**DEVELOPMENT OF E-COMMERCE WEBSITE FOR EPA SOLUTIONS WITH ANALYTICS APPLICATIONS**

**An IT Capstone Project**

**Presented to**

**The Faculty of the College of Computer Studies**

**Manuel S. Enverga University Foundation**

**Lucena City**

**In Partial Fulfillment**

**of the Requirement for the Degree of**

**Bachelor of Science in Information Technology (BSIT)**

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**March 2016**

**CHAPTER I**

**INTRODUCTION**

**Project Context**

There are several physical computer stores these days but not all of them are expanded their marketing strategy over the internet. Every year passed, more and more people are using internet for different reasons and one of them is electronic shopping. Some people from other places might get interested in computers, computer parts, peripherals, components, etc. who was looking for a computer store near in his/her area or can order online. It is a good marketing strategy if your computer store has an online website and can transact orders. Some physical computer store has an online website of their store but not all of them are offering online transactions where you can buy an item online and pay it with your credit card, PayPal credits, etc.

EPA Solutions (PC Broker) is a physical store that having a problem with their point of sales. They want to access their POS system anytime and anywhere so that, they can monitor and update the occurrence on their website real time.

EPA Solutions (PC Broker) want to acquire popularity and gain more customers. They also want to keep up with the competition among other business company;

EPA Solutions (PC Broker) want to generate reports fast and easily to spare more time. Handling reports is one of their problems, this tends to consume more time in just generating reports from their current system.

The development of web based point of sale will solve the current problem of the client. It will be the core of the business system that will allow the authorized person to make changes in the stocks that are currently available in the system and automatically update to the stock on the store website. It will also display the overview of what are the occurrences on the store website. It will be easy for the manager-in-charge to monitor of all the updates on their store website anytime and anywhere.

The development of e-commerce website for the client will acquire popularity on the internet users and potentially gain more customers in the long run. Developing this e-commerce website will surely keep the gap of the competition narrow. The store website will gain visitors of those who were looking for computer related products and eventually visitors will turn into customers.

The development of web based point of sale will help the client to generate reports automatically. By generating reports, it will give the client idea of what to do base on the reports given. There will be also a sales forecasting in the system so that client will have an idea and make a smart decision for the future of the business.

**Purpose and Description**

EPA Solutions (PC Broker) is an online website that is available to almost all of the electronic devices that are capable of browsing through internet by using different internet browsers. This online website can help the management of the store for widening the business area of their computer store through internet and gain more potential customers. This also can be beneficial to customers because of its interactive interface and it is easy to use and navigate the contents and items.

Particularly, it could help the following:

Client/Management:This will be beneficial to them because of expanding their business area instead of physical store only. Expanding the area of your business will result to more customers.

Customers: It would be also beneficial to them because they can browse the products of the computer store instead of going to the physical store and they can transact online whenever they want.

Future Researchers:This could help other researchers in their future project which could be similar to the present study. It could provide some data or ideas on system planning and development.

Researchers:This research will help the proponent to exert more effort in conducting a study on the different areas of the e-commerce has. While conducting this research our knowledge and skills in the different languages that has not unto us yet will discover and the languages that we already knew will develop and eventually transcend.

**Objectives of the Project**

The main objective of this project is to develop an E-Commerce website that can be beneficial to the client and also the customers.

The particular benefits to the client are to expand their business through the use of current technology which is e-commerce. To have the client an online POS (Point of Sales) system. This projects will help the clients to gain more customers and increase their sales. The client problems will be solved through analytics application that the proponent recommended to the client and which will be included to the system. The manager will know or track what’s going on their sales wherever he were he just need an internet connection.

The specific objectives of this project are the following: to analyze the requirements that will be needed for the development of the website; to develop the website content through the use of PHP, HTML 5, BOOTSTRAP, and other development tools. To design a website using UML diagrams for system specifications based on the identified features and functionalities; and To test the compatibility and portability of web application in all various screen we will use bootstrap; and To evaluate the interface of different devices using ISO 25010 standard of software quality attributes such as functionality, reliability, usability, efficiency, maintainability, portability, and security.

**Scope and Limitations**

The ecommerce website contains all the products just like the physical store. It can accept orders from customer and if the payment method is done then the client will have to deliver the products ordered by the customer through shipping courier.

The system has (3) users; the administrator, member and guests. Administrator is the one who will monitor and maintain the website; and the admins are the one who’re able to access the information of the personnel such as full name, contact number, username and password; Admin can view the products such as in-stock and out of stock.

As for the members or personnel, the system will provide an area wherein they can purchase products, edit personal information, view and manage their orders. Unlike the members, the guest can only browse the website but no transactions can be held unless they would register.

As for descriptive analytics, the proponent can analyze how data aggregation and data mining techniques to supply insight into the past and answer the question what has happened? In standard report we can actually see the data of previous history of the business company and track the data changes according to this report. In the dashboard of website, it is easy to see the overview of the data reports which is actually helpful for the client to read quickly. In drill down, the proponent can use it to create multiple reports of one results to know more about that results instead of creating new reports, to gain an understanding of what approach to take in the future to create a smarter decisions.

As for predictive analytics, the proponent can analyze how the data to use for statistical models and forecasts techniques to understand the future outcomes and answer what could happen? In sales forecasting the researchers can predict the future sales of the business company such as a business’s sales revenues from the same month from the past year, combined with knowledge of general economic and industry trends, work well for predicting a business’s sales in a particular future month. This can be helpful for making smart decision making. This sales forecasting is useful for the business companies that has been established a few years because sales forecasting will massively rely on years of history of one company.

**Features and Components:**

Search Box in this feature, it will allow visitors to search quickly the product that they are looking for. Featured Products, this feature, displays the products on the home page of the website will inform visitors of what are the top selling products, sales offers, and new products. Related product, in this feature, which will show visitors what other products they can purchase along-side what they are currently viewing, a clever way of positioning this is with a heading.This will encourage your visitors to purchase more than one item at once. Newsletter Subscription, allows the users to enter their email address to stay up to date with the offers and promotions, having this feature will allow to build the mailing list to use in marketing campaigns. Categories, this feature, having a clear categories on the website to list your products, and having a categories displayed somewhere easy to access. Payment Gateway, this feature, it will give assurance and peace of mind to the visitors. Privacy Policy, displays clear Privacy Policy link in your footer. Customer login & registration,this features,gives the option for customers to register on the website, so when the visitors do return they don’t need to enter all their billing and payment details in again, giving them the flexibility to quickly check out.

Delivery Information thisfeature, informs the user on how going to be delivering the products to the customers, along with clear time scales, so that the customers know when to expect the delivery. News & Events this feature on the website where it can keep the visitors informed of the new products, events, and other news related to the business. Social Media Presence this feature, it will let the customers know that it’s available on networking sites, by having Social Media Logos on your site (eg. Facebook, Twitter, Instagram and etc.), having a good social media presence will boost the online presence and brand of the company. Live Chat, in this feature, it will provide a convenient answers that customers want. Live chat is essential to customer support service. It will help to earn customer trust and confidence about the products and services of the company offered.

**Limitation**

The system can only be used when there is available and installed browser on your electronic device. The system cannot be use when there is no available internet in your electronic device. To consistent and reliable use of the system, this will require a good internet connection speed such as recommended 3G network connection.

**Delimitation**

Payment gateway options in credit card/debit card (Mastercard, Visa), installment and cash on delivery will not be included in the system instead Paypal Payment will only available for now.