

Evaluating the Event Industry for a Web-Based Event Supplier Management System

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Abstract: *Managing a diverse range of suppliers can often become a logistical challenge in the dynamic world of event planning. The multitude of event suppliers frequently leads to miscommunication, delays, and exceeding budgets. Motivated by the necessity for a more efficient solution, the study intends to propose a web-based event supplier management system to revolutionize the process of organizing events. The research approach integrates advanced technology with intuitive interfaces to simplify supplier coordination. With the proposed system, event suppliers can efficiently handle contracts, monitor deliveries, and communicate seamlessly with clients in real time. By combining automated notifications and centralized data storage, the system method ensures that all stakeholders remain informed and aligned throughout the event planning process. The analysis of the needs of the proposed system has yielded significant results from various event suppliers in Surigao City. Based on surveys of 10 event industry professionals and suppliers, it is evident that the limited availability of venues, schedules, and suppliers poses a significant challenge in managing event bookings, with 60% of professionals agreeing. Coordination with other suppliers and communication issues with clients are not significant difficulties for 80% of respondents, and 60% of suppliers are neutral about managing changes or cancellations, though 30% find it difficult. Additionally, 100% of event planners believe collaboration and communication among suppliers are crucial, 90% emphasize the importance of an accessible booking system, and 60% agree that real-time synchronization would enhance efficiency, particularly with a user-friendly interface tailored to local needs in Surigao City. Event suppliers have reported notable reductions in administrative overhead, fewer instances of miscommunication, and improved overall event coordination. Suppliers can allocate resources more effectively through our platform, leading to smoother events and increased client satisfaction. The results of the study will be the basis in proposing web-based event supplier management system in order to address the challenges of suppliers in the event industry.*

Keywords: Supplier, Client, Profile, Inquiries, Booking Management, Communication Tools, Efficiency

I. INTRODUCTION

The study focuses on assessing the needs of a web-based event supplier management system, aimed at addressing the inefficiencies and challenges prevalent in traditional processes. Currently, event-supplier management often faces issues such as fragmented communication, lack of real-time updates, and manual handling of supplier information leading to errors and delays. These problems create gaps in the efficiency of events, particularly in managing suppliers and coordinating their services.

The research was conducted in various event locales to ensure a comprehensive understanding of diverse requirements and challenges. The need for this study arises from the growing complexity and scale of events, demanding a more streamlined and automated approach to supplier management. The proposed system will encompass software, algorithms, and processes tailored to the event industry's needs, integrating features like automated supplier communication, real-time updates, and centralized information management.

The importance of this system lies in its potential to revolutionize event planning by providing a more efficient, transparent, and collaborative platform for managing suppliers, thereby enhancing the overall event experience and

success. The study is driven by the desire to find a better way of orchestrating events-supplier, improving upon the shortcomings of existing systems, and ultimately optimizing the entire event-supplier management process.

1.1 Objectives of the study

The objectives of the study can be formulated as follows:

- To investigate the challenges faced by the event planner and other event supplier services in managing event booking.
- To propose an event planning and booking management system for the overall efficiency of operations in booking an event planner and other event supplier services.
- To formulate recommendations for improvement of the event industry in Surigao City.

III. RELATED LITERATURE

In line with Ogden, S.M. and E. McCorriston [1] study, a big percentage of venue managers' report having long-term connections with their suppliers, and they place a high importance on the non-financial benefits that might result from these partnerships, which include mutual trust and productive working relationships. These consist of responsiveness, consistency, and adaptability in the provision of services. Regular suppliers' knowledge with the venue and its protocols can also result in flawless customer service and time savings for the venue manager. The performance benefits of developing supplier connections are highlighted, and advice is provided on how to maintain these ties by avoiding common problems in long-term partnerships. By doing this, the results validate how crucial it is to take non-financial factors into account when granting or extending supply contracts.

Otto, A. [2] investigated the supply chain event management (SCEM) which tackled a basic business issue. The interorganizational operations never go according to plan since they take place in a setting that is prone to disruption and failure. In order to initiate corrective actions in accordance with predetermined guidelines, SCEM sought to detect as soon as possible the ensuing deviations between the plan and its execution across the variety of processes and actors in the supply chain. Despite its well-established appeal to practitioners, SCEM has not gotten much attention from academic researchers.

The authors Vlahakis, G., et.al. [3] talked about supply chain event management, which refers to a collection of techniques and tools for effectively integrating events from all supply chain participants and processes. It took advantage of the synergies between IT and logistics. It investigated how events can be leveraged to leverage situation awareness in the context of supply chain event management. By enabling the ability to identify situations—which were modelled as correlations between basic events, complex events, and supply chain objects, such as suppliers, 3PLs, retailers, and material resources—our method facilitates situation awareness. The study presented a two-stage strategy for correlating events: first, it correlated simple events to complex events, and then correlated events to supply chain objects. It presented the software framework in which the proposed model has been implemented and carry out evaluation tests to test its situation detection skills.

The goals and difficulties of SCM are the same across industries. Improvements in demand planning [4], lead time reduction, delivery speed, control, and reliability [5], service quality [6], cost reduction (including production, transportation, and purchase costs [7], and inventory-driven practices are the most frequently cited SCM objectives.

Shi, M. and Yu, W. [8] discussed the financial performances, both market- and accounting-based, are strongly correlated with SCM effectiveness. Information technology (IT), sourcing strategy, SC integration, and external partnerships are crucial performance factors that enhance financial performance at the corporate level. To fully reap the financial benefits of excellent supply chain management, it is imperative to have optimal levels of outsourcing capabilities, SC alignment and integration with IT infrastructure, and SC relationship management. Improved comprehension and illustration of the ways in which supply chain management (SCM) positively impacts financial performance aid supply chain managers in communicating with upper management and establishing their positions within the company.

IV. METHODOLOGY

4.1 Research Approach

The research approach for the study of web-based event supplier management system encompasses both quantitative and qualitative methodologies, forming a mixed approach to gather comprehensive data. Qualitative methods involve the use of open-ended questions, such as qualitative interview questions or semi-structured questionnaires, enabling respondents to provide detailed, narrative responses. This approach allows for a deeper understanding of the nuances and subjective experiences related to event supplier management. On the other hand, quantitative techniques utilize closed-ended questions presented in structured questionnaires, where respondents choose from predefined options or rating scales. This method facilitates the collection of numerical data, offering quantifiable insights into various aspects of supplier management. The mixed research approach is essential in this context as it enables the collection of both qualitative and quantitative data, ensuring a holistic understanding of the research objectives and enhancing the effectiveness of the system's development.

4.2 Research Design

The descriptive research design for a web-based event supplier management system encompasses several key components aimed at investigating its development, functionality, and effectiveness. Firstly, the design would outline the objectives of the research, which might include assessing the current challenges in event supplier management, identifying user requirements, and evaluating the impact of the proposed system on efficiency and productivity. The methodology would likely involve a combination of qualitative and quantitative approaches, such as interviews, surveys, and usability testing, to gather comprehensive data from event planners, suppliers, and other stakeholders. Additionally, the research design would specify the technology and tools required for system development, as well as the criteria for selecting participants and measuring outcomes. Moreover, it would address ethical considerations, ensuring participant confidentiality and obtaining informed consent. Overall, the research design serves as a roadmap for investigating and ultimately improving the processes involved in managing event suppliers through a web-based platform.

4.3 Research Instrument

The research instrument study encompasses various tools designed to collect data efficiently. This includes digital questionnaires tailored for respondents to provide structured feedback on their experiences and preferences. Additionally, interview schedules are crafted to guide discussions with stakeholders, such as event suppliers, to gather in-depth insights and perspectives. These instruments serve as essential components in comprehensively understanding the dynamics of event supplier management within the digital landscape, facilitating the acquisition of valuable data for analysis and decision-making.

4.3.1 Survey Questionnaire

The survey questionnaire aims to gather valuable insights regarding the user experience and preferences for a web-based event supplier management system. The questionnaire begins with demographic questions to understand the background of the respondents. Following this, it delved into the usage patterns, asking about the frequency and purpose of using such a system. The survey inquiries are focused on which features respondents find most useful and areas where improvements are desired. Questions about user interface design, ease of navigation, and overall satisfaction help us gauge user experience. Additionally, it sought feedback on specific functionalities such as supplier communication, contract management, and payment processing. To ensure comprehensive feedback, the study also examined challenges faced while using the system and suggestions for enhancements. Finally, the open-ended section for any additional comments or suggestions respondents may have. This survey aimed to collect valuable insights to further enhance our web-based event supplier management system to better meet the needs of our users.

4.3.2 Interview

The interview aims to gather insights and perspectives from key stakeholders in the events industry. Through this interview, the study understands the challenges faced by event suppliers in managing their services and clients, as well

as their expectations and requirements for a digital management solution. The discussion probe into the current workflow, pain points, and areas for improvement in their operations. Additionally, it explored how a web-based system can streamline processes, enhance communication, and improve overall efficiency for event suppliers in Surigao City. By engaging with local suppliers, the proposed system can meet their specific needs and contribute to the growth and development of the events industry in the region

4.4 Participants of the Study

The participants in the study of the web-based event supplier management system are various event supplier in Surigao City that shared characteristics and relevance to the research. These individuals play a crucial role in providing insights into the functionality and effectiveness of the system. As target respondents, they are identified by the researchers based on their involvement in event management or related fields. Their participation allows for a comprehensive understanding of how the system operates in real-world scenarios, enabling the researcher to gather valuable feedback and improve its usability and performance.

4.5 Sampling Method

The study employed a sampling method categorized into two main techniques: probability and non-probability sampling. Probability sampling, specifically the random technique, ensures each member of the population has an equal opportunity to be selected as a sample. This method ensures fairness by giving every element in the population a chance to be included, thereby providing a representative subset of the entire population. With this approach, the system can gather data from event suppliers in a manner that accurately reflects the diverse range of suppliers available, aiding in effective decision-making and resource allocation within the system.

4.6 Data Gathering Procedure

The data gathering procedure for the study involves a combination of primary and secondary data collection methods to ensure comprehensive insights. Primary data, which is deemed the most reliable, were gathered directly through surveys and interviews with event suppliers, organizers, and stakeholders. These interactions provided firsthand information about their needs, preferences, and challenges. Additionally, experiments may be conducted to test certain functionalities or features of the system. Secondary data, collected with consent from original sources, will complement the primary data. This includes industry reports, market analyses, and existing literature on event management systems. The tools utilized for primary data collection will include online survey platforms, video conferencing software for interviews, and experimental setups for testing functionalities. For secondary data, reputable databases, academic journals, and industry publications will serve as the main sources, accessed through online libraries and subscription services. Through this comprehensive approach, the study aims to gather a diverse range of data to inform the development and optimization of the event supplier management system.

4.7 Data Analysis

In this section, the systematic approach used to analyze and interpret the data collected from our web-based event supplier management system WERE OUTLINED. Data analysis commenced with the organization and categorization of the gathered information to identify patterns, trends, and outliers. Utilizing various statistical techniques such as frequency distributed, computer weighted mean, and standard deviation as well as visualization tools, the study examined key metrics such as supplier performance, inventory levels, order processing times, and customer feedback. Through rigorous analysis, there are insights into supplier reliability, resource utilization, and customer satisfaction levels that were analyze. Moreover, interpreting the data involved identifying correlations, causations, and dependencies to inform decision-making processes and optimize system performance. This thorough analysis provides valuable information for enhancing operational efficiency, improving supplier relationships, and ultimately delivering exceptional event management services to our clients. Table 1.0 presents the guide to determining the level of agreement among respondents on their preferences of the proposed system

Table 1.0 The Interpretation of Range of the Weighted Mean

Range of the Weighted Mean	Interpretation
4.51 – 5.00	Strongly Agree (for the questions asked)
3.51 – 4.50	Agree (for the questions asked)
2.51 – 3.50	Moderately Agree (for the questions asked)
1.51 – 2.50	Disagree (for the questions asked)
1.50 and below	Strongly Disagree (for the questions asked)

V. RESULTS AND DISCUSSION

This chapter delved into the thorough analysis and interpretation of the data obtained from participants' responses concerning the study's proposed web-based event supplier management system. Through an in-depth examination of the gathered data, we aim to elucidate and understand the intricacies of participants' perspectives, insights, and experiences regarding the system's functionality and effectiveness. By scrutinizing their responses to the specific questions posed in the study, we endeavour to derive meaningful insights that contribute to a comprehensive understanding of the proposed system's potential benefits and challenges. Through a systematic analysis, this chapter aims to provide valuable insights that shed light on various aspects of the web-based event supplier management system, guiding future developments and implementations in this field.

5.1 Profile of the Participants

Table 2.0 Profile of the Respondents in terms of Gender

GENDER	Frequency	Percentage %
Male	7	70%
Female	3	30%
Others	0	0%
TOTAL	10	100%

Table 2.0 presents the profile of the respondents according to gender. As can be seen on the table, there are 7 or 70% of the respondents are male while 3 or 30% are female. This implies that the majority of the students who participated in the survey are males.

Table 3.0 Profile of the Respondents in terms of Age

Age	Frequency	Percentage %
18-25 years old	3	30%
26-30 years old	3	30%
31-40 years old	3	30%
41-50 years old	1	10%
51 years old and above	0	0%
TOTAL	10	100%

As can be seen on the Table 3.0 is the profile of the respondents according to age. Based on the results, there are 3 or 30% of the respondents are 18-25 years old while 3 or 30% are 25-30 years old, 3 or 30% are 31-40 years old, 1 or 10% 41-50 years old, and 0% for 51 years old and above. This implies that the majority of the students who participated in the survey are 18-40 years old.

Table 4.0 Profile of the Respondents in terms of years in the event industry

Year	Frequency	Percentage %
Below 1 year	0	0%
1-2 years	1	1%
2-5 years	4	5%
More than 5 years	5	6%
	0	0%
TOTAL	10	100%

Table 4.0 shows the study's respondent profile indicates a diverse range of experience levels in the event industry: none have less than 1 year, 10% have 1-2 years, 40% have 2-5 years, and 50% have more than 5 years of experience. This distribution showcases a significant level of expertise among respondents, particularly with over half possessing more than 5 years of experience.

Table 5.0 Profile of the Respondents in terms of Position/Role

Positions	Frequency	Percentage %
<i>Event Planner</i>	1	10%
<i>Photographer</i>	4	40%
<i>Videographer</i>	1	10%
<i>Photobooth Operator</i>	0	0%
<i>Emcee</i>	1	10%
<i>Coordinator</i>	1	10%
<i>On the Day Coordinator</i>	1	10%
<i>Event Coordinator</i>	1	10%
TOTAL	10	100%

Table 5.0 shows the survey results of 10 event industry professionals reveals a diverse distribution of job titles. The most common job title among respondents is photographer, with 40% of respondents identifying as such. Other job titles include event planner, videographer, emcee, coordinator, and on-the-day coordinator, each represented by one respondent (10% each). Notably, no respondents identified as photo booth operators or event coordinators.

5.2 The Challenges Faced by the Event Suppliers and Other Service Suppliers in the Event Industry in Surigao City

Table 6.0 The Challenges in the Event Industry

No	Challenges	WM	Std. D	Description
1	Limited availability of venue, schedule, event suppliers	2.90	2.57	Moderately Agree
2	Difficulty in coordinating with other event suppliers	2.50	2.10	Disagree
3	Difficulty with communication issues with clients	2.50	2.10	Disagree
4	Difficulty in managing changes or cancellations	3.09	2.73	Moderately Agree
5	Lack of an efficient booking system	3.30	2.97	Moderately Agree
	Average Weighted Mean	2.90	2.76	Moderately Agree

The table 6.0 shows the weighted mean scores for different challenges faced by event suppliers in Surigao City. A higher weighted mean indicates a greater challenge. Limited availability of venue, schedule, event suppliers (2.90) This appears to be the biggest challenge according to the weighted mean. There could be a number of reasons for this, such as a limited number of event venues in Surigao City, or a high demand for events on certain dates. Difficulty in managing changes or cancellations (3.09) This is another significant challenge. Event cancellations or changes can be disruptive for suppliers, as they may have already booked staff or purchased supplies. Lack of an efficient booking system (3.30) An inefficient booking system can lead to double bookings and other problems. Difficulty in coordinating with other event suppliers (2.50) and Difficulty with communication issues with clients (2.50) These challenges have relatively lower weighted means, but they can still be frustrating for event suppliers.

5.3 The Proposed Event Supplier and Management System

5.3.1 The Factors Influencing the Proposed System

Table 7.0 Influencing Factors of the Proposed System

Factors that Influence the Features of the Proposed System	Statements	Weighted Mean	Description
Accessibility	The booking system should be accessible across various devices (desktop, mobile, tablet).	4.20	Agree
	An intuitive user interface with clear navigation options is crucial for ensuring accessibility in a web-based integrated booking system for event planners and suppliers.	3.60	Agree
Efficiency	Having real-time synchronization of bookings and availability across all event supplier services (photography, videography, etc.) would significantly enhance the efficiency of event planning operations.	3.60	Agree
	The ease of use and user-friendly interface of a web-based integrated booking system significantly contribute to the efficiency of event planners and other event supplier services.	3.70	Agree
Management of Booking	Integrating real-time availability updates for event venues and suppliers in a web-based booking system would significantly enhance the efficiency of managing bookings.	3.80	Agree
	Providing a centralized communication platform within a web-based booking system, allowing seamless interaction between event planners and suppliers, is crucial for streamlining the booking process.	3.90	Agree
Convenience	A user-friendly interface is crucial for the success of a web-based integrated booking system, as it enhances convenience and accessibility for both event planners and suppliers.	4.00	Agree
	The ability to customize booking preferences and settings within a web-based integrated booking system significantly contributes to its convenience and suitability for diverse event planning needs.	3.90	Agree
Average Weighted Mean		3.80	Agree

Table 7.0 shows that all the 10 respondents in the survey agrees the given Influencing Factors of the Proposed System.

5.3.2 Conceptual Framework of the Study

Figure 1.0 illustrates the conceptual framework of the study, which explores the impact of a general web-based booking system on communication, process efficiency, and customer experience. The study investigates how the accessibility and convenience of such a system influence its acceptance among users. It also examines how system features and functionalities moderate this relationship. Furthermore, the research considers recommendations for leveraging technology as a confounding variable. The study aims to understand how system acceptance mediates the overall impact on enhancing communication, streamlining booking processes, and improving the customer experience for users utilizing the booking system.

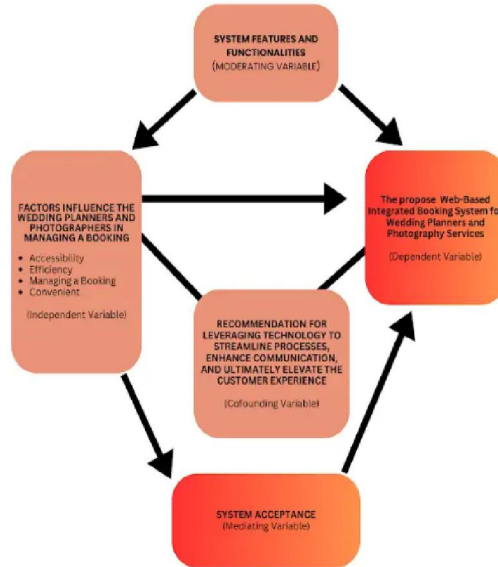


Figure 1.0 The Conceptual Framework of the Study

5.3.3 System Development Process of the Proposed Event Planning and Management System

The System Development Process for the Proposed Event Planning and Management System follows a sequence diagram, illustrating the interactions between various system components, including user interfaces, event management modules, and the database, to ensure a smooth flow from event creation and modification to attendee management and feedback collection. Each step, from user request to system response, is depicted to highlight the sequence of actions and data exchanges necessary for successful event planning and execution. (See Figure 2.0)

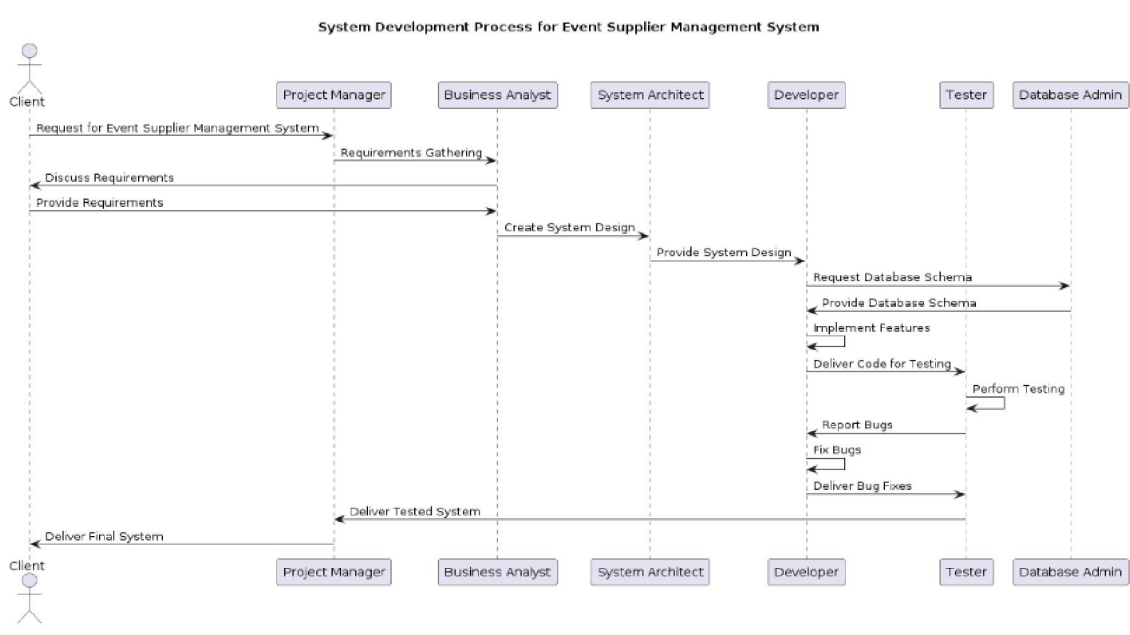
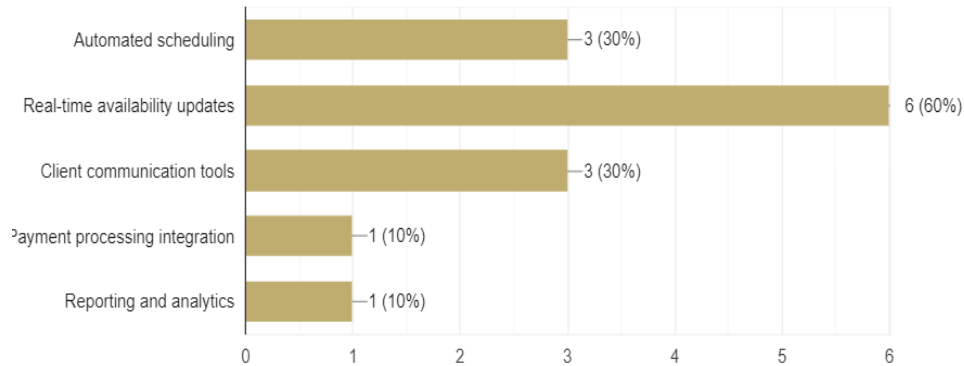


Figure 2.0 Development Process of the Study

5.4 Recommendations for Improvement of The Event Industry in Surigao City.

Table 8.0 0 The Recommended Key Features of the Proposed System According to Event Supplier in Surigao City



Based on the survey of event planners and suppliers, real-time availability updates are considered the most important feature for an ideal booking management system, with 60% of respondents believing it is important. In contrast, automated scheduling, client communication tools, payment processing integration, and reporting and analytics were considered less important by the majority of respondents.

VI. CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the development of a web-based event supplier management system represents a significant advancement in event planning and management. By streamlining the process of sourcing, communicating with, and managing suppliers, this system offers numerous benefits to event organizers, including increased efficiency, reduced costs, and improved quality control. Moreover, in an era where virtual communication and collaboration are increasingly prevalent, such a system provides a centralized platform for coordinating with suppliers regardless of geographical location. Beyond its practical implications, the implementation of this system also signifies a commitment to innovation within the event industry, demonstrating the willingness to adapt to evolving technological trends. Ultimately, the integration of a web-based supplier management system not only enhances the logistical aspects of event planning but also underscores the importance of embracing digital solutions to optimize workflow and deliver exceptional experiences to clients and attendees alike.

When selecting a web-based event supplier management system, it is crucial to prioritize functionality, user-friendliness, and scalability. Our recommendations emphasize clarity and actionable steps. Firstly, prioritize platforms with intuitive interfaces, enabling seamless navigation for all users. Look for systems that streamline communication between event planners and suppliers, facilitating efficient collaboration and minimizing errors. Ensure the chosen system offers comprehensive features such as vendor tracking, inventory management, and payment processing. Additionally, consider systems with customizable reporting tools to track performance metrics and identify areas for improvement. Looking ahead, it's beneficial to investigate integration capabilities with other event management tools, as well as potential for AI-driven optimizations to enhance efficiency further. By adopting this solution-oriented approach, you pave the way for continued growth and optimization of your event management processes.

VII. ACKNOWLEDGEMENT

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REFERENCES

- [1] S. M. Ogden and E. McCorrison, "How do supplier relationships contribute to success in conference and events management?," *International Journal of Contemporary Hospitality Management*, vol. 19, no. 4, pp. 319-327, 2007.
- [2] A. Otto, "Supply Chain Event Management: Three Perspectives," *The International Journal of Logistics Management*, vol. 14, no. 2, pp. 1-13, 2003.
- [3] G. Vlahakis, D. Apostolou, and E. Kopanaki, "Enabling situation awareness with supply chain event management," *Expert Systems with Applications*, vol. 93, pp. 86-103, Mar. 2018.
- [4] Frochlich & Westbrook, "Demand chain management in manufacturing and services: web-based integration, drivers and performance", *Journal of Operations Management* vol. 20, pp. 729-745, 2002.
- [5] Schnetzler et al., "A decomposition-based approach for the development of a supply chain strategy", *International Journal of Production Economics* vol. 105, pp. 21-42, 2004
- [6] Hoffman, Joyce and M. Mehra, "Efficient consumer response as a supply chain strategy for grocery businesses", *Satish, International journal of service industry management*, Vol. 11, Issue 4, pages 365 – 373, 2000
- [7] Buxmann et al., "Usage and evaluation of Supply Chain Management Software – results of an empirical study in the European automotive industry", *Information System Journal*, vol. 4, issue 3, pp. 295-309, 2004
- [8] M. Shi and W. Yu, "Supply chain management and financial performance: literature review and future directions," *International Journal of Operations & Production Management*, vol. 33, no. 10, pp. 1283-1317, 2013.