



# The impact of Implementation of New Systems of Finance (accrual accounting) at Ministry of Health and Medical Education on the components of quality of work life in Shiraz University of Medical Sciences: Perspectives of managers and financial analysts

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## ABSTRACT

**Introduction:** The main objective of this research was to investigate the viewpoints of managers and finance experts of medical sciences on the impact of implementation of the modern financial system (accrual accounting) on the components of their quality of work life.

**Method:** To achieve this goal Walton's theory (1973) quality of life, was employed, totally 66 people from universities of medical sciences of all over Iran were selected, and nine hypotheses were compiled and tested via a questionnaire.

**Results:** The results of the analysis through one sample and two sample t-tests and variance analysis demonstrated that, as the participants believed, implementation of the modern financial system (accrual accounting) had no significant effect on the components of their quality of work life (fair and adequate payment, and overall living space).

However it was effective on other components.

**Conclusion:** The highest impact factor was in relation to the "safe working environment" and the least impact factor proved to be the variable "social unity in the organization".

**Keywords:** Accrual accounting methods, Quality of work life, Financial managers, Universities of Medical Sciences all over Iran

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## Introduction

Nowadays in modern management, quality of work life around the world has become a major social issue (1), whereas in the past decades the emphasis was only on personal (non-working) aspects (2). In effect, proponents of the quality of work life are in search of new systems to help the staff (3). One of the important factors in improving the quality of work life of employees, which could have a significant impact on the USOC and has been extensively discussed in the literature scorecards (4), is the infrastructure, methodology, and accounting and financial information systems handled within the organization. These infrastructures can also increase the profitability and job satisfaction of employees in the organization, which would ultimately improve the quality of work life of employees, and also other areas.

One of the most important changes in recent years in the areas of Health and Medical Education Department

has been a change in the accounting system and financial reporting, i.e. movement from cash accounting toward accrual accounting. Financial information contained in the report – vision of the university administrators lacks the necessary quality characteristics for the purposes of making a decision and would not be suitable for the accountability of managers. Therefore, it seems necessary to change and improve the financial reporting principles. Hence, the questions posed are: Does the implementation of accrual accounting system have an effect on improving the quality of work life of managers and employees of Ministry of Health and Medical Education? If the answer is yes, what is its impact on the quality of life of each structure? Which structure has the most impact? Furthermore, what are the individual characteristics and environmental impacts in this study? The aim of this study was to investigate these questions.

The significance of the study lies in the very fact that it is the first time that one of the most important financial

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structures in the Ministry of Medicine is investigated in order to extend the frontiers of knowledge with regard to the personnel's lifestyle. Awareness about this impact would assist in better implementation of the new financial system.

The structure of the paper is as follows. First, theoretical foundations and literature reviews are provided, respectively. Second, the hypotheses and research method including the target population, sample, data collection method, and statistical methods are described. Third, the findings along with descriptive statistics and testing the hypothesis are presented. Finally the discussion and summary of the article are offered.

## **Methods**

### **Theoretical Foundations**

A review of existing literature reveals that there is no common and acceptable definition for the quality of work life, and different variables such as organizational policy, leadership styles, methods, and practices on the employees' attitude would influence the quality of work life(5). In addition, over the past few decades, different views have been proposed about the quality of work life, such as quality of working life as a variable, as an approach, a set of methods, as a movement and as a moral issue.

In a general definition, quality of life can be expressed as such: "The quality of work life is a subjective perception, understanding or perception of employees about the desirability of physical and mental working environment"(6).

In the late twentieth century, organizations were formed to promote the ideology of the quality of work life. Beyond these activities, a new definition of the concept was presented. The definition considered the quality of work life as a movement. Also, the quality of work life is regarded as something more than a statement of the ideological nature of work and labor relations with organizations and it employed new words such as participative management and industrial democracy as the ideals of the quality of work life(7).

Thus, in short it can be mentioned that the quality of work life is a continuous series of actions and expressions which would enable individuals, organizations and society achieve their long-term interests through improved working conditions, rich job-creating enabling the staff to increase knowledge, insight and professional skills(8).

In this study, definitions and theories of a number of theorists in management such as Henry Mintzberg 11, Astyfmn Robbins 12, Cassette 13, Walton 14, Werther 15, Dslr 16 and Friedman 17 regarding the quality of work life were also examined and the conclusion reached was that Walton's theory (1973) has a more appropriate category. Also, the eight-part classification categories of Walton is arranged in a way that other theories of the rhetoricians are also included in it. In addition, Walton (1973) has set up the theoretical model to explain the quality of work life which would be applicable in a variety of research related to quality of work life(9-13).

The pattern is as follows:

1 - Pay fair enough - equal pay for equal work and

payments proportionate to social norms and standards as well as the proportion of employees to other types of work.

2 - Safety and health in work place - physically safe working conditions as well as the determination of reasonable working hours.

3 - Provision of opportunities for continued growth and security - providing improved interpersonal skills, opportunities for advancement, opportunities for skills acquisition and securing of income and employment.

4 - The law on the organization - providing freedom of speech without fear of feedback of the authorities and effectiveness of domination of law over human domination.

5 - Social ties in career - the perception of the personnel with regard to social responsibilities at the organization

6 - Overall living space - maintaining balance between work life and life (including leisure, education and family life).

7 - Integration and Social Cohesion in the business - creating the right working environment for employees, so as to strengthen the sense that they are required by the organization.

8 - The development of human capabilities - providing opportunities such as using independence and self-restraint at work, enjoyment of a variety of skills and access to information appropriate to the task.

### **Review of Literature**

Hatami and colleagues (2011) examined the relationship between quality of work life, organizational commitment, and the degree of practicality among the personnel at Jahrom University of Medical Sciences. They found that there was a positive and significant relationship between the quality of work life and organizational commitment and the interest rate (9).

Goudarzvand and Myrdvzndh (2012) also examined the relationship between quality of work life and job satisfaction among staff in Rasht state hospital as for their education (14). The results demonstrated a positive and significant relationship among any of the variables of the quality of work life and job satisfaction among the personnel with 99 percentage reliability. Moreover, the variable of education proved to have a reductive influence over the relationship between the independent and dependent variables.

Chan, 27, and W28 (2007), in their study entitled "Quality of work life: a study of employees in China" examined the impact of quality of work life over job satisfaction and life satisfaction of paying employees (15). Through the investigation of the opinions of 319 personnel at eight organizations in China, these scholars found out that factors such as economy in family, security and knowledge are influential for reaching job satisfaction. Also, Nirali and Pandit (2010) in their study entitled "A study of the work life quality and its impact on job satisfaction in private and public hospitals in the city of Gojart" found a significant relationship between variables of work life quality and job satisfaction and in this case there was no difference between public and private hospitals (12). The only difference was in workplace safety and health, in which private hospitals were more

efficient. In another study, Dargahi and colleagues (2011) also examined the components of quality of work life of employees at No 15 Radiology Department at Tehran University of Medical Sciences Hospital, indicating that most voters were dissatisfied with the quality of working life and rated it low (13).

All of the above results suggest the influence of the components of quality of work life over the researched variables such as productivity, job satisfaction, organizational commitment and organizational health. Nonetheless, no study has been carried out to study the influence of the implementation of new financial systems on working life components Of the employees in Ministry of Health and Sciences; thus this is the main aim of the present article.

#### Research Methodology

This research aims to find a reasonable answer to this question of whether implementation of the new financial system in the Ministry of Health and Medical Education influences the components of work life quality of medical career managers and financial experts of the country. In order to further investigate this issue, the view points of university administrators and financial experts about the impact of the implementation of the accrual accounting system (as the modern financial system of Ministry of Health and Medical Education over the quality of their working life) are studied. Therefore, an experimental study was applied and experimental research methods were used.

#### The Hypothesis

Given the background and objectives of the research and the theoretical model proposed, nine hypotheses were designed and tested as follows:

First hypothesis: there is a significant relationship between the implementation of a new financial system (accrual accounting) at the Ministry of Health and Medical Education and a 'fair and adequate payment of the managers and financial analysts.

Second hypothesis: there is a significant relationship between the implementation of a new financial system (accrual accounting) at the Ministry of Health and Medical Education and providing a "safe and sanitary working environment for them"

Third hypothesis: there is a significant relationship between the implementation of a new financial system (accrual accounting) at the Ministry of Health and Medical Education and 'the development of human capabilities'.

Fourth hypothesis: there is a significant relationship between the implementation of a new financial system (accrual accounting) at the Ministry of Health and Medical Education and "providing opportunities for development and security"

Fifth hypothesis: there is a significant relationship between the implementation of a new financial system (accrual accounting) at the Ministry of Health and Medical Education and "unity and social cohesion in the organization of work".

The sixth hypothesis: there is a significant relationship

between the implementation of a new financial system (accrual accounting) at the Ministry of Health and Medical Education and "law orientation at the organization".

The seventh hypothesis: there is a significant relationship between the implementation of a new financial system (accrual accounting) at the Ministry of Health and Medical Education and their "life space"

The eighth hypothesis: there is a significant relationship between the implementation of a new financial system (accrual accounting) at the Ministry of Health and Medical Education and "Social ties to working life".

The ninth hypothesis: A significant relationship exists between the individual characteristics of the participants (gender, age, education, work experience, career and profession) and their views regarding the impact of implementation of the new financial system, (accrual accounting), at the Ministry of Health and Medical Education.

#### The Population

The population of this study included all managers and financial experts responsible for implementing accrual accounting system at the University of Medical Sciences all over Iran. This population, according to the latest statistics available, were only 66 people and due to the increasing reliability and validity, all members were tested and therefore, no sampling was used.

#### Data Gathering

To gather the data, a questionnaire containing five general questions and 26 specific questions was used. Specific questions were of closed and conditioned type, using option 5 point Likert scale. A total of 66 questionnaires were distributed; of them 48 were applicable. Thus, about 73% of the total sum of the questionnaires was collected.

In order to ensure a reasonable validity, in addition to the formal validity of the corrective feedback of the experts, a pretest was used in such a way that first the primary questionnaire was distributed among 20 subjects of the sample population chosen randomly, and then the necessary reforms were applied to the questionnaire according to the recommendations of this group. In order to evaluate the reliability, Cronbach's alpha was used. Cronbach's alpha calculated was equivalent to 84/0, and therefore, no question was omitted.

#### Method of Data Analysis and Hypothesis Testing

In order to test the research hypothesis, parametric t-test (uni- sample) at 95% confidence level and 5% error level was used. Two sample t-tests for nine hypotheses testing and analysis of variance Also performed. In addition, to test the data normality, Kolmogorov - Smirnov error of 5% was used. In order to analyze the data and test, statistical software SPSS version 18 was used.

#### Results

##### Descriptive statistics

Descriptive statistics of the study hypothesis are shown

in Table 1, indicating that the mean of the responses given for all hypotheses by the mean spectrum (3) was different. Also, the standard deviation of the variables is presented in Table 1. SD data also gives accurate results. The less the standard deviation, the less the data accuracy. Standard deviation acquired for each question demonstrated that the responses of the fourth hypothesis have the most accuracy and those of the seventh hypothesis have the least accuracy.

**Table 1.** Descriptive statistics for variables

Hypotheses	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth
Average	40.2	94.3	68.3	90.3	47.3	57.3	42.2	06.4
SD	76.0	54.0	62.0	53.0	79.0	75.0	09.1	65.0

**Normality Test of the Variables**

First, the normality of the variables related to the hypotheses one to eight was tested. For this test, “Kolmogorov - Smirnov” was used. Table 2 shows the results of the normality test.

**Table 2.** Test of normality of variables

Hypothesis	Maximum Deviation	Maximum Negative Deviation	Maximum Positive Deviation	Statistics Z	Significance Level
First	0.161	0.132	0.161	1.11	0.16
Second	0.171	0.171	0.162	1.188	0.11
Third	0.109	0.109	0.108	0.75	0.61
Fourth	0.158	0.158	0.130	1.09	0.18
Fifth	0.111	0.111	0.103	0.77	0.59
Sixth	0.177	0.177	0.136	1.22	0.10
Seventh	0.211	0.122	0.211	1.46	0.28
Eight	0.195	0.195	0.126	1.35	0.052

Table 2 shows that the significance level is greater than the level in the last column tests (05/0), so the null hypothesis (all hypotheses from the first to eighth follow a normal distribution) cannot be rejected. Therefore, all variables followed a normal distribution.

**Testing the hypothesis**

According to data normality, and for hypothesis testing, the significance level of t-and upper and lower mean difference was used. Table 3 displays the results of hypothesis testing the t-test.

In Table 3, the t-statistics and significance level of the test of the eight hypotheses for research are shown. These data indicate that the mean of the average quality of life measures (number 3) is different. Moreover, the lower limit and the negative upper limit for the payment of fair and adequate indicators and overall living space show that the average of the two indices is less than the expected value. With respect to the first and seventh research hypotheses, the results indicated the fact that in respondent’s view, the implementation of accrual accounting has no impact on the indicators for fair pay and adequate life space. Thus, the first and seventh hypotheses cannot be rejected.

In contrast, a positive lower limit and upper limit for the index of workplace safety and health, human capacity development, providing opportunities for growth and security, integration and social cohesion in the organization of labor law and social involvement in the organization of working life has been observed, indicating that the average of this index is greater than the expected value. In fact, these results demonstrate the impact of accrual

accounting on these parameters and the confirmation of the second, third, fourth, fifth, sixth and eighth hypotheses by the university administrators and financial experts in medical sciences universities in the country. According to the t-statistic, among the accepted hypotheses, the second hypothesis is the most influential in implementation of

accrual accounting system (workplace safety) and minimal impact belonged to the fifth hypothesis (integration and social cohesion in the organization of work, respectively).

**The Ninth Hypothesis Test**

In this part of the test «t two- sample “ and “ Analysis of Variance “, the influence of individual and environmental characteristics of participants including gender, age, education , major and professional work experience on the first to eighth hypotheses was studied. Table 4 shows the results .

The results presented in Table 5 show that the significance level for all hypotheses is higher than 0.05 / . Therefore, the test is not significant and H0 cannot be rejected. Therefore, the general conclusion could be that there is not any significant difference between the mean response given by men and women. It seems that since women make up only 23 percent the respondents, gender cannot maintain of significant effect on the research hypothesis.

to the two other components of the quality of working life , the results indicate the fact that from the perspective of

**Table 3.** Results of one sample t-test of hypothesis

Hypothesis	Freedom Degree	Statistic t	Significance Level	Mean	Mean Difference	95% confidence interval for mean difference	
						Lower Limit	Upper Limit
First	47	-5.427	0.0001	2.40	-0.5972	-0.8186	-0.3758
Second	47	12.009	0.0001	3.94	0.9305	0.7747	0.086
Third	47	7.529	0.0001	3.68	0.6770	0.4962	0.8580
Fourth	47	11.828	0.0001	3.90	0.9010	0.7478	0.0543
Fifth	47	4.084	0.0001	3.47	0.4652	0.2361	0.6944
Sixth	47	5.283	0.0001	3.57	0.5694	0.3526	0.7863
Seventh	47	-3.706	0.0001	2.42	-0.5833	-0.9000	-0.2667
Eighth	47	11.253	0.0001	4.06	0.0555	0.8668	0.2443

**Table 4.** Results of test on the relationship between gender and research hypotheses

Hypothesis	Gender	Number	Mean	Significance Level	Result
First	Female	9	2.333	0.53	Not Rejecting H0g
	Male	39	2.418		
Second	F	9	3.888	0.69	Not Rejecting H0g
	M	39	3.947		
Third	F	9	3.750	0.94	Not Rejecting H0g
	M	39	3.660		
Fourth	F	9	3.861	0.34	Not Rejecting H0g
	M	39	3.910		
Fifth	F	9	3.555	0.62	Not Rejecting H0g
	M	39	3.444		
Sixth	F	9	3.703	0.95	Not Rejecting H0g
	M	39	3.538		
Seventh	F	9	2.407	0.88	Not Rejecting H0g
	M	39	2.418		
Eighth	F	9	4.074	0.71	Not Rejecting H0g
	M	39	4.051		

### Discussion

This study examined the attitudes of medical directors and financial experts about the effectiveness of implementation of new financial system (accrual accounting) at the Ministry of Health and Medical Education on the components of quality of work life. The normality of the hypothesis was first tested using Kolmogorov-Smirnov normality test and considering all the hypotheses a sample t test was performed to test the eight hypotheses used. Results indicate that 95% of the managers and financial experts believed that modern financial system (the change from cash to accrual system) has had an influence on the components of life in their organization (workplace safety, human capacity development, providing opportunities for development and security, integration and social cohesion in the organization of work, the dominance of law and social involvement in the organization of working life). As

the respondents, the impact of implementation of accrual accounting on staff salary increases the system performance, due to the increase in amount of salary, benefits, employment, the right not (the criteria for fair and adequate pay). The result of testing the seventh hypothesis indicated that based on the respondent's view, the implementation of accrual accounting system in effect at the balance between working life and family practitioners, implementation, allocation of hours in the week, entertainment enforcement system and the allocation of times implementing for have fun with the family, despite the heavy schedule of work, is not indicator of overall living space).

### Conclusion

However, the ninth hypothesis testing using two sample t-test and ANOVA also showed that with the 95%

significance level, none of the individual characteristics of the respondents (gender, age, education level, professional work experience) had an effect on their views regarding the hypothesis. Hence, it seems that since women make up only 23 % of the respondents, gender cannot have a significant effect on the research hypothesis.

The findings of the present study are in accordance with the results of the researchers such as Boonrod

(2009)(16) and Nirali and Pandit (2010)(12). However, the study results is in contrast to those of Heydari, Rifa et al (1389)(17) and Goudarzvand and Myrdvzndh (2012)(14) regarding the influence of individual characteristics of gender and education.

**Table 5.** Results of Testing the Ninth Hypothesis

hypotheses		First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth
<b>Age</b>	Statistic F	0.131	1.266	0.310	0.298	0.519	0.244	0.341	0.517
	Significance Level	0.877	0.292	0.735	0.744	0.598	0.748	0.341	0.517
	Result	Not Rejecting H0g							
<b>Education</b>	Statistic F	0.247	2.118	0.523	0.335	0.930	0.796	1.315	0.60
	Significance Level	0.862	0.112	0.669	0.800	0.434	0.503	0.282	0.980
	Result	Not Rejecting H0g							
<b>Professional Work Experience</b>	Statistic F	0.430	0.608	1.441	0.352	1.790	1.362	1.203	1.300
	Significance Level	0.733	0.613	0.244	0.788	0.163	0.267	0.320	0.286
	Result	Not Rejecting H0g							
<b>Major</b>	Statistic F	0.420	2.769	0.354	0.204	0.183	0.390	1.408	1.094
	Significance Level	0.739	0.053	0.787	0.893	0.907	0.761	0.253	0.362
	Result	Not Rejecting H0g							

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