



THE DESIGN OF ACCOUNTING INFORMATION SYSTEM OF RECEIPTS ANF CASH DISBURSEMENT USING PAYMENT GATEWAY METHOD AT PT MAXCHAT INOVASI INDONESIA

Yulfi Haniyah Farasary^{1*}, Kartika Dewi Sri Susilowati², Kurnia Ekasari³

^{1,2,3}Politeknik Negeri Malang, Indonesia

Email: yulfifarasary01@gmail.com¹

Abstract

This study aims to design an accounting information system for cash receipts and disbursements using the existing payment gateway method at PT Maxchat Inovasi Indonesia. Data collection methods used are field research methods, interviews and literature study. While the development of the software system that the author uses uses an agile model. The information technology used in this research is Bizagi, MySQL application, and Midtrans Payment Gateway. This research was conducted at PT Maxchat Inovasi Indonesia.

Based on the discussion in this research, the suggestion for the object, namely PT Maxchat Inovasi Indonesia, is to evaluate ongoing business processes including responsibilities according to the job description. Suggestions for future researchers are expected to be able to innovate and explore optimally.

Keywords: Cash Receipt, Cash Receipt and Payment Gateway

INTRODUCTION

Along with the development of the world of technology which is increasingly rapidly impacting on the development of all companies and organizations. Technology can make an entity more successful, because technology offers efficiency and effectiveness. Companies that have not been able to apply technology as part of their entity may need a long time to process the various information needed.

As for information that requires technology so that it can be processed faster, one of them is the accounting information system (SIA). SIA is a series of processing financial information into information that is easily understood by stakeholders by utilizing all the resources owned by the company. An AIS that is well structured and keeps abreast of technological developments can provide efficiency to a company's internal controls.

The development of information technology can be applied to improve various aspects of an entity, including increasing productivity, time, quality, customer satisfaction and reducing costs. This application can be done by creating systems that are integrated with each other. Furthermore, business processes in various entities have also used various software applications developed from existing technological advances in carrying out their business processes. Of course, with the presence of developing technology, business processes can be executed more precisely and easily. Designing the right business process is a key to building a successful business.

This is because good business processes can help companies avoid bad workflows and mistakes in carrying out tasks Ito et al (2020). Furthermore, of course, the accuracy of business process design can provide increased productivity, time, quality, customer satisfaction and can reduce costs. Any organization will need business processes to support the achievement of the organization's vision and mission Ismanto et al (2020). Business processes can be considered successful if organizational goals can be effectively achieved.

An accounting information system is a component that collects, classifies, processes, analyzes, and combines relevant financial information for decision-making outside parties (such as government, society, investors, and creditors) internal parties (especially management) Otinur et al (2017). Finances are usually considered as part of the total wealth portfolio of an individual, company or agency. Therefore, the implementation of an effective accounting information system in a company will provide many benefits for companies and management in running their business, from companies engaged in the trade, service and manufacturing sectors.

Accounting information systems, closely related to accounting in the company's daily operational activities. This is because the accounting information system is a tool used by companies to carry out business activities, both companies that still use manual or computerized systems. Accounting information systems can be manual pencil and paper systems, complex systems using the latest information technology, or something in between. Regardless of the approach taken, the process is the same, accounting information systems must collect, enter, process, store, and report data and information Romney et al (2015).

Through an accounting information system, companies can carry out the company's daily business activities, as well as place responsibilities in accordance with the authority given to each employee and other internal company parties, so that the company's business activities can run well and company goals can be achieved. This is important to do, because in practice in the field, employees and decision makers are the main actors in running the company's accounting system, so accountability for each given authority is important to implement. The company's operational activities, in which buying and selling transactions occur, have various transaction processes, ranging from transaction processes that involve many parties and take a long time, to simple and short transaction processes.

In the accounting information system, these activities are categorized into five business process cycles. The five cycles are the revenue cycle, the expenditure cycle, the production or conversion cycle, the human resources/payroll cycle, and the financing cycle. Romney et al (2015).

Of the four cycles, the cash receipts cycle or cash receipts cycle and the cash payment cycle or non-cash payment cycle are two cycles that can interpret the other three cycles. This is because the cycles of incoming and outgoing inventory, payroll, paying expenses, and cash in and out show financial reporting, because all activities are related to cash. Therefore, through the cycle of cash

receipts and disbursements, we can describe the company's activities from the perspective of accounting information systems.

Root cause analysis that occurred in the company PT. Maxchat Inovasi Indonesia, the accounting information system for cash receipts and disbursements at companies is considered ineffective because it still uses a manual recording system by recording it in a book and using excel, there are quite a number of transaction cycles, how many are still recorded using a book and then inputting it into excel has the potential for unrecorded transactions result in the company not getting cash positions accurately and validly every day to be used in making decisions.

If too many processes occur, it can also have an impact on the timeliness of reporting. In addition, human resources who are not ready for the update of the company's accounting information system hinders the updating of existing systems within the company. So that the leadership cannot do a review or the leadership does not know about the condition of the financial statements, the leadership is difficult to determine the strategy and make decisions for determining the company's budget. With the weaknesses that occur in the company's accounting system, improvements to web-based accounting information systems can increase information, efficiency and effectiveness in making reports besides that web-based systems are easy to develop into more integrated systems and web-based systems have flexible properties .

This study discusses the accounting information system at PT Maxchat Inovasi Indonesia. The process of making documents, namely those originating from proof of payment or notes, document archiving, data reporting, to transaction processing, still uses a manual system. The use of computer tools in the management of accounting information systems is only limited to tools for recording and media for making monthly reports. In this research, researchers are trying to find solutions to problems that occur at PT Maxchat Inovasi Indonesia, this problem is finding an accurate and efficient financial reporting system. Researchers are trying to find a financial reporting system by analyzing the aspects of the problems that occur in companies.

In using an appropriate accounting information system, many things need to be considered, from planning, analysis, design, selection, implementation, to not further evaluating the system. Moreover, service companies have very fast cash flow every day, which is compounded by employees who are often late to report daily cash disbursements. This is to open gaps for the low level of relevance of incoming data, as well as delays in decision making from companies.

Another problem is that it is not known which client the payment is from and the difficulty in collecting debts from clients that are due. Therefore, from this problem, one solution is to use one type of payment gateway. So, this web-based application will be equipped with an online payment system that is integrated with a payment gateway service provider so that the transaction process becomes faster, easier, practical and accurate. This is the background for the author to conduct

research entitled “Design of Accounting Information Systems for Cash Receipts and Disbursements Using the Payment Gateway Method at PT Maxchat Inovasi Indonesia.”

LITERATURE REVIEW

Accounting Information System (AIS)

An accounting information system according to Jogiyanto (2014) is an information system that can change from business transactions that are still not understood by users into financial information that is easily understood by users. Meanwhile, according to Romney and Steinbart (2014) Accounting Information Systems are the use of human resources and equipment that are deliberately designed to transform financial or other data into information that is easy to understand. According to James (2008) SIA is a series of procedures that collect data from financial and non-financial transactions that directly affect the process of financial transactions, then from these transactions information is processed and shared with users. SIA is useful for processing all matters related to financial data into information that is easily understood by stakeholders. A well-designed AIS will provide added value to an organization such as improving quality and reducing product and service costs, increasing efficiency, sharing knowledge, increasing supply chain efficiency and effectiveness, improving internal control structures and improving decision making Romney & Steinbert, (2016). The presence of SIA accelerates business processes and information in a business or organization, because SIA can connect interrelated parts, divisions or departments.

Business process

Business processes are interrelated activities that can be carried out sequentially or in parallel, which can be carried out by systems or people inside or outside the organization to achieve the desired goals Asmoro et al (2020). Meanwhile, according to Davenport (2006) a business process is a series of activities designed to produce a certain output for the organization and its customers. Business processes are various interconnected activities that involve parts of the organization and outside the organization to realize goals and produce the desired output. Business processes are the core of the running of a company; therefore, every company will have business processes that are tailored to their needs.

A well-built system for building business processes will have a good impact on the company. Especially with the arrival of this unstoppable technological advance, business processes must be aligned with technology in order to increase profits, company growth and innovation Sousa et al (2011). In fact, there are still many companies that have not thought about clear business process changes for the better, because basically changing business processes also depends on environmental conditions and the company's willingness to change Sari & Asniar, (2015). In order for a well-designed business process to be realized, support from various groups within the business or

organization must be strong, because a good business process cannot be realized by one party alone. A company or organization will not achieve good business processes if the director does not support it and it will also not run without the support of employees who carry out business operations.

Business Process Modeling Notation (BPMN)

Business Process Modeling Notation (BPMN) is a graphical representation for determining business processes in a business process modeling Mulyana & Kotjopradyodi (2021). BPMN is a standard from the Object Management Group (OMG) which aims to present a notation that can be understood by all business users from early drafters, developers as well as by managers and supervisors of business processes. Bocciarelli et al., (2014). BPMN is a standard managed by the Object Management Group (OMG), and this model can provide communication efficiency with stakeholders Natschläger et al., (2013). BPMN is used as the de facto standard for modeling business processes in the industry Kalenkova et al., (2019), so BPMN is the liaison standard for process design and implementation. For example, in creating an integrated financial system, accountants who understand the flow of business processes about finance acts as a designer to explain the expected system and the programmer which is usually done by IT people will make program code according to what has been designed by the accountant so that it becomes a financial system that is integrated with all the parts involved. BPMN is used as an illustration of the relationship between message recipients or so-called actors in business processes.

In BPMN it is not explained what documents are needed in interactions between message recipients or actors, here it is assumed that the documents needed in business processes must exist and cannot be lost according to Bryans & Wei, (2010). Indeed, it is not like a flowchart which describes the documents needed in business processes in detail, in BPMN it describes business processes without explaining in detail what documents are needed. BPMN can describe every activity and business activity in more detail and easily understood by all parties, while the flowchart is considered as a picture that creates ambiguity for people who are not familiar with the business processes described or for people who have not studied the flowchart Ramos-Merino et al. al., (2018). BPMN is becoming more widely used due to the presence of supporting software in making BPMN which is increasingly sophisticated, making BPMN easier to use in designing integrated business processes and can be directly used for design by programmers who will develop or design business processes. The purpose of BPMN is to make it easier for all users to understand the processes that exist within the organization.

Definition of Cash

According to Kieso et al., (2011) cash is a financial tool in the form of coins, currency, checks, money orders, cash in hand, or in the form of bank deposits that are in the financial statements.

Companies or business owners can combine cash in banks and petty cash as reporting the total accumulated balance as cash only. Cash has an important role in determining the smooth running of a company's activities because it is a liquid asset, Esteria et al., (2016). From this we can conclude that a company must have a cash budget to maintain its financial position and determine cash disbursements and cash receipts.

Cash reporting that can be done directly to meet cash flow reporting needs. this has problems related to cash reporting. It is divided into three parts, namely Cash equivalents or cash equivalents are a group of company assets that have a maturity of less than three months. This cash equivalent will be very useful when used in difficult, unstable economic conditions, for example, such as Government Bonds (SUN) and treasury bills. Furthermore, there is Restricted cash, which is cash that is deliberately set aside or stored to meet significant future obligations. And bank overdrafts are expenses in the form of checks that have a relatively larger value than the balance at the bank.

Service Company Cash Receipt Cycle

According to Pieter (2016) "The cash receipts accounting system is a transaction that causes an increase in balances in cash and bank accounts in a company due to sales of production, receipt of receivables, sales of assets and others that cause an increase in cash. The flow of the manual cash receipts accounting system that is applied to PT Maxchat Inovasi Indonesia starts with the activity of receiving orders in the payment function, then the cash receipts function will receive payments for these orders.

Service Company Cash Disbursement Cycle

The expenditure cycle is a regular collection of business activities and related information processing procedures that are connected with the acquisition and payment of goods and services according to Romney et al (2015). In this cycle there are various kinds of activities, including cash disbursements. The cash disbursement cycle is a series of business and operational data processing activities related to the purchase and payment of goods and services according to Gani, (2014). Broadly speaking, the main objective of the cash disbursement cycle is to reduce purchasing costs while increasing the availability of products, services and other resources a business needs to run its operations.

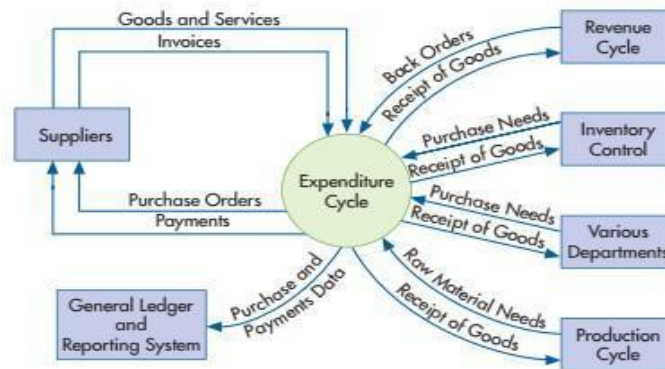


Figure 1 Expenditure Cycle Context Diagram

Source: Romney, Steinbart, (2015: 395)

In handling the company's main activities, an accounting system is generally designed which consists of Mulyadi, (2016):

1. The main accounting system, is the organization of forms, records, and reports.
2. Receivables accounting system, designed to record the occurrence of accounts receivable and reduced accounts receivable.
3. Debt accounting system, designed to record transactions of debt occurrence and debt reduction.
4. The payroll and wage accounting system is designed to handle employee salary calculation transactions and their payments.
5. Cost accounting system, designed to handle production control and cost control.
6. Cash accounting system, designed to handle cash receipts and disbursements transactions.
7. Inventory accounting system, designed to handle transactions related to inventory mutations stored in warehouses.
8. Fixed asset accounting system, designed to handle transactions related to fixed asset mutations.

Payment Gateways

Payment gateway is one way to process electronic transactions. Payment gateways provide tools for processing payments between customers, businesses and banks. Payment gateway is the most important part of a transaction between customers, businesses, and banking institutions that are both used. Payment Gateway is used to facilitate electronic transactions. Some of the main features of the payment gateway include:

1. The software application is designed specifically for e-commerce, although it can also be used to authorize payments in traditional brick and mortar businesses.
2. Encryption of payments and personal data.
3. Communication between related financial institutions, businesses and customers.
4. Payment authorization. Some tools have a payment gateway feature that can help customers find out shipping and handling fees, as well as sales tax.

There are also fraud detection and other features that can be used with payment gateways. Many ecommerce web hosts offer a payment gateway as part of the hosting package. So, payment gateways take advantage of the internet to send and receive information.

METHOD

In research on web-based cash receipts and disbursements information systems at PT. Indonesian Innovation Maxchat data collection method used is the method of field research, interviews and literature. While the development of the software system that the author uses uses an agile model. The research stage in building e-commerce uses the Agile Software Development method because this method is considered appropriate so that the system can adapt to all existing business changes, bearing in mind that an organization's business needs can change. The stages in developing an agile model according to Anwar & Kurniawan (2020) are Planning, Implementation, Testing, Documentation, Deployment, Maintenance.

RESULTS AND DISCUSSION

Problem analysis

The problem analysis has been carried out in several stages. The first stage is collecting data and information regarding business processes including cash receipts and cash disbursements consisting of product sales, receipt of payments from customers, server payments and utility costs. Then conducted an interview with the director of PT Maxchat Inovasi Indonesia regarding the cash receipt and disbursement system. Then, from the information that has been collected, a description of the Accounting Information System for cash receipts and disbursements is carried out using BPMN to find out where improvements are needed for evaluation and what is the starting point for changes.

Can be described in detail the results of the analysis of the problems that occur:

1. There is still a manual recording process which raises the risk of losing proof of transactions and missing input to excel
2. Obstacles in the process of tracking payments from customers, which also causes the billing process
3. Delays in preparing financial reports because they still require repeated cross-checks and require quite a long time
4. Lack of human resources and unclear segregation of duties

Analysis of Application of Cash Receipts and Disbursement Accounting Information Systems

Things that can be done to expedite the existing process of cash receipts and disbursements are as follows:

1. Data input using the system makes the company's performance more efficient and effective because the input data of cash receipts and disbursements every day can be known through payment recaps / income and expenditure recaps
2. The payment tracking process can be done using a payment gateway, namely using the midtrans application. Using midtrans can accept many payment methods, process real-time payments and support various types of payments.
3. Daily data input and recap to obtain real-time cash position. And make it easier to make decisions.
4. The results of transaction input and recapitulation can be used as the basis for the Balance Sheet Report, Cash Flow Statement and Profit and Loss Report

IMPLEMENTATION RESULTS

Business Model Design of Cash Receipts and Disbursements of Service Companies

In the preparation of this model, it became a proposal for PT Maxchat Inovasi Indonesia to record using the ERP (Enterprise Resource Planning) website which was specifically designed for companies, especially in recording cash receipts and disbursements using the payment gateway method. The ERP website is designed to make it easier to record company financial reports that are more efficient, actual and accountable.

1. Cash receipts

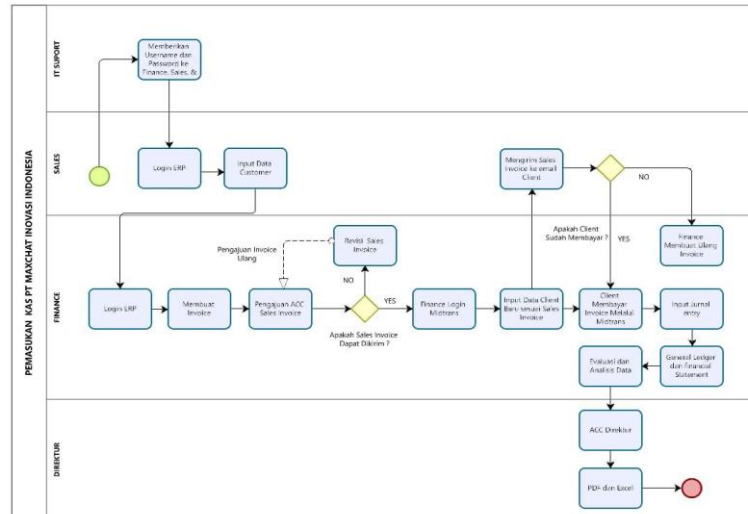


Figure 2. Flowchart of Cash Receipts

Business process identification:

- a. Sales provide information related to the data of each customer in the company to input into ERP
- b. IT Support provides the username and password to the Finance and Sales Division.
- c. The Sales Division logs into the ERP using the username and password that has been obtained and then inputs Customer data.

- d. The Finance Division logs in, creates invoices and submits sales invoice approval to the parties involved (Sales Division and Directors).
- e. The Finance Division logs in to Midtrans and inputs customer data according to the sales invoice.
- f. The Finance Division sends a sales invoice to the customer's email.
- g. After the customer makes a payment, the Finance Division makes a journal on the ERP.
- h. After making a journal, the company's ERP will automatically provide the output of the General Ledger and Financial Statement which will then be analyzed by the Finance Division.
- i. An evaluation report of the analysis that has been carried out by the Finance Division is then submitted to the director of the company.
- j. The Director receives analysis reports in the form of PDF and Excel files for evaluation and decision-making purposes.

2. Cash Disbursement

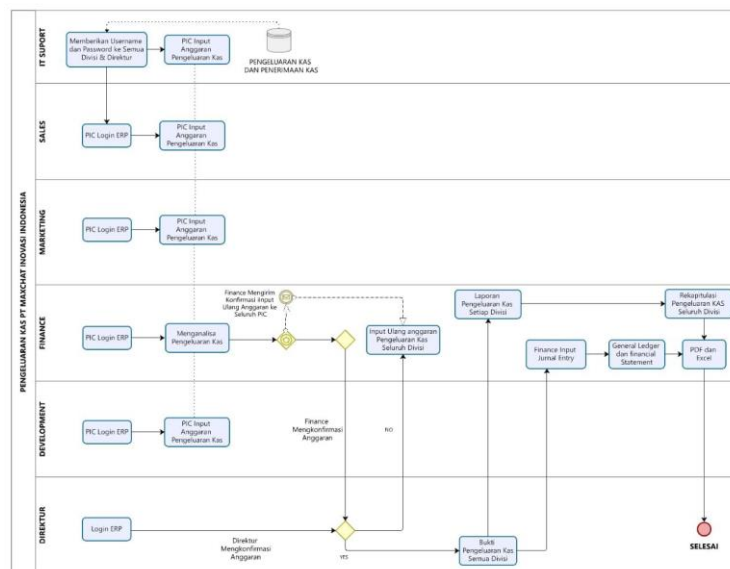


Figure 3. Cash Disbursement Flowchart

Identification of business processes in the company:

- a. The IT Support Division provides usernames and passwords to all Divisions (PIC IT Support, Marketing, Sales, Finance and Development Divisions).
- b. The director and PIC of each division who wish to input budget proposals, log into the company's ERP.
- c. The Finance Division analyzes the cash disbursement budget inputted by each division and provides consideration for accepting (realizing) or rejecting the budget proposal.
- d. If the Finance Division does not realize the budget, confirmation will be made to the PIC of the relevant division.

- e. If the budget has been realized, the Finance Division will process payment input and confirm it to the PIC and the director of the company.
- f. If the director does not realize it then confirm to the PIC of the related division and Finance.
- g. If the director of the company approves the budget proposal (approval), confirmation will also be made to the Finance Division and the PIC of the relevant division.
- h. If the realization of the budget has been carried out, there will be an output of Proof of Division Cash Expenditure in the ERP.
- i. Each budget realization transaction will produce the output of Divisional Cash Expenditure Reports and Divisional Cash Expenditure Recapitulation.
- j. The output results are in the form of PDF files and Ms. Excel.
- k. Evidence of cash disbursements is processed by the Finance Division as a basis for inputting transactions in the Journal Entry.
- l. The final output of the cash disbursement business process proposed by the researcher will be integrated with the General Ledger and Financial Statements in the form of PDF and Ms. files. Excel.

3. Company Financial Recording ERP Website

The cash flow page provides information on the company's cash flow based on its flow to operating, investing and financing activities. This page provides detailed information regarding the use of cash balances.

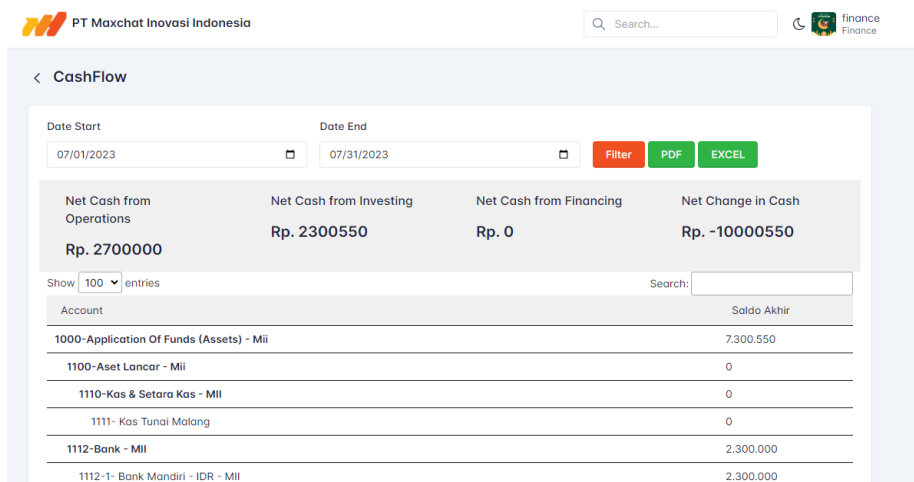


Figure 4. Cash flow

The profit and loss statement page presents the output of the financial statements, namely the company's profit and loss statement. This page contains a graph of the company's total income, expenses and total profit/loss during the recording period.

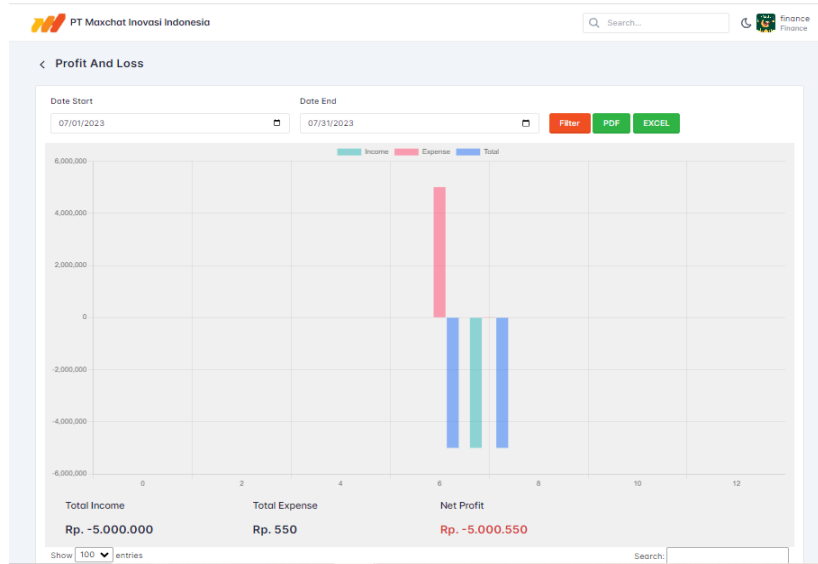


Figure 5. Profit And Loss

This page also displays one of the outputs in the form of a financial report, namely a balance sheet. By accessing this page, the Finance Division at PT Maxchat Inovasi Indonesia can find out the company's total assets and liabilities during the current period.

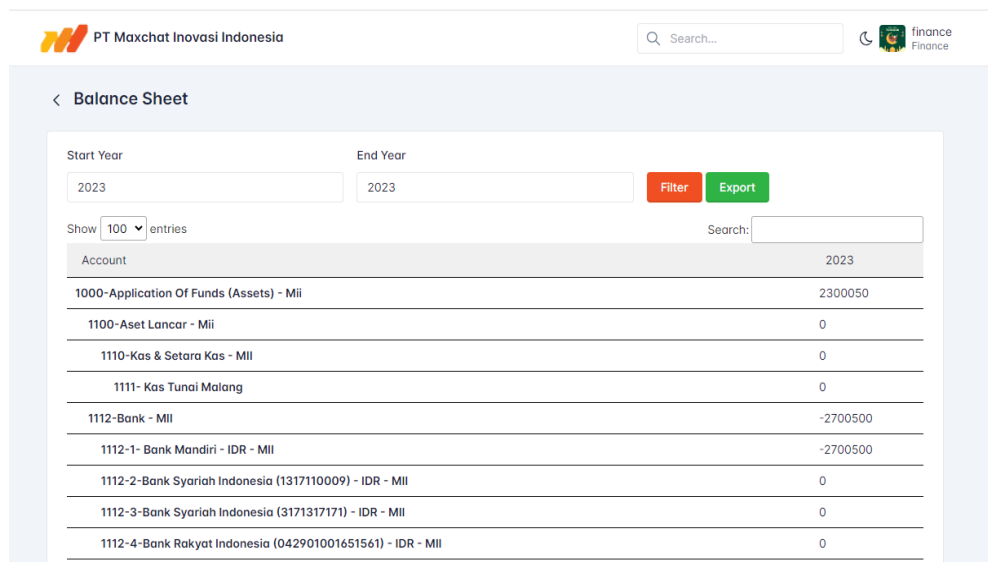


Figure 6. Balance sheet

Evaluation of the Implementation of the Accounting Information System for Cash Receipts and Disbursements using a website-based Payment Gateway

Based on the results of the analysis above, PT Maxchat Inovasi Indonesia has carried out business processes well. However, in companies implementing the Accounting Information System it is less effective and efficient which causes recording errors in recapitulation of customer payments and delays in making financial recapitulations which have an impact on making Profit and Loss

Reports. In the Accounting Information System carried out has advantages and disadvantages. The advantages in question are that the director always monitors cash activities in the company, the disadvantages that occur in the lack of a clear division of job desks, especially the absence of segregation of duties between Administration and Finance and a lack of human resources. Invoices and recapitulations are still not maximized in making financial reports. Therefore, to reduce these deficiencies, it is necessary to make a clear division of job descriptions and the organizational structure that has been determined must have been implemented in accordance with the job description.

In the implementation of business processes implemented at PT Maxchat Inovasi Indonesia, there was no segregation of duties between Administration and Finance, lack of monitoring of business processes by the Director and lack of internal control which caused inefficiencies. In the cash management business process the importance of organizational structure in order to know the responsibilities and duties.

Design of Cash Receipt and Disbursement Accounting Information System using Payment Gateway

Based on the results of the design of the Accounting Information System for Cash Receipts and Disbursements using a payment gateway in creating a business process model, including sending invoices, receiving payments from customers, paying vendor fees, paying servers. In carrying out this development, validation tests were carried out by several parties to develop business processes, namely Material Experts, External Parties and Internal Parties. Aspects of SIA Quality and aspects of internal control carried out by a lecturer at the Department of Accounting at the State Polytechnic of Malang named Mr. Zainal Abdul Haris and an external party, namely M.Dedi Rudianto as the owner of the software business CV Seeds Innovation. The implementation test from the Director's side was carried out to give value to the quality of the Accounting Information System and was seen from several aspects by the Director of PT Maxchat Inovasi Indonesia Hakiki and the Finance and Administration Section Nita.

1. Validation Test by Material Experts and External Parties

In the validation of the Quality of Accounting Information Systems, there are several indicators that are used as indicators for measuring the feasibility of Quality Aspects of Accounting Information Systems in the business process of receiving and disbursing cash using a payment gateway. The following results of the SIA Quality assessment from Material Experts and External Parties can be illustrated in Figure 7:

Quality Aspects of Accounting Information Systems

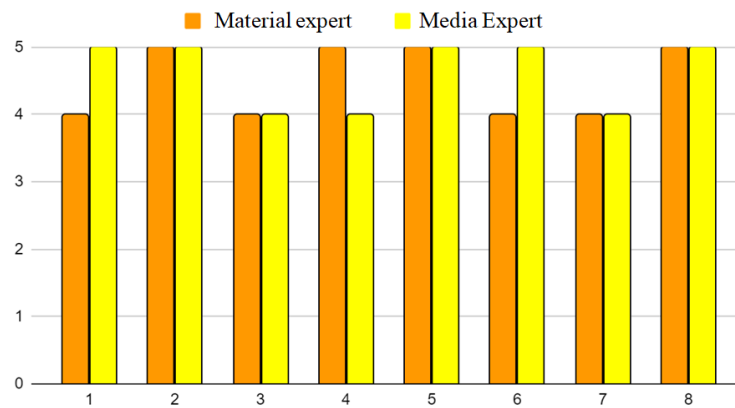


Figure 7. Graph of Quality Aspects of Accounting Information Systems

Based on Figure 7, the average value for the AIS quality aspect according to the Material Expert's assessment has an average value of 4.5 because the application can still be developed. The Media Expert has an average value of 4.6 because the system used is good and seen from the development it is in accordance with current progress, but needs to be developed more innovatively. It can be concluded from the average value of Material Experts and Media Experts on the Quality Aspect of the Accounting Information System that was developed is rated "Appropriate".

The results of the assessment of Internal Control Aspects from Material Experts and Media Experts are depicted in Figure 8

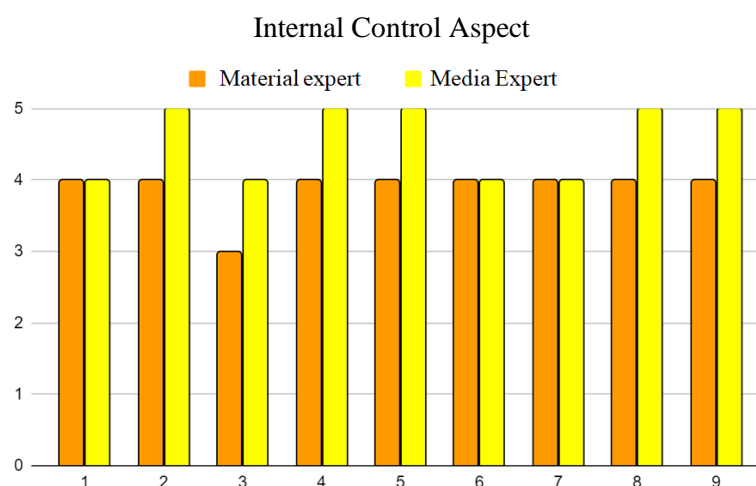


Figure 8. Internal Control Aspect

Figure 8 explains that the average Aspect of Internal Control according to Material Experts shows an average of 4.00 indicating a good internal control system. The media expert's assessment shows that the average value of 4.6 indicates that the Internal Control Aspect in the company is getting better, so the current SIA can be implemented well in the future. based on the existing average shows that the assessment of Internal Control Aspects is considered "Appropriate".

2. User Validation Test (Business Owner)

In internal control validation there are indicators that are carried out seen from the Quality Aspect of Accounting Information Systems, this validation is carried out by the Director and Finance & Administration who provide the following assessment in Figure 9:

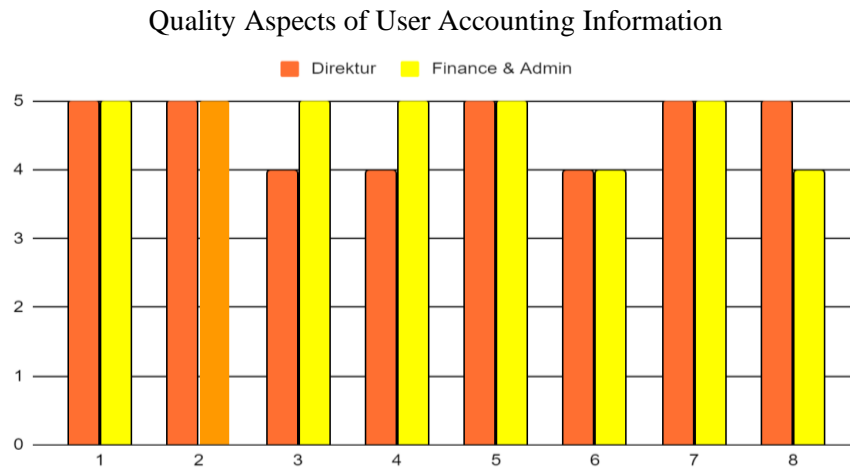


Figure 9. Graph of Quality Aspects of User Accounting Information

In Figure 9 the Director gives an assessment with an average given of 4.6 which means the system proposal is of good quality and an assessment is also carried out by the Finance and Administration which gives a value of 4.7 which indicates the proposed system can help smooth work. Meanwhile, from the Internal Control Aspect, it can be seen in Figure 10:

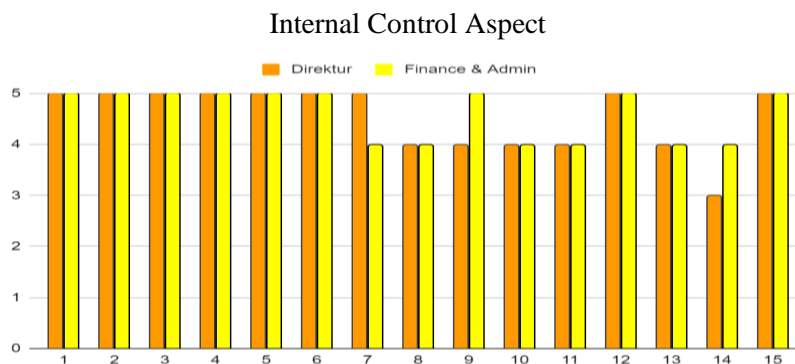


Figure 10. Graph of User Internal Control Aspects

In figure 10 the Director gives an average value of 4.5. In the Finance & Administration section, it gives an average value of 4.6 which indicates that internal control has an effect on financial reporting. Thus, the Quality Aspect of the Accounting Information System developed is rated “Very Feasible” and the Internal Control Aspect is also carried out well by business owners in the monitoring component. Thus, the Quality Aspect of the Accounting Information System developed is “Decent”. Users or Business Owners become supporters of the development of business processes for managing records in financial reporting and internal control systems to reduce irregularities. The existence of internal controls every time a cash receipt and cash

disbursement transaction occurs and there is supervision or monitoring to prevent fraud, whether intentional or not.

CONCLUSION

The use of technology at PT Maxchat Inovasi Indonesia is an important thing to be able to survive in business competition. With this technology can help produce a more efficient information system. One of the technologies that can be utilized is Enterprise Resource Planning (ERP), which makes it possible to integrate various areas of the company's functions so that it will produce accurate data. Information systems using Enterprise Resource Planning (ERP) are able to automate business processes so that they will lead to effectiveness and efficiency.

This research was conducted to design an accounting information system for cash receipts and disbursements using the payment gateway method at PT Maxchat Inovasi Indonesia with the stages of analysis and explaining business processes using Business Process Management Notation (BPMN). Next is designing a system based on Enterprise Resource Planning (ERP) software that is tailored to the needs of the company.

Based on the discussion in this research, the suggestion for the object, namely PT Maxchat Inovasi Indonesia, is to evaluate ongoing business processes including responsibilities according to the job description. Suggestions for future researchers are expected to be able to innovate and explore optimally.

REFERENCE

- A. Hall, James. 2008. *Sistem Informasi Akuntansi Buku 1*, Edisi 4. Jakarta: Salemba Empat.
- Asmoro, E. T., Brojas, M. R., & Rere, R. (2020). Pemodelan Proses Bisnis Studi Kasus Magister Teknologi Informasi Kampus XYZ Menggunakan Business Process Model and Notation (BPMN). *Seminar Nasional Teknologi Informasi dan Komunikasi STI&K (SeNTIK)*, 4(1), 203–208.
- Bryans, J. W., & Wei, W. (2010). Formal Analysis of BPMN Models using Event-B. *Formal Methods for Industrial Critical Systems*, 20(7), 987–1023. doi: 10.1007/978-3-642-15898-8_3
- Davenport, T.H. & Short, J.E. (1990). *The New Industrial Engineering: Information Technology and Business Process Redesign*. Cambridge, MA: Sloan Management Review.
- Esteria, N. W., Sabijono, H., & Lambey, L. (2016). Analisis Sistem Akuntansi Penerimaan dan Pengeluaran Kas pada PT. Hasjrat Abadi Manado. *Jurnal Berkala Ilmiah Efisiensi*, 16(4), 1087–1097.
- Gani . E. (2014). Masalah dan Cara Mengatasi Sistem Informasi Akuntansi Siklus Pengeluaran Kas di PT NR. *Binus Business Review*, 5 (2), 473-483
- Ismanto, J. 2020. *Manajemen Pemasaran*. Unpam Press. Tangerang Selatan.
- Ito, S., Vymětal, D., & Šperka, R. (2020). Process Mining Approach to Formal Business Process Modelling and Verification: A Case Study. *Journal of Modelling in Management*, 16(2), 602–622. doi: 10.1108/JM2-03-2020-0077
- Jogiyanto. (2014). *Analisis dan Desain Sistem Informasi, Sistem Informasi : Pendekatan Terstruktur Teori dan Praktik Aplikasi Bisnis*. Yogyakarta: Andi Offset.
- K. Anwar, L. D. Kurniawan, M. I. Rahman, and N. Ani, “Aplikasi Marketplace Penyewaan Lapangan Olahraga Dari Berbagai Cabang Dengan Metode Agile Development,” *J. Sisfokom (Sistem Inf. dan Komputer)*, vol. 9, no. 2, pp. 264–274, 2020, doi: 10.32736/sisfokom.v9i2.905.

- Kalenkova, A., Burattin, A., de Leoni, M., van der Aalst, W., & Sperduti, A. (2019). Discovering High-Level BPMN Process Models from Event Data. *Business Process Management Journal*, 25(5), 995–1019. doi: 10.1108/BPMJ-02-2018-0051
- Kieso dan Weygandt. 2011. *Intermediate Accounting edisi tahun 2011*. Jakarta: Erlangga.
- Mulyadi, 2016. *Sistem Akuntansi Edisi empat*. Salemba Empat: Jakarta.
- Mulyana, M. F., Kastaman, & Kotjoprayudi, R. B. (2021). Aplikasi Berbasis Web pada Pengelolaan Kas Masuk RT/RW Menggunakan Metode Payment Gateway (Studi Kasus Matahari Cigado Regency, Baleendah, Bandung). *e-Proceeding of Applied Science*, 7(6), 2992–3000.
- Natschläger, C. and Geist, V. (2013), “A layered approach for actor modelling in business processes”, *Business Process Management Journal*, Vol. 19 No. 6, pp. 917-932. <https://doi.org/10.1108/BPMJ-10-2012-0107>
- Octaviandy, Pieter, (2016), Analisis Sistem Informasi Penjualan dan Penerimaan Kas Pada UD. Sumber Mutiara Rantauprapat, *Jurnal Times*, Vol. V, No. 2, 6-10.
- Otinur, Faujan, dkk. 2017. Analisis Sistem Informasi Akuntansi Dan Sistem Pengendalian Internal Persediaan Barang Pada Toko Campladean Manado. *Jurnal Riset Akuntansi Going Concern* 12(1), 2017, 169-179
- M. Ramos-Merino, J. M. Santos-Gago, L. M. Álvarez-Sabucedo, V. M. Alonso-Roris, and J. Sanz-Valero, “BPMN-E2: a BPMN extension for an enhanced workflow description,” *Softw Syst Model*, vol. 18, no. 4, 2019, doi: 10.1007/s10270-018-0669-2.
- Romney, M. B., & Steinbart, P. J. (2015). *Accounting Information System*. Boston: Pearson.
- Sari, S. K., & Asniar, A. (2015). Analisis dan Pemodelan Proses Bisnis Prosedur Pelaksanaan Proyek Akhir sebagai Alat Bantu Identifikasi Kebutuhan Sistem. *Jurnal INFOTEL - Informatika Telekomunikasi Elektronika*, 7(2), 143–152. doi: 10.20895/infotel.v7i2.42