

The Important Role of Internal Control in Accounting Information Systems

Salomi Jacomina Hehanussa

Universitas Kristen Indonesia Maluku, Indonesia

E-mail: salomijh@gmail.com

*Correspondence: salomijh@gmail.com

KEYWORDS

Important role,
Accounting Information
System, Internal Control.

ABSTRACT

This study discusses the critical role of internal control in Accounting Information Systems. This writing aims to provide an overview or explanation with a literature study approach on the critical role of internal control in accounting information systems. In addition, the writing of this paper aims to provide knowledge of whether the use of computer-based accounting information systems can guarantee a company's success without supervision from the company's business people. The author discovers six crucial roles of the Internal Control System. The first is to have a significant influence on computer-based Accounting Information Systems. Internal Control Systems can prevent excessive resources in the company, Create accountability of financial statements, and increase the credibility and quality of the company; then, its management makes it easy to make decisions and prevent fraud. Accountant information computer-based systems cannot run properly without management control.

Attribution- ShareAlike 4.0 International (CC BY-SA 4.0)



Introduction

Information technology is developing very rapidly. Most people now obtain various conveniences in retrieving data and information (Muhasim, 2017). Data can be generated in real time and adjusted to the user's or user's request. This also happens in accounting information systems (Fauzi et al., 2023). Various computer-based accounting information system applications are commonly used in companies or small, medium, and large-scale business units. Various applications are very helpful in implementing transactions in each company, such as purchasing, production, warehouse, sales, and others (Setiawan, 2018). The need for up-to-date information in all fields or departments in the company is essential for managers to take strategic steps to improve company performance or increase profits.

Strategic steps in improving company performance are needed to survive and compete with other companies (Fu'ad, 2015). On the other hand, according to Krismiaji,

the development of the latest accounting information system has several threats as follows:

1. Natural disasters and political disasters
2. Software error, hardware damage
3. Unprovoked acts;
4. Intentional actions

Companies must be able to overcome the above threats with various methods. One way is by implementing an internal control system. The internal control system is expected to provide the best solution to the abovementioned threats (Lestari & Amri, 2020).

The importance of internal control will be discussed in this paper.

When a company has misinformation from one part or department, it can result in errors in decision-making (Mulyani et al., 2019). In addition, when one or part of the employees have a monopoly on a certain part, it can lead to fraud problems. Employees not implementing standard operating procedures (SOPs) in a company will also cause problems (Agustina, 2021). The influence of the environment or non-technical activities of the company, such as the community around the company, electricity resources, water, and so on, will affect the company's performance. Companies that have used sophisticated accounting information system applications are also inseparable from weaknesses (Sutriyani et al., 2024). Using sophisticated accounting information systems will not guarantee the company's success without internal supervision or control from business people or entrepreneurs (Mulyani, 2017).

According to Krismiaji, various threats to accounting information systems focus more on computer control. This is an important issue for managers because of several things, including:

1. The number of users or clients increases so that all employees can access data and computers are everywhere
2. The existence of a LAN (Local Area Network) network that distributes data anywhere without control
3. WAN (Wide Area Network) network provides convenience for consumers and suppliers to access data quickly. Data confidentiality needs to be considered in this matter.

These threats continue evolving and potentially damaging or destroying the Accounting Information System. Therefore, protection is needed for the accounting information system, which is called the internal control system. The internal control system is the responsibility of the management of an organisation. Management responsibilities include its creation and maintenance. The internal control system must be created adequately, meaning it must match the needs of the organisation that uses it. Organisations not equipped with adequate internal controls lead to reduced trust of interested parties. Management is responsible for providing reliable information to shareholders, investors, creditors, and all parties interested in the organisation it leads.

The internal control system is essential because many management do not always fulfil their responsibilities correctly.

Almost all organisations have used computers in their data processing. Using computers facilitates and speeds up almost all aspects of work in the organisation. However, the use of computers is considered more vulnerable to threats. Computer data can be misused by irresponsible parties, such as stolen, deleted, or damaged for specific purposes (Adawiyah & Atrinawati, 2020).

So, control of computer-based information systems is also significant. There are separate ways that can be used to secure it. Computer control in a company can sometimes cause problems when changes in the application system must be updated to adjust to market conditions. A company's Information Technology (IT) department must be able to provide configuration management and administrative control to other management, users, suppliers, and the IT department itself (Gantini et al., 2019).

Some examples of possible changes include:

1. Management may want to introduce new facilities to help with running the business, such as online diaries or electronic notice boards
2. Users are dissatisfied with the visual appearance of the application
3. Supplier (supplier) will provide repairs and upgrades at management's request
4. The IT department will also check the infrastructure of the computer, network, or software.

The internal control system is an integral part of the accounting information system. Without the support of an adequate internal control system, accounting information systems will not be able to produce reliable information for decision-making. The internal control system applied to the accounting information system is handy to prevent and guard against unwanted things. The internal control system can also be used to check errors that occur so that they can be corrected.

The internal control system includes organisational structures, methods, and measures that are coordinated to maintain organisational wealth, check the accuracy and reliability of accounting data, encourage efficiency, and encourage compliance with policies. In a narrow sense, internal supervision checks horizontal addition (cross footing) and decreasing addition (footing). In a broad sense, internal supervision includes checking work and all the tools management uses to conduct supervision. Internal supervision includes the organisational structure and all coordinated ways and tools used within the company to maintain the security of company assets, check the accuracy and correctness of accounting data, promote efficiency in operations, and assist in compliance with established management policies.

Research Methods

The research method used in this study is a literature review (Library Research). The data collection technique used is a literature study, which is data collection carried out by reviewing reference books in the library. The data type used is in the form of books

related to the discussion. Data analysis uses a descriptive method, which describes the research results and then draws conclusions.

Results and Discussions

Internal control systems are closely related to accounting information systems. These two things are inseparable and complementary to achieving the company's organisational goals.

Accounting Information System (SIA)

According to Mulyadi, the accounting information system is a form, record, and coordination report providing the financial information needed to facilitate company management. Meanwhile, according to Bodnar and William, accounting information systems are collections of resources, such as people and equipment, arranged to convert data into information. Hall (2011) states that SIA consists of three subsystems, namely:

1. Transaction processing system;
2. General ledger/financial reporting system;
3. Management reporting system.

When viewed from the definition above, the Accounting Information System (SIA) can be run manually and computerised. Small business units can use a simple and manual information system, but medium to upper companies have used computerised SIA. Ease of use and application in company operations is undoubtedly an option for management, who prefer computer-based SIA applications. In addition, the demands of technological competition from other companies are increasing in company management. However, there are several risks to the application of computer-based SIA, namely:

- a. Weak data security Data is sometimes only stored on CDs (compact discs) or flash disks that are susceptible to viruses and quickly damaged from the hardware side.
- b. Repeated errors At the time of data recording and an error occurs, the data is re-recorded, and sometimes, this happens repeatedly, which will cause the data to be less valid.
- c. Illegal computer use by employees

Some corporate data processing computers can connect to the internet network. Furthermore, some employees use the computer for browsing, so automatically, the computer is more easily attacked by viruses, malware, and other interference from cyberspace.

According to Gondodiyoto, the application of computerisation at SIA caused six changes in the system. The changes are as follows:

- a. Changes to the organisational structure;
- b. Changes to data storage;
- c. Changes in routine processing of large data volumes;
- d. Changes in internal control;
- e. Changes in accounting traceability.

Large companies will create new sections or departments when the SIA computerised system is implemented. For example, a particular department, namely the computer department, began to be formed by companies filled with competent employees and experts in Information Technology (IT). The department contains a database of all departments that can be used as a single database or still separate in each department. Changes in data storage are made in manual methods in the form of journals or ledgers, while in computer systems, they are in the form of files that can be read through specific applications. The computerised system will carry out faster, more precise, consistent, and

more continuous processes. Another change is a more complicated control system with accounting controls that can be tracked or traced (audit trail).

Accounting Information Systems (SIAs) are limited to information involving monetary data on financial statements. The financial statements produced by SIA must also have quality criteria, which describe and present the company's condition so that when used as a basis for decision-making, they will produce right-on-target decisions. The quality criteria of financial statements are that they are easy to understand, timely, have predictive value, can be compared, objective, precise, and complete.

In a computer-based SIA, there are three data information processes, namely data input, data processing, and output data. The input data can come from data recording by the user, or it can be automatically logged in from another application. Computers processing data can be servers, clients, or both (client-server). Output data is generated on the display screen or printer, and files are sent on a flash disk or compact disc.

Internal Control and Its Important Role in Accounting Information Systems

Krismiaji states that control influences or directs an activity, object, organisation, or system. In SIA, one of the objectives is to assist management in directing or controlling the business organisation. The American Institute of Certified Public Accountants (AICPA) defines the Internal Control System (SPI) as an organisational structure, all coordinated methods and provisions adopted by companies to protect assets, check thoroughness, and check how reliable accounting data is, improve business efficiency and encourage adherence to established company policies.

The Committee of Sponsoring Organizations of the Treadway Commissions (COSO) in Widjadja defines internal control as a process carried out by the board of commissioners, management, and other personnel designed to provide adequate assurance about the achievement of three main groups of objectives, namely effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws. The Internal Control System (SPI) consists of various policies and procedures set by the company to achieve the following general objectives:

1. Maintain company assets;
2. Ensure the reliability and accuracy of accounting information;
3. Encourage the company's operational efficiency;
4. Measure the conformity of policies and procedures set by management.

Safeguarding Company Assets

Company assets must be safeguarded by all parties, all employees in general and especially the management or company owners who play the most role in safeguarding these assets or assets. Some activities or events seek to attack the company and may try to destroy the company's assets. These things can be incompetent employees in their fields, wrong actions, hacker attacks, or virus attacks on company databases that damage data programs in the company.

Ensuring the Reliability and Accuracy of Accounting Information

The initial data entered in certain parts must be reliable and accurate. The program or application in this section must be able to provide validation or initial checking of incoming data. For example, an application can reject incoming data when there is an error in writing a certain amount, word, or code so that the data from the beginning is valid and can be continued to the next section.

Driving the Company's Operational Efficiency

When a company management can implement a sound internal control system, the company's operations will be more efficient. When data or things that violate procedures

are found from the beginning, the system will reject and eliminate the data. Implementing the company's accounting information system is not only absolute in using applications or programs, but human resources (HR) experts in their fields are also very influential. Sophisticated application support and controlled by skilled human resources will produce extraordinary output for company operations.

Measuring the Conformity of Policies and Procedures Set by Management

The management establishes procedures for the company's operations. The procedure will be seen for implementation and supervised by internal and external control or supervision parties. The supervisory party can be mentioned as an auditor. The auditor will examine and act as a consultant to the company's management by maintaining its independence. This SPI mechanism can measure existing policies by applicable procedures and standards. Some of the general objectives of SPI above can also be interpreted as the role of implementing SPI for companies. This is because the above goals can be achieved due to the role of SPI itself. Suppose the management does not pay attention to controlling physical assets, for example. In that case, various risks, especially financial ones, will not be comprehensive, leading to the company's financial accountability.

In addition, companies must also put the right people in the right places to ensure an effective information system. Employees who are honest, competent, and have integrity are the dream of managers so they can sleep well. Peter Drucker expresses in Iin (2008) that the individual is the centre and the most valuable resource in our environment. The purpose of making control or control, in general, is actually to avoid mistakes and try as effectively as possible to eliminate uncertainty so that the company continues to move forward. Control includes several responsibilities: approval, performance evaluation, task distribution, account reconciliation, verification, etc. This activity must be introduced to all company lines, from top management to the bottom.

SPI plays a role in the smooth process of SIA in a company. As the author mentioned above, SPI and SIA are inseparable parts. Managing SPI is also a success in SIA, and organisational goals will be achieved. It is based on literature studies in journals, articles, and books that the author has done.

The first research by Zhang et al. was a study of internal control on computer-based accounting information systems. Zhang et al. said special internal control studies are needed to develop computer-based accounting information systems. This study is due to dramatic and rapid changes in information systems, so companies must implement high internal control.

The second research was conducted by Salim, who examined the application of accounting information systems to support internal lending control at PT Bank Bukopin Manado. Salim found that the bank under study had implemented an internal control system with several stages: coaching, rescue (settlement) in the form of take, and liquidation in the form of execution and auction.

The following research was conducted by Muskanan, who examined the effectiveness of the internal control system in fiscal decentralisation applications. This study also mentioned terrible results in the control environment of the research object. The poor results were due to the lack of commitment of officials in performing their duties. The lack of commitment is caused by conflicts of interest in their fellow men.

In another study, it was stated that internal control for companies for computer-based accounting information systems is for the costs incurred for losses that occur if

essential data on the computer is lost, misuse by unauthorised people, and if the Alviana virus attacks the computer.

Research by Teketel and Zelalem states that Small and Medium Enterprises (SMEs) in Sweden know the importance of implementing an Internal Control System. The main characteristics of effective internal control for SMEs are the presumptive control environment, presumptive risk assessment process, presumptive operational control activities, effective communication and information systems, and effective monitoring and evaluation systems.

Based on the results of research and existing literature studies, the author can state that there are several important roles of the Internal Control System (SPI) in the Accounting Information System (SIA) as follows:

1. Have a significant influence on SIA, especially computer-based. The enormous influence here concerns general control, such as database control, program maintenance, and computer building. In addition, application control is software (software) used for operational applications and security (antivirus).
2. SPI can prevent excessive resources in the company. Resources, both labour and raw materials, can be saved when a company strictly supervises. An integrated and easy-to-use application will save on the number of employees. Work that was previously done manually and required many employees, after the application is available, the number of employees can be less.
3. Realizing financial statement accountability: A reliable validation report on SPI can produce quality company financial statements, making it easy for auditors to provide excellent or fair opinions without exception.
4. Improve the credibility and quality of the company in the public. According to experts in their fields, Companies that can implement reliable SPI and human resources will quickly get a good response in the stock exchange market or the public, making it easier to get investors.
5. Facilitate management in decision-making. Management leaders will find it easier to make strategic decisions for the company when the Internal Control System has run smoothly from the lowest management level to top management. Furthermore, shareholders will also feel calm and can have the opportunity to add investment to the company.
6. Prevent fraud. According to Hall, fraud refers to the misrepresentation of a fact made by one party to another party to lie and make the other party believe the fact even though it harms it. In other words, fraud is cheating. Internal control that carries out five main components, namely the control environment, risk assessment, information and communication, supervision, and control activities, can prevent fraud.

Conclusion

The need for a modern accounting information system for companies is increasing rapidly, and various ease of data access in running company operations can be obtained by all employees or partially. On the other hand, the company must prepare a reliable Internal Control System to deal with all existing threats and risks. This SPI plays a vital role in companies' implementation of SIA. This is proven in several studies and literature in this paper. The author concludes that applying a modern computer-based accounting information system will not run smoothly without a reliable internal control system, such as strict supervision by management experts in their fields who are honest and have integrity.

References

- Adawiyah, P. A., & Atrinawati, L. H. (2020). Perancangan Tata Kelola Teknologi Informasi Menggunakan Framework COBIT 2019 pada PT. XYZ. *Jurnal Teknologi Dan Sistem Informasi*, 1(2), 1–9.
- Agustina, D. (2021). *Analisis Penerapan Standar Operasional Prosedur (SOP) Dalam Meningkatkan Kualitas Kerja Karyawan Bengkel Auto Dakar Ponorogo*. IAIN PONOROGO.
- Fauzi, A. A., Kom, S., Kom, M., Budi Harto, S. E., Mm, P. I. A., Mulyanto, M. E., Dulame, I. M., Pramuditha, P., Sudipa, I. G. I., & Kom, S. (2023). *Pemanfaatan Teknologi Informasi di Berbagai Sektor Pada Masa Society 5.0*. PT. Sonpedia Publishing Indonesia.
- Fu'ad, K. (2015). Peran Penting Pengendalian Internal Dalam Sistem Informasi Akuntansi. *Jurnal Akuntansi Universitas Jember*, 13(2), 27–36.
- Gantini, T., Yefta, S. K. Y. K., Al Wafy, B. W., & Tantra, L. B. (2019). Analisis SLA 2014, 2016, 2017 dan 2018: Studi Kasus di Departemen TI Universitas Kristen Maranatha. *Jurnal Teknik Informatika Dan Sistem Informasi*, 5(3).
- Lestari, K. C., & Amri, A. M. (2020). *Sistem Informasi Akuntansi (beserta contoh penerapan aplikasi SIA sederhana dalam UMKM)*. Deepublish.
- Muhasim, M. (2017). Pengaruh teknologi digital terhadap motivasi belajar peserta didik. *Palapa*, 5(2), 53–77.
- Mulyani, S. (2017). *Analisis dan Perancangan Sistem Informasi Manajemen Keuangan Daerah: Notasi Pemodelan Unified Modeling Language (UML)*. Abdi sistematika.
- Mulyani, S., Suzan, L., Dagara, Y., Yuniarti, E., & Alam, M. (2019). *Sistem Informasi Akuntansi: Aplikasi Di Sektor Publik: Panduan Praktis Analisis dan Perancangan Implementasi SIA di Sektor Publik*. Unpad Press.
- Setiawan, A. B. (2018). Revolusi bisnis berbasis platform sebagai penggerak ekonomi digital di Indonesia. *Masyarakat Telematika Dan Informasi: Jurnal Penelitian Teknologi Informasi Dan Komunikasi*, 9(1), 61.
- Sutriyani, S., Rahma, T. I. F., & Daulay, A. N. (2024). Analisis Keefektifan Penerapan Sistem Informasi Akuntansi Pada Usaha Mikro Kecil dan Menengah. *Jurnal Riset Ekonomi Dan Akuntansi*, 2(1), 350–371.