

The Differences of Accounting Information Systems and Management Information Systems

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Abstract— *Accounting information system is one of the information systems among various systems used by management in managing companies. This system is a management information subsystem that manages financial data into financial information to meet the needs of internal and external users. Accounting Information System (AIS) is a system that is tasked with collecting data from company activities and converting that data into information and providing information for users inside and outside the company. The way AIS works is that all sources of data both from inside and outside the company are collected into one and converted into database. After that all data that has been in the form of a database, is changed by using software into an information that is more useful for all users of the information. Then the data that has been changed into information is conveyed to all users who need it, such as management and internal users as well as external users of the company. The concept of AIS Data Processing includes: AIS carries out the required tasks, adheres to relatively standard procedures, handles detailed data, focuses history, provides information and solves problems. The data processing tasks in AIS are: Data collection, data manipulation, data storage, document preparation. Examples of AIS Accounting Data Processing/Information Systems are: Distribution Subsystems which are divided into 3 (customer order subsystems, additional stock order subsystems, and ledger subsystems).*

Index Terms—*Accounting Information System, Management Information Systems, Accounting, Information Systems, Data Collection.*

I. INTRODUCTION

accounting information system is obliged to provide information with the environment while the management information system is not, the management information system is only an organizational effort.

accounting information systems only handle information in accounting, whereas management information systems almost all problems are discussed and solutions are sought.

Accounting information system output is still broad, can be used as material for managers and data sources for other systems, while management information systems only provide information for managers to find solutions.

accounting information systems are more oriented towards data, whereas management information systems are more oriented towards information.

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accounting information systems collect classify, process, analyze and communicate financial information while SIM collect classify, process, analyze and communicate all types of information.

Accounting information generated by the accounting information system can be divided into two, namely:

- financial accounting information, information in the form of financial statements addressed to external parties.
- Management Accounting Information, information that is useful for management in decision making.

Management information systems collect classify, process, analyze and communicate all types of information. Computer-based management information system that provides information for several users with similar needs. The Sub-unit management information system is based on functional areas and management levels.

II. LITERATURE REVIEW

2.1 Accounting Information Systems

The financial system that provides information has several functions in business continuity. Here are some functions:

- a. Gather all data on the company's business activities and store these data effectively and efficiently. In addition, SIA can also record all the resources that affect the business and all relevant parties. With this function, there will be nothing in the company that is not listed.
- b. Retrieve data needed from various document sources related to business activities.
- c. Make and record transaction data correctly in the journals needed in the accounting process in accordance with the order and date of the transaction. This recording aims to facilitate the parties who need to check all transactions. So that if an error occurs, it can be corrected easily and the cause can be identified quickly.
- d. The main function of an AIS is to transform a data set into financial information that is needed by the company. This information is in the form of financial reports both manually and online that are required by all parties.
- e. SIA also functions as a financial control system so that fraud does not occur. With this system, company finances can be tracked with certainty because of a detailed system of accountability. This function can safeguard company assets and reduce the risk of embezzlement of assets by all related parties.

The characteristics of SIA that distinguish it from other CBIS subsystems:

1. SIA performs the required tasks
2. Stick to relatively standard procedures
3. Handling detailed data
4. Historical focus
5. Provides minimal solving information.

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In Management Accounting there are two components used for corporate planning and control, namely:

1. Cost Accounting System
2. Budgeting System

Cost Accounting System

1. Used to assist management in the planning and supervision of procurement, distribution and sales activities

Budgeting

2. is a financial projection of the company for the future that is useful to help managers in planning and supervision.

MIS collects, classifies, processes, analyzes and communicates all types of information.

* Computer-based MIS that provides information for multiple users with similar needs.

* MIS Sub-units are based on functional areas and management levels.

Differences in Financial Accounting and Management Accounting

Financial accounting is certainly different from management accounting and cost accounting, in addition to differences there are certainly similarities. Want a different year and the same, here is one review.

Financial accounting is accounting that aims to produce financial information for external parties of the company, information presented in the form of balance sheet, income statement, changes in capital, cash flow, and other financial records. Transactions which are the object of financial accounting are generally related to company assets, debts and capital.

Management accounting is accounting aimed at producing financial information for management. The type of information needed is definitely different from the information needed by outsiders. Management in this case consists of top management, middle management and lower management. Generally the information generated is in-depth and not published to outside parties. In addition to the differences as presented in the previous table, financial accounting and management accounting have similarities, namely:

Both financial accounting and management accounting are information processors that produce financial information.

Financial accounting and management accounting also function as providers of financial information as a basis for decision making.

Whereas cost accounting has the objective to calculate the cost of production in order to determine the cost of the product whether made by order or in bulk and prepare a cost report to meet the interests of management.

From the description above it can be concluded that cost accounting is part of financial accounting and management accounting because cost accounting aims to meet the information needs of external parties and parties within the company, not stand alone between cost accounting and management accounting.

III. CORPORATE ACCOUNTING SYSTEM STAGE

According to Kaplan and Cooper (1999), the development of a company's accounting system can be done in four stages, namely:

1. The first stage - The stage is not perfect, this stage usually occurs in companies that are just developing their accounting systems. Usually the first accounting system developed is the financial accounting system. This stage is said to be imperfect, because as a company that has just created an accounting system, many mistakes are still made in preparing the financial statements. This, for example, causes many adjustments at the end of the year or when the financial statements are examined by an external auditor.

2. Second stage - Emphasis on financial information systems. At this stage the company already has a good financial accounting information system, and can produce financial reports to external parties in accordance with applicable regulations. However, companies do not have a management accounting information system, so management accounting information is generated from financial accounting information systems. In this stage, the company will have an inadequate management accounting information system, because it forces the taking of management accounting information from financial information systems that have different characteristics.

3. Third stage - Separation of financial accounting systems and management accounting systems. In this stage, the company has a separate system between financial accounting and management accounting.

4. The fourth stage - The integration stage. In this stage the financial accounting system and the management accounting system are integrated in an integrated company information system, as in the concept of Enterprise Resource Planning (ERP). In this concept although integrated, financial accounting and management accounting systems still have different modules.

Examples of Data Processing/Accounting Information Systems are: Distribution Subsystems which are divided into 3 (subscriber order subsystems, additional stock order subsystems, and ledger subsystems).

The role of data processing in solving problems is divided into 2, namely:

- Generate information outputs in the form of standard accounting reports, which are very useful and important in the financial area and at the top management level.
- Accounting information systems (AIS) provide a complete database that can be used in problem solving. This database provides many inputs for other CBIS (Computer Based Information System) subsystems (especially SIM and DSS).

Additional understanding of CBSI, MIS and DSS.

IV. DISCUSSION

Basically the company's accounting system is divided into two major parts, namely the financial accounting system and the management accounting system. Financial accounting system is a system designed to produce financial reports for parties outside the company manager, such as shareholders, creditors, tax and others. The financial statements must be based on certain rules as stipulated in PSAK, and if the company is a public company, the financial statements must be prepared based on Bapepam L / K regulations (IAI, 2015). Management information system is an accounting system designed by the company to provide information to the parties managing the company, so that they can carry out their activities properly, this system does not need to follow certain rules as long as the information is useful for managers (IAI, 2015).

Management accounting information system is a process that is described by activities such as gathering, measuring, storing, analyzing, reporting and managing information. Information on economic events is processed to produce outputs that meet management objectives (Hansen, 2009: 4). Financial accounting systems and management accounting systems cannot be produced from one system alone because they are very different. Three reasons the two systems cannot be put together (IAI, 2015):

1. The financial accounting system is designed to produce the company's overall financial statements.
2. The reporting time of the financial accounting system is too long
3. The financial accounting system reports something that has already happened
4. The preparation of financial statements uses different assumptions.

Management accounting system has three objectives, among others (Hansen, 2009: 4):

1. Provide information for the calculation of the cost of services, products or other objects determined by management.

2. Providing information for planning, controlling, evaluating and continuing improvement.
3. Provides information for decision making.

The management process describes the functions carried out by managers and workers who are empowered. Employee empowerment is the granting of authority to operational people to plan, control, and make decisions without explicit authorization from middle or higher level management (Hansen, 2009: 6).

Management accounting systems produce information for internal users, such as managers, executives, and workers. Specifically, management accounting identifies, collects, measures, classifies, and reports information that is useful for internal users in planning, controlling, and making decisions. In producing information, the management accounting system includes a series of management processes, including (Hansen, 2009: 7):

1. Planning is a detailed formulation of activities to achieve a certain final goal. Planning requires setting goals and identifying methods to achieve those goals. for example the aim of the company is to increase profitability by increasing the overall quality of its products.
2. Control is managerial activity to monitor the implementation of plans and make improvements as needed. Control is usually achieved by feedback. Feedback (feed back) is information that can be used to evaluate or improve the steps taken in implementing a plan. Based on this feedback, the manager or worker can decide to let the implementation take place, take certain corrective actions so that the steps taken are in accordance with the original plan, or to re-plan in the middle of the implementation process. Feedback is an important stage of the control function. Feedback can be in the form of financial and non-financial information.
3. Decision making is the selection process among various alternatives. The main role of management accounting information systems is to provide information that facilitates managers in the decision making process.

Difference between AIS and MIS:

AIS is obliged to provide information to the environment while MIS is not, MIS is only an organizational effort.

AIS only handles information in accounting matters, while MIS addresses almost all of the problems and addresses solutions.

AIS output is still broad, can be used as material for managers and data sources for other systems, while MIS only provides information for managers to find solutions.

AIS is more data oriented, while MIS is more information oriented.

V. CONCLUSIONS

Accounting Information System is a system that is tasked with collecting data from company activities and converting the data into information and providing information for users inside and outside the company.

The workings of Accounting Information Systems are all data sources both from inside and outside the company are collected into one and converted into a database. After that all data that has been in the form of a database, is changed by using software into an information that is more useful for all users of the information. Then the data that has been changed into information is conveyed to all users who need it, such as management and internal users as well as external users of the company.

Characteristics of Accounting Information Systems include: Accounting Information Systems performs the required tasks, adheres to relatively standard procedures, handles detailed data, focuses history, provides problem solving information

The role of accounting information systems is to improve quality & reduce costs in producing goods / services, improve efficiency, improve decision making, create competitive advantage

The accounting information system group is divided into 2 groups, internal users and external users.

Data processing in Accounting Information Systems, namely: Data collection, data manipulation, data storage, document preparation.

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REFERENCES

- [1] Atkinson, A.A., Kaplan, R.S., Matsumura, E.M., and Young S.M. 2012. Management Accounting. Fifth edition. Volume 2. Publisher: Index.
- [2] Azhar Susanto. 2013, Accounting Information Systems, Risk-Control-Structure-Development. Lingga Jaya. Bandung.
- [3] Bagranoff, NA., Simkin, MG., And Norman, CS. 2010. Core concepts of: Accounting Information Systems. Eleventh Edition. John Wiley & Sons, Inc.
- [4] Baltzan, P. 2014. Business Driven Information Systems, Fourth Edition. McGraw-Hill/Irwin.
- [5] Belkaoui, A.R. 2002. Behavioral Management Accounting, Quorum Books. Bhimani, A. 1996. Management Accounting: European Perspectives, Oxford University Press.
- [6] Bollen, K. A., 1989. Structural Equations with Latent Variables. John Wiley & Sons, Inc.
- [7] Cooper, D.R. and Schindler, P.S. 2014. Business Research Methods, Twelfth edition. The McGraw-Hill Companies, Inc., 1221 Avenue of the Americas, New York, NY, 10020.
- [8] DeLone, W.H. and McLean, E.R., 1992. Information Systems Research. Volume 3, No. 1. Information Systems Success: The Quest for the Dependent Variable, p. 60-95.
- [9] Gelinas, UJ., And Dull, RB.2008. Accounting Information Systems, 7th Edition. Thomson South-Western.
- [10] Hair. J.F. et al. 2014. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Sage Publications, Inc.
- [11] Hall, JA. 2011. Accounting Information Systems, 7th Edition, South-Western, Cengage Learning.
- [12] Hansen, D.R. and Mowen, M.M. 2007. Managerial Accounting, 8th Edition.Cengage Learning. 2012. Managerial Accounting, Edition 8. Salemba Empat.Cengage Learning.
- [13] Heidmann, M. and Schäffer, U. 2008. The Role of Management Accounting Systems in Strategic Sensemaking. Research in Management Accounting & Control. Gabler` Edition Wissenschaft.
- [14] Imam Ghozali, 2008. Structural Equation Modeling. Alternative Method with Partial Least Square (PLS). Second edition. Publisher: Undip, Semarang.
- [15] Ivancevich, JM., Konopaske, R., and Matteson, MT. 2014. Organizational Behavior and Management. Ninth Edition.
- [16] Laudon, K.C., & Laudon, JP. 2009. Essentials of Management Information Systems. New Jersey: Pearson Prentice Hall.
- [17] McLeod, R.Jr. and Schell, GP. 2008. Management Information Systems. Issue 10. Salemba Empat.
- [18] McShane and Glinow, V. 2010. Organizational Behavior. Emerging Knowledge and Practice for the Real World, Fifth Edition, McGraw-Hill.

- [19] Mejia, L.R.G., Balkin, D.B., and Cardy, R.L., 2005. Management. Second Edition, McGraw-Hill.
- [20] Meiryani; Bambang Leo Handoko; Sasya Sabrina; Edwin Hendra. 2017. The Influence of Leadership Styles on Accounting Information Systems Quality and its Impact on Information Quality Survey on State-Owned Enterprises. IEEE Xplore, Ei Compendex. 2017- Oktober, pp. Page (s): 1989-1993. ISSN: 2576-7828. Publication Year : 2017.
- [21] Meiryani & Lusianah. 2018. The Influence of Business Process on Accounting Information System Quality. *Pertanika Journal of Social Sciences & Humanities*. JSSH Vol. 26 (T) Apr. 2018. 209-218.
- [22] Meiryani; Azhar Susanto; Dezie Leonarda Warganegara. 2019. The Issues Influencing of Environmental Accounting Information Systems : An Empirical Investigation of SMEs in Indonesia. *International Journal of Energy Economics and Policy*. Vol.9,No.1
- [23] O'Brien, J.A., and Marakas G, M. 2010. Introduction to Information Systems. Fifteenth Edition. The McGraw-Hill Companies, Inc.
- [24] Robbins, S.P. and Coulter, M., 2013. Management. Eleventh Edition. Pearson Education Limited.
- [25] Salehi, M. and Abdipour A. 2011. Information systems: Case of listed companies in Tehran Stock Exchange. *Journal of Economics and Behavioral Studies* Vol. 2, No. 2. p. 76-85.
- [26] Sekaran, U. and Bougie, R. 2013. Research Methods for Business. A Skill- Building Approach. Sixth Edition, John Wiley & Sons Ltd.
- [27] Shoommuangpak, P. 2011. Effectiveness of Management Accounting Implementation, Decision Making Quality and Performance: An Empirical Study of Thai-Listed Firms. *International Journal of Business Strategy*. Volume 11 Number 1.
- [28] Stair, R.M. and Reynolds, G.W. 2010. Principles of Information Systems. Ninth Edition. Course Technology, Cengage Learning.
- [29] Sugiyono. 2013. Quantitative, Qualitative, and R & D Research Methods, Alfabeta, Bandung.
- [30] Valanciene, L. and Gimzauskiene, E. 2007. Changing Role of Management Accounting: Lithuanian Experience Case Studies. *Engineering Economics*. No. 5 (55). Economic Engineering Decisions.
- [31] Xu, Hongjiang. 2003. Critical Success Factors for Accounting Information Systems Data Quality. University of Southern Queensland.