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The Application Module Design of Three Application Scenes of Intelligent Exhibition

Jiankang Zhang [1*], Jiaxuan Fan[2]and Xiaowei Ni[3]

[1, 2, 3] School of International Economy& Tourism Management, Zhejiang International Studies University, Hangzhou, Zhejiang 310012, China

[*]Corresponding author's e-mail: 88018456@163. com

Abstract. Intelligent venue, intelligent exhibition and intelligent conventions are three application scenarios of intelligent exhibition. The application module design of intelligent venue includes a basic business module, personalized experience module, system integration module, and people flow value module. The application module design of intelligent exhibition includes builder management system, exhibition customer relationship management system, exhibitor management platform, audience registration management, the system to match business opportunities, exhibition data analysis, etc. The application module design of intelligent conventions includes VIP database, reception service, convention service module, etc. Chinese exhibition enterprises should further explore and practice three application scenarios of intelligent MICE to meet the development needs of new forms of exhibitions.

1. Introduction

The development of intelligent technology has been having a subversive impact on all walks of life, and the traditional MICE forms in many cities are also changing. Intelligent technological means based on information and intelligence are adopted in large-scale conventions and exhibitions to create a new form of them and promote the integrated development of researching, marketing, implementation, and service. The development of cloud computing, big data application, Internet of things and other technologies has greatly promoted the data models and system research and development of exhibition process standards and online task implementation, forming a relatively comprehensive and professional solution for event and venue management. The support of information technology and industry accumulation makes it possible that the application scenarios of intelligent MICE (including intelligent venue, intelligent exhibition and intelligent conventions) put forward innovative solutions.

2. The application scenarios of intelligent venues

2.1 The concept of intelligent venues

Intelligent venues will assess venues informatization situation, in combination with the analysis for informatization demand and business process, and put forward overall planning of informatization, using the latest technology such as cloud computing, artificial intelligence, mobile communications, the application of big data, the Internet of things and so on. Intelligent venues form a people-centric new trinity pattern in which they can illustrate the situation of all space in the venue with precise

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pictures. On the basis of data analysis, functions covering the whole venue can intelligently interact. They can adapt to the spatial form, industry format, information ecology at any time.

2.2 The design of application module for intelligent venues

The application module design of intelligent venue includes a basic business module, personalized experience module, system integration module, and people flow value module.

2.2.1 The basic business module

The intelligent venue system platform will focus on the optimization of "operation mode" and the innovation of the "business model". The platform will select businesses with potential for expansion for seamless integration, so as to achieve inter-business interconnection and the adaptive allocation of resources.

The intelligent venue system platform has established a business modular service network for the new MICE form. Taking the exhibition organizer as an example, after the organizer's service module is integrated into the service network, it can have business interaction with other service modules (exhibitors, builders, purchasers, etc.). This seamless integration relationship is conducive to the real-time understanding of the conditions and requirements of each service module, as well as the hardware requirements and knowledge and information demands of various businesses, accelerating the promotion of exhibition details and the implementation of responsibilities, and exploring the extensible space of exhibition services.

2.2.2 The personalized experience module

Intelligent venues on the maximum concise, are easy to learn and achieve high efficiency in the design and operation, so that customers can quickly understand and use into the business of the modular service network platform, thus improving customer autonomy in the process of application, according to their own needs to choose goods and free collocation, so as to realize the personalization, customization of customer experience. In the Exseen venue platform, customers are no longer just the objects served in the traditional sense, but participate in the production and design of service products, becoming partners of enterprises and creating value.

2.2.3 The system integration module

Intelligent venue system platform puts informatization, cloud computing, and cloud service into practice through perfect system planning, which realizes data integration of business parties, integration of external service cloud platform and venue internal management cloud platform, integration of multiple projects and enterprise information, and establishes an idea for unified system construction.

Intelligent venue system platform establishes a one-stop service platform for the exhibition organizers, buyers, ordinary visitors. It can integrate information service platform of exhibition, and gradually become an excellent business platform with orderly integration of various exhibition resources. It makes a difference in matching supply and demand, promoting the exchange and transformation of resources at an advantage.

The intelligent venue has built a cloud platform for integrated external service and an internal management cloud platform. The data center and the payment communication platform can interact with the venue's internal management cloud platform and external service cloud platform through real-time interaction and mutual support with the intelligent hardware facilities. Among them, intelligent hardware facilities include optical fiber broadband, WIFI, mobile communication, virtual private line, RFID Internet of things, monitoring equipment, intelligent navigation, intelligent car-finding, and self-service terminals. The exhibition hall internal management cloud platform includes a self-organizing exhibition system and exhibition hall operation management system.

Intelligent venues have established an enterprise integration platform, the platform consists of services platform (including the registration, publication, change, closure, and resource invocation of

the service product), management platform (including the deployment, general and emergency handling, engine and analysis of process), data management platform (including protocol conversion, data routing, data conversion, metadata management, data transmission and data recording) and message management platform. (including the transformation, routing, engine, and queue of the message) The integrated platform is connected to the application module through adapters. Based on big data analysis and model learning on services, processes, and protocols of multiple enterprises, the optimal scheme is generated to serve the real-time exhibition business.

2.2.4 The people flow value module

The intelligent venue innovates the operation and management mode of the venues through intelligent software and hardware facilities. The company commercialized target segments from the target audience's real life. The demand of the audience will be stimulated by the content of the display in the intelligent venue. And their purchase value, publicity value, and information value will be realized in the process of enjoying convenient services.

Intelligent venues pick up different modes of operation and management based on the time, place, problem and purpose of each different business. In addition to the traditional centralized control, the intelligent venue also adds wireless terminal control method to form an intelligent control system of the entire building. The company shall build its own office automation system and internal management information platform to reduce the unnecessary burden of routine affairs on human resources and reduce the rate of errors in daily work. In the traditional form of exhibition, the audience needs to waste a lot of time on various processes before entering the venue. The intelligent venue will put these processes online to facilitate more valuable exchanges and transactions during the limited time of exhibition activities.

3. The application scenarios of the intelligent exhibition

3.1 The concept of the intelligent exhibition

Exhibitions include customer management, BBS management, document printing, reception resources (hotel, vehicle) management, conference room management, presentation file management, the meeting broadcast live and other online application management system. They further standardize the guest information, integrate resources, control the expenditure effectively, optimize the receiving link, participation and business experience. Provide efficient and convenient one-stop service for conference and high-level BBS, and provide information platform support for market-oriented conference service.

3.2 The business module design of the intelligent exhibition

Business module design of intelligent exhibition includes builder management system, customer relationship management system, exhibitor management platform, audience registration management, business opportunity matching system, exhibition data analysis, and application, etc.

3.2.1 Builder management system

The management system of the intelligent exhibition generator is an information management application for pre-exhibition construction, providing an interactive platform for information exchange between major service providers and contractors. The software includes information about the construction company, safety situation and the person in charge, drawing review, construction personnel, insurance, vehicle, water and electricity, invoice and cargo leasing business processes; Centralized management of contractors, strict monitoring and timely standardization of the exhibition construction process.

3.2.2 Customer relationship management system
Based on the exhibition industry and combined with the traditional CRM, the management system of exhibition customer relationship is established for the exhibition industry.

3.2.3 Exhibitor management platform
The exhibitor management platform can achieve fine management of each node in the exhibition in booth, publicity, evacuation and other aspects of the exhibitor management system.

3.2.4 Management of audience registration
Visitors pre-register online and generate QR codes/barcodes as tickets. The audience enters the exhibition with credentials. Visitors can apply directly or send a verification code or an invitation code to exhibitors via a mobile verification app.

3.2.5 Matching system of business opportunities
It is an integrated platform for exhibitors, products, exhibition activities, and other related information, and provides a bridge for communication between exhibitors and buyers through information centralized display and classified display.

3.2.6 Exhibition data analysis and application
Conduct big data analysis and deep data mining for the audience and exhibitors.

4. The application scenarios of the intelligent convention

4.1 The concept of intelligent convention
The intelligent convention system platform covers online application management systems, such as customer management, BBS management, the document printing, reception resources (hotel, vehicle management), conference room management, presentation document management, conference live broadcast, etc. Further standardizes guest information, integrates reception resources, optimizes receiving links, effectively controlling expenditure, and optimizing the experience of participating merchants. It can also provide an efficient and convenient one-stop service for conference and high-level BBS, and provide information platform support for market-oriented conference service.

4.2 The business module design of the intelligent convention
The business module design of intelligent conference includes VIP database, reception service, conference service module, etc.

4.2.1 VIP database
The function of the VIP database includes providing guests and conference organizers with conference channels for registration and guest VIP invitation channels; One-click invitations can be sent through a variety of channels, such as website, email, SMS, We Chat and automatic voice. According to VIP attendance (or habits), such as activities and hotels, similar hotels and past hotels, etc. It also includes building a VIP database by registering and collecting VIP information; Guest database and existing VIP database, investment database, and ticket database can be linked to each other as the mutual supplement.

The VIP data accumulated after the system operation can be used dynamically in the system. The data will be supplemented by other databases, integrated with it and used in business. The system provides more data source channels and VIP information sorting, statistics, and screening.

4.2.2 Reception service
Reception service system generates and receives itinerary information according to VIP. The system can automatically generate reception resource information according to the preset Settings.

The system will send the guest information (face recognition, QR code, mobile phone number, etc.) to the certificating group for verification and admission vouchers. Based on the system, reception information, certification status, and other information can be sent to the guest and reception staff through various channels like the website, email, SMS, We Chat, automatic voice and so on. The system can integrate third-party travel service information (e. g. trip, where to go, e Long) to provide online booking of hotels and vehicles.

4.2.3 Conference services

The intelligent conference service system can provide a separate desktop for the conference, conducting information inquiry and registration for participants. The system can also provide information about the meeting query and plan meetings. After the meeting, video, PPT, and other meeting information can be looked up through the system. Systems can conduct statistics of guest data with big data portrait of guests, data analysis of profitability growth and future expectation. The system carries out big data analysis on hotel and vehicle data and coordinates profitability and operation. It also conducts data analysis on direct transmission, reception, and operation. The function of the system includes intelligent matching for the professional audience of participants and purchasers, big data analysis for all characters and events as well.

The intelligent conference can improve the management level of reception service, promote the dynamic allocation and supervision of receiving resources, and save the cost of the reception. It can provide an one-stop information and comprehensive service support for conference activities, improve service quality and work efficiency, and reduce office costs. The guest data accumulated by the intelligent conference system can provide direct and accurate data support for conferences, exhibition and investment promotion services (business meeting invitation, exhibition invitation, economic and trade pairing, etc.). The system obtains direct benefits relying on the tracking system and the cooperation with hotels.

5. Conclusions

Intelligent exhibition adopt modern information technology to manage all aspects of exhibition activities, relying on computer technology and software system to convey exhibition information more efficiently. This provides a platform for organizers and participants to exchange information and interact with each other. As a rapidly developing industry, the exhibition industry has tremendous development space and has become an important part of the urban economy. Chinese exhibition enterprises are deepening and innovating in business divisions, service experience, logistics management and system construction as expected. They are supposed to integrate intelligent thinking into exhibition information management and explore and practice three application scenarios of the intelligent exhibition to meet the development needs of new forms of the exhibition as well.

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