

## **Role of Accrual Accounting in Report Transparency and Accountability Promotion in Iranian Public Health Sector**

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**Abstract:** This study was conducted to investigate the role of accrual accounting deployment in report transparency and accountability promotion in Mazandaran University of Medical Sciences as one of the subset units of Ministry of Health and Medical Education and a sub system of the public sector as well. The study population included the present auditors in the audit court of Mazandaran University of Medical Sciences, the board of trustees of the university auditors, finance managers, finance and accounting the subordinate units of university, financial experts and personnel and budget experts. A teacher made valid questionnaire consisting of 38 closed questions with a five options Likert scale was applied. Data was analyzed by student t- test and proportions test (z) at a significance level of 0.05. The findings indicated that accrual accounting is effective in report transparency, accountability promotion and determining the total cost of services and the public sector action ( $P < 0.001$ ). According to the findings, it seems that accrual accounting implementation is an appropriate approach in order to enhance social accountability of public managers in the country, increasing transparency of financial reports, calculating the cost of service, operational budgeting, prioritizing activities and programs and also optimizing future decisions.

**Key words:** Accrual Accounting • Report Transparency • Accountability • Public Sector

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### **INTRODUCTION**

Governmental financial accounting and reporting is a system which collects, classifies, summarizes and reports financial information relating to state activities of subordinate units in a way that, in one hand, helps government and elects officials and the public in the accountability and financial accurate decision making and approved applications controlling, on the other hand, provides background for people informed judgment on the government's performance and to accountability assessment [1]. Also the public sector is required to act as the national accounts system or the International Monetary Fund about Government Finance Statistics and under the same system, pay to financial reporting [2].

However, during the past two decades, a large number of governments around the world have used accrual accounting practices, for both financial reporting and budgeting purposes, that New Zealand and Australia among the countries are considered the pioneers of these changes [3].

Several studies have considered the benefits of accrual accounting including:

Accrual accounting, in the form of approved credits is required to determine the total cost and the actual costs of implementing the programs, operations and activities of government agencies; precise control of revenues and other financing sources and expenditures and other independent accounts payments will be possible if the accrual accounting basis is used; accrual basis of more

complete and more detailed information will be available for legislature, government and other regulatory authorities and citizens for government performance monitoring and evaluating; information accrual accounting and more accurate and precise financial reports for planning and decision-making and implementation of operations and programs, are available for government agencies' managers and in some independent accounts and nonprofit state agencies, recognition of actual revenues and expenses and their belonged to the fiscal period and also determining the correct financial position at the end of the fiscal period is possible only through the adoption of accrual accounting [4, 5].

On the other hand, other studies have suggested that accrual accounting allows the government to have better picture of their performance, because it shows the revenues and consumed resources during a period. In addition, accrual accounting often facilitates planning, decision making and management and also causes promotion in evaluation of reversible financial assets [6].

Meanwhile, accrual financial reporting refers to the preparation of financial statements and annual reports based on accrual information. Financial statements on an accrual basis, offers more comprehensive accounting than gathered information from traditional cash accounting systems. These statements are independent for a section, including application, program, assets and liabilities, cash flows, independent trade accounts and the notes and records relating to management and auditors [7].

Among these cases, studies have offered conflicting evidence regarding the impact of accrual accounting on financial reports transparency, for example, although it is claimed that accrual financial reports are useful to meet the goals of economic decisions, but in the private sector achieving to these aims through offering accrual financial statements is dubious [8]. On the other hand, provide the preparation which only offers insight about the costs and effectiveness and are often unsuitable for measuring environmental inputs and outcomes of public sector, may be non beneficial. Most data provided by accrual-based financial reporting, like assets valuation and ownership rights, cannot be used in deciding about performance, accountability or financial supplement decisions in the public sector [9]. So, according to what was mentioned, doing research that examines the impact of using accrual accounting on financial reporting transparency and accountability would seem essential.

In this study, the role of accrual accounting implementation in reporting transparency and accountability promotion of Mazandaran University of Medical Sciences was evaluated as a subset unit of the Ministry of Health and Medical Education and the public sector as well.

## MATERIALS AND METHODS

This was a field study classified as a practical one in terms of results application. Its statistical population was made from auditors of Supreme Audit Court based at the University, Board of Trustees auditors, finance and accounting managers of subordinate units of University, University financial staff and experts and budget experts based at Mazandaran University of Medical Sciences, in 2011. In order to select a sample, a random sampling procedure was used and the number of samples needed to conduct research was calculated through Cochran formula [8] as follows:

$$n = \frac{N \times (z_{\alpha/2})^2 \times pq}{(N-1)(\epsilon)^2 + (z_{\alpha/2})^2 \times pq} = \frac{170 \times (1/96)^2 \times (\frac{1}{2} \times \frac{1}{2})}{(169)(0.05)^2 + (1/96)^2 \times (\frac{1}{2} \times \frac{1}{2})} = 118$$

In which N is the number of total population and was equal to 170 people.

$\epsilon$  is error percentage and was considered 5%, the reason of considering the high error percentage was that the study was conducted for the first time in the country and has high sensitivity.

$1-\alpha$  is insurance level and here was equal to 95%

$Z_{\alpha/2}$  is obtained from the standard normal radiographs and is 1.96.

p and q is the probability of having or not having the desired trait that in good condition is  $p = q = 0.5$ .

Data collecting tool in this study was a questionnaire consisting of 38 closed questions with a five options Likert scale. Mode of options valuations was such that numerical value of 1 was for options too little and 5 was for options too much.

In order to assess the content validity of the questionnaire in pre-tested step, the questionnaire was given to 6 technical experts and they were asked to express their opinions about it, 5 of them fully confirmed it, finally, the content of the questionnaire was approved by respected teachers. Furthermore, the validity of the

questionnaire was clear and its results were homogeneous and uniform with the results of researches have been done in the past.

To ensure the questionnaire's reliability, Cronbach's alpha coefficient was used that its results for the first hypothesis was 0.901, for the second hypothesis was 0.93 and for the third hypothesis was 0.91 and also for the fourth hypothesis was 0.923. Meanwhile, the value of Cronbach's alpha for the entire questionnaire was equal to 0.967, indicating the high reliability of the questionnaire.

Next, recall questionnaires were copied to members of selected specimens and scholar while visiting investigated units and after providing a description of the significance of the research and its objectives and maintain the confidentiality of data and after getting verbal conscious and voluntarily consent from individuals, they were offered to the respondents. At this stage, all samples that were not willing to participate in the study for any reason were excluded from the study and were replaced with similar samples. Meanwhile, in order to increase the response rate to the questionnaires, it was planned that the questionnaires would be distributed in the early hours of work and at the end of the working day and collected by the researcher. In this way, 95% of questionnaires were returned, that was a favorable rate.

After collecting the questionnaires and ensuring from all questions' competence, answers were recorded in the SPSS software version 17 and classical and central statistics and scattering was used to describe data. Kolmogorov - Smirnov (k-s) Statistical test was used to ensure data normality and student t-test and ratio test (z) at a significance level of 0.05 were used for data analyzing.

## RESULTS

Findings from this study indicated that 82 respondents (69.5%) were men and 36 (30.5%) were female. In addition, 24 cases had associate degrees (20.3%), 83 had a bachelor's degree (70.3%) and 11 had MS (9.3%). In addition, 74.6% of this population has been biased accounting education and others were in various fields of study such as economics, management and etc. Table 1 shows the distribution of selected samples according to their organizational position; the majority of the participants were university financial experts and the minimum rate was related to the budget experts and Auditors of Audit.

Other descriptive statistics indicated that average given responses to the questions relating to the role of accrual accounting in accountability promotion and reporting transparency was 95%+2. This means that 95% of respondents believed that using accrual accounting system make reporting transparency and accountability promotion.

In addition, the findings of data normality test indicated that data have been normalized in 95% confidence interval and therefore in the analysis continuing, the parametric tests were used as follows:

To test the hypothesis of the research, information of t-student test and ratio test (Z) were used and the related results were summarized in Table 2. These findings indicated that accrual accounting is effective on reporting transparency and promoting public accountability (P <0.001), besides this, implementation of accrual accounting was effective in the public sector

Table 1: Distribution of participants in terms of organizational position

Organizational position	Abundance	Percent	Pure Percentage	Cumulative percent
Auditors supreme Audit Court	5	4.2	4.2	4.2
Auditors of Board of Trustees	10	8.5	8.5	12.7
Chief financial officer / chief accounting	18	15.3	15.3	28.0
Finance Expert	80	67.8	67.8	95.8
Budget Expert	5	4.2	4.2	100.0
Sum	118	100.0	100.0	

Table 2: Results of the research hypotheses test

Hypothesis	Description	Confirmed	Not confirmed	P-Value
1	Accrual accounting was effective on reporting transparency and accountability promotion in the public sector of Iran	×		<0.001
2	Accrual accounting was effective on reporting transparency in the public sector of Iran	×		<0.001
3	Accrual accounting was effective on accountability promotion in the public sector of Iran	×		<0.001
4	Accrual accounting was effective on determining the total cost of services and public sector activities in Iran.	×		<0.001

reporting transparency ( $P < 0.001$ ). Accrual accounting was also effective on improving the accountability of the public sector ( $P < 0.001$ ) and ultimately, accrual accounting was effective on determining the total cost of services in public sector activities ( $P < 0.001$ ). Thus all four hypotheses posed in this study were statistically significant.

## DISCUSSION

The present study findings suggested that implementation of accrual accounting system in the accounting system of mentioned university can increase reporting transparency and accountability promotion in this section, in addition, the accrual accounting system make reporting transparency and clarity in the total cost of activities. Moreover, the accrual accounting system implementation in the public sector of Iran can promote accountability level and implementation of accrual accounting basis in accrual accounting system in the public sector could state the total cost of services and government activities more transparent.

In this regard, several studies inside and outside the country are consistent these results, for example: Barrett [10] has shown that accrual accounting in the public sector is associated with four major works: First, provides a more comprehensive definition of the cost in the government's program, second, focuses on the cost of monitoring and on measuring the activity effectiveness, third, creates a greater accountability for required resource and invested in public sector institutions and finally, creates a response to the liabilities policy downward effects which refers to importance of measuring the "periodic right".

Shoorvarzy *et al.* [11] also believed that if performance-based budgeting goals include improving accountability, increasing effectiveness, enhancing program efficiency, changes in program management, changes in states funding, changes in the budget process and changes in state policy, highest score would be given to accountability and lowest score would be given to changes in state policy.

On the other hand, Hepworth [12] believed that answers seeking and accountability culture play an important role in the adoption and implementation of accrual accounting in the public sector. Answers seeking culture increase accountability rate and therefore you feel more need for properly assessing the managed performance and the need for accrual accounting.

In this regard, Riahi [13], noted that using the accrual accounting basis governmental accounting system has an

impact on increasing the level of accountability and also makes better reporting of revenues, expenses, assets, liabilities and management stewardship serving and budget control and budget commitment.

Tariqi [14] believed that, accrual accounting basis causes managers accountability enhancement, operating budget preparation facilitation, providing total cost information and activity transparency and also improve managers' optimal decisions.

However, other types of studies are in contrast with applying accrual accounting and theoretical framework based on accountability. Allen Chic has opposed adopting the accrual accounting in America and his reasons were as follows: accrual basis was not able to solve difficult problems out of balance sheet. In addition, accrual basis required large and complex assumptions about future events and these assumptions are at risk of judgments and manipulation [15]. In this respect, Mehrani and Hesarzadeh [16] believed that framework based on the accountability is likely to distort the providing useful information for decision-making to respond privacy tackles.

It can be concluded that accrual accounting implementation would be a good solution for enhancing social accountability of public managers, increasing financial reporting transparency, services cost accounting, operational budgeting, activities and programs prioritizing and optimizing future decisions.

Since one of the limitations of this study was study population limitation to only one Medical Sciences University, in order to increase the ability to results generalization, it is possible to design more extensive research at other universities, in particular, first and third class universities to compare the results with the present findings and provide a comprehensive model for public sector. In addition, due to the inherent limitations of the questionnaire, as the only instrument, it is suggested to create relevant qualitative studies with all stakeholders' presence from within and outside the organization in order to extract the most important impact of accrual accounting implementation on financial reporting and health sector accountability as a subset of the public sector.

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