



Review

Evaluation of the usefulness of efficiency of the accounting information system

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The efficiency of any accounting information system can be maintained if there is a sound internal control system. In any accounting information environment, the qualities of internal controls adaptation affect operations and management and in turn influence internal control system. Internal control is ensures the achievement of operational goals and performance. Therefore the aim of this study is to evaluate the usefulness and appraise the efficiency of accounting information system, looking at the criteria that need to be present in any accounting information to be efficient which are proper documentation, cost effectiveness, internal and external audit, extent of disclosure, separation of other operations from accounting and good internal control system. The study also shows that internal control helps in preventive control, detective control, corrective controls, general control and application control. Qualitative method of data collection was used. Thus, the study recommends that organizations should adopt the use of efficient accounting information system because accounting information is essential for effective decision making process and adequate information is possible if accounting information systems are run efficiently. Accounting information systems ensures that all levels of management get sufficient, adequate, relevant and true information for planning and controlling activities of the business organization.

Key words: Accounting information systems, efficiency, management, internal control, organization.

INTRODUCTION

Accounting information system is a computer based system that increases the control and enhance the corporation in an organization. In managing an organization and implementing an internal control system, the role of accounting information system is very crucial Nicoloaou (2000). Wilkinson et al. (2000) explained that the main function of accounting information system is to assign quantitative value of the past, present, and future economics events. Accounting information system through its computerized system produces the financial statement namely, income statement, the balance sheet, and cash flow statement. Normally, the system will process the data and transform them into accounting information during input, processing and output stages that can be used by a variety of users like the internal and external users. Accounting

information system is designed to record all transactions of a business. An accounting clerk enters all business transactions into the program and the transactions automatically are posted to the corresponding accounts and anytime information is needed, it can be found on the computer and be used for various purposes.

Thus, the successful integration of AIS will depend on how well other factors are efficiently put in place to facilitate its operations. Similar opinion has been echoed by scholars, for instance, Markus and Pfeffer (1983) asserted that the successful implementation of accounting systems requires a fit between three factors such as perception of the organization concerning the situation, the accounting system must fit when problems are normally solved and the accounting system must fit with the culture, i.e. the norms

and value system that characterize the organization. Grande et al. (2011) argued that IT is readily available and using them gives no competitive advantage for achieving improved results. They argued that many firms have invested in IT but they do not succeed in attaining the established performance goals. Therefore, accounting information system can only be useful in organizational operations when appropriate factors are put in place and operated harmoniously.

Therefore, if companies are able to adjust their computerized techniques of internal control mechanism according to accounting information system, they will be able to ensure the reliability of financial information processing and boost the control measures of effectiveness of the financial information reliability. Moreover, when internal controls procedures are adopted properly by organizations or businesses, there will be effectiveness and efficiency of operations which will result in better financial information reliability. Managers at various levels need AIS to make decisions in internal controls (Hoitash et al., 2009)

Accounting information system and internal control

Management compares information about current performance to budgets, forecast, prior periods, or other benchmark to measure the extent to which goals and objectives are being achieved and to identify the unexpected results or unusual conditions that require follow up. The management has line responsibility for designing, implementing and monitoring internal control system for identifying the financial and compliance risk for their operations.

Sajady et al., (2008) indicated that the implementation of accounting information system could lead to a better decision making by managers, more effective internal control enhancement of the quality of financial reports and facilitating financial transaction processes.

Marshal and Paul (2015) stated that internal controls are processes implemented to provide reasonable assurance that the following control objectives are achieved.

- Safe guard assets
- Maintain records in sufficient detail to report company assets accurately and fairly.
- Provide accurate and reliable information
- Prepare financial report in accordance with established criteria
- Promote and improve operational efficiency
- Encourage adherence to prescribed managerial policies
- Comply with applicable laws and regulators.

Internal Control is a process, affected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives, three categories like reliability of financial reporting, compliance with applicable laws and regulations and effectiveness and efficiency of operations. Effective internal control systems are essential for successful operations of businesses as well as accounting

control and administrative control. It helps the Accounting Information Systems division to generate reliable and relevant information. In the AIS environment the qualities of internal controls adaptation affects operations and management and in turn influence internal control. Internal controls are run to ensure the achievement of operational goals and performance (Masli et al., 2010)

Toposh (2014) asserted that other qualitative characteristics of accounting information can also be maintained if there is sound internal control system in an organization. Internal controls are procedures set up to protect assets, ensure reliable accounting reports, promote efficiency and encourage adherence to company policies. Internal controls are essential to achieve some objectives like efficient and orderly conduct of accounting transactions, safeguarding the assets in adherence to management policy, prevention of error and detection of error, prevention of fraud and detection of fraud and ensuring accuracy, completeness, reliability and timely preparation of accounting data. If good internal control exists in any organization, management can use information with greater reliance to maintain their business activities properly which provide AIS. But if internal control is not strong, management cannot achieve its goal.

Sajad et al. (2008) stated that implementation of accounting information systems caused the improvement of managers decision making process with internal controls, the quality of the financial reports and facilitated the companies transaction. Therefore, the adaptation of internal control techniques is a critical management issue that ensures the usefulness of internal controls and the achievement of operational objectives. (Zhang, 2007) stated that internal controls aim to ensure the reliability of financial information, the effectiveness and efficiency of operations and the compliance of laws and regulations. The validity of an internal control system affects the significance of internal controls. Hoitash et al. (2009) asserted that the value of internal control influences operational performance through information reliability operational effectiveness. Computerized internal controls have effects on the value of internal controls and performance of operations. The usage of new information technology means computerized controls should be built into the Accounting Information System.

According to Toposh (2014), in order to measure the efficiency of any accounting information system, the following indicators should be prevalent

Proper security measures

Security measures are effective ways to judge the efficiency of Accounting Information System. If there are any security measures in any business firm then its existence will augment the efficiency of the Accounting information system. This efficiency of Accounting Information Systems is ensured because proper security measures safeguards the assets of a firm. Security measures cover all transaction

cycles from inputs through procedures to outputs. It also extends to the organization, physical facilities and operations, management practices, and other aspects of the firm. Security measures are essential for any business organization because to safeguard the assets of a firm, protection from unauthorized access, protection from disasters, protection from breakdowns and interruptions, protection from undetected access, protection from loss or improper alteration and recovery and reconstruction of lost data. Assets such as cash and inventory may be stolen or lost, and facilities such as a copy machine may be damaged or stolen. Data or information may be accessed and read or even changed by unauthorized persons, with possible adverse consequences. To safeguard its resources, a firm should implement a variety of security measures to provide on-going protection of its computer facilities and other physical facilities to maintain the integrity and privacy of its data files, and avoid serious damage or disastrous losses. Other security measures are preventive in nature in that they prevent risk exposures from occurring. Topash (2014)

Good Documentation

Documentation is another important factor to judge the efficiency of Accounting Information Systems. Good documentation is essential for providing reliable and relevant information which helps management to perform business activities properly. Good documentation is used as the basis for preparing the financial statements, which consists of income statement, balance sheet, cash flow statement, owner's equity statement and others statement. These accounting statements are then made available to both management and a variety of external users to help them reach better informed decisions. The accounting process begins with a transaction and completes with the preparation of financial statement. Documentation pertaining to transaction processing has one central purpose: to communicate the elements and procedures to those who are to use, design, or evaluate the transaction processing system. With respect to the users, the documentation helps to ensure that they will perform procedures reliably, consistently, and efficiently. It also aids in the training of newly employed users. With respect to the systems analysts, accountants, and other designers, the documentation provides the means of visualizing the elements and flows of the newly designed system. According to Topash (2014) documentation also enables the designers to spot redundant operations and other processing deficiencies in the current system. With respect to the auditors, managers, and other evaluators, the documentation provides the standard against which the actual operation of the system is to be evaluated. Documentation techniques can also be used to portray the actual operations in order to highlight control weaknesses for the evaluators (Wilkinson, 1986). Documents quite naturally originate in many different departments of a company, but copies of all of them are sent to the accounts department where they are summarized, analyzed, and

then entered in the books of accounts, whereby the source documents are stored in a guard file at the initiating stage, in hard disk of the computer and in the network.

Separation of Operation from Accounting

Separation of operation and accounting is an important way to judge the efficiency of Accounting Information Systems organizations. Accounting information systems is a system of records a business keeps maintaining its accounting system. Its purpose is to accumulate data and provide decision makers such as investors, creditors, managers, and the information to make decision, Romney et al. (1997). The Accounting Information Systems provides efficient transfer of data that are necessary to be able to assist the information user, especially those who are not so adept to accounting and financial reporting. Correct and accurate information are necessary in order to arrive to a sound decision which would encourage shareholder value. One of the major purposes of Accounting Information Systems is to support the day to day business operations and many essential activities such as data collection, data management, data maintenance, data control and information generation for fulfilling this purpose consists of processing accounting transactions arising from external sources, monitoring internal physical operations, and preparing such outputs as operational documents and financial statements Wilkinson (1986). The accountants that are engaged in the processing of transaction must be separated from cash collection procedure to ensure the prevention of manipulation of accounts. This activities increase the quality of accounting information produced by accounting information system. However organizations should maintain separate accounting information system department and maintain various documents for recording various business activities for various purpose such as reporting to interested users, decision making and control and generate various reports through accounting information system such as ratio analysis, working capital forecast, variance analysis and break-even analysis for internal decision making and control purpose.

Extent of Disclosure

Extent of disclosure is another important indicator to judge the efficiency of Accounting Information Systems. Disclosure in financial reporting is the presentation of information necessary for the optimum operation of efficient capital market. As we know there are different users of accounting information. The users group needs accounting information to decide in their respective field of interest. For example the investor group requires information regarding investment feasibility. The creditors group requires information to form judgment regarding the credit worthiness of the borrowers. Thus the needs for information of the different groups vary. So, a company has to meet the demand of users but it is a difficult task to meet the demand of all users because there are cost constraints.

So, in the light of foregoing discussion disclosure means disseminating relevant financial information about the economic affairs of a business enterprise to the audience of interest. Disclosure means the dissemination of relevant, material, and understandable information, both financial and non-financial, from the private domain to the knowledgeable public domain on a consistent basis Ahmed (2012).

Cost Effectiveness

Cost effectiveness is another factor to judge the efficiency of AIS. AIS can lead to cost effectiveness because efficient AIS helps identify excess cost and those excess cost can be reduced by the management. Incorporating a control or security measure into a system involves cost. Certain types of controls such as corrective controls, documentation controls, and moist security measures are quite expensive. In some cases, even controls that complement other controls may be found to be cost-effective, since they increase reliability by detecting errors that may be missed by the other controls. On the other hand, certain complementary controls may not improve reliability or reduce risks to a significant degree, and hence may not be desirable additions. Since controls form an interlocking framework, all controls should be reviewed and assessed by means of a cost-benefit analysis. Preferably, this review and assessment should take place during a systems development activity; however, it may be performed at any time (Wilkinson, 1986). The cost effectiveness can be measured with the help of operating ratio.

Independent Internal and External Audit:

Internal audit is an independent appraisal function established with an organization to examine and evaluate its activities as a service to the organization. The objective of internal audit is to assist members of the organization in the effective discharge of their responsibilities. To this end, Internal audit furnishes them with analyses, appraisals, recommendations, counsel and information concerning the reviewed. Internal audit is any systematic investigation or appraisal of procedures or operations by an employee of the concerned entity for the purpose of determining conformity with prescribed criteria. Internal auditing means an appraisal activity established with an entity as a service to the entity. Its functions include, amongst other things, examining, evaluating and monitoring the adequacy and effectiveness of the accounting and internal control systems.

External audit is one which is performed by chartered accountants (CAs) who are independent of the entity whose assertions or representations are being audited. All the companies registered under the Companies Act are subject to external audit by CAs in public practice.

Marshal and Romney (2015) alleged that developing an internal control system requires a thorough understanding of information technology (IT) capabilities and risks as

well as how to use IT to achieve an organizational control objectives. Accountant and systems developers help management achieve their control objectives by (1) designing effective control systems that take a proactive approach to eliminating systems and detect, correct, and recover from threats when they occur. (2) making it easier to build controls into systems at the initial design stage than to add them after the facts. They also assert that internal control perform the following important functions;

- **Preventive controls:** which deter problems before they arise. Examples include hiring qualified personnel, segregating employee duties, and controlling physical access to assets and information.
- **Detective control:** which discovers problems that are not prevented. Example, duplicate checking of calculations and preparing bank reconciliations and monthly trial balances.
- **Corrective control:** This identifies and correct problems as well as recover from the resulting errors. Examples include maintaining backup's copies of files, correcting data entry errors and resubmitting transactions for subsequent processing.
- **General control:** controls designed to make sure an organization's information system is stable and well managed. Example, includes security infrastructure, software acquisition, development and maintenance control.
- **Application controls:** Controls that prevent, detect, and correct transaction error and fraud in application programs. They are concern with accuracy and authorization of data captured, entered, processed, stored, transmitted to other system and reported.

Conclusion

Accounting information system had been widely used by many organizations to automate and integrate their business operations. The main objective of many businesses to adopt this system are to improve their business efficiency and increase competitiveness. Therefore this study focuses on the efficiency of the accounting information system on internal control system looking at the internal control as the processes implemented to provide reasonable assurance that assets are being safeguard, maintaining records in sufficient detail to report company assets accurately and fairly, provide reliable and accurate information, encourage adherence to prescribed managerial policies, comply with applicable laws and regulations. The study also found that the following criteria or indicators are supposed to be present in any accounting information system for it to be efficient in any organization which is, cost effectiveness, good documentation, existence of proper security measures, independent internal and external audit, separation of other operation from accounting, and effective internal control. Also, developing an internal control system requires a thorough understanding of information technology, capabilities and

risk as well as how to use IT to achieve organizational goals. Therefore, the study recommends that organizations should adopt the use of accounting information system because adequate accounting information is essential for taking every effective decision making process and adequate information is possible if the Accounting Information Systems are run efficiently. The efficient Accounting Information Systems is essential because it ensures that all levels of management get sufficient, adequate, relevant and true information for planning and controlling activities of the business organization. Accounting Information Systems cover a broad area in corporate world and produce quality information for the internal and external users to the business organization, hence, existence of internal control system increases the efficiency of accounting information system.

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