# Investigating the Conversion of Cash Accounting to Accrual Accounting and its Effect on the Quality of Financial Reporting

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## Abstract

The main aim of this study is to investigate the conversion of cash accounting to accrual accounting and its effect on the quality of financial reporting in which the conversion of cash accounting to accrual accounting is considered as an independent variable and the quality of financial reporting as dependent variable with three dimensions such as the accountability of auditors, beneficiary of decisions made by the auditors and ascertaining by the auditors. In this research, the relationship between both variables were investigated and analyzed. The statistical population of this research included the accountants, financial officer, income officer and the staff of Lorestan University of Medical Sciences consisting 170 cases of which 118 ones were selected based on the Cochran formula by means of sampling. The aims of this study were applying and the research method was descriptive-surveying. The data of variables were collected by a questionnaire which its stability (Cronbach's alpha, 0.822) was confirmed. The collected data were analyzed by SPSS. The results from the data analysis were obtained by Kolmogorov – Smirnov test and regression analysis which suggest that conversion of the cash accounting to the accrual accounting effect on the quality of the financial reporting, cash accounting effect on the quality of the financial reporting and accrual accounting effect on the quality of the financial reporting, too.

**Keywords**: Cash Accounting, Accrual Accounting, Quality of the Financial Reporting

## Introduction

As the aim of financial reporting is to give information which are useful to the investors, potential and actual creditors and managers of organizations and other users and these information should be efficient for the evaluation of cash flows, so in order to reach the mentioned aims, the financial reporting should give proper information relating to the manner of input and output of cash flows, the manner of dividing the borrowing interest, and paying back the loans. In this regard, as the need to financial information increases, the financial reporting should adjust the organization to the need of users and give proper information. One of the aims of financial reporting is to facilitate the optimal allocation of capital in economy. One of the most important aspects of this role is improvement of decision making in investment. Also increasing the potential financial transparency leads to decreasing the problems related to inefficiency of investment and this research has been done in this regard. Most of the standards of public sector accounting are codified by this hypothesis in which the government involves in the activities impartially and the public sector accounting is responsible to report the liquidation of budget, explain the supplying and consuming funds; and there is no need to calculate the outcome of function and financial state of the government accurately. But, currently, in some countries such as Britain, New Zealand and Australia, an approach toward using the full accrual basis in public sector accounting has been made.

In full accrual- basis accounting, the revenues are recognized and reflected in accounting offices when they are acquired or earned. On this basis, the revenues are earned or acquired when they are specified definitely and acquired in case of continuing to deliver the services. Thus, the time of collecting fund is not going to be considered but the time of acquiring or earning revenues for recognizing and recording the revenue is important. On this basis, the time of recognizing and recording the expenses equals the time of making or earning expenses and when the goods are delivered or a service is offered, the debt will be paid equivalent to

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the cost of delivery goods or offered service (Karbalaie, 2011) and in cash accounting which is based on receiving and paying in cash, any kind of change in financial state of the institution necessitates doing cash exchange and the revenues are recognized or recorded when they are received in cash and the expenses are recognized and recorded when they are paid in cash (j.Babajani.2006). According to the statement called "Sixths Statement of Financial Accounting Concepts", Accounting Standards Board emphasized that all of the components of financial statements and the recognition criteria and measurement of items inserted in mentioned reports are prepared and inserted in these statements. Based on FASB, the accrual accounting attempts to record the efficacy of all transactions and other events result in cash benefits for the institute at the time of occurring those transactions and events rather than recording these efficacies when the cash is received or paid by the institute (FASB.1980). The results from the study by Bushman and Smith showed that the high quality of financial reporting leads to increasing the efficiency of investment (R .Bushman A. Smith. 2001). Also, Bidddle and Hillary concluded that the companies which are highly proficient in financial reporting are highly efficient in investing and low sensitive in cash investment (Biddle *et al.*, 2009). These results because asking another question: Is there any relationship between the quality of financial reporting with the reduction of excessive and non-excessive investment? The main question of this research is: How does conversion of cash accounting to accrual accounting effect on the quality of financial reports? In this research, one primary hypothesis and two secondary hypotheses have been proposed; the primary hypothesis: conversion of cash accounting to accrual accounting effects on the quality of financial reports and the secondary hypotheses are 1. Cash accounting effects on the quality of financial reports, 2. Accrual accounting effects on the quality of financial reports.

## Statement of the problem

Most of the standards of public sector accounting are codified by this hypothesis that the government involves in the activities impartially and the public sector accounting is responsible to report the liquidation of the budget, explain the supplying and consuming funds and there is no need to calculate the outcome of function and financial state of the government accurately. But, currently, in some countries such as Britain, New Zealand and Australia, an approach toward using the full accrual basis in public sector accounting has been made. In full accrual- basis accounting, the revenues are recognized and reflected in accounting offices when they are acquired or earned. On this basis, the revenue are earned or acquired when they are specified definitely and acquired in case of continuing to deliver the services. Thus the time of collecting fund is not going to be considered but the time of acquiring or earning revenue for recognizing and recording the revenue is important. On this basis, the time of recognizing and recording the expenses equals the time of making or earning expenses and when the goods are delivered or a service is offered, the debt will be paid equivalent to the cost of delivery goods or offered service. With regard to the fact that there is a relationship between punctual and accurate accountability and its evaluation and the actual measurement of revenues and annual expenditures and its reflection in financial reports of public sectors, it can be concluded that applying the cash or accrual basis in recording the financial events of organizations to facilitate the accurate evaluation of their accountability, will be so effective (Karbalaie, 2011).The main aim of the financial reporting is to present the useful data of financial state, financial function and flexibility of commercial unit to the users in order to make useful financial decisions, so the investigation of financial reporting and accrual accounting every time and everywhere will be inevitable due to the great changes in accounting issue, accounting items and facing with the wavy and changeable competitive world for each organization.

## Review of the Literature

Naser Izadipanah, in his thesis entitled "inefficiencies and limitations of financial reports in decision making" has concluded that: In Iran, after the Islamic revolution, due to the confiscation or nationalization of commercial units in order to supervise and control these units, it was essential to apply the financial sciences more than before and analysis of financial statements of these units are applied as a tool of decision making for senior managers. One of the most important analysis techniques of financial statements which has been regarded in most of the national commercial units in recent years is financial ratios which has been calculated by the financial officer of these units and is attached in financial statements, also in all of the books of financial management, this technique was specifically considered as one of the most important techniques of analysis of financial statements and attracted the attention of users of financial statements. By this way, the financial ratios are used for recognizing the relationship between different items inserted in these statements and analysis of commercial unit conditions. The important point for using the financial ratios is that the ratios are similar to the thermometer which suggests the temperature rate of body regardless of detecting the reason of disease and consequently, the financial analyzers should detect the root of positive and negative points skillfully. Despite its extensive use, the attention of users directed from these ratios toward the limitations of these ratios. The limitations of financial ratios result from the inherent limitations in accounting, those limitations exist in the current framework of accounting and publicly accepted principles. Various data required for different groups of financial statement users are not provided by financial statements prepared within the framework of accounting. Analysis and interpretation of ratios are the most typical techniques to provide the required data for different groups. The ratio actually suggests the quantitative and numerical relationship between two variables which is presented as percentage or reduction or comparison of two numbers. Calculation of ratios does not mean to create additional data not existing before, but also discloses the relations of these data otherwise. In the mentioned thesis, it was attempted to investigate the limitations and inefficiencies of financial ratios in decision making and as this technique is used for decision made by different groups , their attention directs toward the limitations. So, it was attempted to explain the mistakes of accounting that affected negatively on the ratio calculation and their application and investigate the theoretical discussions. Also, in order to investigate the problems and inefficiencies of financial ratios in decision making, several companies from pharmaceutical industry and cement industry were selected as samples and by calculating the ratios, their efficiency in decision making was investigated (Babajani, 2006).

Bushman and Smith, in their research about the quality of financial reporting and investments, have concluded that increasing the quality of financial reporting leads to increasing the efficiency of investment (Healy, 1985)

Also, Biddle and Hillary, in their study, have concluded that the companies with high quality in financial reporting are highly efficient in investment and lowly sensitive to the cash investment (Bushman and Smith, 2001)

Jensen and Mayer, in their research in 1986, regarding the quality of financial reporting, concluded that the quality of financial reporting effects on the properties of the company such as financial leverage, investment, the quality of audit and financial structure of the company (Jensen, 1986).

## Materials and Methods

The aim of this study is practical. In this study, in order to find the relationship between variables, the correlation coefficient method was used and the relationship or lack of relationship between different variables was investigated. The statistical population of this study included 170 accountant, financial officer, revenue officer and revenue staff of Lorestan University of Medical Sciences. To acquire the statistical size, Cochran formula was used and based on the calculations, 118 samples included. The required data were collected and used by library and fieled method. The method of collecting data in the present research was a questionnaire and based on the 5-item Likert Scale. Also, in order to evaluate the stability of research materials, the variables of the research and the related questions were designed based on the analytical model and the stability of different variables and the questionnaire designed in Iran were investigated and corrected by the supervisor and consultant. Also, to evaluate the stability of questionnaire, the Cronbach's alpha was used and calculated based on this calculated coefficient (0.822), the questionnaire of this research is reasonably stable. The data of the research were quantitative and we tried to investigate the effect of one variable on the others by Kolmogorov – Smirnov test and regression analysis.

## Results

*Testing the primary hypothesis: conversion of cash accounting to accrual accounting effects on the quality of financial reporting*

$H_0$ = there is a correlation between the conversion of cash accounting to accrual accounting and the quality of financial reporting.

$H_1$ = there is not any correlation between the conversion of cash accounting to accrual accounting and the quality of financial reporting.

Table 1 represents the regression variance analysis for investigating the linear relationship between two variables. According to this output (F= 36.318), P value is 0.000 and less than 0.05 (0.000<0.05). So based on $\alpha = 0.05$, the relationship between the dependent (quality of financial reporting) and independent variables (conversion of cash accounting to accrual accounting) is statistically significant.

Based on Table 2, in column B, the fixed value and the coefficient of independent variable is presented in Regression equation as following:

$$y = 27.479+0.384 \text{ Log } X \qquad (1)$$

**Table 1. Regression variance analysis of primary hypothesis**

| | Model | Sum of Squares | df | Mean | F | P value |
|---|---|---|---|---|---|---|
| | Regression | 2570.796 | 1 | 2570.796 | 36.318 | 0.000 |
| 1 | Residual | 8211.043 | 116 | 70.785 | | |
| | total | 10781.839 | 117 | | | |

**Table 2. Coefficients of Regression Equation of primary Hypothesis**

| | Model | Non Standardized coefficients | | Standardized coefficients | t | P value |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 270479 | 3.878 | 0.488 | 7.085 | 0.000 |
| | Quality of financial reporting | 0.384 | 0.064 | | 6.026 | 0.000 |

Based on Table 3, Pearson's correlation coefficient between the conversion of cash accounting to accrual accounting and quality of financial reports equals to 0.000 which is less than 0.05, so there is relationship among variables and direct correlation between two variables. On the hand, there is positive correlation between the conversion of cash accounting to accrual accounting and quality of financial reports.

**Table 3. Pearson's correlation coefficient**

| Variables | Coefficients | Conversion of cash accounting to accrual accounting | Quality of financial reporting |
|---|---|---|---|
| Conversion of cash accounting to accrual accounting | Pearson's Correlation coefficient | 1 | 0.488 |
| | P value | | 0.000 |
| | N | 118 | 118 |
| Quality of financial reporting | Pearson Correlation coefficient | 0.488 | 1 |
| | P value | 0.000 | |
| | The number of data | 118 | 118 |

Testing the secondary hypothesis 1: Cash accounting effects on the quality of financial reports.

$H_0$: There is correlation between cash accounting and quality of financial reports.

$H_1$: There is no correlation between cash accounting and quality of financial reports.

Table 4 represents the regression variance analysis for investigating the linear relationship between two variables. According to this output ($F = 4.011$), P value is 0.048 and less than 0.05 (0.0.048<0.05). So, based on $\alpha = 0.05$, the relationship between the dependent (quality of financial reporting) and independent variables (cash accounting) is statistically significant.

**Table 4. Regression Variance analysis of secondary hypothesis 1**

| | Model | Sum of Squares | df | Mean | F | P value |
|---|---|---|---|---|---|---|
| | Regression | 360.363 | 1 | 360.0363 | 4.011 | 0.048 |
| 1 | Residual | 10421.476 | 116 | 89.840 | | |
| | Total | 10781.839 | 117 | | | |

Based on Table 5, in column B, the fixed value and the coefficient of independent variable is presented in Regression equation as following:

$$y= 45.193+ \text{Log } X\ 1.673 \qquad (2)$$

Based on Table 6, Pearson's correlation coefficient between the cash accounting and quality of financial reports equals 0.048 which is less than 0.05, so there is relationship among variables and direct correlation between two variables. On the hand, there is a positive correlation between the cash accounting and quality of financial reports.

Testing the secondary hypothesis 2: accrual accounting effects on the quality of financial reports.

**Table 5. Coefficients of Regression equation of secondary hypothesis 1**

| | Model | Non Standardized coefficients | | Standardized coefficients | t | P value |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 45.193 | 2.734 | 0.183 | 16.532 | 0.000 |
| | Quality of financial reporting | 1.673 | 0.835 | | 2.003 | 0.000 |

**Table 6. Pearson's correlation test of secondary hypothesis 1**

| Variables | Coefficients | Cash accounting | Quality of financial reports |
|---|---|---|---|
| Cash accounting | Pearson's correlation coefficient | 1 | 0.183 |
| | P value | | 0.048 |
| | Number of data | 118 | 118 |
| Quality of financial reports | Pearson's correlation coefficient | 0.183 | 1 |
| | P value | 0.048 | |
| | Number of data | 118 | 118 |

$H_0$: there is correlation between accrual accounting and quality of financial reports.

$H_1$: there is no correlation between accrual accounting and quality of financial reports.

Table 8 represents the regression variance analysis for investigating the linear relationship between two variables. According to this output (F= 29.616), P value is 0.000 and less than 0.05 (0.0.000 < 0.05). So, based on $\alpha = 0.05$, the relationship between the dependent (quality of financial reporting) and independent variables (accrual accounting) is statistically significant.

**Table 7. Regression of Variance analysis of secondary hypothesis 2**

| | Model | Sum of Squares | df | Mean | F | P value |
|---|---|---|---|---|---|---|
| 1 | Regression | 2192.864 | 1 | 2192.864 | 29.616 | 0.000 |
| | Residual | 8588.975 | 116 | 74.043 | | |
| | Total | 10781.839 | 117 | | | |

Based on Table 7, in column B, the fixed value and the coefficient of independent variable is presented in Regression equation as following:

$$y= 30.364+\text{Log } X0.408 \qquad (3)$$

Based on Table 8, Pearson's correlation coefficient between accrual accounting and quality of financial reports equals 0.000 which is less than 0.05, so there is relationship among variables and direct correlation between two variables. On the other hand, there is positive correlation between accrual accounting and quality of financial reports.

**Table 8 . Coefficients of regression equation of secondary hypothesis 2**

| Model | | Non Standardized coefficients | | Standardized coefficients | t | P value |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 30.364 | 3.763 | .0.451 | 8.070 | 0.000 |
| | Quality of financial analysis | 0.408 | 0.075 | | 5.0442 | 0.000 |

**Table 9. Pearson's Correlation Test of secondary hypothesis 2**

| Variables | Coefficients | Accrual accounting | Quality of financial reports |
|---|---|---|---|
| Accrual accounting | Pearson's Correlation coefficients | 1 | 0.451 |
| | P value | | 0.000 |
| | Number of data | 118 | 118 |
| Quality of financial reports | Pearson's Correlation coefficients | 0.451 | 1 |
| | P value | 0.000 | |
| | Number of data | 118 | 118 |

## Conclusion

What is concluded based on the results of hypothesis test relating to the significant relationship between the independent and dependent variables is that there is positive and significant relationship between the quality of financial reports and accounting methods in Lorestan University of Medical Sciences and these accounting methods effect on the quality of financial reports . The correlation coefficient and the relationship between the cash accounting and quality of financial reporting equals to 0.183 and the correlation coefficient and the relationship between the accrual accounting and quality of financial reporting equals to 0.451. So, it was concluded that the relationship between the accrual accounting and the quality of financial reporting was stronger than relationship between the cash accounting and the quality of financial reporting and this suggest the conversion of cash accounting to accrual accounting.

## Suggestions for further research

Based on the results from the hypothesis, mentioned in Chapter 4, some suggestions are made as follows:

1- regarding the conclusions of the primary hypothesis, we can make suggestions to the managers such as:

- Standardizing and integrating the financial processes
- Creating, increasing and considering the internal controls about the circulation of financial operation
- Decreasing the number of account lists and using the headings of standard accounts
- Classifying and recording the financial events punctually and automatically
- Facilitating the recognition and recording the information relating to the inventories and fixed assets in accounts
- Costing to reach the finalized costs of services
- Supervising continuously and properly on the circulation of financial operations in subordinate units of headquarters
- Removing the repetitive and parallel operations in financial affairs of headquarters and subordinate units
- Facilitating and accelerating financial operations records in financial affairs of headquarters and subordinate units
- Providing required terms to adjust the functions with the approved budget items
- Providing requirements to produce the unified and complete software of accrual accounting

1. Regarding the results of secondary hypothesis and effect of accrual accounting on the quality of financial reporting, it is suggested that the managers make familiar with the concept of quality of financial reporting and consider it in their decision makings.

2. Regarding the total conclusions, it is suggested that the managers teach the accrual accounting to the staff and due to its strong effect on the quality of financial reporting, convert the cash accounting to the accrual accounting.

## References


Babajani, J. (2005). Accounting and state financial controls, fourthed, Allameh Tabatabaie Press.

Biddle, G., Hillary, G. & Verdi, R. (2009). How does financial reporting quality improve investment efficiency? *Journal of Accounting and Economics, 48,* 112-138

Bushman, R. & Smith, A. (2001).Financial accounting information and corporate governance. *Journal of Accounting and Economics, 31,* 237-333

FASB (1980).Qualitative Characteristics of Accounting Information Statement of Financial Accounting Concepts, No.2.

Healy, P, (1985). The Effect of Accounting Procedure Change on CEOs cash salary and Bonus Compensation. *Journal of Accounting & Economics, 9,* 7-34

Jensen, M. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *American Economic Review, 76,* 323-329

Karbalaie, A. (2011). Accrual accounting and cash accounting, www.rasekhoon.net