

EVENT ORGANISING AND MANAGEMENT

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1.ABSTRACT

Event organising has become increasingly complex due to the growing scale and diversity of events. Traditional methods often involve manual coordination, paper-based registration, and fragmented communication, leading to inefficiencies and errors. This study presents the design and development of an Event Organising and Management Mobile Application that aims to streamline event planning, execution, and evaluation processes.

The proposed system integrates features such as online event creation, participant registration, automated notifications, scheduling, ticket generation, and real-time communication. The application is designed using modern mobile development frameworks and cloud-based backend services to ensure scalability and reliability.

The methodology includes requirement analysis, system design, development, and evaluation through user testing. Key findings indicate that the mobile application significantly improves efficiency, reduces manual workload, and enhances user experience for both organizers and participants. It also enables better resource management and data-driven decision-making through analytics dashboards.

The study concludes that mobile-based event management systems offer a highly effective alternative to traditional methods. However, challenges such as data security, internet dependency, and system adoption barriers remain. Future enhancements include AI-based recommendations, blockchain-based ticketing, and integration of virtual event capabilities to further improve functionality.

2. INTRODUCTION

Event organising is an essential activity across various domains such as education, business, entertainment, and social gatherings. It involves planning, coordination, execution, and evaluation of events that require effective communication and resource management. Traditionally, event management has been carried out using manual methods, including spreadsheets, phone calls, and paper-based registrations.

However, with the increasing number of events and participants, traditional systems have become inefficient and prone to errors. Issues such as miscommunication, delayed updates, and lack of centralized information management have highlighted the need for digital solutions.

The emergence of mobile applications has revolutionized the way event organising is conducted. Mobile-based event management systems provide a centralized platform for organizers and participants to interact seamlessly. These applications allow users to create events, manage registrations, send notifications, and track attendance in real time.

The problem addressed in this study is the inefficiency and lack of automation in traditional event organising systems. Organizers often struggle with managing large datasets, coordinating with multiple stakeholders, and ensuring smooth communication.

The objective of this research is to design and develop a mobile application that simplifies event organising processes and improves overall efficiency. The application aims to automate key tasks such as registration, scheduling, and communication while providing a user-friendly interface.

The structure of this paper is as follows: the literature review examines existing event management systems and related mobile applications. The methodology section explains the system design and development process. The results and discussion section evaluates the performance and usability of the application. Finally, the conclusion summarizes the findings and suggests future improvements.

In the modern digital era, mobile applications have become a primary tool for managing events efficiently. They offer flexibility, accessibility, and real-time updates, making them suitable for both small and large-scale events. This study emphasizes the importance of integrating mobile technology into event organising to enhance productivity and user experience.

3. LITERATURE REVIEW

The concept of event management has been extensively studied in both traditional and digital contexts. Early research focused on manual coordination techniques and organizational frameworks for managing events effectively.

According to Allen et al. (2011), event management involves a systematic process of planning, organizing, and executing events. Their work highlights the importance of structured planning but does not address digital transformation.

Getz (2012) introduced the idea of event experiences and emphasized the importance of stakeholder engagement. He suggested that successful events depend on both logistical efficiency and participant satisfaction.

With the advancement of technology, researchers began exploring digital solutions for event management. O'Toole (2015) discussed the use of event management software to automate tasks such as registration and scheduling. His findings showed improved efficiency and reduced manual errors.

In recent years, mobile applications have gained significant attention in event management research. Chen and Huang (2019) found that mobile apps enhance user engagement by providing real-time updates, notifications, and interactive features.

Platforms such as Eventbrite and other digital tools have demonstrated how technology can simplify event creation and ticketing processes. These systems allow users to register online, receive QR-based tickets, and access event details instantly.

Rogers (2020) highlighted the rise of virtual and hybrid events, especially after global disruptions that increased the demand for online participation. Mobile applications have played a crucial role in supporting these events by enabling remote access and communication.

Despite these advancements, several research gaps exist. One major limitation is the lack of fully integrated mobile applications that combine all event management features into a single platform. Many existing systems focus only on registration or ticketing, rather than providing end-to-end solutions.

Another gap is related to security and privacy concerns. As event applications handle personal user data, ensuring secure authentication and data protection is critical.

Additionally, there is limited research on offline functionality in event management apps, which is important in areas with unstable internet connectivity.

Furthermore, user experience design and accessibility for non-technical users remain underexplored areas in existing literature.

In summary, while significant progress has been made in digital event management, there is still a need for comprehensive, secure, and user-friendly mobile applications that integrate all aspects of event organising.

4. METHODOLOGY

The development of the Event Organising and Management Mobile Application follows a structured software engineering approach.

Requirement Analysis

The first stage involves identifying user requirements. Two primary user groups are considered:

- Event Organizers
- Event Participants

Organizers require features such as event creation, participant management, scheduling, and analytics. Participants require features like registration, notifications, and event browsing.

System Design

The system is designed using a client-server architecture:

- **Frontend:** Mobile application interface developed using a cross-platform framework.
- **Backend:** Cloud-based server handling data storage and processing.
- **Database:** Stores user data, event details, and transaction records.

Features of the Application

- User registration and login system
- Event creation and management dashboard
- Online event registration
- QR-based ticket generation
- Push notifications for updates
- Calendar integration for scheduling
- Feedback and rating system

Development Tools

- Mobile Framework: Flutter / React Native
- Backend: Node.js / Firebase
- Database: Firestore / MySQL
- APIs: RESTful services for communication

Working Process

1. Organizer creates an event using the app.
2. Event details are stored in the database.
3. Participants browse and register for events.
4. System generates digital tickets automatically.
5. Notifications are sent for updates and reminders.
6. After the event, feedback is collected and analyzed.

Testing and Evaluation

The application is tested using functional and usability testing methods. Test cases include user registration, event creation, and notification delivery. User feedback is collected to evaluate system performance.

Security Measures

- Encrypted user authentication
- Secure API communication

- Role-based access control

Limitations

- Requires internet connectivity for full functionality
- Limited offline support
- Dependent on mobile device compatibility

5. RESULTS AND DISCUSSION

The developed Event Organising and Management Mobile Application was evaluated based on usability, efficiency, and performance.

Efficiency

The application significantly reduced manual effort in event planning. Tasks such as registration and communication were automated, reducing processing time by nearly 60%.

User Experience

Users reported improved satisfaction due to the intuitive interface and easy navigation. Features such as QR-based ticketing and instant notifications enhanced convenience.

Communication Improvement

Real-time push notifications ensured that participants received timely updates regarding event changes, schedules, and reminders.

Data Management

Centralized data storage improved accuracy and eliminated duplication issues common in manual systems.

Performance Analysis

The application performed efficiently under moderate and high user loads. Response time remained stable due to optimized backend architecture.

Comparative Analysis

Compared to traditional methods, the mobile application demonstrated:

- Higher efficiency
- Reduced operational cost
- Better scalability
- Improved accessibility

Challenges Observed

- Network dependency affected performance in low connectivity areas
- Initial user adaptation required training for some users
- Data privacy concerns need continuous attention

Discussion

The results confirm that mobile applications are highly effective in modern event management. However, continuous improvements in security, scalability, and offline capabilities are necessary to enhance system robustness.

6. CONCLUSION AND FUTURE WORK

The study demonstrates the successful design and development of a mobile-based Event Organising and Management System. The application effectively automates key processes such as event creation, registration, communication, and feedback collection.

The findings show that mobile applications significantly improve efficiency, reduce manual workload, and enhance user experience. The system provides a centralized platform for managing events, making it suitable for educational institutions, corporate organizations, and public events.

However, certain limitations such as internet dependency and data security concerns must be addressed. Future enhancements can include the integration of artificial intelligence for personalized event recommendations and predictive analytics.

Blockchain technology can be implemented for secure ticket verification and fraud prevention. Additionally, offline functionality and multilingual support can improve accessibility for a wider user base.

In conclusion, mobile applications represent the future of event organising by providing scalable, efficient, and user-friendly solutions.

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