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## The Influence of Information Technology and Manager's Competence on the Quality of Accounting Information System

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**Key words:** Information technology, manager's competence, accounting information system, quality of AIS, organizations

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**Abstract:** Information technology and manager's competence are factors which can improve the quality of accounting information systems. In Indonesia, this phenomenon happens in many organizations showing that there is disintegrated accounting information systems which then causes unqualified accounting information. This research was carried out in order to find out fact through examination presenting in the influence of Information technology and manager's competence towards accounting information system. Data used in this research were gained through survey by distributing questionnaires to company in Indonesia. The data were then managed statistically by applying SEM PLS. Research method used was explanatory research. The result of this study shows that the problem in unqualified accounting information system occurs due to the Information technology and manager's competence is not entirely good as expected.

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## INTRODUCTION

In fact quality accounting information system has not been fully implemented by companies in Indonesia. According to Nasution<sup>[1]</sup> is still widely found multiple accounts in banks: "One person can make as many as 30 accounts", so that, the customer data to a transaction of financial services have not been accurate. As according to Iskan<sup>[2]</sup>, that the biggest obstacle in the management of a number in the state today including because of the administrative and accounting post. The phenomenon of the poor quality of the implementation of accounting information systems also occur in an insurance company in Indonesia. The absence of a technical manual financial reporting system, so that, most insurance companies are constrained in implementing international accounting

standards or International Financial Reporting Standards (IFRS). Julian Noor: "If there is no uniformity, it will generate a different calculation depending on the perception that count. Because of this reporting system, quite a lot of insurance companies are experiencing a slowdown in performance. 60% or 48 companies out of 81 companies members of the General Insurance Association of Indonesia (AAUI) decreased Risk Based Capital (RBC) and profit". In particular, the issue of the implementation of accounting information systems in ministries and state institutions can be explained as follows:

Inventory and asset registries. According Suyatno Harun each department has more than 150 thousand kinds of assets. Hundreds of assets which are in the form of land and buildings. Total assets of state property (BMN)

contained in 77 ministries/state institutions managed by the Directorate General of State Assets as of June 2007 reached Rp 371.59 trillion. However, until the examination of the 2010 financial year was found to fixed assets with acquisition cost of Rp 5.34 trillion in seven ministries/state agencies have not been inventoried and Rp 56.42 trillion while not yet recorded.

There are irregularities in the management of state funds amounting to Rp 12.48 trillion as a result of irregularities in the administration, the accounting system poor, poor coordination and policy as well as the lack of oversight and internal controls.

Not to accurately import-export data, according Susiwijono, due to the information system used is still manual. Added by Yoyo, that the export and import data from employers often do not correspond with the tax return has been filed.

One of the factors that influence the quality of accounting information systems is a factor of the use of information technology. Information technology in this study was defined all forms of technology hardware, software and communications and networking as well as combinations are formed among these technologies are used as a means for conducting the input, processing and output into the accounting information as well as data storage quality,<sup>[3]</sup>

According to Laudon and Laudon in a computer-based accounting system information technology useful as a platform for system components Additional information is laid (RELY). Blanton *et al.*<sup>[4]</sup> mentions also that the components of other accounting information systems that require effective support from the information technology (information technology support effectiveness). In order for the effective use of accounting information systems will require an understanding of the organization, management and information technology that make up the system. The same thing also expressed by Macini that information technology be a factor to consider in a change of accounting information systems.

The main reason the use of information technology in business is to support that information systems can host role. The reason why information technology is important because information technology has to match (compatible) and provide support to components of other AIS<sup>[3]</sup>. Further Blanton *et al.*<sup>[4]</sup> explains that the role of information technology has undergone a fundamental change, not merely serve as a tool for processing transactions but these days of information technology has been cast as a weapon that can affect the organization's competitive position. By producing high quality information technology can change the industrial structure, change the key factors of competitiveness and influence the company to choose a strategy. Previously,

Huber has also been offending that use advanced information technology to make the process of availability of information retrieval (retrieve) information both internally and externally and previous information becomes faster and further improve the ease of access to information. Especially, if there is a match between the level of sophistication and capabilities of information technology will be able to integrate corporate strategy and information technology.

Husen study, it was found that those factors have an influence technology is very important in ensuring the success of the use and application of information systems. In detail, the study Husein showed that the factors of technology-information systems, staff competence in information technology information systems integration, user support and structure of information systems significantly influence the success of the dimensions of information systems. Likewise, the results of study Ismail and King, concluded that the dimensions of the level of maturity of information technology, the level of knowledge of the owner/manager of accounting and information technology, the level of commitment of the owner/manager, the use of expert government agencies and KAP and the size of the company as well as the existence of enterprise information technology personnel are the dimensions that affect the alliance (alignment) accounting information systems.

Nevertheless, several aspects of the use of information technology as a means of supporting the implementation of accounting information systems quality are still many obstacles such as the quality of the network has not been able to balance the needs of data traffic resulting in frequent occurrence of loss of data packets and degradation of the network has led transactions that require punctuality as trading securities through e-trading system be not conducive. Anonymous<sup>[5]</sup> that of information technology in Indonesia has not been optimal, yet have the readiness information and services are stable, do not have a strong information and do not have a fully integrated solution. Further, Anonymous<sup>[6]</sup> revealed the problems of information technology systems in the ministry of finance are: although it already has a system of information technology but not yet complete and adequate, it could run into obstacles/broken (down) and harm is not up to date in the sense that each one does not necessarily have a stable operation readiness services and a strong memory, not have a solution integration, every directorate-general (tax, treasury and customs) has a system of its own information technology. It is also stressed by Anonymous<sup>[5]</sup> that as a result of the weak and not yet integrated system information technology contributed very expensive.

The problem is also not less interesting is that over 50% of the state agencies have not been connected with

the electronic audit-owned CPC. More than 50% of e-government unit has not been connected to the BPK audit. According to Hasan Bisri the ministry of finance is one of the agencies that e-audit is not connected with the CPC. In fact, if the finance ministry has been able to full access, then 70% of all ministries and state institutions (K/L) can be accessed by the CPC as all national financial data at the Ministry of Finance. So, far, the Ministry of Finance reasoned, if information technology is not ready for it. Further described by Hasan Bisri, that although the ministry of information technology at the end of the financial. Accounting information systems companies can be classified into 2 subsystems, the system of financial accounting information and accounting information systems management<sup>[7]</sup>. Both systems are distinguished on the users where the information system of financial accounting intended for external users companies while the system of management accounting information intended for internal users of the company, such as managers, executives and employees in decision making.

Related issue to accounting information systems management in government is the weakness of human resources<sup>[1]</sup>. More Anwar Nasution added, weak human resources caused the management accounting information systems in government are not integrated. Thus, the need for improvement of management accounting information system related to the government has been a demand that can not be avoided. More Ahmad Sukarno said, if the government organizations do not want to torpor, then government organizations should be able to open itself to the development of the organization's external environment is moving faster and faster such as the development of information technology. In business organizations, management accounting information system problems occur on PT Avesta Continental Pack which unintegrated management accounting information system affect a lot of the time needed to process the data and decision-making is slow.

So, also happens to PT Frisian Flag Indonesia (FFI). Eka Suharto added that of the management accounting information systems that are not integrated lead users (managers) can not easily perform analyzes related decisions will be taken because it can not easily access other data required other than manual data he had.

The problems associated with the low quality of management accounting information systems also occur in the company Vivera Group, namely inter-division system is not yet fully integrated company, consequently affect the effectiveness of the division of work between the slower, as disclosed by Smith Rochimat. Problems also occur in the transportation industry as proposed by Vijay Anand that the information system and the airline has not been able to quickly and easily collect and analyze

passenger data in order to provide the best service for customers. Further problems occurred in the insurance industry, about 60 general insurance companies or 80% of the 81 total company does not have an integrated system of management accounting information. According to Julian Noor, issues management accounting information systems that are not integrated on the insurance company can be broken down as follows:

Field of premium income, the transfer of risk to reinsurers and payment of claims unrelated to one another, each running its own system-alone consequently making the decision is not right time and accurate and risk mitigation as well not do it early when the information is not presented with complete.

Each application support has its own bookkeeping process, so that, the recording of evidence of the transaction there is a difference this has led to the posting will take a relatively long time and requires a lot more resources. Integration disturbed resulted in chaos in certain parts, such data can not be accessed through the server.

To support the information systems used, the insurance company to make changes by establishing a culture of customer centrics organization but can not be done completely, as did this culture involves employees (human resources) on the upper level to the level of under take a long time, as it happened at Cigna insurance company Indonesia. Each insurance companies have an organizational culture that is different. Information systems produce quality information<sup>[8]</sup> in which information is generally said to be qualified if they meet the criteria relevant, timely, accurate, complete and concise states that management accounting information systems provide information to assist managers in planning and control activities.

Specifically, Belkoui explains that the accounting information system management can be defined as a collection of human and capital resources in the organization that is responsible for generating relevant information in the internal decision-making. So, basically accounting information systems management that is a collection of system components associated with and cooperate with one another by utilizing resources to process data into information of financial and non-financial in order to meet the specific objectives of management<sup>[9]</sup>.

DeLone and McLean<sup>[8, 10]</sup> uses the term successes to show the quality of the information system is focused on efforts to produce quality information. The same is stated by Rani and Kidane that in order to implement the system of quality management accounting information, it is very important to do focusing on how to produce quality management accounting information. Furthermore Chitmun and Ussahawanitchakit states that management accounting information system integration positive effect

on the quality of information. Likewise with the opinion of Mia and Winata which states that the use of management accounting information system is positively associated with accounting information management (broad scope). Heidmann indicates that the quality of accounting information management system can be measured from the dimensions: integration, flexibility, accessibility, formalization and media richness. Based on the problems that arise in the field and the theory used, there are several factors that can affect the quality of accounting information systems management as well as an impact on the quality of management accounting information, such as the competence of the manager.

Results of other studies indicate that the technical competence of human resources are factors that affect the successful implementation of management accounting information system. Madapusi and Ortiz has been conducting research on several companies in India that have been using the ERP software applications to implement the management accounting information systems. Furthermore, Daoud and Triki conducted a study on 102 companies in Tunisia that have adopted ERP system. Daoud and Triki shows the results of the study stating that the competence of human resources both accountants and managers is an important factor in the success of management accounting information systems. In addition to the competence of the manager, organizational culture is also a factor that can affect the quality of accounting information system management. Based on the phenomenon, the literature used and the results of research that has been done before, this research will be focused on the object of research, namely the competence of the manager as variables that affect the quality of accounting information system management.

### **Literature review**

**Information technology:** information technology is defined also by O'Brien as a computer based information system to declare the involvement of the use of computers, hardware, software internet and other telecommunication networks as well as using the techniques resource data base and various other computer-based technologies to transform data into a wide variety of information. From some of the above statements information technology means all forms of technology hardware, software and communications and networking, as well as combinations are formed among these technologies are used as a means for conducting the input, processing and output into accounting information and storage quality data. Information technology components consist of: hardware, software and component-related systems<sup>[3]</sup>. According to O'Brien information technology components include: computer, hardware, software, the Internet and other communication networks, the techniques of resource management,

computer-based data (data base management ) and (5) the technologies of other computer-based information. While Keen, classifying information technology components into three main categories, namely: computer, the telecommunications and multimedia and various combinations of building blocks used to create a resource of information technology in all organization. Then, Applegate uses the term information technology infrastructure to explain the components of information technology. The term "infrastructure" means information technology. the entire layered fabric of hardware, software, systems and media Collectively that deliver IT Services. Along with Applegate in the study of information technology and information technology infrastructure is the same.

Overall information technology by Applegate are grouped into three main components, namely information technology related to the network (the technological elements of networks); the technology associated with the transaction processing system (the technological elements of the processing systems) and information technology-related facilities (the technological elements of facilities). Network technology (network) related to technology (hardware or software) that caused it (permit) for the exchange of information between organizations. In the world of information technology are two types of telecommunication networks, namely the Wide-Area-Networks (WANs) and Local-Area-Network (LANs).

WANs, is a type of telecommunications network that covers a large geographic region/area, such as those used to cover large areas of the city, metropolitan. WAN, widely used by manufacturing companies, banks, retailers, distributors, transportation and government organizations. Meanwhile, LANs connect computers with the other information processing in a physical area which is limited, for example in a area offices, buildings, factories or other places. the network technology in question includes: fiber optics, cable systems, DSL, satellite, wireless internetworking hardware (routers, switches, firewalls), content delivery software, identity and policy management and monitoring.

Technology transaction processing systems consist of hardware and software that together have the ability to implement corporate transactions. Included in the transaction processing system technologies are: transaction software, servers, server appliances, client devices, mobile phone.

The technology associated with information technology facilities, is a form of physical systems that shade or protect the rest of the facilities computers (hardware and software) and network facilities. Examples of technological facilities include: corporate data centers, collection data center, managed services of data centers and data closets.

Based on the above, the information technology components include all forms of technology hardware, software and network (network) and facilities. In detail, the definition of each component of information technology in question is as follows: Computers (computer). A computer is a system, a combination of components that are interconnected to organize the functions of the basic system of which the function of the input, processing, output, storage and control, so that the end user is provided with a means of information processing (powerful). On the other hand, O'Brien explained that the computer in the above definition consists of a microcomputer, midrange computers and mainframe computers and large computer system. Other terms are also used to categorize the computer of the type size and capacity consists of: minicomputers, supermini computers and supercomputers. Nevertheless, overall is a computer in this study is a computer system that consists of components or devices (peripheral) which is generically consists of the components: input (input), processing (processing), output (output), storage (storage) and control (control). Hardware: The hardware of a computer system includes a computer device itself as well as keyboards, printers, hard drives and devices that are similar that helps the computer to carry out the jobs input and output or better known as peripheral equipment because the equipment is specifically rounded computer and help the computer to process the data<sup>[3]</sup>. Bagranof<sup>[3]</sup> serves as a hardware base (base) or a platform for other information technology components such as software and telecommunications networks will be placed. Bagranof<sup>[3]</sup> divides hardware devices or peripheral equipment into the following four groups:

- Input device (input devices), for example : keyboard, MCR reader, mouse, touch screen
- Secondary storage device (secondary storage devices) such as: USB, Har Disk Drive, CD-ROM Drive, DVD Drive
- Telecommunications equipment (telecommunication devices), eg modems, POS terminals, automated teller machine (ATM)

Output device (output device), Example: CRT monitors, printers, audio speaker, large display screen. Each of these peripherals over a device on line, although physically each device separately from each other but to function properly it between devices will be linked electronically through telecommunication networks such as Internet, telephone and other telecommunications network. Conversely, if the devices can perform its functions without having to have and/or are not under the control of the Central Processing Unit (CPU), a device such as a device called offline.

**Competence manager:** Competence manager is a condition that indicates the depth of knowledge, skills, aptitude and attitude of the manager in the field of work supported by motives, talents, self-image, as well as orientation to always improve the quality and efficiency as well as the achievement of performance standards; inter alia by improving the ability of problem-solving, decision-making patterns improvement and operational processes are fast and high sense of responsibility. Competence is represented with the knowledge and skills contribute to the success of management accounting information systems in meeting its goal to provide the information needed by managers. That stance is in line with research Nachailit conducted in the hospitality industry in Thailand where the research results show that the competence of the management team (a collection of managers) effect on the effectiveness of strategic management accounting.

McShane and Glinow that "Competencies are the skills, knowledge, aptitudes and other personal characteristics that lead to superior performance". From this definition can be interpreted that the competence is a skill, knowledge, talent and other personal characteristics that generate excellent performance. Dubois and Rothwell that: "Competencies, then are characteristics that individuals have and use in Appropriate, consistent ways in order to Achieve desired performance". From that sense it can be said that the competence is a characteristic of the individual and used consistently to achieve the desired performance.

But others argue that competence is a level of performance that demonstrate the effective application of knowledge, skills and management. Yukl states that the main competence is the knowledge and ability to perform certain activities. The main competence usually consists of a combination of technical expertise and application skills.

In line with the opinions mentioned above, Moeller states that competence was demonstrated knowledge and skills necessary to undertake certain activities. Likewise with Stewart and Brown states that the competence it demonstrates the knowledge, skills and abilities needed to perform an activity.

Furthermore, Bernardin also defines competence as a collection of knowledge, skills, or abilities. Complementing the previous opinion, Dessler defines competence as the knowledge, skills or behaviors that are applied to produce a better performance. Details on competence have been raised by psychologists. Marshall explains that: "competence is the basic characteristics of a person that allow it to provide superior performance on the job, role, or a particular situation". According to Marshall, the competence is divided into two main categories, namely the threshold competencies and

differentiating competencies. Threshold competencies include skills and knowledge while differentiating competencies include social role or the values espoused, self-image, character and motives. In employees as users of the information system also includes the managers. Users of information systems that include external users (customers, suppliers, partners and employees) and internal users consisting of: clerical and service works, technical and professional and staff, supervisors, middle managers and executive managers. In order for an information system in the organization can run well, then the required competence. Based on the opinion of Bantley and Whitten competence of the manager in question in this research is the competence of the manager at the middle level because they are directly related to the daily operations of the company and technical decision-making companies or organizations.

Motif, character and self-concept within the competence of the central (central competencies) that are relatively difficult to develop while knowledge and skills are called competencies surface (surface competencies) which is relatively easy to develop in line with Moeller. Motif character and self-concept within the competence of individuals who are "intent" are pushing to use the knowledge and skills possessed. As the expert opinion of the above, guided by the motive competence, character, self-concepts, knowledge and skills, therefore the competence affect the behavior and performance. According to Dubois and Rothwell, to measure the competencies can be used the following characteristics: "knowledge (knowledge), skills (skills), aspects of self-image (self-image), social motives (social motives), traits (character), thought patterns (mindset), mind-sets (frame of mind) and ways of thinking (perspective/viewpoint), feeling (feeling) and acting (action)".

Robbins and Sanghi states that the ability is the capacity of individuals to perform a variety of tasks in a particular job, the which consists of: The ability of the intellectual, the capabilities needed to run a mental activity, physical ability, the skills needed to perform the tasks demanding stamina, dexterity, strength and characteristics serupa. Sejalan by Spencer and Spencer the ability to consist of analytical skills and conceptual abilities.

While knowledge is defined as something that can be learned, either through formal education or through the development of a person's abilities gained from reading and watching (observation). Zikmund knowledge is a blend of experience that we have experienced before, a deep experience and a data memory in an organized form. Furthermore Stair and Reynolds states that: knowledge is the awareness and understanding of a range of information and how to make the information more useful

to support a particular task or for decision-making. According to McLeod and Shell, the type of knowledge that one has to be Able to Contribute to the development of the information system, Comprising: computer knowledge, knowledge of information, the fundamentals of business, systems theory information system process development and modeling of information systems. Furthermore, Pearlson and Saunders states that managers, especially at the level of the middle general manager should have a basic knowledge of information systems for make decisions that have serious implications for business.

**Theoretical framework:** O'Brien states that one of the factors that affect system performance information is linked to information technology functions. Specifically, O'Brien explains that the performance of the information system is affected by an organization's success in managing its information technology function. Measurement of success is the management of information technology functions is determined by the effectiveness, efficiency and economy of the information technology function.

Effectiveness of information technology functions related to organizational goals using information technology. Is information technology used to support decision-making processes and innovative products as well as to gain competitive advantage or information technology is used only to process existing traditional business.

The efficiency of information technology functions related to information technology capabilities provide fast response, no distractions/barrier/damage (downtime), match (compatible) with an information system used, data (integrated data). In line with this view, efficiency-oriented approaches proposed by Hamilton and Chervany (1981) relates to issues of technical quality, resources consumption, production capability and resources allocation.

Economical information technology functions, relating to whether the use of information technology to give effect to lower cost per unit of data processing, further impacting the decline in product prices, as well as reduce the cost of repairs and maintenance of hardware and software technologies.

As according to George Westerman and Richard Hunter mentioned that there are (4) key business requirements that must be provided by information technology for the success of the organization, namely:

- Availability: system must be up and running. Recovery from failure should be rapid, based on the firm's business requirements

- Access: Systems should be Sufficiently secure to Prevent loss and destruction of the data but flexible enough to enable employees to do Reviews their job
- Accuracy: Information must be timely, complete and correct when presented to both internal and external users
- Agility: Ability to change IT systems to meet new business requirements with requisite speed and reasonable cost

Characteristics of information technology, according to Thompson and Baril is as follows:

- Functionality: that any kind of technology and how much the capabilities of the technology used to perform the functions of carrying out processing functions
- Ease of use: how easy the technology is used
- Compatibility: how easy the technology is to function together with supporting technology
- Maintainability: how easy the technology is maintained in operation during the process of maintenance, repair and others so as not to disturb the main tasks

The indicators of each characteristic of information technology are: Functionality, consisting of:

- Capacity: How much information can it store or process? How many users can it handle?
- Speed: How fast can it process the data or instruction?
- Price performance: How much does it cost per amount of information stored, or by calculation?
- Reliability: How long will it Likely continue operating without errors or unplanned outages?
- Operating condition: how much space daoes it need? How much does it weigh? How much electricity does it use? What does it require temperature range

**Ease of use:**

- Quality of user interface: How intuitive and easy to learn are the instructions for using the technology to perform its task (s)?
- Ease of becoming profecient: How much effort is required to Become proficient in using the technology?
- Portability: How easy is it for the user to move the technology in the course of doing work.

**Compatibility:**

- Conformace to standards: To what extent does technology conform to accepted industry standards?

- Interoperability: To what extent does the technology use the same coding internal or external interfaces as other technologies it must operate-with or substitute for?

**Maintainability:**

- Modularity: Is it divided into modules that can be put together when building systems? Reviews These modules can be replaced by equivalent modules IF NECESSARY?
- Scalability: Is it possible to significantly increase or Decrease capacity without major disruptions?
- Flexibility: Is it possible to change important aspects of system operation without major disruptions?

Blanton *et al.*<sup>[4]</sup> stated that the main purpose of the organization managing information technology in principle to enhance the effectiveness of the support of information technology (IT support effectiveness) in the implementation of accounting information systems as a whole. Effectiveness of information technology assessed by objectives (objective) information system at the time the information system is implemented. According to Hamilton and Chervany the effectiveness of information technology support to the accounting information system dealing with issues concerning the quality of the information content (information content quality), quality support of information technology (IT support quality), the use of the system (use of system) and its impact the performance of the user (individual impact) and organizational performance (organizational impact).

To illustrate the effectiveness of information technology support to the implementation of accounting information systems, Blanton *et al.*<sup>[4]</sup> build a model that adopt of performance-contingency model developed by Miller and effectiveness-oriented approach by Hamilton and Chervany. The model developed by Blanton *et al.*<sup>[3]</sup> describes the relationship between several factors that influence the effectiveness of the support contingency IT (information technology performance) in information systems. Based on the model Blanton which referred to the effectiveness of information technology support is the overall service/services and technology products information provided by the information technology (unit, section, department or division) were measured using the following indicators<sup>[4]</sup>:

- Availability of IT support, measuring the availability of information technology support (product and services) when required user
- Utilization of IT support, measure the frequency of the user using information technology support when doing his work (job-related tasks)
- Perceived effectiveness of IT support, measure how good/decent IT support to meet user needs as perceived by users

**Accounting information systems quality:** Quality accounting information obtained from the application of quality accounting information system. The fundamental role of accounting information systems in an organization is to produce quality accounting information<sup>[9]</sup>. The term “quality” can mean success/success<sup>[8]</sup> or user satisfaction and/or includes the term quality itself.

Gelinas *et al.*<sup>[11]</sup> used the term “effectiveness” of accounting information systems as a measure of the success of information systems in achieving the goals set. Likewise with Flynn<sup>[12]</sup> states that the effectiveness of the SIA is acceptable to provide management information to assist management in making decisions. Dellon and McLean<sup>[8]</sup> uses the term “success” of information systems for measuring out-put is generated by the actual system. Likewise Pornpandejwittaya and Pairat uses the term “success” to describe the successful application of accounting information systems in the areas that became the principal concern to the organization, used extensively by one or more user satisfaction and improve the quality of performance. As for the term “quality” accounting information system proposed by Sacer is used to indicate the integration of the various components of the accounting information system are: hardware, software, brain ware telecommunication network and data base quality and the quality of work and satisfaction of users.

characteristics quality information system according Dellon and McLean<sup>[10]</sup> is ease to use, system flexibility and ease of learning. Wixom and Todd describes the characteristics of the information system is realibility quality, flexibility integration, accessibility and timeliness. Furthermore, the quality characteristics of the information system according to Horan and Abhichandani is a utility, reliability, efficiency, customization and flexibility. Sedera measures the quality system with easy of use, easy learning accuracy, user requirements, system features, system accuracy, Flexibility, Sophistication integration and Customization. Based on the above it can be said that the quality system of accounting information referred to in this research is the functioning of accounting information systems integration of all system components, reliably, efficiently and effectively, easy to use, easy to learn as a provider of accounting information quality used in decisions which could impact on user satisfaction.

Bodnar<sup>[13]</sup> states also that: “An Accounting Information Systems (AISs) is a collection of resources such as people and equipment, designed to transform the data into financial and other information. This information is communicated to a wide variety of decision makers. AISs perform this tranformation Whether they are essentially thoroughly computerized or manual systems. Susanto<sup>[9]</sup>, accounting information system can be defined as a collection (integration) of the sub-systems/

components both physical and non physical are interconnected and cooperate with each other in harmony to process transaction data related to financial problems into financial information. Then, more specifically Hall incorporating the terms of financial transactions and non-financial in terms of accounting information systems, so that the full Hall states that: The accounting information system AIS subsystems process financial transactions and nonfinancial transactions that Directly Affect the processing of financial transactions. Hall goes on to explain that a financial transaction is an event that affects the economics of the assets and equity of the organization as reflected in the estimates (account) and is measured in monetary terms. For example, sales transactions of products to customers, the purchase of inventory from suppliers and transaction receipts and disbursements. While non-financial transactions are events that do not meet the definition of financial transactions in the narrow sense such as adding the data for the new supplier of raw materials to the list of authorized suppliers is an event/events that will be processed by the enterprise information system as a transaction. However, non-financial information is not a financial information and the company has no legal obligation to process the information correctly.

From the various definitions that have been described above, Bagranof *et al.*<sup>[3]</sup> stipulates that: The essence of what AISs acre-collections of raw and stored the data (that together typically serve as inputs), processing methods (usually called “procedures”) and information (outputs) that serve useful purposes accounting. The purpose of the statement above that the nature of the accounting information system is a collection of raw data, processing method (commonly called the procedure) and information (output) which is useful for accounting purposes. Furthermore Bagranof *et al.*<sup>[3]</sup> explains that as part of the SIA components are interconnected, the computer hardware and other system components should work with other system components to complete the data processing tasks. Without software, computer hardware would be meaningless. Without the data to be processed, then the computer hardware and software also become useless. Then with out procedures, accounting data will not be collected accurately or appropriately distributed. Similarly, if the SIA without those (people) then it is highly doubtful that the existing system can operate.

Dellon and McLean<sup>[10]</sup> dimensions of quality of accounting information systems are as follows: The dimensions of the quality system (quality system), associated with the measurement process of the system itself that is measuring the success of technical information systems. The term used to measure the quality of the system consists of: ease-of-use, functionality, reliability, flexibil integration and importance.



The dimensions of the quality of information (information quality) measure the output of the system to measure success in conveying information or the intended meaning. The term used to measure the quality of information is: accuracy, timelines, completeness, relevance and consistency. The dimensions of the use of the system (system use) here is the use of the system voluntary (voluntary) as opposed to the use of mandatory which is a measure of consumption system output is measured in terms of: frequency of use, time of use, number of accesses, usage pattern and dependency.

User satisfaction (user satisfaction) describe the response of the system was measured by using the term: self-efficacy, repeat visits, personalization, perceived risk and enjoyment. Dimensions of individual variables impact and measure the effect of the system on user habits (people), namely whether the system is to give effect to the performance of the system. The system is said to be effective if the system user benefits such as productivity performance of the individual. The dimensions of organizational impact and measure the impact of the system on the basis organisational, whether the system is an impact on the performance of companies such as: cost savings, expanded markets, additional incremental sales, reduced search cost, time saving and others.

Information technology has an influence on the quality of information systems. Information systems terminology means of the use of information technology within an organization to provide information to the user<sup>[13]</sup>. Loudon and Loudon states that: using Information System (AIS) Effectively requires an understanding of the organization, management and information technology shaping the system. Meanwhile, O'Brien states: the fundamental reasons for the use of information technology in business is that support information system perform its role, that are: support business operations, support of managerial decision making and support of strategic competitive advantage. Understanding the above explained that the fundamental reason for the use of information technology in business is because information technology is providing support to the information system to perform the role, namely: to support business operations, to support managerial decision making and support the competitive advantage of strategic.

The Bagranof *et al.*<sup>[3]</sup> states as well: one reason for IT's importance is because information technology must be compatible with and support, the other components of an AIS. Therefore, according to O'Brien, the effectiveness of information technology to support and achieve the goal of end users, work groups and organizations should be used also as a measure of the success of the SIA. Furthermore, the reliability of accounting information system is strongly influenced by the design and management of information technology.

According to Applegate a lot of information technology components of an organization inherently unreliable (reliable). The level of reliability of the information system of an organization is influenced by the level of availability and safety (security) of the system and the information technology services. As disclosed by Mancini that the effect of information technology on SIA's success has become the object of many studies today. In fact most of these studies have placed the information technology as the main research variables that effect, the accounting rule and components SIA others. Specifically Mancini states that Internet technology is more in giving effect to the SIA. Meanwhile, web technologies to give effect also to how it was built and used SIA.

Hussein in his study of the influence of the information technology factor for the success of electronic information systems in government organizations, found that factors of technology is vital in ensuring the success of the use and application of the SIA. He also explained that all factors of technology (information systems, staff competence in information technology information systems integration, user support and structure the information system) used in the study significantly influence the dimensions of success SIA (system quality information quality, perceived usefulness and user satisfaction). Among the factors above technologies, a factor the competence of staff and facilities information technology system is the most decisive factor in ensuring the success of the SIA which is then followed by an integrating factor.

Study Ismail and King investigated the relationship between the factors of technology (the level of maturity of information technology, the level of knowledge of the owner/manager of accounting and IT, the level of commitment of the owner/manager, the use of expert government agency) and unification SIA on small and medium enterprises in Malaysia concluded that the dimensions of the level of maturity of information technology, the level of knowledge of the owner/manager of accounting and IT, the level of commitment of the owner/manager, the use of expert government agencies and KAP and the size of the company as well as the existence of personnel of IT companies are all factors associated with unification/alliance (alignment) SIA.

Effect of competence manager of the quality of accounting information systems management. Managers who know how to work with the situation an information system will be more successful organization of the managers who are less skilled in applying information systems to Become one of the success factors of information systems. In addition to the general business knowledge information systems managers must have a greater depth of knowledge about technology for

managing the system and partnered with general information managers who use information. The general manager should have a knowledge base of information systems to make decisions that may have serious implications for business. In line with this O'Brien and Maracas states that: "These systems can not benefit an organization if its employees fail to contribute reviews. Reviews their knowledge, if they fail to use the system to retrieve information, or if the system simply is not available where and when needed". In general, to be able to engage in a business system, the competence of human resources is needed in which the competence of human resources consist of knowledge, skills and abilities.

As for the skills possessed management to support the successful implementation of the system of management accounting information such as skill in operating application supporting accounting information system management so that completion of the task can be done well.

The results showed that the technical competence of human resources are factors that affect the successful implementation of management accounting information system has been conducting research on several companies in India that have implemented ERP application software.

Furthermore, Daoud and Triki conducted a study on 102 companies in Tunisia that have adopted ERP system. Daoud and Triki shows the results of the study stating that the competence of human resources both accountants and managers is an important factor in the success of management accounting information system. Results of another study found that the competence of the management team (a collection of managers) effect on the effectiveness of strategic management accounting. Furthermore Nachailit illustrate the effectiveness of accounting strategic management will produce information related to daily operations information that supports the company's development and information that provides a view of the future of the company where accounting strategic management is part of a system of management accounting information, so it can be said that the competence team manager effect the accounting information system management. Nachailit has conducted research in the hospitality industry in Thailand. In line with the above mentioned study, Tayles etc., conducted a study on 119 major companies in Malaysia engaged in the field of telecommunications, manufacturing broadcasting and banking, the results showed that the application of the accounting information system management requires engagement manager's competence. Furthermore, the same results shown in research Campanale etc., the research carried out in some units of health care and explained that the competence and capability of managers as their knowledge and skills on

the use of supporting applications of information systems to generate useful information for managers in decision-making, contributing to the development of information systems management accounting and the application of management accounting information systems.

**Hypothesis:** Based on the framework, then the hypothesis proposed in this study are:

- The use of information technology affects the quality of accounting information system
- Manager competence affects the quality of accounting information system

## **MATERIALS AND METHODS**

The research method is the methods used in the study or all methods or techniques used to implement operational research or study or scientific way used to obtain data with purpose and specific uses. The following are the methods used in this study which evaluated from:

Objective (purpose of study). This is a descriptive study, a study that aimed to describe the characteristics of the study variables. This research may explain the variable characteristics: Use of Information Technology, Organizational Culture, Leadership Style internal Control Systems, SIA Quality and Quality of Accounting Information (descriptive).

Study Type (type of investigation). This research is verification (verificative research) and are explanatory (explanatory research) or causality (causal study) because this research aims to find out if and how far the factors expected to affect a variable in order to test the hypothesis. This research may explain how much influence variables Use of Information Technology, Organizational Culture, Leadership Style and Internal Control Systems on the Quality of SIA and SIA quality influence on the Quality of Accounting Information (causal). Horizon (time horizon). In terms of the time horizon, the study was included in the study group over time (cross-sectional studies). Because, the study is cross-sectional studies of study/research conducted for once or research conducted by collecting data only once, may be daily, weekly, or monthly in order to answer the question research.

An examination of the ability of researchers to control the variables (Researcher control variables), this research belongs to the kind of ex post facto designs where the level of involvement of researchers minimal. This is based on the opinion of sekaran that the field study (field study) is a type of study that examine several factors to study the natural environment and the level of involvement of researchers minimal.

In a field study (field study) data collection will be done by using a questionnaire. The questionnaire is a set of written questions formulated in advance to record the respondents. Questionnaires will be distributed to all respondents using courier services (surveyor) and by post (mail survey). Each unit of analysis will be sent 3-4 questionnaires (respondents).

## **RESULTS AND DISCUSSION**

Influence of information technology on the quality of accounting information systems. Results of testing the first hypothesis, showing that there are effects of the use of Information Technology (IT) on the quality of accounting information system (SAI) by 0.84%. By using the criteria as proposed by Guilford the correlation between the number of variables and the quality of SIA IT usage by 0.84% in the category of <20%, that has very weak connection. As for the value of respondents associated with the use of TI gained an average value of 3.77 in the category enough or often, or it can be said that the SAI has not fully use IT to implement SAI.

One factor is the reason for the IT used to carry out the SAI of the Ministry and the State Agency of Indonesia is not fully functional because the capacity and speed of available IT has been used to process, store and search the data has not been fully memadai.SAI the Ministry and the State Agency of Indonesia serves to generate financial reports. To produce financial statements, the accounting unit budget users (UAPA) the process of consolidating the financial statements of some UAPA-E-1 in which the financial statements at UAPA-E-1 is a combination of the financial statements of the regional level (UAPA-W) where as the financial statements on UAPA level-W is a combination of the financial statements are derived from UAKPA in their working area. Each region consists of tens to hundreds of units of work, each echelon consists of dozens of working area and each ministry is composed of several echelons 1. Thus, to be able to process, store and search back financial data are very large and require complex IT, computer and components (pheriperal) is adequate.

Another factor is the cause of IT is not fully functional because the IT available so far not been able to operate continuously for a long time. If IT is used continuously for a long time, TI will experience disruption and damage. It seems that the IT age that has long become one of the causes, as shown in the study that as many as 63.18% of the existing IT is now used for more than three years, as many as 49.75% or almost 50% of the existing IT been used for >5 years. Overall the future use of IT in the Ministry and the State Agency of Indonesia has reached an average of 2.9 years. Problems related to the functioning of the IT also time to fix the IT

yangmengalami disturbance/damage. SAI users feel that the time that is required to correct the interference/TI still long enough damage that can lead to disruption of the execution time of the SAI. Things like this can be understood as support for the IT group who maintain and repair carried out by the IT unit/department dedicated IT that are outside the Ministry and the State Agency of Indonesia which is implemented by the Director General of State Treasury in the Ministry of Finance. In addition to requiring time to repair the damage/IT disruption, there is also a bureaucracy or a standard procedure to be followed by each Ministry and the State Agency of Indonesia to obtain maintenance services and repair or replacement of the IT. In turn, for repair and maintenance as a whole requires a long time to become as one of the factors of IT has not been fully able to function properly.

Thus, it can be concluded that IT is used for this in the Ministry and the State Agency of Indonesia has not fully functioning due; IT is not yet fully have the capacity and speed were adequate, IT is not fully able to operate continuously for a long time and the time required to repair the damaged IT/disorder is relatively long. Supposedly information technology related to IT's ability to provide a fast response, no distractions/barrier/damage (downtime), match (compatible) with an information system used, data is integrated, so the technology function of IT within an organization can contribute in improving the performance of the accounting information system. In line with this opinion, Westermen and Hunter states that in order to contribute to the success of an organization (including SIA therein) information technology should meet the characteristics, one of which is idle (avaibility) that IT should always be in a state can be enabled (running). If in need of repair (recovery) when damaged, it must be done quickly.

Reliability Infrastructure.

Furthermore, the IT infrastructure used by the Ministry and the State Agency of Indonesia as presented in the study include: internet, wi fi, UPS, the printer-scanner, a dedicated space and infrastructure systems SAI IS) -SAI, helpdesk and others who serve for IT support to operate SAI is not yet available as needed type, quantity and capacity. Overall, agencies and the Ministry of State Institutions RI provides Internet network reached 85.07%, the provision of wi-fi only 46.76%, UPS (baterly backup) 22.89% and the address for the printer/scanner is available for 51.24 % of the total users SAI. This means that overall, the IT infrastructure needed to support the functioning of IT for the smooth implementation of the SAI is not yet fully available both in the number, type and specifications should be. For systems that are not integrated or known as a stand alone system, the SAI is in need of internet connection, scanner

for the purposes of sending data from UUAPKA-UAPW-BAL-E. In fact, there are respondents who stated that diinstansinya internet facility is not yet available. Most ministries and State institutions still use the phone line (public telephon) not a dedicated line as a means of connection to the Internet, so that, the process of sending data (from the territories) to be disrupted, a long, low capacity and less safe as well as a potential contributor data processing costs become expensive.

The level of availability of the information technology infrastructure means the availability of the system or the services of certain information technology infrastructure. An Information Technology or a system is said to be in a condition available (availability), if 98% of the available IT function (running) and 98% of the IT function is always ready to use on average 98% of the time. Availability of systems and infrastructure services in question include: the availability of data centers houses phsycally web, application, database; servers, storage devices; mainframes and networking environment in an environment that allows the overall information technology function reliably. Similarly, the availability of supply space, power and internet connectivity as well as the arrangement of support services is also an important factor to maintain the reliability of the information technology function. Still according Applegate to maintain the reliability, management must protect IT infrastructure from a variety of threats. Berhaya variety of threats as well as the potential cost of failure and the effect of waves, sudden and unwanted designed specifically to damage the company's business. Virus attacks intrusions, worms and others are used illegally when attacking the company's system. Threats like this are designed creatively whose motivation is based on a desire to create damage to the IT infrastructure.

Thus, the phenomenon of the low quality of accounting information system of the Ministry and the State Agency of Indonesia missed by a factor of IT users do not fully use IT in implementing SAI because: IT is not yet fully functioning properly, the IT Infrastructure that is available is not completely reliable and support the IT group is not yet completely effective. The test results influence the competence of the manager of the quality management accounting information system shows the value  $t$  count greater than the critical value, namely  $2,484 > 1.96$ , then the error rate of 5% was Decided to reject  $H_0$ . It can be concluded that the manager's competence to influence the quality of accounting information systems management. The study Provides empirical evidence that the better the manager's competence will improve the quality of accounting information systems management. In other words, it can be interpreted that the quality of management accounting information systems could be

improved if companies increase of the competence of managers namely by providing human resources as the manager who has the knowledge (knowledge) and skills (skills).

Laudon and Laudon states that in order to implement a successful information systems or quality, managers must have skills related to information systems. Managers who know and understand well how to work with the situation and conditions of an organization's information systems will be more successful than less skilled managers in implementing information systems. Likewise with Pearlson and Saunders, the which Suggests that managers, especially the general manager who is at the middle level should have a basic knowledge of information systems to the make decisions that have serious implications for business. In addition, the manager must have a deep knowledge of technology to manage information systems. The conclusion that the manager's competence Affect the quality of accounting information management system confirms previous studies conducted by Campanale. Stating that the competence and capability of managers to Contribute to the successful implementation of management accounting information system. The results of the same study indicated by Madapusi and Ortiz that the competence for human resources are factors that Affect the successful implementation of management accounting information system. Daoud and Triki also shows the results of human resources research competencies that both accountants and managers is an important factor in the success of management accounting information systems. The value of 0118 indicates that the competence of the manager f2 moderate impact/medium on the quality of management accounting information systems. Not quite high influence on the quality manager's competence management accounting information systems can be explained by the description of the results of research that when viewed from an average score of responses of respondents by dimensions, knowledge/knowledge manager is already good (3.65), however in each indicator variables show manager's competence standard deviation ranged from 0.028-0.198. Variable quality management accounting information system Showed a standard deviation ranged from 0:00-0:024. Seen that the standard deviation of the quality of management accounting information system better than the standard deviation of the competence of the manager. Standard deviation of the difference between Reviews These two variables into one of the causes are not enough high influence on the quality manager's competence management accounting information systems. Other reasons are still many insurance companies have operational managers with education less formal Appropriate and even not in

accordance with the field work for the moment in other words that there are many insurance companies where the position carried or occupied by the operations manager is not in accordance with the formal education Followed through school. This problem as expressed by one respondent, for example, a manager who has a background in accounting positions in charge of analyzing the legal companies, the which should be the task performed by people whose educational background in law.

Other examples also appears that there is a background task manager Whose mining techniques to Evaluate the placement of investment instruments on a safe level of risk that insurance claims from customers guaranteed safe. This can endanger the sustain ability of the business of insurance companies because basically the characteristics of the business of insurance companies is to accept the risk of the public who have paid a premium to invest reviews These funds in the types of investments that secure. It is very important to Reviews their job suitability managers with formal educational background that they have in order Certain jobs performed by an expert or in other words “the right man on the right job”. For the dimensions of skills/skills of managers included in the category enough (3:35). if seen from the mean score per indicator, then there are many insurance companies are experiencing difficult, operational managers to perform tasks that must be done, this means that they are experiencing problems in the ability to understand the specific assignment. Furthermore, there are many insurance companies that the manager of operations have not had a full opportunity for training, courses and seminars to improve their skills, many of the operations manager at the insurance company, constrained by time in training, courses and seminars to improve Reviews their skills in working in general and the use of helper applications management accounting information systems to support Reviews their performance. As a result, they take a long time for skillful in the use of supporting applications (software) management accounting information system, so that, decision-making is slow and risk mitigation can not be done Earlier.

All of the above should be considered to increase the competence of managers to support fully the quality of accounting information systems management. This study has answered problems that arise as happened in PT Astra Graphia Information Technology when the company wanted to develop a system of management accounting information still get a constraint on the ability of employees as revealed by the CEO and director of systems and solutions that “the system is a tool while running or the input is human, so, the success of this system if they (employees) want to use it properly or not”.

From the above it can be said that the use of accounting information system of quality management depends on the competence of human resources Involved as a manager at any level. At the time the company will apply the program of supporting applications in management accounting information system, so that, the process is executed with quality, it must be done socialization, training and evaluation. Training and skills development are Carried out within the company intended to increase of the competence of human resources, especially in the mid-level manager (operations manager).

## **CONCLUSION**

Based on the formulation of the problem, formulation of hypotheses and research results, the authors draw the following conclusion: the quality of accounting information systems are affected by the use of Information Technology. Accounting Information Systems because Information techology quality has not used yet fully functioning properly, the information technology infrastructure that is available is not completely reliable and support group information technology has not been fully effective. Based on the phenomenon, the formulation of the problem, hypothesis and research, the authors draw the following conclusion competence manager affect the quality of Accounting Information Systems Management (SIAM). Unintegrated SIAM yet because there are many operational managers that formal education is not in accordance with the field work and less able to understand the particular assignment and do not have a full opportunity for training, courses and seminars to improve their skills.

## **SUGGESTIONS**

Improve the quality of the use of information technology by: Improving the functioning of information technology by the way, providing information technology components that have adequate capacity and speed which enables the specification of information technology is used continuously and old, as well as maintenance time relatively quickly, so it does not interfere with work time.

Improving the reliability of the information technology infrastructure by providing information technology infrastructure with the type, quantity, capacity and speed sufficiently, so that, information technology can be used optimally, always function properly when used continuously for a long time and provide the location of the storage infrastructure information technology specifically to avoid misuse of the information technology infrastructure by people who are not eligible.

Provide a unit/section/department/special division handling information technology issues at each institution ministries and institutions of the Republic of Indonesia to the existence of a special unit is known where the user accounting information system, can further encourage users of information technology always take advantage of the service unit/section/departments/divisions specifically because it can be obtained easily without having to go through lengthy procedures.

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