



# The Influence of Information Technology on Application of Accrual Accounting

Irlan FERY

Department of Accounting STIE Rahmadiyah MUBA-SUMSEL, Indonesia, E-mail: [hertatilesi@yahoo.co.id](mailto:hertatilesi@yahoo.co.id)

## Abstract

The purpose of this research is to find out information technology influences the application of accrual accounting. Accrual accounting is presented for operational reports (LO). LO presents an overview of economic resources that increase equity and its use which is managed by the central/regional government for government administration activities in one reporting period. So there is a cut-off to determine the income and expenses that occur in one accounting period. The concept of accruals is useful to assess the government's performance in managing State finances whose management and management are handled by the government itself. The unit of analysis in this study is the Muba-Indonesia Regional Government unit. The results show that information technology influences the application of accrual accounting significantly. Furthermore, it was found that the application of accrual accounting could change because there was survey information technology in FKMD Muba units.

**Key words** Information Technology, Application of Accrual accounting

Received: 10 Sept 2018 © The Authors 2018

Revised: 25 Sept 2018 Published by Human Resource Management Academic Research Society ([www.hrmars.com](http://www.hrmars.com))

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## 1. Introduction

The application of accrual accounting is led by Australia and New Zealand (Buhr, 2012; Carlin, 2004; Baker and Morina, 2006) and leads to changes in public sector reform (Bellanca, 2015). The reform according to Lapsley (1988) is called New Public Management (NPM). NPM is a management philosophy used by governments to transform and modernize their public sector in order to enhance the efficiency, effectiveness and accountability of public services delivery by private sector management practices and techniques to the public sector (Lapsley, 1988). Governments should have an accrual accounting system to identify, measure, and manage existing resources (Barton, 2007). This is due to the inability of the cash modification accounting system to provide meaningful accounting information that allows organizations to plan, control, and evaluate their performance effectively requiring the adoption of accrual-based accounting (Koen, 2007). Accrual accounting is an accounting system that recognizes transactions without basing on whether cash flows in or out.

(Khan, 2009) Similar opinion was expressed by Connolly (2006) and Weygandt (2012) which defines accrual accounting as a method of recording expenses when incurred and income when obtained during the accounting period. Accrual reporting is intended to improve accountability in the form of reporting better information for users of financial statements, information about assets, debt, full cost, expenses, income, and cash flow (Rkein, 2005; Bolos *et al.*, 2004). Accrual accounting provides a better view of the performance of the public sector because it is an important tool to assess financial flexibility and better planning and facilitate decision making for management (Zimmerman, 2008). Accrual accounting is also

able to increase transparency, consistency, and comparability of accounting information (Deaconu, 2009). Christina (2010) states her support that the accrual basis is an acknowledgment of transactions that can be accepted according to general principles. Furthermore, Danescu (2013) uses the term fair review of transactions on the application of accrual accounting because income and costs are recognized when they occur and not when cash is received. DioGuardi (2014) has the same principle by emphasizing the government sector. The application of accrual accounting in the public sector is increasingly being carried out. Hrabak (2004) defines public sector accounting as an information system that records, analyzes, classifies, summarizes and communicates financial public sector entities and economic events by providing information for planning, organizing, and monitoring and preparing financial reports according to accounting and reporting standards for external users

Accrual basis accounting is useful to produce comprehensive information (Ouda, 2003), and is appropriate according to the overall accounting picture for users and stakeholders, performance evaluation, and the determination of the decision-making process (Stamadiasis, 2009). Accrual accounting provides better performance information in the public sector because accrual accounting also provides a broader measurement tool to see government financial commitments than cash accounting (Khan, 2009: 4). Accrual basis accounting system provides reliable and appropriate information for management and comprehensive information for decision makers on resource management to be effective and efficient. This information affects retrieval decisions when for example when an asset acquisition and removal is carried out (National Audit Officer: 2008). This is in line with the statement of Mardiasmo (2015) which explains that accrual-based accounting can not only generate the value of the burden that has been paid by the government, but all the necessary expenses so that the cost of public services can be calculated fairly. Thus the management of state finances can be managed in an orderly manner, obeying the laws and regulations, efficient, economical, effective and transparent.

Also reinforced by the statement of Brodjonegoro (2015) which states that through the implementation of accrual-based accounting to the central government as an effort to improve government financial reports, it is hoped that the central government's financial management will be more transparent and accountable. Governments can develop management accounting tools based on accrual information to provide management information that assists in decision making (IFAC, 2003; Christiaens, 2008). This is in line with Kalla's statement (Kompas, 2015), Vice-President of the Republic of Indonesia, who said that the same standards are needed between countries depending on the system of legislation in each country. Even so, there are similarities in the demands faced by many countries when opening up and being transparent in financial management. The adoption of accrual-based accounting is a key factor in the introduction of accounting practices in public sector organizations (Guthrie, 1998; Lapsley and Pallot, 2000; Baker and Rennie, 2006; Ter Bogt, 2008; Christensen and Parker, 2010). The application of accrual-based accounting has been carried out officially since January 2015 as stated by Mardiasmo (2015), Deputy Minister of Finance of the Republic of Indonesia, which stated that the Ministry of Finance held a Kick Off on Accrual-Based Government Accounting Implementation to create the initial momentum for the implementation of accrual-based accounting to implement accrual-based accounting.

The implementation of accrual-based accounting in government has an impact on the presentation of financial statements. The government must prepare seven types of financial statements from the previous only four types, namely: (1) Budget Realization 5 Report, (2) More Budget Remaining Change Reports, (3) Operational Reports, (4) Equity Change Reports, (5) Balance Sheet, (6) Cash Flow Statement (7) Notes to Financial Statements (PP 71 of 2010). In the process, the application of accrual accounting faces several problems that arise (Christiaens, 2008). The government continues to implement it because the implementation of accrual accounting provides many benefits for the government including being able to assess the effectiveness and performance of the organization, control the costs of a better organization (Kordestani and Iranshahri, 2010), produce detailed financial data in terms of tracking economic events of a transaction to achieve transparency, accountability, and auditability that end users want financial statements as information in making management decisions.

This information will be useful if it can support decision making and is easily understood by users (Huang *et al.*, 1999 in Xu *et al.*, 2003). The application of accrual-based accounting is a continuous and integrated process. Accrual-based accounting provides a broader measure of a number of benefits, namely:

1) Identifying the total costs of government programs and government activities, so that measurement of costs and income is better in order to improve the process of control and transparency; 2) More focus on output and long-term impacts of from decisions; 3) More efficient and effective over resource use and management and greater accountability; 4) Reduction and measurement of better expenses; 5) Better presentation of the financial position of public sector organizations; 6) Better financial management, improve performance measurement and better comparison of managerial performance between periods and organizations by calculating indicators based on comprehensive and consistent financial and operational data; 7) Increasing attention greater assets and more complete information about the obligations of public organizations through better management of assets and liabilities (Stamatiadis, 2009).

Accrual accounting also motivates management to increase transparency and provide information for better decision making (Abolhalaj, 2012). The application of accrual accounting helps decision making and reduces expenditure (Deaconu *et al.*, 2009). Suhardi (2015) stated the importance of the implementation strategy of accrual-based accounting by the central government related to the preparation of regulations and human resources, provision of applications and information technology. The application of accrual accounting does not work well. This can be seen from the results of the BPK examination in the first semester of 2016 showing the accounting policies for the implementation of accrual-based Government Accounting Standards are inadequate and the weaknesses of the Internal Control System in the Central Government on inventory, accounts receivable, fixed assets, intangible assets, liabilities and presentation of changes in equity and operational reports. The results of the examination of the 2015 Ministry and Institution Financial Statements which experienced a 6% decrease in WTP opinion from 71% to 65% in 2015, WDP opinions increased by 9% from 21% to 30% in 2015 and TMP opinions decreased by 3% from 8% to 5% in 2015.

Government cash management does not cover all funds in government accounts and is limited to funds controlled by the BUN and inadequate arrangements for BUN's authority in cash management outside state funds and management of government funds that have not been integrated. There is a difference in the number and balance of accounts between government-based data based on data on the Open Treasury Application (PBN) and bank confirmation results. The PBN Open application is a stand-alone application that is not connected to the State Treasury and Budget System Application (SPAN) and is only used for managerial purposes in the framework of monitoring and controlling K/L accounts. This is indicated by the existence of 8,251 government accounts as of October 31, 2016 which were not recorded in the PBN Open worth Rp. 17.97 trillion, consisting of 5,974 Treasury National Pooling (TNP) accounts with a balance of Rp. 6.77 trillion and 2,277 non-TNP accounts with a balance of Rp. 11.20 trillion. As a result, the K/L or satker accounts are not recorded in the Ministry of Finance and the government's idle cash is not monitored. This happens because the data in the PBN Open is not updated and cannot accurately present data on the number and balance of K/L accounts or satker accounts. One factor that influences the quality of the implementation of accrual-based accounting is the use of information technology (IT). The role of IT has undergone a fundamental change, not only serves as a transaction data processing tool but has acted as a weapon that can influence the position of organizational competitiveness by producing high quality information, can change the industry structure, change key competitiveness factors, and influence the company to choose the strategy (Blanton *et al.*, 1992). Hepworth (2003) also emphasized the importance of IT support and the skill to use it that is indispensable for carrying out task assignments in a newly applied accounting system. O'Brien (2004: 17) supports the main reason for the use of IT in business is to support information systems so that they can carry out their role (O'Brien, 2004).

Information technology is a depiction of several things, the task of gathering and data processing is information and the ability to disseminate information using technology and technology itself that performs its duties and the people responsible for maintaining IT infrastructure (computers, networks and systems operations (Foq, 2013) The term IT is used to indicate a set of computer systems used by an organization (Turban and Volinino, 2011). It is a form of corporate investment in the field of computerization and communication technology, such as hardware, software, telecommunications, data collection and presentation tools such as ATMs, all electronic storage data, and people (Weill, 1998).

There are various kinds of definitions put forward by experts on IT. Schultz (2006) defines IT as all forms of technology used to generate, store, exchange, and use information in various forms (business

data, voice conversations, images, moving images, multimedia, and other forms. Similar definitions are conveyed by Morath (1999) that IT consists of hardware such as computers, fax machines, telephones, hardware/software such as internet, intranet, network and video conferencing systems, and virtual, as well as software such as group ware, EDI programs, management systems learning, groupware Information technology is also a combination of people with computerized resources, software, data, and computer networks (Foq, 2013) IT describes hardware, software and other related system components used by organizations to produce information-based systems computer (Bagranoff, 2010; Hurt, 2008; Turban, 2008) Information technology, a contemporary term which is used to explain the combination of computer technology and communication technology (Batemann, 2004). In a more specific perspective, IT is interpreted as O'Brien (2004) as a computer-based information system to state the involvement of computer use, hardware. Software, internet, and other telecommunications networks, as well as using database resource management techniques and various other computer-based technologies to transform data into various kinds of information. Comprehensively, IT means all forms of technology used to create, store, change, and use information in various forms, such as business data, voice conversations, images, moving images, multimedia presentations and other forms (Keen, 1995).

Based on the statements of the experts above, it can be concluded that Information Technology is a combination of forms of computer technology and communication technology and is run by actors/ implementers to produce information based on organizational needs and objectives. The application of accrual accounting in Indonesia requires information technology as stated by the State (2015) that changes in accounting standards must be followed by information technology that will support the adoption of new accounting standards. Furthermore, the State (2015) states that other factors that influence the government's readiness to implement PP 71/2010 are information technology which consists of technical equipment used and information processes. Similar statements were made by Hladika *et al.* (2012) which states that one of the successful implementation of accrual basis government accounting involves the integration of all practitioners in all fields, especially information technology.

The phenomenon that occurs in Indonesia regarding IT support is still very lacking. Aziz (2015) mentions that the unpreparedness of the implementation of accrual-based SAP at the central and regional levels in the preparation of the Central Government Financial Statements (LKPP) and Local Government Financial Statements (LKPDs) are due to the fixed asset management system in supporting the preparation of inadequate financial statements and system use. Computer applications have not been optimal in supporting financial management. One of the challenges in the application of accrual accounting is the lack of resources (Hladika *et al.*, 2012) and the knowledge and expertise of implementing activities (Stamadiasis, 2009). Lye *et al.* (2005) mentions the existence of a change factor in the form of knowledge in the application of accrual accounting in government. Azhar Susanto (2008) mentions that internal factors have not been able to apply accounting standards, among others, because knowledge of HR is an accounting part that has not been able to do it right for various reasons such as the problem of honesty that intentionally manipulates data and accounting processes for personal, group or corporate interests (organization) Changes in accounting standards along with improving the competence of human resources that carry out these standards (Country, 2015). The application of accrual accounting provides information needed for decision making for management. The resulting information is expected to make the decision making process more effective (DeLone *et al.*, 2003). Accrual accounting has the potential benefit of information for decision making for management in government (Hladika *et al.*, 2012; Sousa, 2012; Lye *et al.*, 2005). In an organization, managers have access to get various information, make decisions and make changes (Lafond, 2003). Similar opinion was expressed by Gul *et al.* (1995) which states that the actions and decisions taken by managers are based on their perceptions. Perception is the process by which people choose, organize, interpret, and respond to information from the world around them (Slocum, 2007). Perception also consists of activities where an individual acquires and gives meaning to stimuli (Hawkins, 2007).

## **2. Information Technology**

Wilkinson (2000) states that information technology relates to technologies such as computers, software, databases, networks (internet and intranets), electronic commerce and communication technologies to process information. A similar statement is interpreted by O'Brien (2004) as a computer-

based information system to state the involvement of the use of computers, hardware, software, internet, and other telecommunications networks, as well as using database resource management techniques and various other computer-based technologies for transform data into various kinds of information. This is also supported by Bagranof *et al.* (2010) that information technology consists of hardware, software, and related system components used by organizations to build computer-based information systems. Based on the opinions of the experts above, it can be concluded that information technology support is a combination of computer technology and communication technology to run a system and process and produce information based on organizational needs and objectives.

Lunt and Reichgelt (2008) direct IT to organizational contexts related to technology infrastructure. Applegate *et al.*, (2009) use the term information technology infrastructure to explain components and information technology. Information technology infrastructure is "the entire layered fabric of hardware, software, systems, and media that collectively deliver IT services. So, it can be concluded that information technology with information technology infrastructure has the same meaning.

Information technology components/infrastructure according to Bagranof *et al.* (2010) consists of: (1) hardware, (2) software, and (3) related system components. While O'Brien (2004) states that information technology components include: (1) computers, (2) hardware, software, (3) internet and other communication networks, (4) computer-based data resource management techniques (data base management), and (5) other computer-based information technologies. The next opinion was raised by Applegate *et al.* (2009) which mentions three main components of information technology, namely: Information technology related to networks. Network technology is related to technology (hardware or software) that causes the exchange of information between organizations. The two types of telecommunications networks are Wide-Area-Networks (WANs) and Local-Area-Networks (LANs). (Applegate *et al.*, 2009).

Technology related to transaction processing systems. Transaction processing system technology consists of hardware and software that jointly have the ability to carry out company transactions, in the form of transaction software, servers, server appliances, client devices, and mobile phones. Whereas technologies related to information technology facilities are physical systems that protect or protect all computer facilities (hardware and software) and network facilities, such as corporate data centers, collection data centers, managed services data centers and data closets. (Applegate *et al.*, 2009) Information technology related to facilities. Technologies related to information technology facilities are physical systems that protect or protect all facilities. Based on the opinions of the experts above, the information technology component consists of software technology, hardware, network (network), and facilities. Furthermore, Brown and Yarberry (2009) mention four key business requirements for information technology for organizational success, namely:

- 1) Availability: the system must be available according to the company's business needs.
- 2) Access: the system must be safe enough to prevent data loss and damage, as well as flexible for employees to do their work.
- 3) Accuracy: information must be able to produce timely, complete and correct information when presented to users.

- 4) Agility: the ability to change IT systems to meet new business needs quickly and naturally.

Information technology characteristics according to Thomson and Baril (2003) are:

- 1) Functionality: which is the type of technology and how much capability does the technology use to carry out processing functions
- 2) *Ease of use: how easy the technology is used*
- 3) Compatibility: how easily this technology can function together with its supporting technology
- 4) Maintainability: how easily technology is maintained operating during the maintenance, repair, etc. so that it does not interfere with the implementation of the main tasks.

Furthermore, Thomson and Baril (2003) explained that the indicators of information technology support above are:

- 1) Functionality, consisting of:

a. Capacity: that is how much information can be stored or processed and used

b. Speed: that is how fast IT can process or carry out instructions

c. Price performance: that is how much is needed for each information stored or processed

d. Reliability: that is how long it takes to continue operating without the occurrence of errors or unplanned outages.

e. Operating condition: that is how much space is needed, load/weight, electricity requirements, and temperature/temperature needed.

2) Ease of Use, consisting of:

a. Quality of user interface: that is how easy it is to use technology to perform tasks

b. Ease of becoming proficient: that is how much effort is needed to master the use of technology

c. Profitability: that is how easily users use technology in completing work

3) Compatibility, consisting of:

a. Conformance to standards: that is how far technology is able to adjust to industry standards

b. Interoperability: that is how far technology can be operated and replaced with other technologies

4) Maintainability

a. Modularity: the extent to which IT can be divided into modules that can be put together when building a system and can it be replaced by another equivalent module if needed.

b. Scalability: that is how possible IT can increase or reduce capacity without causing major disruptions.

c. Flexibility: that is how it is possible to change the important aspects of a system operation when there is a major problem.

The reliability of an organization's information processing infrastructure depends on the level of availability of certain information technology systems and services (Applegate *et al.*, 2009). However, many infrastructure components of an organization's information technology are inherently unreliable (Applegate *et al.* (2009). The level of information technology infrastructure availability means the availability of a system or service from a particular information technology infrastructure so that information systems and services are available in numbers what is needed and can be used by the user at any time to carry out its main tasks (Applegate *et al.*, 2009). The availability of infrastructure systems and services in question includes: availability of web physically houses data centers, applications, databases, servers, storage devices; mainframes, and networking environments in an environment that allows information technology as a whole to function reliably, as well as the availability of supply space, power, and internet connectivity and the composition of support services are also important factors to maintain the reliability of information technology functions such as:

1) Uninterruptible electric power delivery or known as uninterruptible power supplies (UPSs) is a back-up facility for the electricity supply needed when the power supply from a power supply center such as the State Electricity Company (PLN) experiences obstacles. Thus information technology can be used continuously without obstacles. Besides UPS, the company can also make diesel generators an alternative.

2) Physical security. The organization is responsible for providing information technology facilities that can guarantee the reliability of core information technology components. The security technology in question includes: closed circuit television (CCTV), hidden information technology space placement, inspection of every item carried by IT staff into the IT/IT room, use of ID cards for IT staff, use of biometric scanning technology, such as: retinal scanners, palm readers, voice recognition systems to control access to the data center/information area and the installation of motion sensor supplements, such as: video monitoring and perimeter fencing around data/information facilities.

3) Climate control and fire suppression. The organization is also responsible for installing facilities that can control the temperature of the room where information technology facilities are located. For example, the use of heating, ventilating and air-conditioning (HVAC) equipment, integrated fire suppression systems such as: smoke detection, alarming, and gas-based fire suppression.

4) Network connectivity, the organization is responsible for maintaining the internet network that is used as a medium to communicate with external parties to function well. For this purpose, organizations must consider how much data/information is sent through the public network and through special networks

5) Helpdesk and incident response procedure. Information technology users can make contact with information technology service staff/staff to get help at any time when experiencing obstacles. There is a need for an automated system and procedure that can connect between the user and information

technology service center, so that any problems faced by the user can be resolved without disrupting meaningful user activity.

6)  $N + 1$  and  $N + N$  redundancy. The purpose of this formula is that every critical component (important) will be provided as much as the amount of needs added 1. If a department needs 3 units of UPSs, then the number of UPS provided by 4 units, 1 unit is provided just in case of damage to one UPSs, and so on.

Based on the description above, it can be concluded that the dimensions and indicators of information technology support are as follows:

1) Functional IT (O'Briens and Marakas, 2010; Thompson and Baril, 2003)

(1) Reliability (O'Briens and Marakas 2010; Applegate *et al.* (2009)

(2) Efficiency (O'Briens and Marakas, 2010)

(3) Maintainability (Thompson and Baril, 2003)

2) IT infrastructure reliability (Applegate *et al.*, 2009)

(1) Availability of IT infrastructure (Applegate *et al.* (2009)

(2) Security of IT infrastructure (Applegate *et al.* (2009)

### 3. Quality of Accrual Based Accounting Implementation

Khan *et al.* (2009), DioGuardi (2014) and Bellanca (2015) defines accrual accounting as a recording methodology in which transactions are recognized when economic transactions occur without regard to payment or cash receipts. Khan *et al.* (2009) conclude that accrual accounting in the context of the public sector means as a form of recording and preparing accrual-based financial statements for government. Bellanca (2015) emphasizes the role of accounting accrual accounting should facilitate planning, financial management and decision making in government so that public policy becomes more effective.

Based on the definition of the experts above, it can be concluded that the quality of the implementation of accrual-based accounting is the stage of recording the accounting system that recognizes and presents transactions or other economic impacts at the time of occurrence, without seeing cash or cash equivalents received or issued.

Small evidence of the usefulness of accrual accounting is when academics underestimate the importance of accrual accounting in the public sector (Lapsley, 2009). A different opinion from Higgins (2009) states that the benefits of using accrual accounting are reflected in asset management when asset management as an agency increases its knowledge about assets. The main reason why the public sector adopts the basis of full accruals is the need to provide a detailed assessment of an asset in their control. The benefits of accrual accounting are to increase the capacity to provide reliable and comprehensive information on resources, liabilities and income, and to provide a significant influence in improving communication with stakeholders (Wong, 1998). IFAC (2003) emphasizes accrual accounting for the development of financial information so that valuation of financial positions is more reliable, increasing reporting of fixed assets such as equipment, equipment, receivables and debt. IFAC (2011: 12) states that financial statements accrual basis accounting is able to provide information that is useful for planning, decision making and control as well as providing information to users through:

a. assess the resources for the control entities and the deployment of those resources,

b. assess the financial position, financial performance, and cash flows of the entity, and

c. make decisions about providing resources to, or doing business with, the entity.

Babajani (2004) and Rkein (2008) argue that the application of accrual basis accounting in integrating public sector financial reporting has a significant effect in increasing accountability. Some studies say that accrual accounting can improve the sustainability of better principles such as efficiency, effectiveness, transparency, and accountability (Lapsley, 1999; Likierman, 2000; Mardiasmo, 2009; Bastian, 2006).

Diamond (2002) in the International Monetary Fund (IMF) document entitled: Performance Budgeting: Is Accrual Accounting Required? Mention four benefits of accrual accounting, namely:

1. Improve the quality of resource use (improve resource allocation);

2. Strengthening accountability (strengthened accountability);

3. Increase transparency of total costs from government activities (enhanced transparency on total resources costs of government activities), and

4. Look more comprehensively at the influence of government activities on the economy (more comprehensive view of government's impact on the economy).

The benefits of applying accrual accounting in the public sector are also explained according to Study No. 14 in Wynne (2004) published by IFAC-Public Sector Committee (2003) namely:

1. it shows how a government has financed its activities and met its cash requirements
2. it allows users to evaluate a government's ongoing ability to finance its activities and to meet its liabilities and commitments
3. it shows the financial position of a government and changes in its financial position
4. it provides a government with the opportunity to demonstrate successful management of its resources, and
5. it is useful in evaluating a government 's performance in terms of its service costs, efficiency and accomplishments.

Another opinion expressed by Bowrey (2007) which states that the application of accrual accounting increases control over results and outputs (The application of accrual basis of accounting enables control over the outcome and outputs (Bowrey, 2007). Public sector accrual accounting increases transparency, reliability, and provide realistic accounting information, it is also able to improve efficiency and effectiveness and is useful to assess the performance of public management (Hladika, 2010).

The benefits of accrual accounting for public sector managers are better governance, better decision-making processes, budgeting and allocation of financial resources, outsourcing decisions, better service cost assessments and internal and external accountability (Hladika *et al.*, 2012). Accrual methods help identify efficient resources, provide comprehensive information about assets and liabilities, and help management in making decisions (Danescu, 2003; Rkein, 2008). Accrual reporting also means increased accountability by reporting more information to users of financial statements, more complete information about assets, and others. Accrual methods help identify efficient resources, provide comprehensive information about assets and liabilities, and help management in making decisions (Danescu, 2003).

It can be concluded that the benefits of the implementation of accruals are to provide quality financial information, help assess and evaluate performance, assist in decision making, and benefit management as a form of accountability to the community and the Mohammadi government (2012) mentions the administrative procedure approach in changing cash accounting methods to accounting accruals are as follows:

1. Reviewing the organization of the finance department (financial affairs) and the operating cycle method

In line with the obligations set out in the Fourth Economic, Social and Cultural Development Planning of the Islamic Republic of Iran, and in connection with changes in the financial approach from cash to accruals, the need to compile and harmonize activities, the need for a systemic approach and issue authority and regulate workers and responsibilities in financial affairs relate to the nature and circumstances of each specific financial activity, the proposed financial structure and the operating cycle method are developed. In this stage the organizational chart (showing the type of work based on the nature and assigned tasks of each employee at the work level and hierarchy, in terms of organizational structure) needed to carry out the project, is presented as follows. There is a separation of duties between two deputies and part of the department finance regarding organizing labor and working on current affairs will differ from one university to another.

2. Numbering and setting cost centers

At this stage, using eight-digit group account numbers, cost centers, ledgers, subsidiary ledgers and detailed topics are separated.

3. Collect and transfer annual financial records and information

At this stage, to access some annual information and modify them, the following actions have been taken:

- a. Identify, evaluate, set prices and register fixed assets,  
Identify, evaluate, set prices and register share ownership,
- c. Review and separate income and receivables to transfer the case to the appropriate topic in the accrual accounting system,



- d. Review and separate costs, debt, to transfer the case to a topic that is appropriate in the accrual accounting system,
  - e. Provide and develop guidelines relating to registering changes in fixed assets and share ownership,
  - f. Review and determine all permanent accounts used and the balance of non-zero (non-zero balance) in the cash method and finally provide the instructions needed to transfer these accounts to the right according to the topic in the accrual accounting system,
  - g. Register and modify prepayments and annual accounts based on available evidence.
- Changes to each component can be explained as follows:

*1. Budget Realization Report (LRA)*

The difference between the Budget Realization Report (LRA) CTA and accrual accounting is the use of its income account. Income in the preparation of accrual-based financial statements is divided into two, namely Income-LRA and Income-LO, use of income accounts-LRA to record revenue in the LRA, as well as vice versa the use of income accounts-LO to record income in the Operational Report (LO).

*2. Reports on Amendments to More Budget Balances (LP-SAL)*

The comparison between CTA LP-SAL and accruals is summarized as follows:

*Table 1. Differences in Changes in Budget Balance Reports Are More CTA-Based and Accrual*

Cash Toward Accrual	Accrual
There is no	(Attachment I.02, paragraph 41) LP-SAL presents comparatively with the previous periods of the following items: a. Budget Balance Earlier; b. Use of More Budget Balances; c. More/less remaining financing for the current year budget; d. Previous Year Bookkeeping Error Correction; and e. Etc.;; f. Final Budget Balance.

The table illustrates that on a CTA basis, LP-SAL is not presented, while on the accrual basis LP-SAL is one of the financial statements that must be prepared by presenting some elements of financial statements as stated in table 1 comparatively, but for LP- SAL is only presented by the State General Treasurer and the reporting entity that prepares the consolidated financial statements.

*Operational Report (LO)*

On a CTA basis, operational reports are performance financial statements that are optional, while on an accrual basis operational reports are one of the principal financial statements that must be presented by presenting some elements of financial statements as shown in table 2. The following is a comparison table between CTA-based Operational Reports and accruals:

*Table 2. Differences in CTA-Based and Accrual Operational Reports Differences in Changes in Budget Balance Reports Are More CTA-Based and Accrual*

Cash Toward Accrual	Accrual
Form of financial performance reports • Are optional • Presenting the following posts: a. Income from operational activities; b. Expenses are based on functional classification and economic classification c. Surplus or deficit.	Represents the principal financial statements that must be presented • (Attachment I.02, paragraph 92) Presenting the following items: d. Income-LO from operational activities; e. Expenses from operational activities; f. Surplus/deficit from Non-Operational Activities, if any; g. Extraordinary post, if any; h. Surplus/deficit-LO.

*Equity Change Report (LPE)*

The difference between the report on changes in CTA-based equity and accruals is located on the items presented and also on the accrual basis, the report on changes in equity is one of the principal financial statements that must be presented by the entity while on the basis of CTA the report on changes in equity are optional financial statements. Comparisons between changes in CTA-based equity and accruals are presented in the table below:

*Table 3. Differences in CTA and Accrual Based Equity Change Reports*

Cash Toward Accrual	Accrual
Optional • Presenting the following posts: a. Remaining more/less budget financing; b. Each income and expenditure item and the total as indicated in other standards, which are recognized directly in equity; and c. The cumulative effect on changes in accounting policies and fundamental error correction is set in a separate standard	Represents the principal financial statements that must be presented • (Attachment I.02, paragraph 101) Presenting the following posts: a. Initial equity b. Surplus/deficit-LO in the period concerned c. Direct corrections increase/reduce equity, which among others comes from cumulative effects caused by changes in accounting policies and correction of fundamental errors, for example: 1. correction of fundamental errors of inventory that occur in previous periods; 2. changes in the value of fixed assets due to revaluation of fixed assets. d. Final equity.

Based on these opinions and descriptions, the dimensions and indicators of the implementation of accrual-based accounting are:

- 1) Establishment Phase (Ouda, 2010) with indicators:
  - (1) Completeness of the Asset Register
  - (2) Complete Chart of Account
  - (3) PSAP Accounting Policy
- 2) Conversion Phase (Ouda, 2010) with indicators:
  - (1) Completeness of additional creditor accounting files
  - (2) Completeness of additional debtor accounting files
  - (3) Ease of data conversion
- 3) Testing and Confirmation Phase (Ouda, 2010) with indicators:
  - (1) Asset Register Integration
  - (2) Accrual Ledger Integration
  - (3) Compatibility of Computerized Systems

**4. The Effect of Information Technology Support on the Quality of Accrual-Based Accounting Implementation**

One of the factors of Vroom Expansion Theory (1964) is expectations. Furthermore Vroom (1964) explained that expectancy theory as a theory used in implementing the success of a new system. The use of expectation theory in the application of a new system determines the level of success of an organization in achieving its objectives. Expectation is the belief that hard effort will produce a good level of performance, assuming that the person; (1) have sufficient resources; (2) have skills that support work; and (3) there is support (support) in doing the work. Sufficient resources are needed to support the results or goals expected by the organization. One of the supports in the application of accrual-based accounting systems is information technology support. Information technology support in implementing accrual-based accounting systems in ministries and institutions is one of the success factors for the successful implementation of the new system.

IT support for the implementation of organizational strategies is stated by (Grembergen, 2009) which mentions IT as a form of professional organization that effectively and efficiently manages resources in line with the needs of the organization. In the field of accounting, Tickell's (2010) research states that the delay in the adoption of accruals is caused by incorrect software (Lesi hertati, 2015).

Subsequent research from Hamisi (2010) states that there is an effect of the relationship between factors of information technology adoption on the application of international public sector accounting standards (2015). The results of the State's research (2015) revealed that support for tools such as information technology influenced the application of accrual accounting regulations in the public sector (lesion hertati, et, all, 2016). The results of research from Mehrolohasani *et al.* (2015) revealed that the influence of information technology factors on the implementation of accrual accounting is very large (Lesi hertati, 2015). Another study from Hladika (2012) reinforces the statement that the successful implementation of accrual basis government accounting involves the integration of all practitioners in all fields, especially human, IT and contractual resources. Furthermore in his research, Hladika said that the transition process is not just a technical task, but also requires cultural change.

There is evidence of the need for greater accounting skills, the right IT system, and communication between external and internal parties. The results of Hladika's research (2012) also emphasize that the successful implementation of accrual-based government accounting involves integration from various fields such as human resources, IT, and contracts. Accrual-based government accounting applications require the development of new accounting rules, new IT tools and new work procedures as well as training for all users at the implementation level.

## 5. Conclusion

Based on this phenomenon, the formulation of the problem, hypothesis and research results, the conclusions of this study are: Study of the influence of good information technology influenced by the application of a good accrual accounting system. The implementation of an integrated, flexible, easy to access and accurate accrual accounting system has not been fully implemented because it is caused by some regional devices that are not fully aware of information technology, information technology has not been fully relied on meaning that producing accurate and timely information reflects the results of transactions that are properly authorized from all activities carried out in the organization properly.

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