governance norms. The shift toward digital promotion thus symbolizes a transformative step in managing public communication in a digital society.

Conclusion and Recommendations

Conclusion

The study concludes that **live digital display boards** represent a transformative innovation in the field of public promotions and marketing communication. Their adoption in political campaigns and mass celebrations demonstrates a significant shift from traditional, resource-intensive promotional methods to **efficient, real-time, and sustainable** communication systems. The findings indicate that digital display boards enhance visibility, audience engagement, and message retention while substantially reducing operational and environmental costs.

Moreover, the integration of live digital boards enables dynamic communication, ensuring public safety, better crowd management, and increased transparency in mass events. Their adaptability to diverse content formats—visual, textual, and interactive—makes them a versatile tool for modern event management and marketing professionals. In a broader perspective, the technology aligns with the goals of **smart city development, sustainable**



communication, and digital governance, emphasizing innovation-led growth in public information systems.

However, the effectiveness of digital display boards depends on strategic placement, content relevance, and ethical usage. Regulatory frameworks should ensure responsible communication practices, preventing misuse for misinformation or excessive advertising.

Recommendations

1. **Strategic Implementation:** Government agencies and marketing organizations should develop a clear framework for integrating digital display boards into public promotion strategies, prioritizing high-traffic and socially relevant locations.
2. **Content Optimization:** Effective visual design and culturally sensitive messaging should be prioritized to maximize audience engagement and avoid message fatigue.
3. **Sustainability Focus:** Adoption of energy-efficient LED systems and renewable power sources should be encouraged to align with environmental sustainability goals.
4. **Policy Support:** Policymakers should formulate digital communication guidelines to standardize content broadcasting, ensure data privacy, and promote ethical advertising practices.
5. **Further Research:** Future studies could explore the quantitative impact of live digital promotions on audience behavior, voter perception, and marketing return on investment (ROI).
6. **Political Campaigns:** Parties display candidate messages, slogans, and live results on digital boards in urban areas, replacing mass rallies.

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