MODELING INFORMATION SYSTEMS FOR EVENT MANAGEMENT

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Abstract - Website that could help event organizer to organize and manage Event wasn't a new thing. But today most similar portal providing services only for top-level steering committee due to the cost is quite high. This is the background of the author to conduct this research. Using the techniques of data collection, analysis, and several stages of research, it can be concluded that people required the website that could help them not only for organizing the event but also commercializing and helping them reach the customer. This research resulted in the model of event management website that dedicated for event organizers of the event from low to the middle level, where in addition to providing services and sales promotion, the portal also provides services for the evaluation for the event management.

Keywords : Event Management; Web-portal; Information System; Modeling; Ticket

I. Introduction

Globalization makes human's needs become more complex. People want everything instantly and easily. That's why so many automated systems are built to accommodate them. Nowadays, people are getting more dependent on technology, because technology makes their life easier.

Technology can be used in every aspect, especially in business. With technology, business process and information distribution will run easily. Instant and accurate information are very important, especially for those who categorized as busy people. Hence, developing a web to exchange information and run a business are highly needed.

A web which is able to gather the seller and the customer can reduce those difficulties. A web will be able to manage all business transaction better. All the data regarding to the business process will be stored in the database, which can minimize problems caused by human error.

Nowadays, ticket selling through website is very common in Indonesia. But, those websites accommodate only on big organizers in Indonesia. Moreover, those websites don't allow organizers to create their own event in the website before they make an agreement with the website owner, which obviously take a longer time. Hence, we want to make a web-based application to accommodate organizers and users to do the event management and transaction easier.

Based on data in year 2012, there was 80 music concerts and hundreds seminar that was held in Indonesia (http://creativedisc.com/news/music-news/daftar-konser-musik-mancanegara-di-tahun-2012/). Most of the customers were a millennial generation that was born between the years 1981 and 2000 and 93% of them go online (http://www.pewresearch.org/millennials/teen-internet-use-graphic/). Knowing that an entire community of consumers, media and influencers will be in one place at one time has proven to be an effective lens for joining the work of multiple disciplines towards a common goal[3].

II. Preliminary Studies

Online tickets selling is often used by people nowadays. However, these portals only provide facilities for promotion and sales activities. These portals usually used by the high level event organizers (EO). To become one of the partners of the portal to use the features, they need to sign the contract with the owner of the portals. After signing the contract, this portal will display the information about their activities. One of the example portal is RajaKarcis. This portal has several features, including:

- Event Information - This feature is used to view information about the activities to be held. Activities are divided into several categories: Clubbing, Dance, Featured, Entertainment, Concerts, Promo, Seminars, Sports, Theater, and Workshop. Information provided include a brief description of the activities, how to purchase tickets, ticket price, and floor plan.
- Article - This feature contains review or news of previous event.
- RK Personal – This feature is used for members in Rajakarcis.com. All visitors who want to purchase tickets in Rajakarcis.com must create an account first, and ticket purchasing information can be found through this feature.
- General Information - This feature contains general information relating to Rajakarcis.com portals, such as how to purchase tickets, calendar of events, how to exchange tickets, and social media.
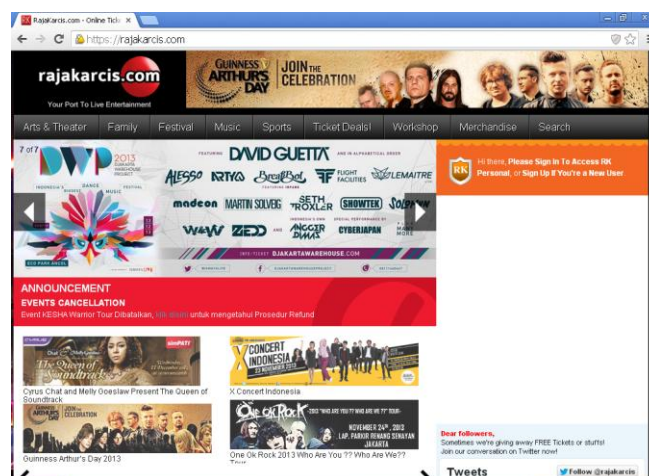

Figure 1. The Existing Event Management Portal

But organizers usually have to pay the cost high to promote their event by printing brochures, posters, banners, and tickets if they use the existing portals. They also have to spread the brochures and stick the banners and posters in public places to promote their event. Not only that but also organizers must have lots of employees to fulfill the customers' order face-to-face, find out what kind of events are on trend, have the most interest from people, and also to get feedback from customers. All this old methods surely need much effort, time and cost which end to inefficiency and ineffectiveness.

To have a better understanding about the problem, a survey needs to be conducted on online ticket selling. To see whether this is beneficial or not. Based on 100 people surveyed the results are listed below (figure 2). From the survey result about How Often People Use Internet Daily above, in average people use internet more than 4 hours every day. This means that most of people are familiar in using internet and the numbers of internet users are high because of the improvement of internet infrastructure and technologies.
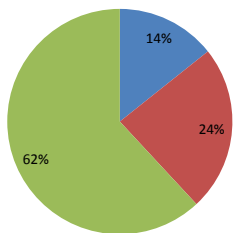
How Often Do You Use Internet Daily?

Figure 2. Survey Result of How Often People Use Internet Daily

Another interesting result from the survey above that people isn't really into buying an online ticket. Based on the survey about 'How Often People Buy Ticket Online', almost all of them are never. This might be caused by lack of public confidence in transactions using the internet and lack of security in online transactions.

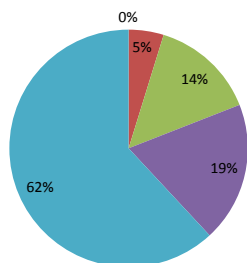**How Often Do You Buy Ticket Online?**

Figure 3. Survey Result of How Often People Buy Ticket Online

Based on the survey, most people agree that an online ticket sale is beneficial to them. By purchasing tickets online through website, people can save their time and increase the level of ticket sales itself.
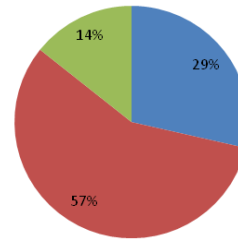
Is Online Ticketing Beneficial to You?

Figure 4. Survey Result of Online Ticketing Beneficial to People

Based on the survey about People Interest in a 'Website That Provide Services to Sell or Buy a Ticket' (Figure 5), most of them are interested. The high number of internet users lead people's demand for online transaction. Various payment options and increasing purchasing power make online ticket sale a viable business.

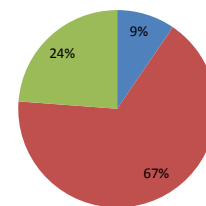**Are You Interested in a Website That Provide Services to Sell or Buy a Ticket?**

Figure 5. Survey Result of People Interest in a Website That Provide Services to Sell or Buy a Ticket

Based on the survey about 'People Interest in a Website That Provide Services to Create and Promote Event' (Figure 5), most of them are interested. Information dissemination will be faster using the internet and reach to all elements of society.

Are You Interested in a Website That Provide Services to Create and Promote Event?
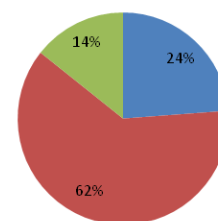

Figure 6. Survey Result of People Interest in a Website That Provide Services to Create and Promote Event

III.   **Discussion**

Based on survey that we already held, we found some problems. From customer's side, limited information regarding events causes confusion to customers and Difficulty to discover events that match their passions.

From organizer's site, we found that organizer difficult to find customers with various interests who will join the events, The effort and high expense to promote an event are not equal to the result (a successful event), and the difficulty to collect customers' feedback as the post event survey.

To resolve existing problem, from customer perspective we try to make web application that can reduce effort in finding complete information their desired event. They only need to find the complete information and buy the tickets from website. Customers can directly find the event category based on their needs or interests.

From organizer perspective, web-based service has simplified selling and buying process by allowing all processes to be done in the same web, where buyers' data are directly sent to the organizer immediately after they make an order. This web portal has helped our organizers to minimize their expenses to print brochures, posters, banners, and tickets as promotional media.

By this web portal, the organizer can easily promote their events through various channels such as Facebook and Twitter. This web portal allows organizer to make customized questions and questionnaires as a feedback to ask to the customers.

This website has 3 main users : administrator, buyer, and organizer. Each user have their own features.

Web admin (Figure 7) need to sign in to the website. After logged in to the website, web admin can start doing their activity in the website. First, admin can manage the homepage of the website. Web admin can change the featured events on the homepage. Events that are featured are decided by admin.

Web admin also have access to view members, and block members who are suspicious, or the members who violate the rules set up by the website.

Web admin can view events from web admin's view and can change event status whether the event can be published or not. This aims to prevent users to create improper events. Event can't be published if it looks suspicious and has no detail information.
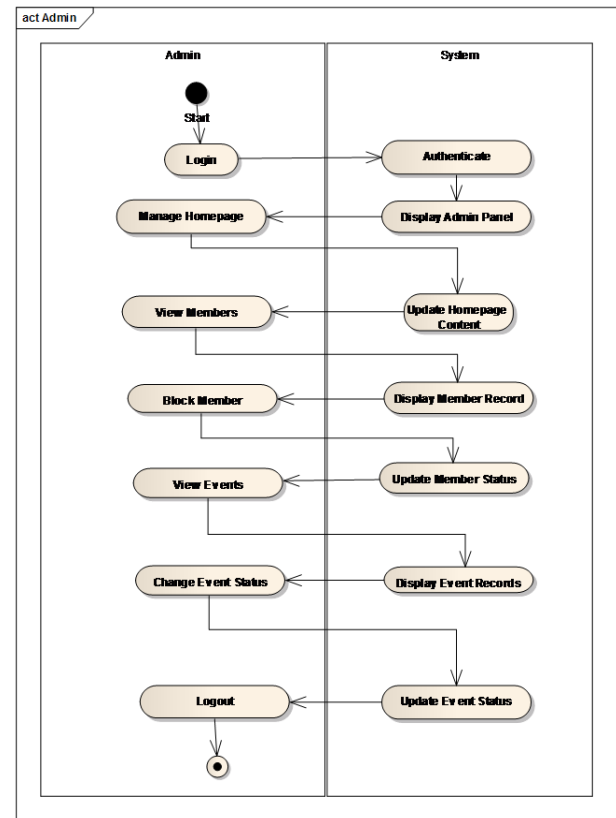

Figure 7. Activity Diagram of Web Admin Side

First, organizer (Figure 8) must sign up to event management website to become a member. They have to fill in their email and password and then click submit and member's data will be saved in the database. Then member will get the notification about the registration. After sign up process is done, system will log in member automaticaly into the website.

Member can do various activities in the website. First, they can edit their profile. Member can fill all the information about their personal data besides email and password. Then submit the data and system will store into database.

Member who wants to create an event must have an organizer profile. They have to fill the information about the organizer to create the profile and then click submit. After that member is succesfully become an organizer and can do all organizer's activities.

Organizer can input various events to the website by create an event. In this process, organizer fill the detail information about the event and create the type of ticket that they want to sell. After that, organizer can choose to save as a draft or csubmit and publish event. If organizer choose save as draft, the system will store into database and but not publish it yet. If organizer choose submit and publish, system will store into database and publish it in the website so visitor/other member can see it.

Organizer can edit event as long as the event is in draft status. If the organizer already submit and publish, the event can not be edited. Organizer also can delete event as long as ticket sales for the event has not been started yet. If the ticket sales has already been started, the event can not be deleted.

After finish creating the event, organizer can add promotional codes to that event. A promotional code consists of the code, amount of discount and maximum usage of the code. Promotional code can be applied to one or more ticket types.

Next, organizer can create custom register information to acquire additional information from buyer. Custom register information can be had for every order or for every ticket purchased by the member

Last, organizer can change the status of the order that has been paid by the buyer. If the buyer has confirmed order payment by creating payment confirmation, organizer can then change order status to paid.
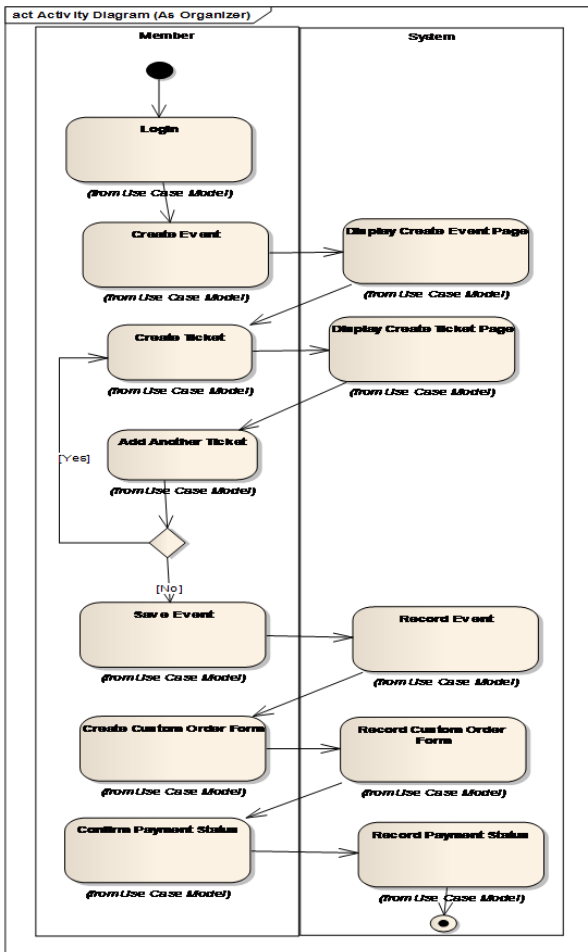

Figure 8. Activity Diagram of Organizer Side

First thing first, in order to be a buyer (Figure 9), user must get into the website and sign up to buy the ticket. They can directly click sign up button on the top of the page. The second option to be signed up to the website is by buying ticket, because when users buy ticket, the system will ask for their personal information and it directly cause users signed up in the website. When users have signed in into the website, the order they make can be processed.

To explore the desired events, they can visit event page and search for category at the search box. The result of all events from the search keyword will show up. After choosing the event they want to attend, they need to click

``buy ticket'' and it will be proceed to the order transaction phase.

Buyers will be asked to fill the registration form, which consist of default form of name, email address, etc and customized form which is the form made by the event organizer to ask additional information. After they click "order", the system will send them email consist of order's summary, payment method and payment due date.

After made the payment, buyers need to confirm their payment. After the organizer received buyer's payment and confirmed it, buyers will get the ticket which is sent to their email, or available in the website. The buyers then can print the ticket to attend the event.

When the event has passed, there will be a possibility of buyers to fill the feedback form provided by the organizers. This feedback form depends on the organizers whether or not they make it. The form will be available in the website.
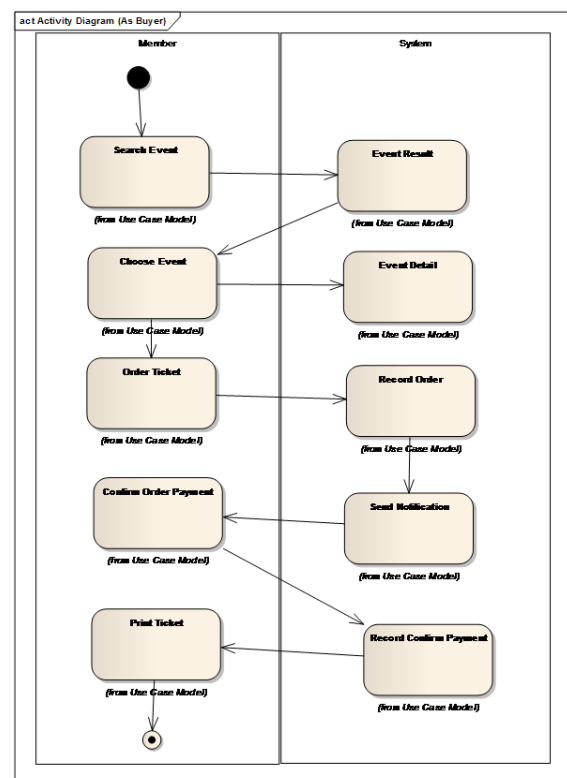

Figure 9. Activity Diagram of Buyer's Side

From information system perspective, we suggest that the web-based application for event management should have some features (Figure 10). As a member, actor can create event, create custom registration form, search event, create order, edit event information, sign up, view event detail, confirm payment, edit account information, fill evaluation form, create organizer profile, share event, login, remove event, view ordered tickets, change order status, view ticket sales information, contact event creator, and create event evaluation. As a web admin, actor can block user, manage homepage, remove event, create event type, and create event category.

Figure 10 . Use case diagram for event management portal

IV. Conclusions

The research of event management website produce gives several results. Business process occurs easily, all costumer who have registered in event management web portal as the organizer can sell their own tickets. Either for a big event or just a small event without having an agreement with the online ticketing website.

Business processes that use the event management portal will simplify organizer's job in making the event, collecting buyers' data, and reduce the event promotion cost. It also simplify a buyer to search and order event tickets. All activities become easier, faster and more efficient because the system is computerized.

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