GENERAL LEDGER AND REPORTING SYSTEM CYCLE: TRADITIONAL VS DIGITAL ACCOUNTING INFORMATION SYSTEM ERA (IMPLEMENTING IN PHARMACEUTICAL SECTOR AND LOCAL BANK)

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Abstract

The development of the current digital era has changed life, as well as the world of accounting, the manual accounting era has shifted to the computerized era, and now we see the accounting process has been digitized. Banks are one of the most adaptive financial institutions to technological changes, most of which have adopted digitization of accounting in their operations. The computerized process of recording up to ledgers to create financial reports. This situation continues to develop, until now Bank SUMUT has implemented an Online integrated banking system (OLIB’s) in its accounting technology so that the ledger/ledger can be accessed in real time. besides that also in other industries such as pharmaceuticals apply the same thing.

Keywords: Ledger, digital accounting, OLIB’s, computerized.

Introduction

The current era of technology has changed many lives, as well as the world of accounting. The current development of the accounting world has reached the digital era, where manual accounting systems have been replaced by many computerized systems, to digitization in transaction processing, with this processing being easier, faster, transparent and more efficient. One of the areas of accounting most influenced by IT developments is Accounting Information Systems (Turner et al, 2022). The development of information technology has an impact to the evolution of digital banking services, including the existing accounting system in banks. Technological developments in the field of banking accounting are in line with computer technology innovations. Especially with the discovery of a relational database by Codd in 1970 (Romney et al, 2012). The database is equipped with a means of using the query language which is easy to use and provides more benefits. Query language applied to financial databases will be able to produce financial information that is ready to use and meet user needs at any time. Financial reports can be made easily, quickly, accurately, correctly and can access within the time period desired by the report user to be checked for correctness (Zainal et al., 2022). Information regarding assets is not only reported based on historical cost, but also reported in current replacement cost and market value (Romney, Steinbart, Cushing, 1997). In addition, the database also provides non-financial data such as customer data, product data and others. Thus, business people have advantages, namely having a set of data that provides support in carrying out marketing strategies and making strategic decisions.

The above challenges have increasingly spurred accountants to improve their understanding of databases in general in addition to their accounting expertise. This is deemed necessary so that accountants are not only able
to carry out accounting practices manually, but are also able to carry out computerized accounting practices. Thus, accountants have added value and are able to face the challenges that come from computer technology innovation, especially with the development of databases. The rise of advances in computer technology that is able to create or display financial data, journals and financial reports at any time, accurately and quickly has resulted in manual accounting cycles becoming obsolete. In addition, computers are also capable of analyzing financial statements and market analysis, so that the rules of an accountant is reduced. This phenomenon is becoming stronger with the emergence of issues that say that gradually the double entry bookkeeping technique can be abandoned due to the facilities provided by databases (Romney, Steinbart, Cushing, 1997). Bookkeeping in pairs is considered redundant in the database. Redundancy is not desired in the database because one of the goals of the database is trying to create efficiency.

Increasing competition in the financial services industry has encouraged industry players to continue to innovate to improve the quality of service to customers in a more effective and efficient manner. One of them is through innovation in the use of information technology which directs banks in a new era towards digital banking that utilizes digital technology through devices and applications to provide optimal service to customers. Bank SUMUT wants to be superior in competition, this can be obtained by innovating digital products and services for customer satisfaction. To provide easy access to information technology-based banking services without limitations of place and time so that it can improve customer financial management in a better direction. Strengthening service innovation and alignment of strategies in the use of information technology is the basis in entering the era of digital banking services. For diversifications products, the more transactions are made by customers, which will ultimately affect the transaction recording system in the general ledger to produce accurate, transparent and accountable financial reports. Based on some of the things above, this paper tries to see how the implementation of the development of general ledger accounting information systems in the banking world in the digital era. This study aim to knowing what is meant from system ledger and reporting, goals from system ledger, activity from ledger and reporting, as well how implementation of the general ledger accounting information system development.

Literature review

General Ledger (History, Traditional Ledger)

The term General ledger in accounting is also called a ledger, General Ledger (ledger), in historical records the ledger is used to record accounting transactions. Sangster (2016) in (Singh, at al 2021) ledgers were originally recorded on stone, wooden parchment, and gradually in the 13th -14th centuries using paper. At that time, recording was very simple using the single entry method, in which case transactions were recorded only once.

The general ledger is a book that contains a collection of interrelated estimates and summarizes the effect of transactions on changes in company assets, liabilities and capital (Al Hafiz et al., 2022). The number of general ledger estimates that companies need varies, depending on the finances and assets of the company, the volume of transactions and also the type of information desired. Recording to the general ledger is carried out periodically, usually at the end of each month based on special journals or special journal recapitulation results. The process of transferring records from the journal to the ledger is called posting. In simple terms, the general ledger cycle can be described as follows:
Transaction data in the ledger must be separated by type, and enter into asset accounts, owner's equity, liabilities, income, and expenses. A general ledger template usually includes accounts, numbers, account numbers and page numbers, dates, descriptions, debit amounts and credit amounts. In the account column, it is necessary to include the account for which the ledger is being created, for example, a cash account. Meanwhile, the account number and page number columns contain the relevant entries to make compilation easier. Then, the date column contains the date of the transaction, the description column contains the details of the transaction, the debit amount column contains all account debit entries and the credit amount column contains all account credit entries. The general ledger and reporting system collects and processes data that comes from:

1. Each subsystem of the accounting cycle (revenue cycle, expense cycle, production cycle, human resource cycle) provides information about routine transactions.

2. Financial manager (treasurer) who provides information on financing and investment activities (issuance and withdrawal of debt and equity instruments and buying or selling of financial instruments).

3. The budget section that provides budget figures.

4. The accounting manager (controller) prepares the adjusting entries.
In the accounting process, making a ledger is crucial. This is because the general ledger or ledger contains various accounts to summarize transactions that have been recorded in the journal. The general ledger is also the book of final entry in accounting (Simanjuntak et al., 2022). General ledger accounts also sometimes do not reflect detailed data such as accounts payable, merchandise inventory, receivables, and so on. The definition of a ledger is a book that contains estimates regarding an overview of the effects of financial transactions due to changes in assets, liabilities, and capital in the company.

In another sense, the ledger is also a tool used to record various changes in an account due to financial transactions. The number of general ledger estimates needed by companies is of course different (Becirovic et al., 2022). This is due to several factors which include the type of activity, the finances and assets of the company, the information the company needs, and the volume of transactions. The activity of keeping a ledger is also known as posting. The general ledger is a transfer of accounts from the general journal. Thus, posting is done after making a general journal. In the ledger, the accounts are classified in real accounts or real accounts and also nominal accounts or nominal accounts. Real accounts are accounts that exist on the balance sheet such as debt, assets, capital, and liabilities. Meanwhile, nominal accounts are accounts on the income statement such as expense and income accounts. From the above review, the function of the ledger can be concluded as follows:

- Being material and information in the preparation of financial reports.
- For the basis of classification of transactions that have been recorded in the journal.
- For tools to classify financial data and be able to find out the amount and condition of accounts or accounts.
- For tools to summarize transaction data that has been recorded in a general journal.

**Digital Accounting and Accounting Information System**

The rapid development of information technology today has brought changes towards the digital era, many business activities are carried out digitally (Yulisfan et al., 2021). In the Big Indonesian Dictionary, digitization is the process of providing or using a digital system, digitization can be interpreted as a process of transformation from analog forms to digital ones. One example of digitization is the digitization of information, which is the process of transforming various information from analog formats to digital formats, so that they are easy to
produce, store, manage and distribute back to information users for various purposes and basis for decision making.

The process of changing from printed documents to electronic documents is a process of digitizing documents, the process of digitizing documents is no longer needed if electronic documents have become standard in the documentation process of an organization (Shulha et al., 2022). The general purpose of digitization is to make cost efficiency and improve the company's business operational processes, such as the use of information systems that have an impact on reducing employee use and minimizing errors because business processes are carried out in an automated manner, minimizing the use of paper for reporting purposes this is because report information is stored in digital form. Implementation of information systems within the organization provides benefits in handling internal and external tasks for the organization in daily operations and long-term decision making.

An information system is a system within an organization that brings together the needs of daily transaction processing that supports organizational operational functions that are managerial in nature with the strategic activities of an organization to be able to complete reports required by external parties (Lubis et al., 2021). Financial accounting is part of accounting that specifically records economic transactions in companies and produces output in the form of financial reports. The information presented in the financial statements is an accounting information system produced by the company. An accounting information system is a system that aims to collect and process data and report information relating to financial transactions.

Another definition of an accounting information system is a system that functions to organize forms, records, and reports that are coordinated to produce financial information needed in making management and company leadership decisions and can facilitate company management. For companies that have implemented information systems in their business such as accounting information systems, the documents produced are in the form of digital documents, so that the implementation of accounting digitization has been carried out in their business activities.

Accounting digitization is a process of transforming economic activities in an organization electronically by implementing an accounting information system (Smith, 2018). Digital accounting or electronic accounting refers to the representation of accounting information in a digital format, which can then be manipulated electronically and transmitted. Digital accounting does not have a standard definition but only refers to accounting changes due to computing and network technologies.

Methods

Method research on basically is method scientific for get data with aim and utility certain. The method used in this study is the method of interviewing Bank SUMUT employees in the bank's operations section, then compared with the theories and literature that support this paper. Interview is form communication direct Among researcher and respondent. Communication going on in form question and answer in connection stare advance, so motion and expression respondent is complementary media patterns words verbally. Technique interview or interview is method used for get data with method stage interview in a manner live with informant. Interview (Interview) ie do ask answer or confirm to the research sample with systematic (structure).

Result and discussion

Results

Implementation of General Ledger and Reporting System

The four basic activities performed in a general ledger and reporting system represent the common online systems used to perform these activities. Each of these activities will be studied in more detail below. The first activity in
the general ledger system is updating the ledger. The second activity in the general ledger system is entering various adjusting entries (AJP). Trial balance is a report that lists the balances of all general ledger accounts. The name reflects the fact that if all activities are properly recorded, the total debit balances in the various accounts must equal the total credit balances.

The third activity in the general ledger and reporting system is making financial reports. An income statement is created first, using data from account balances. The final activity in the general ledger and reporting system generates various managerial reports.

1. General ledger control reports
2. Budget

SUMUT Bank has apply system reporting and ledger ones computerized. The steps taken by Bank SUMUT in implement relational database application on system reporting and book entries big, that is as following:

1. Analyze, Analyze need device soft with designing chart activity.
2. Design, Designing program view with using ERD (Entity Relationship Diagram) and LRS (Logical Record Structure).
3. Making Program code, Program code or often called with coding done with using Netbeans IDE 1.8 software, and Language programming used is Java as well The database use MySql.
4. Testing, Stages in testing this program done for look there is or not error in system good from function and procedure nor logic from Application made.
5. Support, Support carried out with adapt need from system form data changes as well do evaluation for repair more applications good again.

Discussion

Currently, PT Bank Sumut, whose head office is in Medan, North Sumatra, has adopted the use of information technology systems in managing its transactions. The information technology system used is OLIBS (Online Banking System) which is distributed to each office unit with a centralized database at the head office. With this technology system, every transaction that occurs in each office unit can be monitored and monitored by the head office. The connection that connects the branch office/sub-branch units to the head office is by using a v-satellite WAN (Wide Area Network) connection. The system display at the North Sumatra bank can be seen as follows:

Figure 3. Display of the North Sumatra Bank Program

In operational activities, especially the numbering of letters and notes is done manually by first reserving the number in a book. This reservation process often requires a long time in the operational process of office unit work, due to the location of the reservation book that changes hands, so you have to look for its whereabouts first.
In addition, the average age of the book paper used is over a period of years or more and over time it gets older/worn out so that certain parts of the book can be detached and torn. Another obstacle is in the process of searching for data numbers (tracing numbers) that are needed if there is a problem with the data collection process for letters/receipts. With this manual process, searching for numbers is relatively longer (ineffective) or even not found. Several types of number registration books in PT. Bank SUMUT include:

- Incoming Letter registration book (Internal/External)
- Outgoing Mail registration book (Internal/External)
- STJ registration book + official note
- Local Account Relations registration book
- Debit Note + Credit Note registration book
- Registration book for Debit NP + Credit NP
- Bank Guarantee registration book
- Clearing + RTGS registration book
- PMK registration book
- SKDD + SKB registration book
- Taxation registration book
- etc

The system can be seen in the following figure

The numbering done in one of the registration books is always done by every employee of the PT. Bank SUMUT so that in the absence of supervision carried out it can cause human error or multiple numbering errors, causing several numbering jumps so that the numbering is no longer sequential, or an error in giving the registration number date. Of the several problems that have been described above, an Information Technology solution in the form of a software tool is offered that functions to:

1. Perform numbering registration storage in the form of a file

2. With a variety of book registration numbers, the number registration system built is grouped based on the work function of each employee at PT. SUMUT Bank.
3. The numbering system built is automatic, so that the user, in this case the employee, only needs to fill in the information for each number obtained.

4. Because numbering registration is stored in a file, physical printing is required. In order to be able to keep up with any changes in work processes within the PT. Bank Sumut unit, the application built is dynamic or not rigid so that it can follow any work changes from existing office units.

5. The application built is Client-Server in nature, so that every employee from the office unit can always access the system.

The schematic/illustration of the software solutions built are as follows:

![Schematic/illustration of software solutions]

**Figure 4. Devic**

**Conclusion**

The general ledger and reporting cycle consists of data processing activities related to the process of updating general ledger accounts and preparing reports which are a summary of the company's operating results. This cycle interacts with other cycles and various parties, both external and internal. The four basic activities performed in a general ledger and reporting system represent the common online systems used to perform these activities. The system is completed using the OLIBs application.

Of these four activities, three of the first activities are presenting the basic steps in the accounting cycle, which results in the production of a series of traditional financial reports. Activities indicate that, in addition to financial reports for external users, the SIA produces reports for internal management as well. Next, each of these activities will be studied in more detail.

The accounting system used is still manual so that in presenting information it is still not fast and accurate and in storing data it is still not so secure. Therefore, Bank SUMUT must change the general ledger accounting information system which is still manual to a computerized system. Implementation of supporting applications will make it easier for Bank SUMUT to obtain faster, precise and accurate information. It is expected that computer technology can develop as a tool to facilitate work that can maximize human resources.

**References**