Pilot Implementation of OpenLGU Accounting Module in Orani, Bataan

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I. INTRODUCTION

A. Background of the study

Nowadays, technology has become an essential part in our life. Most people are taking advantage of the technology we have incorporating it to their everyday lives. With this rising uproar in technology its no wonder that even companies, corporations, different institutions and government have embrace and taken its context. Thus, the emergence of e-Government and e-Governance. The difference between is that e-Governance is a wider concept that deals Information and Communications Technology (ICT) as a whole while the e-Government deals with subtle context such that make use of the government services and its people.

In the administration of former President Gloria Macapagal-Arroyo under its Ten-Point Agenda for 2004 to 2010, implementation of e-Government was discussed and presented. Also this E-Government Master Plan (EGMP) [1], an output of the joint project by National Computer Center of the Philippines (NCC) and the National IT Industry Promotion Agency of the Republic of Korea, aims to help build the ICT industry in the Philippines.

It is a common knowledge that any form of paper processing in our government is very slow, tiring and time consuming due to reliance on human force. [2] In the Municipality of Orani in Bataan, the process of accounting is a very tedious and long process. Starting from recording of the transaction made to making a trial balance then making reports. It is a continuous cycle that makes use of paper and books.

B. Objectives of the study

The general objective of the study is to undergo a pilot implementation of a web based system in the Accounting Department of the Municipality of Orani in Bataan. The system basically handles the recording of journal entries, balancing the ledger and generating reports. Specifically, this study aims:

1. To provide an additional functionality that will Accounting Department be needed;

2. To improve the user interface of the system;

3. To evaluate the system using the usability survey; and

4. To asses if the system meets the requirement of the client/user.

C. Date and Place of the Study

The study will be conducted during the Academic Year 2016-2017 in the Municipality of Orani, Bataan. Data analysis will be conducted at the Institute of Computer Science, College of Arts and Sciences, UPLB.

II. REVIEW OF LITERATURE

A. E-Government

With the high end technology today, different services, processes and programs are being implemented from one country to another have surfaced and one of them is the E-Government. E-Government is the use of information and communications technology to improve the activities of public sector [3]. People tend to adapt the things where they think that will greatly help them in every process. With this e-government, whose objective is to improve the service to the people will basically be an in demand system.

According in the United Nations Public Administration Country Studies [4], Philippines rank 71 out of 193 countries with a 0.5766 E-Government development index (EGDI) which is a 24-increase in rank compared in 2014. This means that the country has been improving in implementing e-government services. And also countries such as United Kingdom, Australia, Republic of Korea, Singapore and Finland top the survey [4]. Three out of five of these countries are in the top 12 largest economy in the world for 2014 and 2015 while the other two are still in the top 50 (List of countries by GDP, n.d.). With these data we can conclude that e-government also hold a key or contribute in making the economy stronger. The efficiency, improved and better accessibility of government services and transparency are some of the benefits that will e-government can give. Philippines have become one of the fastest growing economies in the region. [5] The problem that will rise on this is that how will the government will sustain and improved this accomplishment.

Information and communications technology (ICT) plays a major role in developing the e-government. It was after the Martial Law that marks the start of acknowledging the potential of ICT in the Philippines. [6] According to Technopedia [7], ICT refers to all the technology used to handle telecommunications, broadcast media, intelligent building management systems, audiovisual processing and transmission systems, and network-based control and monitoring functions. From then the growth of ICT in the country is very slow due to poor leadership, political and structural barriers and lack of supportive laws. [6] It is very important to make the citizen an ICT educated to have competent workers that can efficiently

operate the system and have users that will understand the system.

B. Accounting Module

Accounting, as defined in Investopedia [8], is the systematic and comprehensive recording of financial transactions pertaining to a business, and it also refers to the process of summarizing, analyzing and reporting these transactions to oversight agencies and tax collection entities. Accounting module includes the general ledger, cash and bank, cash advance, accounting receivables, accounting payables, budgeting and reports. Accounting system is broad that only limited topics will be covered. The functionality included in the module are journal entries, ledger accounts, trial balance, reports and closing the month.

III. MATERIALS AND METHODS

A. System Requirements

The following are the softwares to be used in the system:
1. Framework : Yii 2.0
2. Database: PostgreSQL, phpPgAdmin
3. Server: WAMP
4. Basic: HTML5, CSS3, Javascript, PHP 5.6.25

B. Functional Requirements

1) **Journal Entry**
   This module is used to create and view journal vouchers. The vouchers cannot be edited after posting.
2) **Journal Details**
   This module is used to add and view details in a journal entry.
3) **General Ledger**
   This module is used to create, update, delete, and view ledger accounts or chart of accounts. The reference used for the ledger is the standard chart of accounts from NGAS.
4) **Trial Balance**
   This function allows the user to generate and view a monthly trial balance.

C. Implementation and Building the System

1) Database: The database of the system is changed and improved based on the data flow and dependencies of the modules.

2) Modules : The important modules of the Accounting System is implemented with the additional changes with all the functionality and in Accounting codes.

3) User Interface: The new system used a Yii 2.0 framework which is a great improvement compare to the previous version. Upon improving the system, user-friendliness is the main priority since different people will be using it.

4) Users: The system is always presented to the client and discussed if it meets their requirement.

IV. RESULTS AND DISCUSSION

The four kinds of journal entry: Check Disbursement Journal, Cash Disbursement Journal, Cash Receipts Journal and General Journal are successfully implemented. These journals will be posted in the General Ledger and with this Trial Balance will be generated. The Yii 2.0 framework is also successfully used in the system.

A. Journal Entries

- These were generated after populating the journal entries and posted. The debit and credit must be balanced in order to be posted.

Figure 1 - Journal Entries

B. General Ledger

- The entries will be put in the corresponding ledger accounts.

Figure 3 - General Ledger

C. Trial Balance

- The generated trial balance will be based on the transactions that are posted.

V. CONCLUSION AND FUTURE WORKS

The Pilot Implementation of the Accounting Module is successful. The user interface is user-friendly and improved a lot compare to the previous system. The system will be improved with the addition of the Statement of Financial Position , Statement of Financial Performance and generate reports in PDF form.

Republic of the Philippines
MUNICIPALITY OF ORANI
Orani, Bataan
TRIAL BALANCE

Account Title	Account Code	Debit	Credit
Office Supplies	5-02-03-010	118260	0
Accounts Payable	2-01-01-010	22500	0
Special Education Tax Receivables	1-03-01-030	0	382444.05
Special Education Tax	4-01-02-050	0	191222.04
Other Payables	2-99-99-990	0	650
Deferred Special Education Tax	2-05-01-020	382444.05	0
Discount on Special Education Tax	4-01-02-051	16049.35	0
Honoraria	5-01-02-100	133500	0
Tax Revenue Fines & Penalties-Property Taxes	4-01-05-020	0	4154.34
Due to BIR	2-02-01-010	7325	12055.4
Advances for Payroll	1-03-05-020	126175	126175
Cash in Vault	1-01-01-010	179327.03	179327.03
Cash in Bank	1-01-02-010	179327.03	268879.6
		1164907.46	1164907.46

Figure 3 - Trial Balance

REFERENCES

[1] T. D. de Rivera. E-government implementation in the philippines based on the 10-point agenda of president g m arroyo. [Online]. Available: http://www.cicc.or.jp/japanese/ kunibetsu/pdf$_p$pt/$Philippines - E - Government_Implementation_{i}n_{t}he_Philippines_{R}ev10.pdf$

[2] G. N. S. Buenaventura and D. J. Mercado, "Openlgu: Inventory of supplies and materials of local government units," 2015.

[3] R. Heeks. (2008, october) Success and failure in e-government projects.

[4] U. Nations. (2016) Un e-government knowledge database. [Online]. Available: https://publicadministration.un.org/egovkb/en-us/Data-Center

[5] Introduction and overview of e-government in the philippines. Department of Information and Communications Technology. C.P Garcia Ave., Diliman, Quezon City. [Online]. Available: http://www.dict.gov.ph/introduction-and-overview-of-e-government-in-the-philippines/

[6] Economic, S. C. for Asia, and the Pacific Social Development Division. (2016) Evolution of e government in the philippines. United Nations. Rajadamnern Nok Avenue, Bangkok 10200, Thailand. [Online]. Available: http://egov4women.unescapsdd.org/country-overviews/philippines/evolution-of-e-government-in-the-philippines

[7] D. Janssen and C. Janssen. (2016) Information and communications technology (ict). [Online]. Available: https://www.techopedia.com/definition/24152/information-and-communications-technology-ict

[8] Investopedia. (2016) Accounting. [Online]. Available: http://www.investopedia.com/terms/a/accounting.asp