

# Critical Review On Management Information System And Accounting Information System

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**Abstract:** This paper is aimed at investigating the correlation between management information system and accounting information system to gain better understanding of each system. After conducting reviews on available literatures, it is concluded in this article that arguments among experts still clearly prevail about both system. Different arguments are not to be eliminated as each argument is supported by adequate literatures, and difference in system is a common thing due to differences in experiences, point of views, and interests of the experts. This paper argues that since management information system is available in every part of an organization, therefore accounting information system is the sub-system of management information system which main objective is to use organization information system effectively.

**Index Terms:** Management Information System, Accounting Information System, Critical Review

## 1 INTRODUCTION

In the information era, all aspects of human life, individually as well as organizationally, require information. (Susanto, 2013 : 11). The increasing growth and development of technology these days leads to the rapid growth of needs in information. Like other business sources such as raw materials, capital, and human capital, information is very essential for the sustainability of business organisations (Hall, 2011:4). Information is like the blood flow for every commercial as well as non-profit organisation (Oz, 2009:9). On workdays, a large number of information flows out from organizations to external users i.e. users, distributors, and stakeholders that have interests in companies. Management uses this information to support its function in various planning and controlling (Hall, 2011:4). Managers use this information to make decisions and ensure that information flows through the organisation efficiently (Bocij et al. 2015:6), and to solve problems (Oz, 2009:8). Many organisations realize that using information effectively can cause impacts on every aspect of their operation and reduce operational cost in the market competition (Bocij et al. 2015:6). To make information system applicable for organisations and in line with its objective, the system should be highly qualified. Information System which meets quality criteria should be relevant, on time, and complete, (Susanto, 2013:69), Gelinas & Dull, (2012:21), McLeod & Schell, (2008:35) as well as easy to apply, useful and integrated (Bocij et al. 2015: 392-393). In fact,

Information System is not yet qualified, as seen in the following facts: natural gas processing in Indonesia is not integrated and tends to run individually (sindonews.com, 2013), local government financial statement is still not accurate and not adequate in records and reports-keeping (nasional.tempo.co/read/news, 2010), delays in providing visas for a number of hajj is caused mainly by the implementation of electronic hajj or e-hajj system conducted by Saudi Arabia authorities prior to the departure of the prospective hajj. Therefore, some hajj should provide more demanded requirements (jatim.metronews.com, 2015), the stop of e-KTP recording and issuance process caused by the troubled system of *Dirjen Administrasi Kependudukan* (beritasatu.com, 2011). The statements depict the facts that information system is in fact still not qualified. This is caused, among others, by irrelevant, delayed, inaccurate, and incomplete, inapplicable, useless, and un-integrated subsystems that subsequently cannot be used to support organisations' business process. Thus, it is important to know and comprehend information system, its correlation, so that information system can be better designed to process and produce useful information to be well used by the management in the process of decision making.

## 2 Literature Review

### 2.1 Management Information System (MIS)

MIS is a group of connected and harmoniously cooperating sub-system to achieve one goal-processing data needed by management in the process of decision making on conducting its function (Susanto, 2013:68). MIS is the transaction of processing, recording, using electronic data processing application that focuses on the development of business application development providing reports for the management in the form of useful information for decision making (O'Brien & Marakas, 2010:10), and a special category of the information system for the middle-level management applied to control business and predict working performances (Laudon & Laudon, 2012:47). MIS is also a supporting system for decision making applied for tactical and strategic plans, and is defined as a system providing feedback on organisation activities and supporting management's decision making (Bocij et al. 2015:46). Based on the definitions of MIS, so it is concluded that MIS is a group of information systems comprising of connected and harmoniously cooperating system to achieve one goal- providing useful information for

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the management and feedback on organization activities.

**The Sub-systems in MIS:** Sub- systems in MIS are as follow: (Susanto, 2013:74-95)

- 1) Executive Information System, is the Information sub-systems in an organisation for executive needs. This information system is built due to the executives' unstructured activities, lack of internal interactions with the company, more external activities so that an information system is required to store unstructured data received and to process them to be ready-to-use information available when needed.
- 2) Marketing Information System is a group of connected and harmoniously cooperating sub-systems to achieve one goal-processing data related to marketing into information needed by management in the process of decision making on conducting its functions.
- 3) Production Information System, is a part of MIS and applied to solve production problems, for instance to schedule production process, control the supply of product quality control and report production cost.
- 4) Finance Information System is designed to provide information related to cashflow to the users in a company. Users are mainly managers using information to manage their resources.
- 5) Human Resource Information System

## 2.2 Accounting Information System (AIS)

AIS is used for financial activities occurring in every organization, including selling order process operation system, payroll, budgeting and organization financial statement reporting. Other function includes capital investment and public cash flow management (Bocij et al. 2015:253). AIS definition, as stated by experts, is a sub-system of an information system specifically related to financial occurrence aspects in business functioning to classify, record, summarize, and process data to be financial information (Gelinias & Dull, 2012:14), and Romney & Paul (2006:28), is the foundation of decision making that is closely related to internal control on the transactions (Richardson et al. 2014:4.) Based on the statement of the experts, thus it is concluded that AIS is an information system which consists of interconnected components, related, integrated harmoniously in recording process, classification and reporting on useful information processing in decision making by management in order to achieve organisation goals.

**Sub-system in AIS:** All economic incidents caused by activities/operations of a company organization which are influential toward the company organisation's financial position are called business transactions or known better as accounting transactions. The cycle of the transactions appears as the result of business cycle and accounting transactions appear as the result of business transactions conducted by the company. In other words, every business activity in a business cycle is a transaction and business activities related to economic issues are called accounting transactions. Since the business activities related to economic issues form a cycle, so do accounting transactions, called accounting transactions cycle. The cycle can be different from one company to another. Here are some views revealed in the correlation of both information systems (MIS and AIS): The first view states that AIS is a sub-system of MIS the main reason of which is that

AIS only provides financial information and business transaction process, while MIS includes larger scope, including non-financial information (Gelinias & Dull, 2012 : 234), this statement is in line with what stated by Susanto (2013:9) who claims that in MIS there is an information sub-system informasi which function is to process financial data into financial information, and this system is called accounting information system. Another view about the correlation between MIS and AIS states that AIS consists of financial accounting system and management accounting system. Management accounting system only provides services for managers and other internal users, and financial accounting system provides services for stakeholders and other external users, so that it can be said that AIS has more users. Therefore, in the second view, it is mentioned that MIS is a part of AIS (Li ,1983 in Alikhani et al. 2013). The second view is seen from the perspective of information system users, where AIS users are considered to be broader compared to the users of MIS users. The next view states that there is another correlation between MIS and AIS, that is MIS and AIS have some characteristic similarities and in other words, MIS and AIS are overlapping in term of output. This view is based on the thought that the function of financial management information system is to give information for managers to make decisions. This information can be about finance or information related with the changes in productivities or stokes. So, the third view states that economic information can be clearly seen in management information system in general (Wilkinson, 1997:147). A part of AIS which stands alone and apart from MIS is financial accounting component since information resulted is dedicated to external stakeholders. Another correlation between AIS and MIS can be found in small organisations as stated in the fourth view that AIS can represent MIS (Wu, 1983 in Alikhani et al. 2013) which can commonly happen in small organisations. The fourth view is based on the thought when an organization develops AIS which causes dependence of MIS on AIS for needed information. This view is also supported by Li (Li, 1983 in Alikhani,et, al. 2013) who states that basically AIS can be converted/transformed into MIS. that in this perspective it is stated that MIS is the same as AIS.

## 3 CONCLUSION

Various views on the correlation of MIS and AIS are stated by experts. However, from the four views, the different perspectives can be restated as follow :

- a) The first view sees the correlation between MIS and AIS in the perspective of information output resulted by information system.
- b) The second view comes from the perspective of information system users, where users of AIS are larger than MIS users as accounting information system users consist of managers and non-managers outside the organisation, while users of MIS are organisation's internal managers.
- c) The third view has the perspective of management decision making where in business transactions, decision mostly made are economic decision resulted by accounting information system.
- d) The fourth view comes from the data perspective used by small companies where data in the small organization are commonly accounting data, so

The four opinions have its own argument, however, the author of this paper tends to select the perspective of information output as an information system is built to provide useful information to the management and feedbacks on organisation's activities, so that the most important and mostly noticed information output in the correlation of both information systems, in other words, as MIS is in every part of an organisation, so AIS is a sub-system of MIS. This conclusion is different from the previous article (Alikhani et al. 2013) that tends to select the third perspective, but the difference commonly occurs as long as the views are supported by adequate literatures, and the four perspectives in this paper do have adequate ones so that the differences is not to be eliminated.

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