

Web-Based Church Financial Information System (Case Study of the Congregation of the Indonesian Protestant Church in Papua Irene Blorep-Merauke)

Tatik M. Tallulembang, Selfina Pare, and Jarot Budiasto

ABSTRACT

The church as a non-profit organization must also make financial reports that are accountable and report to users of church financial reports, namely the congregation which is the main source of church income. However, in managing the finances of GPI Papua Irene Blorep, there are often record discrepancies, delays in preparing reports, and discrepancies in report writing formats, causing the financial audit process to often experience difficulties. This study aims to build a web-based church financial information system that can assist treasurers and BPPG in managing finances. In this study, several stages were collected, namely data collection using literature study methods, interviews, and observations, and system development using the Waterfall model, namely analysis, design, coding, and testing. The results of this study are a Web-Based Ecclesiastical Financial Information System that can assist treasurers in managing church finances such as income and expenditure budget plans, financial transaction journals, and financial reports. This research also assists BPPG in examining the management of church finances.

Keywords: Web-based Financial Information System.

Published Online: October 11, 2023

ISSN: 2736-5492

DOI: 10.24018/ejcompute.2023.3.4.109

T. M. Tallulembang

Musamus Merauke University, Indonesia
(e-mail: tatik_melinda@unmus.ac.id)

S. Pare

Musamus Merauke University, Indonesia
(e-mail: selfina@unmus.ac.id)

J. Budiasto*

Musamus Merauke University, Indonesia
(e-mail: jarot@unmus.ac.id)

*Corresponding Author

I. INTRODUCTION

Facing the current technological developments that are so rapid. Especially in the field of technology, where every time there is rapid development. Developments oriented to the field of computers and also the internet that bring changes to a company [1]. The church as a non-profit organization in the religious field, according to Financial Accounting Standards (PSAK) 44 of 2019 concerning non-profit organizations, that non-profit organizations are also required and have the right to make financial reports to be known by financial users [1]. So, the church is also obliged and has the right to make accountable financial reports and report to users of church financial reports, namely church members who are the main source of church income and donors from outside the congregation so that they are motivated to be more active in giving thanksgiving offerings and financial assistance to support church services. In seeking to obtain funds and regulate their use, the church needs to regulate financial management and provide reports on the results of good management. Based on current observations in the Economic, Finance and Development Sector (EKUBANG) of GPI Papua Irene Blorep, finances are managed by the general treasurer and assisted by several categorical treasurers and the Church Treasury Supervisory Board (BPPG).

The general treasurer is in charge of recording incoming and outgoing cash into the cash-in cash assistance book every day and closing the book every Saturday of one week which is then transferred to the general cash book to report every

Sunday to the congregation and make reports on the realization and budget of the congregation's income and expenditure in one year. Categorical treasurers consist of several treasurers in charge of managing categorical financial administration and reporting to the general treasurer in the form of total nominal cash in and cash out to be recorded in the general cash book. The Church Treasury Supervisory Board (BPPG) is tasked with inspecting the financial management treasurer once every three months by looking at the financial reporting system based on the format given to each treasurer. Problems found from the current financial management process, namely, financial management at the general treasurer in making weekly, monthly, quarterly and annual reports already using the Microsoft Excel application but previously recorded and calculated manually so errors often occur, frequent discrepancies occur between the financial records of the categorical treasurer and the general treasurer. For example, money that goes to the general treasurer is addressed to the categorical treasurer. The money was not recorded at the general treasurer, nor was it recorded at the categorical treasurer, resulting in a difference in the nominal realization. Another problem is that both the general treasurer and the categorical treasurer record the incoming money resulting in two recordings which result in an excess of nominal realization. This resulted in the preparation of monthly reports, quarterly and annual realization is often late. In addition to these problems, the categorical treasurer made a report not in accordance with the existing format because the treasurer didn't want to be bothered. This problem caused the Church Treasury Supervisory Agency (BPPG) to

experience delays in examining financial reports and had to re-examine the records and proof of financial transactions for each treasurer when reports were not in the proper format. Therefore, we need a financial information system that is integrated and can be accessed by every general treasurer, category treasurer and the Church Treasury Supervisory Board (BPPG) so that it makes it easier to manage finances and provide reports according to Irene Blorep's GPI Papua format.

II. LITERATURE REVIEW

A. Information Systems

The system is a collection of objects in the form of parts of elements that are connected for the achievement of certain goals. Information is data that has been processed into a form that is more useful and can be used by humans now or in the future[2].

B. Website

The website is a combination of many pages that are used as a medium to obtain and provide information, both static and dynamic, connected to a network of pages. As for what must be prepared in building a free website, it needs supporting elements, namely a domain name, website house, and content management system (CMS) [3].

C. MySQL

My Structured Query Language (MySQL) is a database that consists of one or several tables, and tables consist of many rows, and each row contains one or several columns [6]. MySQL is open source, so you don't have to pay to be able to use it. The type of data is data that is in a table such as fields that contain data values [3].

D. Blackbox Testing

Blackbox Testing is an experiment on a system that is made to check its overall functional requirements. Blackbox testing is done by not giving system access rights to find errors in the system. To carry out this test, the tester interacts directly with the user interface[4].

III. RESEARCH METHODOLOGY

A. Systems Analysis

The system design method used by the author is the waterfall method. Waterfall is a system design model in software engineering based on software requirements which are broken down into several functions or parts so that the design model is gradual [5].

The analysis of the current plier's system can be seen in Fig. 1.

B. Needs Analyst

1) Functional Requirements Analysis

Analysis of functional requirements (functional requirements) is carried out by defining the functional system based on the results of the analysis of the ongoing system and the identification of the needs of the owner and stakeholders.

The following are the functional requirements of the system to be built:

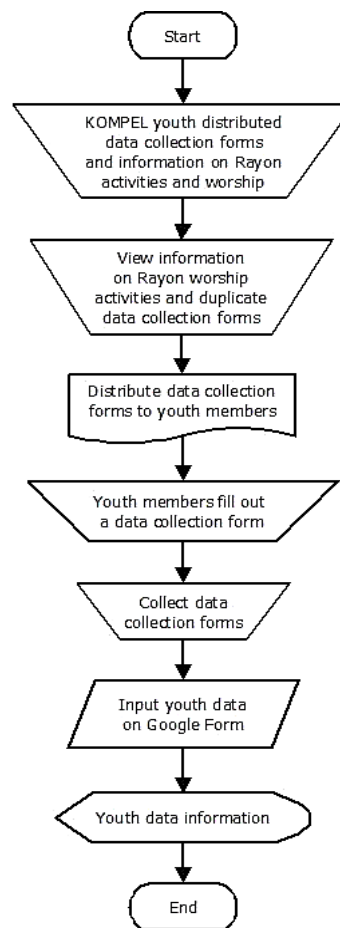


Fig. 1. Running System Flowchart.

- a. The system can assist the general treasurer and categorical treasurer of GPI Papua Irene Blorep in managing financial data.
- b. The system can assist the Church Treasury Supervisory Agency (BPPG) in checking the finances of GPI Papua Irene Blorep.

The system can make it easier for the chairman of the GPI Papua assembly, Irene Blorep, to oversee the management of church finances

2) Analysis of Non-Functional Needs

a) Hardware requirements (hardware)

- OS Windows 8 Professional 64-bit
- MySQL
- Visual Studio Code 1.33.1

b) Hardware requirements (hardware)

- Processor Intel Core i5 8th Gen
- 1TB hard drive
- 4GB of RAM
- Epson printers
- Mouse and Keyboard

c) Brainware

Brainware or operators are people who manage and use the Irene Blorep GPI Papua Financial Information System Namely General Treasurer, Categoryal Treasurer, BPPG, and Chair of the Assembly.

IV. RESULTS

A. System Implementation



Fig. 2. Login Form.



Fig. 3. General Treasurer Main Menu Form.

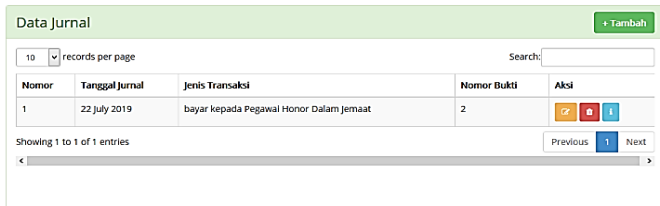


Fig. 4. Journal Menu Form.

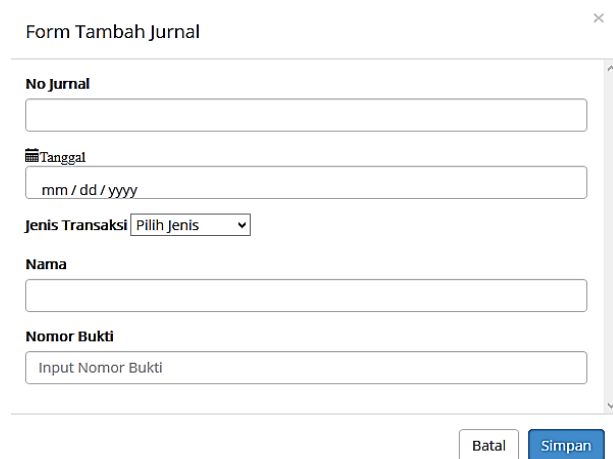


Fig. 5. Journal Data Add Form.

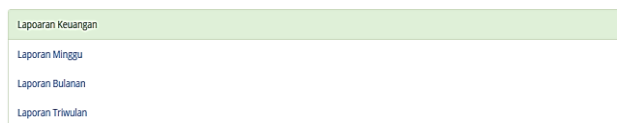


Fig. 6. Form Menu Laporan.

Laporan Mingguan					
No	Tanggal	Nomor Bukti	Pasal	Nilai Debet	Nilai Kredit
1	29 March 2019	1	1.1.2.003	200000.00	0.00
3	30 March 2019	2	1.1.2.006	40000000.00	0.00
2	29 March 2019	1	2.1.1.003	0.00	500000.00
4	30 March 2019	4	2.1.1.004	0.00	42274960.00
5	30 March 2019	3	2.1.1.005	0.00	6700000.00
6	30 March 2019	1	2.1.2.011	0.00	2000000.00

Fig. 7. Weekly Report Form.

Data Laporan Bulanan						
No	Tanggal	Nomor Bukti	Pasal	Nilai Debet	Nilai Kredit	Saldo
1	Saldo bulan lalu					Rp.0,-
2	04 October 2019		1.1.2.002	Rp.90.000.000,-	Rp.0,-	
3	04 October 2019		1.1.2.003	Rp.90.000,-	Rp.0,-	
Total Debet :				Rp.90.090.000,-		
Total Kredit :					Rp.0,-	
Saldo Bulan ini :						Rp.90.090.000,-

Fig. 8. Monthly Report Form.

Data Laporan Triwulan						
No	Tanggal	Nomor Bukti	Pasal	Nilai Debet	Nilai Kredit	Saldo
1	Saldo Triwulan Lalu					Rp.0,-
	2019-10-04		1.1.2.002	Rp.90.000.000,-	Rp.0,-	
	2019-10-04		1.1.2.003	Rp.90.000,-	Rp.0,-	
Total Debet :				Rp.90.090.000,-		
Total Kredit :					Rp.0,-	
Saldo Akhir :						Rp.90.090.000,-

Fig. 9. Quarterly Report Form.



Fig. 10. Form Main Menu Chairman of the Assembly.

Data User					
No.	User Name	Password	Level	Kode Bendahara	Aksi
1	BPPG	BPPG	1	BKD1	
2	Umum	Umum	2	Ku	
3	PAR	PAR	3	KB01	
4	PERPRI	PERPRI	3	KB02	
5	PP	PP	3	KB04	
6	PEMBANGUNAN	PEMBANGUNAN	3	KB04	
7	PERIWATA	PERIWATA	3	KB05	
8	ketua	ketua	4	K	
10	BARU	BARU	2	BK02	

Fig. 11. Form Master User.

Data Ayat Pasal					
No.	Pasal	Nama Pasal	Keterangan	Kode Pns	Aksi
1	1.1.1.001	Suran Tetap	Sumbangan wajib anggota GPI Papua	1.1.1	[Edit] [Hapus]
2	1.1.2.002	Perpuluhan	Sepersesuluh dari hasil bersih yang diterima anggota jemaat (harian atau mingguan atau bulanan atau tahunan)	1.1.2	[Edit] [Hapus]
3	1.1.2.003	Syukur Bulanan	Pengucapan syukur keluarga jemaat setiap bulan	1.1.2	[Edit] [Hapus]
4	1.1.2.004	Syukur Baptisan Kudus	Pengucapan syukur atas baptisan kudus yang diterima	1.1.2	[Edit] [Hapus]
5	1.1.2.005	Syukur Ulang Tahun		1.1.2	[Edit] [Hapus]
6	1.1.2.006	Syukur Hari-Hari Besar Gereja		1.1.2	[Edit] [Hapus]
7	1.1.2.007	Syukur Pelayanan Ibadah Khusus		1.1.2	[Edit] [Hapus]

Fig. 12. Form Master Paragraph Article.

Tahun Anggaran			
No.	Kode Tahun Anggaran	Nama Tahun Anggaran	Aksi
1	2018	Rencana Anggaran Tahun 2018	[Edit] [Hapus]
2	2019	Rencana Anggaran Tahun 2019	[Edit] [Hapus]

Fig. 13. Fiscal Year Master Form.

Bendahara			
No.	Kode Bendahara	Nama Bendahara	Aksi
1	BK01	Bendahara PAR	[Edit] [Hapus]
2	BK02	Bendahara PERPRI	[Edit] [Hapus]
3	BK03	Bendahara PP	[Edit] [Hapus]
4	BK04	Ona	[Edit] [Hapus]
5	BK05	Bendahara PERWATA	[Edit] [Hapus]
6	BU01	YULIANA S. SIMA	[Edit] [Hapus]
7	KM01	Pdt. M. Usmany,S.Th	[Edit] [Hapus]
8	KP01	Bapak johanes D. Kayadoe	[Edit] [Hapus]

Fig. 14. Master Treasurer Form.

B. System Testing

1) Blackbox Testing

The results of the Blackbox test show that the software that has been made is running according to functionality and produces output as expected.

2) Questionnaire Testing

The results of testing the questionnaire using the Likert method.

V. CONCLUSION

Based on the research that has been done using the waterfall system development model and tested using the black box and questionnaire methods, the conclusions can be described as follows:

1. The research conducted has resulted in a Web-based Ecclesiastical Financial Information System which is expected to facilitate category treasurers and general treasurers in managing the finances of GPI Papua Irene Blorep.

2. The research resulted in a system that was expected to facilitate BPPG in examining Irene Blorep's GPI Papua financial management.

REFERENCES

[1] Katen Lumbanbatu N. Perancangan Sistem Informasi Penyebaran Penduduk Menggunakan Php My Sql Pada Kecamatan Binjai Selatan [Design of a population distribution information system using Php My

Sql in South Binjai District]. *Journal. KAPUTAMA*. 2013;7(1):19–24. Indonesian.
 [2] Batubara FA. Perancangan Website pada PT. Ratu Enim Palembang [Website design at PT. Queen Enim Palembang]. *Journal of Applied Science and Technology*. 2012;7(1): 15–27. Indonesian.
 [3] Sihite JA. Sistem Informasi Pengelolaan Daftar Kehadiran Dan Jadwal Pembicara Berbasis Website Dengan Mail Gateway Pada Komunitas Jc Bandung [Website-based information system for managing attendance lists and speaker schedules with mail gateway in the jc bandung community]. *Journal of Information Technology and Information Systems*. 2017;3(2). Indonesian.
 [4] Putra FD, Riyanto J, and Zulkiflar AF. Rancang Bangun Sistem Informasi Manajemen Aset pada Universitas Pamulang Berbasis Web [Web-based asset management information system design at Pamulang University]. *J. Enginnering Technologi Appliad. Sci*. 2020;2(1):32–50. Indonesian.
 [5] Rahmah M, Kom S, and Munte FB. Accounting treatment of non-profit organizations related to Sfas No. 45 Of 2017 at Maranatha Hkbp Church. *J. Akunt. and Krisnadwipayana Business*, 2019.