

WEB BASED ADVERTISING INFORMATION SYSTEM DESIGN FOR NEWSPAPER

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Graphical abstract



Abstract

Singgalang daily newspaper is a print media company which is not only engaged in journalism, which provides the latest news but also in advertisement. The advertisement booking system of Singgalang daily newspaper is not fully computerized yet particularly with regards to the database system for saving ordering and payment data. The company still uses receipts and calculators, causing errors in calculation that make Singgalang daily newspaper advertisement transaction inefficient and ineffective. The company wanted to develop an advertising information system which is equipped with an e-commerce that can help costumers in promoting their product and facilitate costumers in booking advertisement in Singgalang daily newspaper. A web-based information system was designed using Hypertext PreProcessor (PHP) and Framework CodeIgniter which will facilitate employees of the company to manage ordering and payment data for online advertising.

Keywords: Information system, Hypertext Preprocessor, Codeigniter

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1.0 INTRODUCTION

Development in science and technology, which encourages the development of information plays an important role in every activity of an agency. That information is used to support decision making as well as in the completion of a routine job. Because of the role and functions of such information, then it is required information quickly and accurately. Computers are one of the tools that play a role in terms of information provision, so it's been a lot of agencies are beginning to utilize a computer to help their job.

Along with the development of the technology continues to evolve, the use of the internet as a medium of information providers which is better known as web has been used for various activities, such as sales, promotions and other activities.

Singgalang daily newspaper is a print media company that provides columns and rows advertising as a promotional medium enterprise for local and

national company in the field of property, transportation, communication, food and others [1].

Through the design of advertising information system, it is expected to provide facilities for staff, managers and leaders of Singgalang daily advertising, so that in the process of managing and processing advertisement is fast, precise, and accurate. In addition, because the human need to make purchases quickly and cheaply with clear information, so people have to create a system that can ease their work. No exception with the seller of goods or services that try to create a new path forward in marketing the products offered.

To support this system it is planned that the construction of the facility of media e-commerce as a tool or a modern way to introduce a product of both goods and services over the internet technological sophistication, so that customers who will order the advertisement to be published in Singgalang daily newspaper can also provide information about their products to this website in order to expand their marketing reach.

The registration page is the page that appears when the user presses the menu button on the registration page of the index. If the user has already registered, then the customer can login and book an advertisement in the advertisement order form. The advertisement booking page is shown in Figure 7.

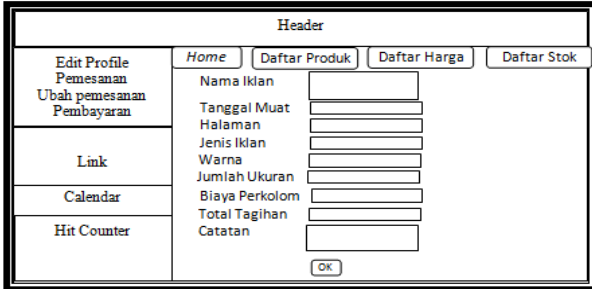


Figure 7 The design of the advertisement booking page

The booking page is a page that customers can enter the date of advertisement booking by inputting some advertising data. Advertisement data are in the form of the name, page, type, color, size, number of columns or rows, as well as notes for a detailed explanation of the advertisement. The design of product uploaded view can be seen in Figure 8.

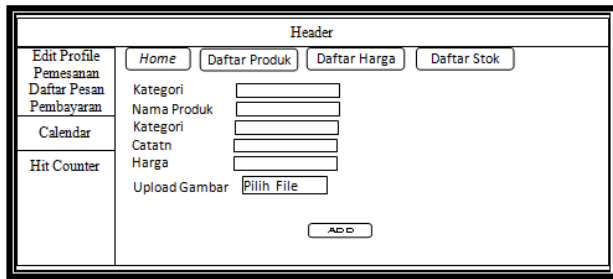


Figure 8 Design of products upload page

Other than ordering advertising, customers can also upload their products on the system for promotion.

3.0 RESULTS AND DISCUSSION

The results of the design, illustrate the results of the view or menus that can be accessed and available on this informational system. The display on the index page of this system is shown in Figure 9.



Figure 9 Index page views

The index page is the initial view of the advertisement information system of Singgalang daily newspaper. The index page of the system consists of images and the login form. On the header there is a header image, on the left sidebar, there is a date and hit animated counter to count the number of visitors. The animation scripts which used index php [2-3] is as follows:

```
<embed src="<?php echo
base_url();?>/images/calendar.swf"
quality="high"
pluginspage="http://www.macromedia.com/go/get
flashplayer" type="application/x-shockwave-
flash" width="226" height="200"></embed>
```

To display the hit counter, the script which used in index php is as follows:

```
<?php $this->load->view('counter/acounter');
?>
```

The display of the registration page can be seen in Figure 10.

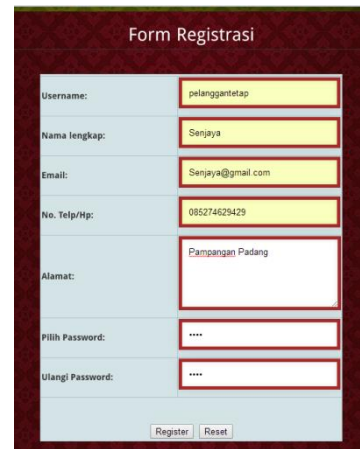


Figure 10 Display of registration page

The registration page must be filled by a customer before they can log into the system. On the registration page, there are several text fields for new customer data input. One example is the text field to input the username and name where the scripts which used are as follows:

```
Form Registrasi</h2></center><br><br>
<table cellpadding = "10" align="center"
class="form"><tr class="head"><td colspan
="14"></td></tr><tr><td
width="200"><h4>Username: <font
color="red"><?php echo
form_error('username'); ?></td><td><input
type="text" name="username" maxlength = "25"
size = "30" placeholder = "Masukkan Username"
value="<?php echo set_value('username');
?>"></td></tr><tr><td>
<h4> Nama lengkap: <font color="red"><?php
echo form_error('nama_pelanggan');
?></font></td><td><input
type="text" name="nama_pelanggan" maxlength
="25" size = "30" placeholder = "Masukkan Nama
```

```
Lengkap" value="<?php echo
set_value('nama_pelanggan');
?>"></td></tr></tr></td>
```

If the data entered is correct, it will show a notification and new customers can log in.

The menu page for customer will appear after the customer has log in. The display menu page for the customers can be seen in Figure 11.



Figure 11 The menu display of customer page

Booking page is a page to input the data of advertisement which want to be published. There are some data which are automatically input and not be able to be change data all after the customer selects a page, advertisement type, color and size of the advertisement. Those data is in form of advertisement's price every column or rows and the total bill. The display of booking page shown in Figure 12.

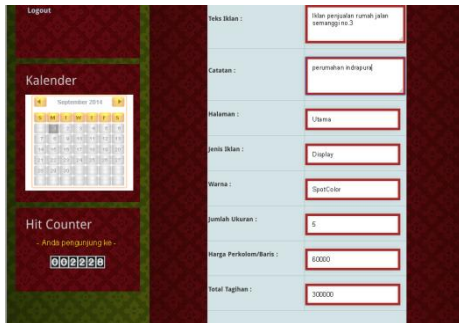


Figure 12 Booking page display

The storage process using script is as follows:

```
$this->mpemesanan-> simpan_pemesanan();
redirect('cdaftarpemesanan/index','refresh');
}
```

And the booking models are as follows:

```
function simpan_pemesanan(){ $session_data =
$this->session->userdata ('logged_in');
$username = $session_data['username']; $tipe
= $this->input->post('jenisiklan');if
($tipe=='Baris'){ $tipeukuran =
'Baris';}else{ $tipeukuran =
'Kolom';} $simpan_data = array('username'=>
$username , 'nama_iklan' => $this->input-
>post ('namaiklan') , 'jenis_iklan' =>
$this->input->post ('jenisiklan'),
'harga_perukuran'=> $this->input->post
('harga'), 'halaman'=> $this-> input-
>post('halaman'),'warna' => $this->input-
```

```
>post('warna') , 'jumlah_ukuran' => $this-
>input->post('ukuran') , 'total_tagihan' =>
$this->input->post('biaya') , 'catatan' =>
$this->input->post('catatan'), 'status' =>
$this->input->post('status')
, 'tipe_ukuran'=>$tipeukuran); $simpan =
$this->db->insert
('pemesanan',$simpan_data);return $simpan; }
```

To simplify the advertising staff's work, customers are allowed to design their own advertisement and upload their advertisement in Singgalang daily newspaper. The booking image upload page is a page to input advertisement image which the customer wants to publish. The display image upload page order is shown in Figure 13.

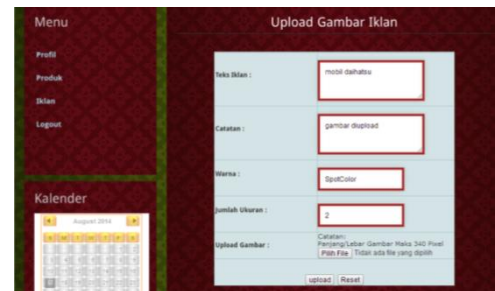


Figure 13 The display of upload views order page

On this page, the customer can choose advertisement file according its pixel size, if the size is smaller, the number of pixels required to upload the image will be also smaller.

The script which is used to upload the image:

```
if ($jumlah_ukuran== '1'){ $jum="162";}else if
($jumlah_ukuran=='2'){ $jum="340";}else
if($jumlah_ukuran=='3'){ $jum="517";}else if
($jumlah_ukuran=='4'){ $jum="695";}else
if($jumlah_ukuran=='5'){ $jum="873";}else if
($jumlah_ukuran=='6'){ $jum="1050";}else{ $jum=
"1228";} if( $this->form_validation->run() ==
TRUE ) { $this->input-
>post('go_upload'); $config['upload_path']
='images/ iklan/'; $config['allowed_types'] =
'gif|jpg|png'; $config ['max_size'] = '5000';
$config ['max_width'] = $jum ;
$config['max_height'] = $jum; $config=
$filename.
mysql_real_escape_string($FILES['userfile']
['name']); $config['file_name'] =str_replace ("
", "", $config); $this->load-
>library('upload', $config);
```

The above command can upload the image to the provisions of reservations where 5Mb is the maximum size with the length and width according to the size of the number. For example, if the size of the column 5 the maximum width and length of uploaded images is 873 pixels. Images are uploaded only by the png, jpg and gif type. The images will be stored in the image folder and sub-folders for advertising.

An advertisement payment page is a page to input the payment data which the customer wants to

publish on the condition it has been confirmed previously by the advertising staff. The Display of Payment Page is as shown in Figure 14.



Figure 14 Payments page display

On this page the customer can only order dated advertisement for the following day before the 12:00 deadline and the date of the transfer should not be past the date of publishing. Once a customer makes a payment action by clicking the button "Pay", the payment data will be automatically stored and the advertising inventory will be reduced.

The receipt print page is the page to change the data and print receipts of the advertisement you want to publish on the condition has been confirmed previously by the advertising manager (refer Figure 15).



Figure 15 Receipt print page display

Changing the date and canceling the publishing request for the following day publication can be done by the 14:00 deadline. Printing a receipt of each publication can be done by clicking the "Print Receipt" which automatically produces the receipt (refer Figure 16).



Figure 16 Receipt display

Pages for booking list are pages to print the report of booking. The displayed order list is as per Figure 17.



Figure 17 Display of booking page

The function of this page is to display the ordering data where the staff can print the advertisement ordering and downloading customer's advertisement image. To download click on the "Download Image", and to print the ordering report, click "Print All Data Report". The following page will automatically display



Figure 18 Display order reports

The uploaded page is a product page for the product you want input data promoted by the customer. Display upload product are as follows:

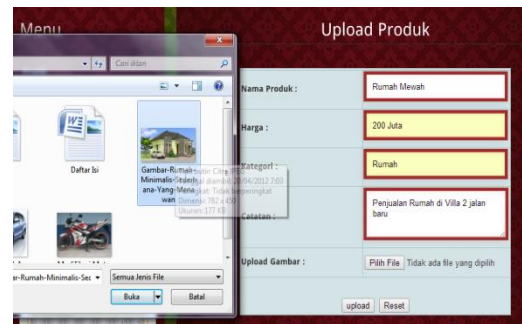


Figure 19 Product upload page display

Script of the uploaded image:

```
$this->input->post
('go_upload');$config['upload_path']='images/
uploaded /';$config['allowed_types'] =
'gif|jpg|png';$config['max_size']='5000';$con
fig['max_width']='1024';$config
['max_height']='768';$this->load-
>library('upload', $config);
```

The above command is a command to upload the image with provisions maximum size is 5 Mb with a width of 1024 pixels wide, 768 pixels long, and can only input type such png, jpg and gif. The images will be stored in the image folder and uploaded subfolders.

It is needed that staff checks the product name and product notes and picture which are inputted by the customer. If appropriate, clear and comply with the action, the staff will click Confirm'. So, the data about the status of these products will be change and other customers can see the product promotion. Product confirmation display is as follows:



Figure 20 Confirmation page display products

Script to retrieve product data from the database is as follows:

```
public function edit($num, $offset){$this-
>db->order_by("kode_produk", "desc");$data =
$this->db->get('produk',$num, $offset);return
$data->result();}
```

Script to view this page is as follows:

```
<td>Nama Produk: <?php echo $row-
nama_produk;?><br><br>Kategori: <?php echo
$row->kategori;?><br><br>Harga : Rp.<?php
echo $row->harga;?><br><br>Catatan: <?php
echo $row->catatan;?></td><td></td><td> Nama
:<?php echo $row->nama_pelanggan; ?><br><br>
Telepon :<?php echo $row->telp_pelanggan;
?><br><br> Email :<?php echo $row-
>email_pelanggan; ?><br><br> Alamat :<?php
echo $row->alamat_pelanggan; ?></td>
```

Based on the script above, the product confirmation list page displays all the product data stored in the product table in the database of the product.

After the process of designing Singgalang daily newspaper advertisement information system was completed, it can be said that this system can facilitate the customers and employees of Singgalang daily newspaper in advertisement booking transaction. The system can process data of ordering and payment for advertisements which are then saved to a database. The data can be accessed a gain in the form of daily, monthly or yearly which can be accessed by authorized employees.

In making this information system, the authors use code igniter as framework. By using a framework that utilize MVC design pattern and common function that already exists in the frame work then it can speed up the application development process [2]. The author felt that designing this information is easier to do than not using the frame work for each form or appearance that madeher already divided each class making it easier to in making the manufacture and development of this information system. One advantage of wearing the MVC design pattern (Model View Controller) which has a higher level of security because of the access and the database connection is controlled and regulated by the controller.

4.0 CONCLUSION

The conclusion that can be drawn from the design of advertisement information system with e-commerce facilities in Singgalang daily newspaper is to apply PHP programming language using code igniter framework to develop a system of advertising information with e-commerce facilities in Singgalang daily newspaper. This system can assist customers in booking advertisements transaction in newspapers. This system equipped with e-commerce services that enable customers to upload products to promote their products. This system also can help Singgalang daily newspaper in data storage management and advertising bookings.

Based on the discussion and the conclusions suggested in the subsequent development of this system can not only serve customers of Singgalang daily newspaper, but also some other common subscribers daily newspaper in the city of Padang in booking advertisement that will be published in newspapers.

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