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## The role and problems of accounting information systems in Digital Era

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### Abstract

The purpose of this study is to determine the roles and problems that occur in accounting information systems in today's digital era. This research uses literature study method. The results of this study indicate that the role of accounting information systems in today's digital era has a very important role. Accounting information systems such as ERP, which are accounting systems in the form of software from bookkeeping items to instruments for reporting, control, and output management that provide the necessary transparency

and access to financial and accounting data for the employees concerned. Besides having an important role, accounting information systems also have problems that arise because of irresponsible parties. Wang (2021) in his research said there are several problems that occur in accounting information systems, such as loss of important information, accounting information systems are vulnerable to hacker attacks and viruses, lack of professional and technical personnel, and lack of effective supervision.

**Keywords:** Accounting Information System, ERP System, Big Data, Roles, and Problems

### 1. Introduction

Accounting Information System is a tool that can assist internal companies in managing and overseeing company activities. In addition, it can also provide information needed in decision making, both for planning, coordinating and controlling company activities. For company leaders, information is very important in carrying out its role for final decision making in the company, especially information related to financial data from a company. In order for existing financial data to be utilized by management and external parties, the data needs to be compiled in an appropriate format and can be trusted as its validity, because this information helps the daily operations of the company in terms of decision making and presentation of the company's financial statements.

Therefore, the accounting information system implemented within the company must meet the established criteria, namely fast, precise, accurate and accountable, so that financial reports are made based on the information generated regarding the condition of the company that can be used and utilized properly by parties have an interest, both from external parties (tax offices, investors, creditors) and internal companies (especially management). In addition to the manager's tools, company leaders also need to carry out the presentation of financial statements effectively which includes the presentation of the distribution and placement of activities and activities carried out as well as information received as accounting data. Financial reports are a form of information that is conveyed in a relevant way when using the right system, this is very beneficial for the company, especially for decision makers who must be able to determine everything effectively for the survival of the company.

The accounting information system can also be misused by certain parties to manipulate financial reports, such as the case experienced by PT KAI for manipulating financial statements. PT Kereta Api Indonesia (PT KAI) detected fraud in the presentation of financial statements. This is a form of fraud that can mislead investors and other stakeholders. It is suspected that there was data manipulation in the 2005 financial statements of PT KAI. The state-owned company recorded a profit of Rp.6,900,000,000. In fact, if examined and studied in more detail, the company should have suffered a loss of Rp.63,000,000,000. Commissioner of PT KAI Hekinus Manao, who is also the Director of Information and Accounting at the Directorate General of State Treasury, Ministry of Finance, said the financial report had been audited by S. Manan Public Accounting Firm.

The audit of PT KAI's financial statements for 2003 and previous years was carried out by the Supreme Audit Agency (BPK), for 2004 it was audited by the BPK and a public accountant. The results of the audit were then submitted by the board of directors of PT KAI for approval before being presented at the general meeting of shareholders, and the commissioner of PT KAI, Hekinus Manao, refused to approve the 2005 financial statements of PT KAI which had been audited by a public accountant. After careful examination of the audit results.

It was found that there were discrepancies in the 2005 financial statements of PT KAI (www.metrotvnews.com, 2005).

Therefore, companies must understand more deeply about the role and problems of accounting information systems.

**2. Literature Review**

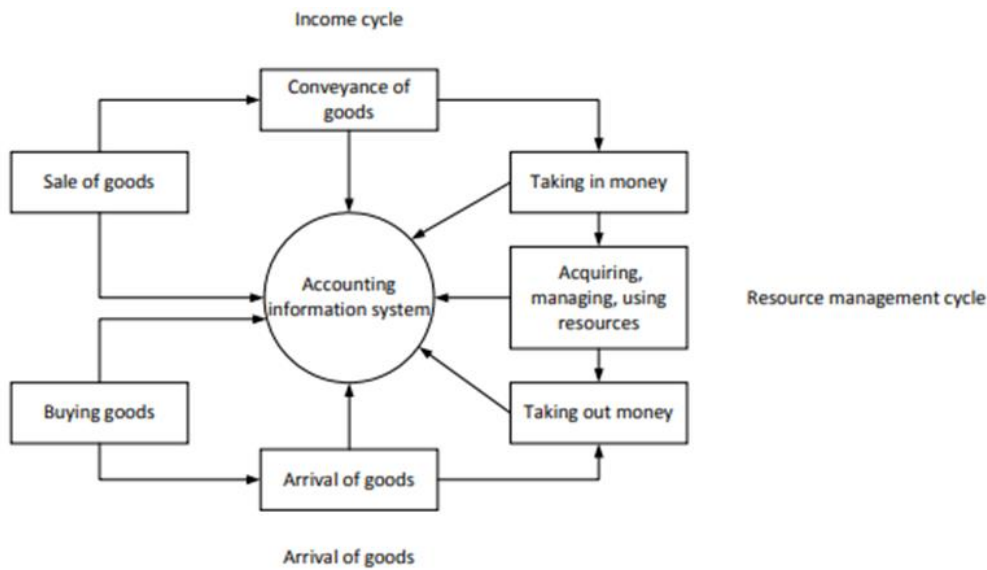
Krismiaji (2010: 4) defines an Accounting Information System as a system that processes data and transactions in order to produce useful information for planning controlling and operating a business. According to Toth (2012) [8], accounting information systems are closely related to the management information department, accounting and administration departments, internal control and the information technology team. The harmonious and efficient activities of this area characterize the center of accounting

information systems, which provide the baseline data from informational databases. Toth (2012) [8] also said that the most important purpose of accounting information systems is to promote company activity, to form a real and reliable picture.

Toth (2012) [8] provides an overview of the account information system process can be carried out summarized in three important groups:

- a. revenue cycle
- b. discharge cycle
- c. handle resources.

The revenue cycle means selling and earning income, the expense cycle contains the process from getting materials to fulfilling payments, and handling sources means sourcing, storing, using and optimizing them.



Source: Chikán (1992) in Toth (2012) [8]

**Fig 1:** Components of the Accounting Information System

Complete tracking of economic processes can be realized if there is a complex and sophisticated database behind the above figure.

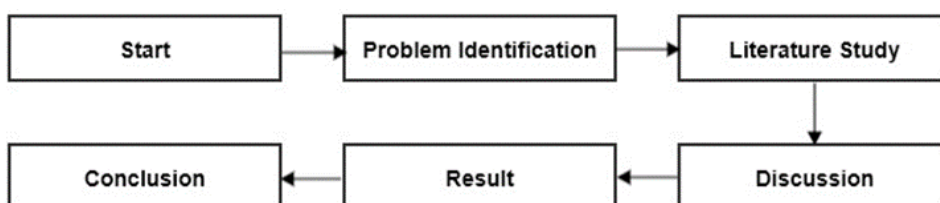
Based on previous research conducted by Toth (2012) [8], the role of accounting information systems in the current era has changed. The current accounting information system uses technology such as software that makes it easier for company management to run its business. The advantage of a software-based accounting system is that the company's basic activities can be linked and can work together efficiently. In a complex system built like this, it is important for the software to support the main activities, different business processes in detail, but in an integrated manner. To make this happen, it is important to have a common database that reflects all company activities, current data, and reliable information. The goals of complex information systems are to support

strategic planning and management decisions (where management information systems have an important role to play) and to support internal company mechanisms and inter-company processes.

**3. Method**

This research uses literature study method to find out similar research that has been done. The literature study research method is a series of activities related to the method of collecting library data, reading and taking notes, and managing research materials (Zed, 2008).

Each study will be briefly discussed to determine the role and problems of accounting information systems in the digital era based on the results of several studies conducted. The following are the stages of the research carried out:



**Fig 2:** Research Flow

This research begins with a problem that occurs regarding the fraudulent accounting information system. To determine the role and problems of accounting information systems in the digital era, the authors use literature study. The results of the study literature conducted by previous researchers are summarized and discussed by the author to get results regarding the role and problems of accounting information systems in the digital era. The final stage, the authors conclude the results of the research conducted.

#### 4. Result and Discussions

Based on the results of previous research conducted by Toth (2012) <sup>[8]</sup>, currently the main aspects of accounting information systems are reducing risk, creating and maintaining stability, and obtaining reliable data for management decisions. This is an essential condition for having a fast and reliable operating system that can be used easily and can be equipped with further elements or functions, depending on their modification, and therefore can react to changes. That is why the relationship between different modules for automatic and efficient cooperation is so important, because it promotes calculation, planning and decisions because the accounting information system deals directly with the relevant area.

In the results of research, Toth (2012) <sup>[8]</sup> states that ERP is an accounting system in the form of software from bookkeeping items to instruments for reporting, control, and output management. ERP software must ensure connected applications for management and reporting, among which the elements (ledgers, different analytics) that support an accounting information system have special significance. This application provides the necessary transparency and access to financial and accounting data for the employees concerned. By using an ERP system, it is possible for those in top management to see financial and accounting indices and understand their meaning, because it is possible to follow indexes and data to the lowest level. With this, management will find it easier to make decisions to support the company's operations in generating relevant profits.

Apart from having an important role, the accounting information system also has problems that arise because of irresponsible parties such as data forgery, data theft, data hacking, and others. Therefore, the accounting information system, especially in the form of software, must have high security so that crime or fraud does not occur. For more details, Wang (2021) in his research said that there are several problems that occur in the accounting information system, namely as follows:

##### 1. Missing Important Information

Accounting information systems use network technology, so that the system has the characteristics of sharing and openness, for the convenience of users, but at the same time sharing and open, but also making external criminals take advantage of them. They take advantage of the limitations of the Internet to steal and destroy financial information. On the one hand, there is no encrypted traffic on the Internet to realize user sharing and open systems, which leads to potential risks and problems in the process of changing users' personal information. There are many methods of interception and hijacking. Even on the Internet, some people provide methods for free, which has also led to the rampant spread of tampering with the Internet. More and more people are starting to try to attack the system, which poses a huge

challenge to system security. The key to an information system attack is to take advantage of the characteristics of an open network system, and the open and shared nature of the network system also allows many business users to access financial information from a company-wide network system through official permission, and increases the likelihood of theft of financial information.

##### 2. Accounting Information Systems Vulnerable to Hacker Attacks and Viruses

The main risk faced by computer viruses is the computer system, and the characteristics of computer viruses cause computer virus events to spread in a very short time, uncontrollable, the characteristics of computer virus replication will result in major damage. The Internet, is also becoming more well-known computer viruses, network worms can circulate on the Internet in a short time, destroying the network environment.

##### 3. Lack of Professional and Technical Staff

In this case, accounting personnel do not understand the final development of accounting software, so in the process of using any problem, accounting practitioners can not handle, cannot solve the actual problem, resulting in failure of the accounting system, unable to meet actual needs.

##### 4. Lack of Effective Supervision

In the digital era, many business models have changed. With the development of the Internet, its unified technical standards have become a supporter of technology, and the digital age has also brought about unification of technology. However, with the development of science and technology, the dissemination of information is no longer controlled gradually, and big data technical standards also form various trends that make the application of technology chaotic.

Therefore, formulating relevant accounting occupational safety standards is an effective way to overcome the problem of technology promotion. Specific technical standards are mentioned in related reports.

The development of the accountant profession needs to be developed in accordance with these technical standards so that the development of standardization can be realized. Information security is basically the most important part of the accounting information system job. Once information security problems occur, accounting work will be severely affected, so we must pay attention to the development of accounting security standards and information technology. If there is no standard standard, information security will be threatened, or important data is occupied illegally, unable to obtain the support of appropriate policies and regulations, so that the development of accounting information security is getting more serious.

Of the problems that occur in the accounting information system, Wang (2021) said there are ways to improve the security of accounting information systems in the digital era as follows:

- a. Reasonable Allocation of Equipment Resources.
- b. Strengthen the Security Prevention Ability of Accounting Information System.
- c. More Efforts Should be Made to Cultivate Talents with Professional Skills and Qualities.
- d. Strengthen Supervision and Formulate Relevant Supervision Systems and Regulations.

## 5. Conclusions

From the results of the above research, it can be concluded that the role of accounting information systems in today's digital era has a very important role. Accounting information systems such as ERP, which are accounting systems in the form of software from bookkeeping items to instruments for reporting, control, and output management that provide the necessary transparency and access to financial and accounting data for the employees concerned. By using an ERP system, it is possible for those in top management to see financial and accounting indices and understand their meaning, because it is possible to follow indexes and data to the lowest level.

Therefore, management must improve the security of accounting information systems by allocating reasonable equipment resources, strengthening the preventive capabilities of accounting information systems security, enhancing talent with professional skills and quality, and strengthening supervision and formulating relevant supervisory systems and regulations.

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