Fast food ordering system

Fast Food Online Ordering System Table of Contents Fast Food Online Ordering System Introduction Online Ordering Advantages of Online Ordering System Design Authentication Online Ordering Interface Implementation Database Design Coding Testing the System Web Tier Middle Tier Data Tier Recommendation and Conclusion References Introduction Time-saving products are increasing in demand due to the different changes in the environment and social behavior of individuals, particularly the issue of hectic schedule. One of the best examples is the growing demand and consumption of fast food (Jekanowski 1999).

The study of Research International (2008) showed that more than 50% of the sample reported that they eat fast food once a week, while 20% eat fast food at least every day. Thus, with the average American spending $500 every year on fast food, the industry is a major industry in the country and acquires a huge percentage in economic revenue and value (QSR Web 2009). Thus, the rate of growth in consumer spending on fast food has led most other segments of food-away-from-home market for much of the last years. Since 1982, the amount that consumer spent at fast food outlets grew at an annual rate of 6. 8% in 1997, compare with the 4. % growth in table service restaurantsexpenditures (Jekanowski 1999). On the other hand, just like the most of industries in the world, fast food was also affected by the Internet. The study of Nielsen Company in 2008 showed that there are more than 85% of the online populations in the world who are using the Internet in order to make purchase, while 50% of these users are not first time online buyers. The popularity of the Internet has helped to made accessible huge number of consumer information sites. As of now almost all of major fast-

food chain in the world has already established its own homepage including McDonald's (www. mcdonalds. om), Burger King (www. burgerking. com) and Wendy's (www. wendys. com). These websites offer information regarding the menu, promotions, company history as well as nutritional analysis of its food (Christmann, 2006, p. 85). Therefore the Internet had enabled fast food chain to be connected with their customers any time and any where. Internet had become one of the most important marketing medium in the current business environment because it can be accessed by the current and possible customers regardless of their location. On the other hand, the Internet also enables business to have a new channel of exchanging goods or the e-commerce.

E-commerce is the process of buying and selling goods and services over the Internet. In that case, most of fast food chain in the world had been able to improve their customer connection by implementing online ordering system, which enables their customer to use the Internet in order to order from the respective fast food chain. The said event had been able to change the way fast food chain shop and restaurants communicate with their current and possible customers. This paper will focus on the importance and flaws of online ordering system for fast food chain or restaurants.

Along with this, it will also tackle on the different factors that are related in the process of establishing an appropriate online ordering system for fast food chain. Furthermore, it will also offer designs that can be used in establishing a website and will be supported by designated implementation plan by using HTML, PHP and MySQL. Then will end with the process of testing the system. Recommendation and conclusion on how to improve

the design will also be tackled in the paper. Online Ordering There are different factors and approaches which can be done by business by using the Internet.

First is that it can help businesses in the process of advertising their goods and services being offered, at the same time, offer their customers another means of buying or availing their products and services. One of the most universal applications for Web services is in the area of online ordering (Weber & Wutka 2002, p. 199). Thus, it is considered as one of the most important factors in business-customer relationship. When Papa John's invested in online ordering in 2001, most organizations looked upon the said marketing , together with the information technology (IT) management as foolish act or movement.

The said assumptions were wrong because, as of now, the gamble paid off handsomely with the base of online ordering which is currently achieving 50% annual growth rate. It was forecasted to grow faster during this year. According to the company, online customers appreciate the convenience so much that 75% of them return to order via their system again, which consist of up to 20% of some locations' orders. As a result, most of experts are singing their praises towards online ordering; as a result, most of people claim that it is the new wave in quick service (Yakubovich 2007).

The reason behind the said success is that online ordering system enables customers to be connected with the company 24 hours a day, thus give them the real time status of their orders. Furthermore, it also enables a more visual contact, via the design of the website. Advantages of Online Ordering

System Just like other impacts of the Internet in business, online ordering system has its advantages and disadvantages. Thus, these factors must be considered in order to make sure that online ordering system will be effective and appropriate with an organization. Online ordering system can benefit both the company and the customers.

Primarily online ordering system can offer higher revenue, because it can help to make customer happier, orders are more accurate and the stress levels of employees are lessen (Yakubovich 2007). Primarily, the official website of the company, together withonline order system can offer greater visibility for the company and help the business to grow (Gilliam 2006). This is connected with the growing trends towards Internet advertising. In 2000 alone, advertisers spent $4. 85 billion, and increase to $5. 8 billion in 2006, in internet advertising(Applegate 2004, p. 173).

Aside from that, the Internet has an extremely large audience; this is because the Internet is global, reaching more than half billion people around the globe. In 2004, it had been reported that there are more than 75 million people get online yearly (Applegate 2004, p. 174). Therefore, it can help fast food chains to target larger market. In addition, because online ordering system enables the customers to see the options or menu being offered by the company, they often buy more things and come back. Another important factor to consider is that online ordering make possible the collection of e-mail addresses.

Having a means to collect emails and send them can be exceptionally powerful revenue-growing technique. As a result, the company will be able to

communicate with the customers by sending news and updates to their email. Thus, enables the company to have a communication free and easy connection with their customers. Aside from that, there are no faster ways in order to see results as it allows the customer to immediately respond by going to the website of the company. However, in order to ensure its success, it will be important that the messages are branded and well designed.

Furthermore, the email communication programs which use the online ordering company should create report in order to ensure that the email campaign is being monitored thus can help to produce information in the process of planning marketing efforts. On the other hand, it can also help to increase business brand equity because it help to show a greater sense of customer ownership as it gives a restaurant vital control over sales as compared to less advanced restaurants that are unable to influence their technology in order to increase sales (Yakubovich 2007).

In addition, it can also help the business to manage its inventory by implementing online ordering system. This is because the ordering system can be connected with other important system of the company including the inventory and purchase which can help the company to manage and monitor its resources, which can help to ensure that all of the raw materials that are needed are sufficient in order to manage the demands of the customers. On the other hand, the main disadvantage of implementing the said system is the additional cost which will be additional burden to the owner.

This is because the process of applying online ordering system can be done in a blink because there are different factors that must be considered including the knowledge and skills of the employees as well as the reaction of the customers. Training the employees regarding what to do with the online ordering system can cause the company additional cost because they have to hire trainer with knowledge about IT or they can hire employees with background about IT, particularly with the net application. In addition, a company will have to focus on the cost that they will have to spend in the process of maintaining the system.

This is because as the website becomes visible and popular to the customers, it will drive traffic that can cause problems if not properly managed and maintained. Aside from that, there are also different threats which can be found in the Internet, thus the need for protection, security and safety is necessary in order to make sure long-time good relationship with the customers. Another important disadvantage is the additional burden for cost spend in the delivery service, however it can be compensated with the amount of money that the company can save in terms of human resource.

Above all, although online ordering is already considered as an important medium, there are still consumers that are afraid to buy things online because of security reasons. On the other hand, customers also benefits from application and implementation of online ordering system. Primarily, online ordering system enables the users or the customers to place and manage their orders for products and services (Waters 2002, p. 127). Because of that, it can help the customers to monitor their orders.

In addition, because online ordering does not need any personal contact, customers will have more time to decide what they want to have without any pressure. Above all, customers will be benefited because they don't have to leave to their place in order to request for their desired fast food from a store. This is very helpful for those people with busy schedule, because they no longer have to move away from their computers to order their desired food. Thus, it can help people to save time, money and effort in visiting a fast food chain personally.

Aside from that, because some of website enables the customers to save information about them and their previous orders, it can help individuals to save time, because the website can offer the customers with instant data about what they want to avail and buy, this is not possible with the traditional personal ordering process, because of the fact that individual service staff will have a hard time to remember the desires of each and every customer they will serve. Above all, because the Internet offers real time information, the customer can ask for immediate feedback regarding the status of their orders.

On the other hand, with connection to some numbers of consumers who are afraid to avail products and services over the Internet, the main disadvantage of online ordering for the customers is the risk of their private or confidential information, primarily their credit card details. Although there are different tools and approach that are available in order to ensure safety and security of online transaction, there are still some major risks over the Internet, including information theft, which can cause huge problems for the customers, especially the issue of credit cards.

In connection, there is also a big possibilities that the information they've supplied to a given company can be misused, particularly their e-mail. This can be done by sending the users with information that they did not wish, or worse, these companies can pass those information to other parties. Above all, in connection with the additional cost for shipping processes, there are some websites that are charging their customers with the delivery, depending on the products that were availed. Therefore it is important to make sure that the website is credible and trustworthy.

Design There are different features that must be included in the system in order to ensure its effectiveness. Primarily, it will focus on authentication and the availability of basket or shopping cart. In addition, if the customers are not in covered area by the shop, and the shop is already close, the basket won't accept any order. Authentication Security is considered as the most important issue in IT, especially in different websites, thus it is considered as a continuum activity for any e-business.

Security is another word to describe protection, and although not all of visitors have intention to do bad things, it is important to ensure safety of the website by focusing on nefarious activities including stealing stuff, trashing the website and harming the visitors (Valade 2005). Figure SEQ Figure * ARABIC 1 Authentication Page Figure 1 shows the planned design for the log-in pages of the online ordering system. It can be seen that the forms are displayed into two sections side by side, where in each form has its own section heading, form fields and submit button.

The log-in form enables the current customers or users of the system to enter their username and password and enter to access the system; while the registration form requests background information from the customers. Online Ordering Interface Figure SEQ Figure * ARABIC 2 Menu Catalog (First Page) Figure SEQ Figure * ARABIC 3 Order Basket Figure 1 and 2 shows the online ordering interface which will be used by the customers to order from the shop.

Two web pages were used in order to display all of the product categories, which help the customers to pick their desired products, while the second form asked for the order details of the customers. Implementation The design will be implemented using PHP, MySQL and HTML. PHP is a programming language that was designed in order to generate web pages interactively on the computer serving them, which is called web server. Unlike HTML, where the web browser uses tags and markup in order to generate a page, PHP code runs between the requested page and the web server, adding to and changing the basic HTML output.

Although PHP is great for web application development, it doesn't support store information by itself, therefore, because the online ordering system require storing of data, there is a great need for database. For most developers, the best database for PHP is MySQL. This is because MySQL is easily accessed from PHP, and they work well together. Aside from that both PHP and MySQL works on different computer types as well as operating systems such as MAC OS X, Window-based PCs and Linux (Davis & Phillips 2007, p. 2). Database Design

The initial step in creating the system will focus on creating the database and deciding the tables that must be included. It will be important to create a table that will handle information about the customer, particularly their authentication information such as username and password. Table 1 shows the variables that will be included in the table, together with the SQL statement to be used in order to create the table. Table SEQ Table * ARABIC 1 Users Information Variable Name| Type| Description| uname| VARCHAR(20)| Username for the account of user| date| DATE| Date when the account was added to the table| pword| VARCHAR(255)| Password for the account| email| VARCHAR(50)| Email address of the customer| lname| VARCHAR(50)| Last name of the customer| fname| VARCHAR(40)| First name of the customer| street| VARCHAR(50)| Street address of the customer| city| VARCHAR(50)| City where the customer lives| state| CHAR(2)| 2 letters state code| zip| CHAR (10)| Zip code| phone| CHAR(15)| Phone numbers of the customer| SQL Statement: CREATE TABLE Customer (uname VARCHAR(20) NOT NULL, cdate DATE NOT NULL, pword VARCHAR(255) NOT NULL, name VARCHAR(50), fname VARCHAR(40), street VARCHAR(50), city VARCHAR(50), state CHAR(2), zip CHAR(10), email VARCHAR(50), phone CHAR(15), PRIMARY KEY(user_name)); Table 2 will handle data about the products in the menu that is being offered by the fast food or store. This table is important because it can help the company to edit information about the product in case of organizational, particularly the issue about price. In addition, fast food chain can also automatically add new products in the website, in case of additional product in the menu. Table SEQ Table * ARABIC 2 Table for Menu

Variable Name| Type| Description| cnumber| INT(6)| Product identification number, assigned sequentially by MySQL(primary key). | name| VARCHAR(40)| Name of products in the menu| adate| DATE| Date the product was added to the catalog| category| VARCHAR(20)| Category Name| description| VARCHAR(20)| Description of the product| price| DECIMAL(7, 2)| Price of the product| pic| VARCHAR(20)| Filename of the image of the product| SQL Statement: CREATE TABLE Food (cnumber INT(6) NOT NULL AUTO_INCREMENT, name VARCHAR(20) NOT NULL, adate DATE NOT NULL, category VARCHAR(20) NOT NULL, type VARCHAR(20) NOT NULL, escription VARCHAR(255), price DECIMAL(7, 2) NOT NULL, pic VARCHAR(20) NOT NULL DEFAULT " Missing. jpg", PRIMARY KEY(catalog_number)); Table 3 shows the order table which holds data of the order transaction. It serves as a mother table with the order item because it holds those information that are unique in a ordering transaction. Table SEQ Table * ARABIC 3 Order Table Variable Name| Type| Description| onumber| INT(6)| (primary key) generated by the system| odate| DATE| Date of transaction| Submitted| ENUM (' yes', ' no')| Order status| dname| VARCHAR(50)| Name to be delivered| street| VARCHAR(50)| Street address to be delivered| dcity| VARCHAR(50)| City to be delivered| dstate| VARCHAR(2)| Two letter state code| email| CHAR(50)| Email address of the customers| Phone| CHAR(20)| Phone number of the customer| SQL Statement: CREATE TABLE Customer_Order (onumber INT(6) NOT NULL AUTO_INCREMENT, odate DATE NOT NULL, sfee DECIMAL(9, 2), stax DECIMAL(9, 2), submitted ENUM(" yes",'no'), sname VARCHAR(50), sstreet VARCHAR(50), scity VARCHAR(50), sstate VARCHAR(2), szip VARCHAR(10), email VARCHAR(50), phone VARCHAR(20), PRIMARY KEY(order_number));

 +.. +$",$value)){$errors[]="$value is not a valid email address. ";}}if(eregi(" zip",$field)){if(! ereg("^[0-9]{5, 5}(-[0-9]{4, 4})? $", $value)){$errors[] = "$value is not a valid zipcode. ";}}if(eregi(" phone", $field)){if(! ereg("^[0-9)(xX -]{7, 20}$",$value)){$errors[]="$value is not a valid phone number. ";}}if(eregi(" cc_number",$field)){$value = trim($value);$value = ereg_replace(' ',",$value);$value = ereg_replace('-',", $value);$_POST[' cc_number'] = $value; if($_POST[' cc_type'] == " visa") {if(! reg("^[4]{1, 1}[0-9]{12, 15}$",$value)){$errors[]="$value is not a valid Visa number. ";}}elseif($_POST[' cc_type'] == " mc"){if(! ereg("^[5] {1, 1}[0-9]{15, 15}$",$value)){$errors[] = "$value is not a validMasterCard number. ";}}else{if(! ereg("^[3]{1, 1}[0-9]{14, 14}$",$value)){$errors[] = "$value is not a validAmerican Express number. ";}}}$$field = strip_tags(trim($value));}}if(@is_array($errors)){$message = "";
foreach($errors as $value){$message . = $value. " Please try again ";}include(" fields_ship_info. inc"); include(" single_form. inc"); exit();}/* Process data when all fields are correct */foreach($_POST as $field => $value){if(! eregi(" cc_",$field) && $field ! " Summary"){$value = addslashes($value);$updates[] = "$field = '$value'";}}$update_string = implode($updates,","); #142$sql_ship = " UPDATE Customer_Order SET $update_stringWHERE order_number='{$_SESSION[' order_number']}'";$cxn = connect_to_db(" Vars. inc");$result = mysqli_query($cxn,$sql_ship)or die(mysqli_error($cxn)); extract($_POST); include(" fields_summary. inc"); include(" summary_page. inc");}elseif(isset($_POST[' Ship'])){include(" fields_ship_info. inc"); include(" single_form. inc");}elseif(isset($_POST[' Final'])){switch ($_POST[' Final']){case " Continue Shopping": header(" Location: Menu. php"); break; case " Cancel Order":#include(" fields_cancel.

inc”);#include(“ cancel_message. nc”); unset($_SESSION[‘ onumber’]);

session_destroy(); exit(); break; case “ Submit Order”:$cxn =

connect_to_db(“ Vars. inc”);$sql = “ UPDATE Customer_Order SET

submitted=’yes’WHERE order_number=’{$_SESSION[‘ order_number’]}’”;

$result = mysqli_query($cxn,$sql)or die(“ Error: “.

mysqli_error($cxn));#processCCInfo();#sendOrder();#include(“

fields_accept. inc”);#include(“ accept_message. inc”);#email();

session_destroy(); break;}}? >| Source: (Velade 2005)| Another important

factor to consider is to disable the online ordering system if the address of

the users is not included in the list of covered area of the store. This can be

done by adding additional table which will store the city where the store

delivers and the duration of time that the store operates.