

## *How Influence the Accounting Information Systems Quality of Internal Control On Financial Reporting Quality*

*Hadi Rashedi <sup>\*1</sup>, Toraj Dargahi<sup>2</sup>*

<sup>1\*</sup> Department of Accounting, Maragheh Branch, Islamic Azad University, Maragheh, Iran

<sup>2</sup> Department of Accounting, Maragheh, Iran

### ARTICLE INFO

#### Article history:

Received 22 September 2019

Accepted 30 November 2019

#### Keywords:

Quality Accounting Information Systems  
 Effectiveness Internal Control  
 AIS  
 COSO

### ABSTRACT

in the response of several financial scandals and corporation collapses, corporate governance, particularly internal control, comes to an attention of public. This research findings show that with effective internal control within the organizational boundary, management has reasonable assurance that it can enable businesses to achieve the objectives in accordance with compliance. It can be said that proper designed and functioning internal control mechanism can reduce the likelihood errors or fraud and hence organizations would perform as expected. Moreover, AIS provides financial information that is essential to monitor and manage organizational resources together with conventional accounting controls. The purpose of this study was to determine influence the accounting information systems and the effectiveness of internal control on financial reporting quality.

The results showed that influence the accounting information systems and the effectiveness of internal control have a significant effect on the financial reporting quality. Furthermore it was found that the accounting information systems and the effectiveness of internal control have relation on financial reporting quality.

© 2019 JMDMA. All rights reserved.

## Introduction

Regular internal control in a company will be able to minimize the possibility of error or fraud on the purchase itself. Basically, internal control is not intended to negate all possibility of error but the internal control system is applied to emphasize the occurrence of errors and fraud within reasonable limits so that if something goes wrong on their purchases can be known. According to Mulyadi internal control structure includes organizational structure, methods and coordinated measures to safeguard the wealth of the organization, check the accuracy and reliability of accounting data, encourage efficiency and promote compliance with management policies. From the delirium of the

purpose of internal control systems can be grouped into two, the first internal accounting controls (internal accounting control) that includes organizational structure, methods and measures are coordinated primarily to keep the wealth of the organization and check the accuracy and reliability of accounting data. Both administrative internal control that includes organizational structure, methods and measures are coordinated primarily to encourage efficiency and compliance with management policies.

Quality is the compatibility between the required specifications compared with the specifications generated (used) by the company Susanto, 2013a, b). High-quality decisions that require high-quality



information (Laudon and Laudon, 2012). Quality accounting information is information that can help users to perform the desired actions (Hall, 2010). The information required in decision-making (O'Brien and Marak, 2010). The type of information required to be directly related to the structure and the decision that will be generated such as information for directors, executives, managers and team members where different information will be routed directly related to the level of management decisions involved (O'Brien and Marak, 2010). In addition to improving links between parts of the organization, quality information will improve also the quality of understanding the organization's managers to see the changes that occur both inside and outside the organization, so that the organization's managers will quickly and accurately respond to changes that arise (Susanto, 2013a, b). Quality information is the information that is accurate, reliable, current, complete, delivered with the proper format (Stair and Reynolds, 2010). Quality information having dimensions between accuracy, integrity, consistency, completeness, validity, timeliness and accessibility (Laudon and Laudon, 2012). Quality information has the characteristics of relevance, timeliness, accuracy, completeness and summarization (Hall, 2010). Look at the role of information is very high for the organization so organizations are increasingly dependent on information systems/accounting information system (Susanto, 2013a, b).

So that, the accounting information system can generate accounting information necessary to expect the internal control (Susanto, 2013a, b). Internal control objectives, among others to secure the asset and is able to ensure that everyone involved in the organization can follow the procedures set out the organization without the internal control integrated in accounting information systems that will mendorong timbulnya berbagai fraud within the organization (Hurt, 2008). One of the main objectives of accounting information system is to control the business held by the organization where accountants can help achieve this goal by designing an effective

control system (Romney and Steinbart, 2006; Susanto, 2010). Effective internal control system must exist in every system of accounting information to help achieve the mission of the organization, performance and increase profitability and minimize the risk (Romney and Steinbart, 2006). Internal control is a process designed under the supervision of chief financial officer and president of the company and implemented by all the directors in the company, management and other personnel to provide reasonable assurance that the reliability of financial reporting and the preparation The financial statements for external purpose in accordance with the principle generally accepted accounting (Lander, 2004).

### Literature review

**Internal control:** Control is the process of ensuring that all activities of the organization in accordance with the plan, the process is done by comparing the actual performance with the standards or goals that have been set and then take action to correct the deviations that occur (Rue and Byars, 2007). Control of the limits assigned to the user and the system, it aims to safeguard the system against risk or to reduce the damage that occurs in the system, applications and data (Oz, 2009). Implementation of controls aimed at implementing policies and ensure that the data is "wrong" is not entered into the database of companies (Oz, 2009). Control is an activity that is able to evaluate and make adjustments as needed from data input, processing and ensures that the resulting output is a corresponding output (O'Brien and Marak, 2010). Internal controls can be defined as a process that is influenced by the board of directors, management and employees are designed to provide assurance and capable of ensuring that organizational goals will be achieved through the efficiency and effectiveness of operations, the presentation of financial statements that are trustworthy and compliance with laws and regulations (Susanto, 2013a, b). Internal control is a

process designed to provide reasonable assurance about the achievement of the objectives: the reliability of financial reporting, the effectiveness and efficiency of operations, compliance with laws and regulations (Bodnar and Hopwood, 2010).

Internal control is a process conducted by the board of directors, management and people under their direction to provide reasonable assurance (Romney and Steinbart, 2006). Internal control is the control of the accounting information system of an organization that is used by management to achieve organizational goals (Nash and

Heagy, 1993; Susanto, 2010). Internal control is the methods and procedures related to the organization's activities in the field of accounting has the objective to safeguard the assets and to improve the accuracy and reliability of the accounting records (Weygandt et al., 2008a). Internal controls include policies, procedures and information systems are used to protect the company's assets from loss or fraud and to maintain accurate financial data (Jones and Rama, 2003). Internal control is a system that is structured is also a proses dan procedure in an effort to provide adequate confidence that an organization is able to achieve objectives through business process undertaken (Gelinis et al., 2005). Internal control system consists of policies, practices and procedures undertaken by the organization to achieve the four general objectives, namely: to protect the company's assets to ensure the accuracy and reliability of accounting records and information to improve efficiency in operations companies to measure compliance with prescribed policies and procedures management (Hall, 2010). Internal control has four basic objectives, namely: to maintain assets to ensure the reliability of financial statements to enhance the operational efficiency to encourage compliance with management (Hurt, 2008).

Control objectives, namely: security assets including to prevent or detect on a timely basis to prevent the acquisition of unauthorized, securing the use or disposition of corporate assets maintain records in sufficient detail to accurately and fairly reflect the company's assets provide information that

is accurate and reliable provide reasonable assurance that the financial statements prepared in accordance with GAAP promote and improve operational efficiency including ensuring the company's revenue and expenditures made under the authority of the board of directors and management encouraging adherence to the managerial policy specified and comply with laws and regulations (Romney and Steinbart, 2006).

Control objectives are to keep the information systems function maintaining the confidentiality of information The integrity and availability of data and resources to master the application Compliance with the laws of data security and privacy (Oz, 2009). Based on the above, the dimensions and indicators used for each component of internal control in this study were Preservation padaasset: compliance with data security assets and privacy laws, prevent or detect fraud assets to ensure the accuracy and reliability of accounting records and information: to maintain the information systems function. Identify and record all financial transactions are valid. Provide reasonable assurance that the financial reporting prepared in accordance with GAAP, improve operational efficiency: proceeds received in accordance with management's calculation record company expenditures are made in accordance with management policies.

### Information System:

The information system is a system that generates information for the user, for example, accounting information system generates financial reports information used for decision-making by parties accounting information berkepentingan. Sistem substantially addressed the issue of system (Azhar Susanto, 2009). The main objective of the information system is to contribute to the organization so that it can operate effectively and efficiently (Bagranoff, et al, 2010: 420). Opinions and Maracas O'Brien (2011: 4), defines the information system as a combination that has been set up

consisting of human, hardware, software, network communications, data sources, policies and procedures to store, recover, transform and disseminate information to within the organization. From the above opinion can be concluded that the information system itself is a collection of parts (elements) that interact with the intended change (transform) data into useful information for the organization, such as financial transaction data that is processed into the financial statements. Similar opinion about information systems expressed Loudon and Loudon (2006: 14) defines the information system is technically a series of interconnected components in collecting or regain, process, store, and disseminate information to support decision making and control the above organisasi. Opinion implies that technical information system is a collection of components that interact with each other with the ultimate goal to support decision making and operational oversight of the organization.

As with the opinion of Hall (2011: 7) defines the information system is a set of formal procedures where data is collected, processed into information and users. Opinions are distributed to some it means that the information system is a set of procedures or procedures for collecting the data, then process data into information and provided to users information as interested parties. The views put forward by Wilkinson, et al (1999), defines separate information system that the system is an integrated group whose parts work together to achieve certain goals. While the information is defined intelligence meaningful and useful for the party - a particular party. Apat of the opinion concluded that the information system is unitary intelligence group whose parts interact and cooperate with one another in order to be useful in achieving certain goals. Expert opinion can be concluded that the information system is a component that consists of people, hardware, software, network communications, data sources, policies and procedures that store, process data into information for the benefit of the organization. Generally, the data are processed in information systems is the data

relevant to the activities of the organization that is useful for users who are in the organization.

### Quality of Information

Quality in the Oxford dictionary is defined as the standard measure of something or a certain level of particular excellence. Quality said to be good if the information is relevant and reliable. Relevant information is information that can be used for decision making (Porter and Norton, 2011: 29). Quality of information that is not going to want to jeopardize an understanding of something and the decision is not in accordance with the supposed (Azhar Susanto, 2009: 2). The quality of information from the accounting information system affect the ability of management in action and decision-making in relation to the operation of the organization and presentation of financial statements that can be trusted (Hall, 2011: 134). While the quality of the information depends on the capabilities of human resources owned by the company (Bagranoff, 2009: 359).

Romney (2009: 28) says that the information that is useful must meet the characteristics: 1) Relevant, where such information reduces the level of uncertainty, help improve the ability of decision makers to predict or confirm or correct their previous expectations. 2) Reliable, where the information is free from error or bias and accurate in presenting events or activities of the organization. 3) Complete, meaning not omit important aspects of the underlying event or activity that measured. 4) Timely, that information can be presented at the time required by the decision maker in deciding something. 5) Can Understandably, meaning that the information presented can be used and in jelas.6 format) can be verified, meaning if two people who are knowledgeable act independently, each will produce information that same. 7) Accessible, meaning that information can be accessed if the information available to users when they need it and in a format they can use.

From the above understanding can be concluded that the requirement of quality information is relevant, reliable,

complete, timely, understandable, verifiable and can be accessed at any time by the user in the context of decisionmaking or repairing an earlier decision has been made. Then the quality of information that is to say if the information provide added value to what has been decided.

### Accounting Information Systems (AIS)

Azhar Susanto (2009: 72), defines AIS as a collection (integration) sub-systems / components of both physical and non-physical are interconnected and cooperate with each other in harmony to process the transaction data related to financial issues into financial information. can be defined based on the above opinion that the accounting information system is a collection of integrated system that manages financial transaction data into the financial statements.

A similar opinion was expressed by Williams, et al (2010: 6), states that the accounting system is composed of people, procedures and technologies and records used by organizations to develop accounting information and communicate this information to decision-making. Can be concluded that AIS is a collection of some elements that manage the recording into the accounting information useful for the users of information.

As with the idea raised by Warren, et al (1999: 232), defines the accounting information system is a method and procedure to collect, classify, summarize and report financial business and operational information. Can be interpreted that the AIS besides financial reporting of business transactions also reported the company's operational information. Then think about the AIS stated by Tony Bocko (2007: 50), which states that The AIS is integrated Consists of organizational structure of a set of processes and procedures that work together either directly or indirectly, between objects and elements,

as well as between events and happenings . It is understood that based on the principle that AIS is a process that brings together a series of procedures and processes, objects and elements as well as between events and happenings.

Opinions about AIS expressed also by Bagranoff, et al (2010: 5), defines AIS is sistem yang collect data and

procedures for processing the data to generate information for the user. While Hall (2008: 8), defines SIA is a subsystem that processes financial and non-financial transactions that have a direct influence on the process financial transactions. Based on the above opinion can be interpreted that the AIS is a data collection system that processes financial and non-financial transactions into useful information for users. AIS also interpreted by John and Rama (2003: 5) as part of a management information system (MIS) that present financial information and accounting, as well as other information contained in the process routine accounting transactions. It can be concluded that the AIS is part of the MIS process accounting transactions into financial information / accounting.

Romney and Steinbart (2009: 28), defines the AIS is a system that collect, record, store, and process data to produce information for decision makers. As with Mancini, et al (2013) defines AIS as a complex system consisting of a mixture of elements that work together closely (such as data, information, human resources, IT equipment, accounting models and procedures) and in general involved in collecting, classifying, unite and record accounting data. Of expert opinion can be concluded that the AIS is a system that work together closely and harmoniously composed of the data, people, hardware, software, network communications, rules and procedures, facilities and infrastructure with the aim of producing accounting information to the parties- the decision maker.

### Effectiveness of Internal Control

Effective derived from Inggris yang means is successful in producing a desired or intended. In a large dictionary

Indonesian effectively interpreted as can bring results or effective. So effective means something successfully and get to the desired result. Ricchiute (2006: 300), Boynton, et al (2001: 325), Jhonstoner, et al (2012: 75), Konrath (2002: 205), Elder, et al (2009: 269) defines internal control is based on the understanding that given by COSO is a process that is influenced by the board of directors, management, and employees, are designed to provide reasonable assurance is based on the achievement of the goal of effective and efficient operations, reliable financial reporting and adherence to the rule of law and regulations. It can be concluded based on the above opinion that internal control is a process that is influenced by the internal management to provide reasonable assurance of the effectiveness and efficiency of company operations, including assurance that the financial statements have been prepared in accordance with the applicable rules and compliance to other rules.

Another opinion on internal control proposed by Warren, et al (1999: 233) defines internal control policies and procedures is to protect the misuse of corporate assets, ensure the accuracy of the company's business information and compliance with applicable laws and regulations. While Wilkinson, et al (1999: 234), defines internal control adalah sistem structured, or process, which is conducted by the board of directors, management, and employees with the aim of presenting reasonable assurance of achieving the objectives of supervision consists of the effectiveness and efficiency of operations, financial reporting who believed, and compliance with laws and peraturan. Bagranoff, et al (2010: 348), defines as the internal control policies, plans and procedures implemented by management to protect its assets. Romney and Steinbart (2009: 222) defines internal control is a process carried out by the board of directors, management, and subordinates to provide reasonable assurance for the purpose of protecting

assets, maintaining the recording, providing information that is accurate and trustworthy, the applicable financial reporting standards, the promotion of changes in operational efficiency, encourage adherence to managerial policies, comply with applicable laws and regulations. Expert opinion can be concluded that internal control is a process carried out by the supervisory board of directors, management, employees with the aim to protect the assets, the implementation of effective and efficient operations, financial reporting and implement credible and comply with laws and regulations. Internal control is a management tool for the control of the company's operations in order to efficiently and effectively so as to obtain maximum results.

The purpose of internal control in accordance with COSO is divided into three parts, the first is the operational objectives that require the effectiveness and efficiency of the company's operations including financial performance and protect the assets of the company is the purpose of reporting losses. Both financial and non-financial reporting is allocated to internal and external parties want that reporting is reliable, timely, transparent and in accordance with the applicable rules and policies of the company. The third objective is obedience to the laws and regulations which the company in carrying out its business in compliance with applicable rules. Then divide the COSO internal control elements into five sections namely environmental control, risk assessment, control activities, information and communication and control. These five elements are integrated with each other. Environmental control consists of actions, policies, procedures portrait attitude of high-level management, board of directors, business owners in applying the entity's internal control environment (Arens at al, 2014: 312). Environmental monitoring aimed at ensuring that internal controls have been implemented throughout the organization ranks of companies that contains integrity and ethical values of the organization. To carry out that internal controls can be implemented in the company's organization requires a rule or procedure established by the management the

company. regulation a guideline for each element of the organization in carrying out their respective duties are intended to make the organization can be managed properly. Environmental controls in financial reporting is to ensure that adequate financial reporting procedures in managing transaction data collection, processing transactions so as to produce quality financial statements.

Control activitie is an additional supervision of the procedures and policies that have been applied in environmental monitoring and management of existing information systems with the aim to provide confidence that adequate that sets achievable goals (Ricchiute, 2006: 303). With other words that monitoring activities aimed to supervise the activities of the entity as a whole in order to stay on the path that has been set. Aren at al (2014: 316) says that the control activity is an activity of control on the activities of the control environment, risk assessors, information and communication and monitoring activities. Information and communication is needed in running any organization's activities, including in implementing internal control. Each set management policies required to implement the procedure. Liaison between the provision and implementation of procedures is the way of communication, whereas in the communication that happens the flow of information between interested parties.

Accounting information systems (AIS) is an example of information and communication in the organization entity.

Arens (2014: 319) states the purpose of the communication and accounting information is to mengagas (initiate), record, process and report entity transactions and maintain accountability of assets concerned. Examples of enterprise transaction data are recorded and processed by the AIS to produce a financial report. The financial statements of an entity's financial information on the activities, while the publication of financial statements to a particular party is a medium of communication between entities and related parties. Monitoring activities is an activity of assessing the effectiveness and quality of the implementation of the entity's internal control. This

monitoring activity resulted in a recommendation whether the implementation of the entity's internal control function properly or needs a repair.

Generally, these monitoring activities carried out by the internal audit department which is the extended hand of the task of monitoring the course of the board of directors in the company's operations, such as oversight of the sales cycle that starts from receipt of sales orders, request for removal of goods, delivery, receipt of goods by the consumer up to the receipt.

### Financial Reporting Quality

Horngren, et al (1996), defines financial reporting is a process of identifying, measuring, accumulate, analyze, prepare, interpret, and communicate information to external users such as shareholders, suppliers, banks, and government as regulators.

While the purpose of financial reporting according to Knapp (1998: 35) are:

1) The financial statements present information that is useful for investment decisions, loans, and other economic decisions,

2) financial statements present information that can be used by decision makers to predict future cash flows are will come from the business now,

3) The financial statements provide information about the assets, debt and other transactions or events that result in changes to the assets and debts. Financial reporting by Higson (2003: 32), financial reporting can be interpreted as a form of dealing with things that generate accounting data, then communicate the data to outside parties with an interest in the company's financial reporting. While Warren, et al (1999: 9) defines that financial reporting is basically focuses on the recording and reporting of economic data and business activity. Then Kieso, et al (2011: 5) defines financial reporting as a process which culminates in the presentation phase of the company's financial statements to be used by internal and external parties.

The same opinion about the proposed financial reporting by Merriam-Webster in Lam and Lau (2009) imply that financial reporting is a system that

records and summarizing business and financial transactions, analyze and verify and report the results. Meanwhile, according to Elliot and Elliot (2011: 176), defined as the provision of financial reporting of financial information about the reporting entity that can be used for current and potential investors at the time of decision-making and reporting assessment. Then Rosenfield (2006: 52), defines financial reporting as a twoparty transaction, the first publisher who oversee the financial statements presentation of the financial reporting process and publish it to the second party as users report that hope can help improve their overall financial decisions of the entity.

So based on some pendapat diatas can be concluded that financial reporting is a system that records and summarizing transactions and corporate finance business into the financial statements used for the present purposes in order to improve the financial decisions of stakeholders (internal and external) to the entity as a whole. Financial reporting is also a process of transforming data into financial information in support of any company's operational activities. The quality of financial reporting is the ability of information in the financial statements give a benefit to the user. Terms some quality information as expressed by Romney (2010: 18) is relevant, reliable, complete, timely, understandable and accessible.

Quality financial reporting can be used as a basis for a decision by the consumer with the following requirements: 1)

Relevance, meaning that the financial information available (timeliness) in times of need and can make a difference in the decision for the user in making predictions (predictive value) of the past, present and future events front or make changes to the predictions that have been set because of the results (feedback value) of the decisions that have been made previously. 2) Reliability, meaning that it can be trusted. Reliable financial information (representational faithfulness) must qualify presented is in accordance incident / event represents. The third requirement reliable financial information is neutral

(neutrality) means free from bias and figures in the financial information is not determined by the interests of certain parties. Financial information that can be compared with similar companies can increase the value of information itself. Kieso, et al (2010: 44) states that quality financial information must meet the following requirements: 1) Relevance which means that the accounting information to be able to make a different decision, the components are to have predictive value which is the input for investors in predicting future conditions, and has a value of confirmation which helps the user to confirm or correct information previously expectations. The second component is the quality of accounting information requirements honest presentation (faithful representation) that matches the number and description of the existing reality that happen. Terms honest presentation is completeness that all necessary information has been presented with a complete, the next requirement is neutral (neutrality) means that the information presented by the company not only cater to certain parties over the interests of other parties. And the last condition is presented in an honest accounting information is error free.

## MATERIALS AND METHODS

Accounting information systems: Sitem understanding the system according to the experts: a system is a set of interrelated components and the components interact to achieve a goal. The system consists of subsystems smaller, each sub-system perform certain functions that are important and supports a larger system (Romney and Steinbart, 2006), the system is a collection of sub-systems/parts/components of both physical and non physical are interconnected each other and work together in harmony to achieve a particular goal (Susanto, 2013a, b) the system is a set of interrelated components with clear boundaries, work together to achieve one goal (O'Brien and Marak, 2010). Definition of information according to the experts: information is data that has been organized and



processed to provide benefits to the users (Romney and Steinbart, 2006), information is presented in the form of data that is useful in decision-making activities. Information has value to decision makers because it reduces uncertainty and increase knowledge about a matter of concern (Gelinias et al., 2005), the information is data that has been processed that gives meaning and benefits (Nash and Heagy, 1993). Information systems, understanding of information systems according to the experts is the information system is a collection of sub-systems both physical and non physical are interconnected with one another and work together in harmony to achieve one goal of process data into useful information (Susanto, 2013a, b), the information system can be defined technically as a set of interrelated components starting from collect, process, store and distribute information to support decision making and control in an organization (Laudon and Laudon, 2012), the information system depends on resources human, hardware, software, data and media communication network (O'Brien and Marak, 2010).

Accounting: accounting experts say accounting is an information system that measures, process and communicate financial information about the economic entity (Needles et al., 2008), accounting is a system to collect and process financial information about an organization and providing information to decision makers (Libby et al., 2009), accounting is an information system that identifies and communicates the economic events of an organization to the users (Weygandt et al., 2008b). Accounting information systems: understanding the accounting information system according to the Hali is the accounting information system is a system that

collects, records and processes the data to produce information to decision makers (Romney and Steinbart, 2006), the accounting information system is a subsystem of management information systems which provides accounting and financial information and other information obtained in the process of routine accounting transactions (Jones and Rama, 2003), the accounting information system is a

subsystem of the information system, the purpose of accounting information system is to collect, process and report information relating to the financial aspects of business events (Gelinias et al., 2005). The success of the accounting information system (Romney and Steinbart, 2006):

- Usefulness: output of information management and will help users make decisions
- Economy: benefits from the use of the system, exceed the costs to manufacture the system
- Realiability: the system is able to process data accurately and completely
- Availability: access system for users can be carried out either
- Timelines: the required information can be produced by the system when needed Customer service:
- customer service can be carried out efficiently
- Capacity: the capacity of the system must be able to handle all of the company's operations
- Ease of use: the system must be user-friendly
- Flexibility: the system should be able to handle the operational and operational changes that arise
- Tractability: the system should be easily understood by users and facilitate problem solving and the development of future systems
- Auditability: auditability supposed to be built at the beginning of the manufacturing system
- Security: only authorized users who have granted access or allowed to change the data system
- The quality characteristics of the information system (McCall et al., 1977):
- Correctness: the extent to which the system meets the required specifications
- Reliability: the extent to which the system can be expected to perform the functions as needed
- Efficiency: the amount of computing resources and code used to perform the function

- Integrity: the extent of access to systems or data by unauthorized persons can be controlled
- Usability: effort required to learn, operate, prepare the input and interpret output
- Maintainability: effort required to find and fix errors in the system
- Flexibility: the effort needed to modify the operating system
- Testability: effort required to test a system to ensure that the system has made the appropriate function.
- Portability: effort required to transfer the program from one hardware and/or software system environment to another
- Reusability: the extent to which the system (or part of the system) can be reused in other applications
- Interoperability: effort required to couple one system to another

Characteristics in the quality of the information system is ease of use, ease of learning, user requirements, system features, system accuracy, flexibility, sophistication, integration and customization (Sedera and Gable, 2004).

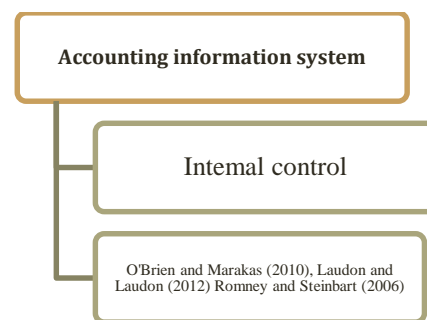
Based upon the dimensions used in this study were flexibility: easy of learning, user friendly/ease of use, reliability, sophistication: accessible, usefulness well integrated/integration flexible to the make changes easily.

**Theoretical framework (internal control and accounting information system):** Internal controls are needed in the running of information systems to be able to produce accounting information is expected by the management (Susanto, 2013a, b). Internal control refers to the way an organization to safeguard assets and ensure that everyone follows the procedures of the organization. Without a good internal control in accounting information systems organizations will experience fraud (Hurt, 2008). One of the main objectives of accounting information system is to control the business of the organization, an accountant can help achieve this goal by designing an effective control system (Romney and Steinbart,

2006). Effective internal controls must exist in all organizations to help achieve the mission and performance and profitability objectives and minimize risk in business activities (Romney and Steinbart, 2006). Control over information systems must be developed to ensure that the proper data entry, processing techniques, methods of storage and output information. Thus, control of information system designed to monitor and maintain the quality and safety of input, process, output and storage activities of information systems (O'Brien and Marak, 2010).

Internal control is closely related to the integrity of financial and administrative information systems (Halandy and Ghabban, 2009). Performance of operations, reliability of financial reporting and legal compliance, internal control mechanisms must gradually be built into enterprise information systems (Yang et al., 2011). Strong affects the quality of accounting information system internal control system is highly relevant for organizations because organizations are particularly vulnerable to fraud and is closely related to information systems used (Cahill, 2006). Most organizations have adequate security controls, managers and practitioners are expected to improve the security of accounting information systems and security technology for organizational success (Musa, 2010).

Fig. 1: Theoretical framework hypothesis: internal control



**Research model and hypothesis:** Based on above, the model can be described are Fig. 1.

## RESULTS AND DISCUSSION

The population in this study is the chief and staff accounting/finance at state and private universities in the city who use accounting information systems in data processing of accounting transactions. In this study, the minimum sample size taken using power analysis method. With the 5% significance level, statistical power of 80% of the total direction of the arrow pointing towards the highest numbered constructs 3 and Ris 0:25 then the minimum sample size taken in this study is 59 samples. In this research there are two types of data are primary data and secondary data. Methods of data collection is done by sending questionnaires by mail in which each unit of analysis will be sent a questionnaire 3-4. The analysis is done through structural equation modeling (Structural Equation Model with the assessment of PLS-SEM) to be able to answer the problem formulation and answer hypothesis. The assessment of PLS is used for the measurement model built number of samples used is <100. In this research model developed in structural models and measurement models. Structural models (inner model) in this study consisted of latent exogenous variables that internal control and the variable quality of the accounting information system is an endogenous variable.

## CONCLUSION

Based on this phenomenon, the problem formulation, hypothesis and research results, conclusions of penelitian adalah: internal control system affects the quality of accounting information. But the quality of accounting information system has not completely good, it is because Flexibility of the accounting information system is not adequate it can be seen from the verification carried out in which the system has not been easy to learn, yet easy to use and yet powerful (frequent occurrence of error). Due to the persistence of the problems in the accounting information system satisfaction (sophistication) also becomes an important part in the implementation of

the information system mainly satisfaction in accessing the system and the integration of data from the system.

## REFERENCES

1. Al-Qudah., Ahmed, G, M. 2011. The Impact of Accounting Information System on Effectiveness of Internal Control in Jordan Commercial Bank "Field Study". *Interdisciplinary Journal of Research in Contemporary Business*. Volume 2. Pages 365-377. Institute of Interdiscipline Business Research: Belleville.
2. Akhmetzianova, O., Lyashenko, E. A., & Rashedi, H. (2019). Techno park structure as the economic institution of developing innovative economy. *International Journal of Public Policy and Management*, 1(1), 5-7. Retrieved from <https://www.ijppam.com/index.php/IJPPAM/article/view/2>
3. Arens, A. A., Elder, R. J., Beasley, M. S. 2014. *Auditing and Assurance Services: An Integrated Approach*. Fifteenth Edition. Pearson Education, Essex: England
4. Ashamu, S, O., Akinlabi, B, H, Durowoju, S, T, Hassan, A, R. 2011. The Relevance of Accounting Information System in Mergers and Aquisition Decision in Negeria. *Interdisciplinary Journal of Contemporary Research in Business*. Volume 3. Pages 485-497.
5. Ating Sumantri and Sambas Ali Muhidin. 2006. *Applications of Statistics in Research*. Faithful Reader: Bandung
6. Azhar Susanto. 2009. *Information Systems Management: Structured Approach, Risk, Development*. Lingga Jaya: Bandung.
7. Azhar Susanto. 2013. *Accounting Information Systems, Control Structure, Risk and Development*. Lingga Jaya: Bandung
8. Bagranoff, N, A., Simkin, M, G., Norman, C, S. 2010. *Core Concept of Accounting Information System*. Eleventh Edition. John Wiley & Son, Inc., USA.
9. Barry Elliot and Jammie Elliot. 2011. *Financial Accounting and Reporting*. 14th Edition. Pearson Education: UK
10. Bodnar, G.H. and Hopwood, 2010. *Accounting Information Systems*. 10th Edn., Pearson Education, New Jersey, USA.

11. Bonabighadim, R., & Vaez, S. A. (2019). PRECISION AND SENSITIVITY DIMENSIONS OF PROFIT AND BOARD OF DIRECTORS COMPENSATION (EVIDENCE FROM TEHRAN). *JMDMA*, 2(5), 1-23. Retrieved from <http://jmdma.ir/index.php/JMDMA/article/view/44>
12. Boynton, W. C., Johnson, R. N., Kell, W. G. 2011. *Modern Auditing*. Seventh Edition. John Wiley & Son, Inc.: New York.
13. Braam, Geert and F. van beest. 2013. Conceptually-Based Financial Reporting Quality Assessment. An Emperical Analysis on Quality Differences Between UK Annual Report and US 10-K Report. Nice Working Paper 13-106. Radboud University Nijmegen. Cahill, E., 2006. Audit committee and internal audit effectiveness in a multinational bank subsidiary: A case study. *J. Banking Regul.*, 7: 160-179.
14. COSO. 2013. *Internal Control-Integrated Framework*. Executive Summary: USA. Viii / 1 Carpenter, Mason A., and Sanders, Wm. Gerald. 2007. *Strategic Management, A Dynamic Perspective, Concept and Case*. Pearson Prentice Hall: Singapore Coase, R. H. 1990. *Accounting and Theory of the Firm*. Journal of Accounting and Economic 12: North Holland
15. Costelo, A. M, Wittenberg, M, Regina. 2010. *The Impact of Financial Reporting Quality on Debt Contracting: Evidence from Internal Control Weakness Report*. SSRN Working Paper Series. Social Science Network: Rochester.
16. Daneila M ., Vassen E, H.J., Dameri, R, P. 2013. *Accounting Information System for Decision Making*. Springer - Verlag: Berlin
17. Dull, Richard B., Gelinias, Ulric J., and Wheeler, Patrick R. 2012. *Accounting Information Systems, Foundation in Enterprice Risk Management*. Nineth Edition. South-Western, Singapore Deni Darmawan and Kunkun Nur Fauzi. 2013. *Management Information Systems*. Teens Rosdakarya: Bandung
18. Gelinias, J.U., S.G. Steve and H.E. James, 2005. *Accounting Information Systems*. 6th Edn., Thomson South-Western, Mason, USA., Pages: 714.
19. Halandy, A.A. and T.S. Ghabban, 2009. Role of internal control under the electronic accounting Information system-applied study on a sample of the Kurdistan Banks-Iraq. *Hum. Sci. Magaz.*, 45: 1-39.
20. Hall, J.A., 2010. *Accounting Information System*. 7th Edn., South-Western Cengage Learning, Boston, Massachusetts.
21. Hurt, R.L., 2008. *Accounting Information System: Basic Concepts and Current Issues*. McGraw Hill, New York, USA., Pages: 343.
22. Jones, F.L. and D.V. Rama, 2003. *Accounting Information Systems: A Business Process Approach*. Southwestern College Publishing, Canada, ISBN:9780324129984, Pages: 744.
23. Lander, G.P., 2004. *What is Sarbanes-Oxley?* McGraw-Hill, New York, USA.
24. Laudon, K.C. and J.P. Laudon, 2012. *Management Information System: Managing the Digital Firm*. 12th Edn., Prentice-Hall, New Jersey, USA., ISBN:9780132142854, Pages: 557.
25. Libby, R., P.A. Libby and D.G. Short, 2009. *Financial Accounting*. 6th Edn., McGraw-Hill Irwin, New York, USA.,
26. McCall, A.J., P.K. Richards and G.F. Walters, 1977. *Factors in software quality*. Technical Report No. RADC-TR-77-369, U.S. Department of Commerce, Washington, DC., USA.
27. Musa, A.A.A., 2010. Investigating adequacy of security controls in saudi banking sector: An empirical study. *J. Accounting Bus. Manage.*, 17: 1-41.
28. Nash, J.F. and C.D. Heagy, 1993. *Accounting Information Systems*. 3rd Edn., South Western Publishing Co, Mason, Ohio,
29. Needles, B.E.Jr., M. Powers and S.V. Crosson, 2008. *Principles of Accounting*. 10th Edn., Houghton Mifflin Company, Boston, Massachusetts,
30. O'Brien, J.A. and G.M. Marak, 2010. *Introduction to Information Systems*. 15th Edn., McGraw-Hill Companies, New York, USA.,
31. Oz, E., 2009. *Management Information Systems*. 6th Edn., Thomson Publisher, Toronto, Ontario, Pages: 505.
32. Rashedi, Hadi, and Toraj Dargahi. "Examining the effect of corporate governance on the relationship between firm value of Firms Listed on the Tehran Stock Exchange." *JMDMA* 2.5 (2019): 24-32.
33. Rashedi, H., & Saeid Panah, A. R. (2019). A Study on the Role of the Social Cleavages Caused by Modernization in Political Instability in Iran (1941-1978). *International Journal of Public Policy and Management*, 1(1), 8-11. Retrieved from <https://www.ijppam.com/index.php/IJPPAM/article/view/3>
34. Romney, M.B. and P.J. Steinbart, 2006. *Accounting Information Systems*. 9th Edn., Prentice Hall Publisher, New Jersey, USA.
35. Rue, L.W. and L.L. Byars, 2007. *Management Skills and Application*. 12th Edn., Mc-Graw-Hill, New York, USA.
36. Sedera, D. and G. Gable, 2004. A factor and structural equation analysis of the enterprise systems success

- measurement model. Proceedings of the 25th International Conference on Information Systems ICIS 2004, December 31, 2004, AIS Electronic Library (AISEL), Gao, Mali,-pp: 449.
37. Stair, R. and G. Reynolds, 2010. Principles of Information Systems, A Managerial Approach. 9th Edn., Cengage Learning, Boston, Massachusetts, United States, ISBN: 9780324665284, Pages: 652.
  38. Susanto, A., 2010. [Information Technology for Business and Accounting]. Lingga Jaya, Bandung, Indonesia, (In Indonesian).
  39. Susanto, A., 2013a. [Accounting Information System: Development Risk Control Structure]. 1st Edn., Lingga Jaya, Bandung, Indonesia, (In Indonesian). Susanto, A., 2013b. [Management Information System]. Lingga Jaya Publisher, Bandung, Indonesia, (In Indonesian).
  40. Weygandt, J.J., D.E. Kieso and P.D. Kimmel, 2008a. Accounting Principles. 8th Edn., John Wiley & Sons, New York, USA.,
  41. Weygandt, J.J., D.E. Kieso and P.D. Kimmel, 2008b. Accounting Principles. 8th Edn., John Wiley & Sons, New York, USA.
  42. Yang, M.H., W.S. Lin and T.L. Koo, 2011. The impact of computerized internal controls adaptation on operating performance. Afr. J. Bus. Manage., 5: 8204-8214.