# STUDY AND INVESTIGATION OF THE ADMINISTRATIVE, MOTIVATIONAL AND INDIVIDUAL CHALLENGES AND CONSTRAINTS CHARACTERISTICS OF FINANCIAL SUPERVISORS IN PUBLIC SECTOR ORGANIZATIONS WITH THE APPROACH OF DESIRED IMPLEMENTATION OF THE PUBLIC SECTOR ACCOUNTING

Mehdi Jani <sup>1</sup> Ahmad Pifeh <sup>2\*</sup> Mahdi Faghani <sup>3</sup>

<sup>1</sup>PhD Student of Accounting, Department of Accounting, Chabahar Branch, Islamic Azad University, Chabahar, Iran. https://orcid.org/0000-0002-8329-5021. Email: mehdimahyar60@yahoo.com

<sup>2</sup>Corresponding Author: Assistant Professor of Accounting Department, Sistan and Baluchestan University, Zahedan, Iran. https://orcid.org/0000-0002-3863-6181. Email: pifeh@acc.usb.ac.ir

<sup>3</sup>Assistant Professor of Accounting Department, Sistan and Baluchestan University, Zahedan, Iran.

https://orcid.org/0000-0002-9769-8948. Email: faghani@acc.usb.ac.ir

\*Corresponding Author: Ahmad Pifeh, Assistant Professor of Accounting Department, Sistan and Baluchestan University, Zahedan, Iran, E-mail: pifeh@acc.usb.ac.ir

**Abstract. Introduction:** The purpose of this study was to study the administrative, motivational and individual characteristics challenges and bottlenecks of financial oversight of the executive agencies of the country in the desirable implementation of the public sector accounting system. Provide public sector accounting. Methodology: The present study is a descriptive and survey research in terms of purpose, in terms of measuring variables and collecting data. In this research, the combined approach of library or documentary methods as well as interview, questionnaire and data mining methods have been used. In this method, the researcher has used library resources retrieval tools as well as designed tools such as specialized checklists designed to collect the required information as well as interviews and questionnaires. Results: Statistical results regarding the components and barriers related to the three Administrative, motivational and individual characteristics indicators were extracted in a 22-question Likert scale questionnaire. Data were analyzed using SPSS and AMOS software. The results show the significant impact of the legal and political barriers and challenges of financial supervision of auditors on the proper implementation of the public sector accounting system. Then, using structural equation modeling, the relation and correlation between the three Administrative, motivational and individual components were investigated. The results show a significant and positive correlation between these three challenges. **Conclusion:** The results of the study emphasize that the expectations of the researcher, who is a member of the statistical community, the administrative, motivational and individual characteristics barriers and challenges of financial supervision of auditors have a significant impact on the proper implementation of the public sector accounting system.



**Keywords**: Financial Supervision, Accountants, Public Sector Accounting, Ministry of Economic Affairs and Finance.

#### 1. INTRODUCTION

Since the beginning of the year 2015, the public sector of the country's accounting system has gone through many changes and has moved from the cash accounting system to the gradual implementation of the accrual financial system. The change in the financial system of the public sector will have a considerable effect on the standards, structure and construction of financial units, list of accounts, means of operating cycle, accounting guidelines, and ways of handling and management financial reporting. The public sector accounting system is a set of accounting concepts, assumptions, standards, procedures and guidelines for recognizing, measuring, recording, classifying, summarizing and presenting financial reporting entities. Implementation of this system depends on constant observance of all components to achieve the intended goals. The shift from accrual to cash accounting is not just a change in the accounting system but a conceptual change in applying accounting principles and standards in public sector management (Kordestani & Iranshahi, 2009).

## Statement of the problem

The evolution process of accounting in international institutions specifies that the provision of the obligatory laws and regulations required has had a significant impact on making changes in the administrative structure and way of service provision and making fundamental transformation in the public sector accounting and financial reporting system. These infrastructures have lately been provided in our country to transform the public sector financial system and its complete and accurate implementation requires adequate time, proper planning and meticulous supervision. Considering that supervision and control over implementation is inevitable in the management of the country, an effective financial supervising system will greatly help in the implementation of social justice and economic development of the country (Arabian, 2011).

#### Research Objectives

## The main objective:

Identifying the administrative, motivational, and individual challenges of auditors' financial supervision in the optimal implementation of the public sector accounting system, which is divided into the following sub-objectives:

#### Sub-objectives:

- A) Identifying the administrative obstacles and problems of the auditors' financial supervision for optimal implementation of the public sector accounting system.
- B) Identifying the motivational obstacles and problems of the auditors' financial supervision for optimal implementation of the public sector accounting system.
- C) Identifying the individual obstacles and problems of the auditors' financial supervision for optimal implementation of the public sector accounting system.



#### Literature Review

Through reviewing desk research and field studies, no comprehensive study which has completely and directly addressed the above issue was found, and regarding the differences in the legal structure of the financial system of various countries, studies in other countries may not be useful in examining the subject (Hedayati Zafar, 2016).

# Financial supervision

Acting as an auditor supervising while the executive power is spending money, has a direct relationship with believing in and adhering to the principle of supervision and control by officials and executives, clear laws and regulations, and promoting the level of knowledge and awareness of individuals who are in charge of the affairs of a country at every level and position, and it facilitates the affairs (Bahman, 2015).

# National research studies done on financial supervision

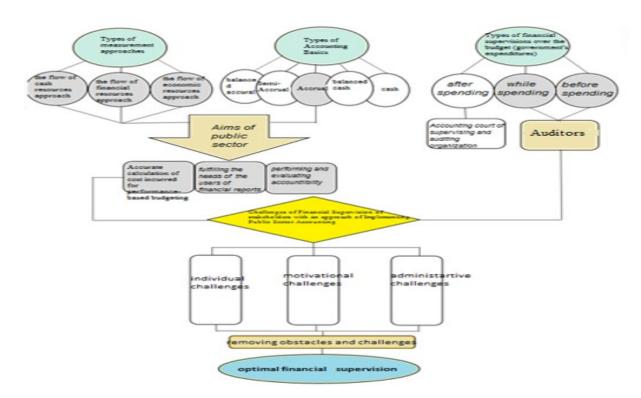
In a study, (Mohammadian Savari & Taghi Pourkazemi, 2016) on " Evaluation the performance based on the Baldrige organizational excellence framework (case study: general accounting office of the ministry of economic affairs and finance)" represented that the performance of the general supervising office of auditing is proper based on the Malcolm Baldridge Organizational Excellence Model, also, the results of the ranking of research variables have also indicated that the highest emphasis is on leadership in general administration and the least emphasis is on customer-orientation. (Rabiee Mandin Jane & Gholizadeh Nargessi, 2017), in an article entitled "Investigating the impact of empowerment through improving the level of motivation on the job performance of auditors (Case Study: Ministry of Economic Affairs and Finance)", identified that employee empowerment and its dimensions including sense of significance, competence and influence. (Akhavan Alavi et al, 2014), in a study entitled "Investigating the impact of motivational factors (Job, Organizational, Individual) on the quality of financial supervision of auditors and financial managers in executive systems", have reviewed the impact of motivational factors on improving the financial supervision of auditors and financial managers of Qom province. The results represent that motivational factors, job factors, organizational factors and individual factors have a relationship with the quality of financial supervision.

## Foreign research studies done on financial supervision

(Raudla et al, 2015) conducted a study on "The impact of performance auditing on public sector organizations: case study of Estonia" and the summary of the survey results of 118 Estonian officials indicate that auditors can find performance auditing useful even if it does not lead to specific changes in policies and organizational methods. In an article entitled "The impact of public sector auditing on promoting accountability and Promotion in Nigeria", (Oyebisi et al, 2017) concluded that lack of transparency and accountability in the public sector is a major risk to the efficiency of capital markets, financial stability, long-term economic steadiness, and economic growth. (Alwardat & Basheikh, 2017) conducted a study on "Implementation of international standards of public sector accounting based on accreditation and its relationship with central government financial transparency". Content analysis and confirmatory factor analysis of a sample covering 77 countries from 2008 to 2015 include measurement and relative importance of financial performance statements and accrual accounting policies. Evidence suggests that central governments should apply a commitment-based international public sector accounting



standards strategy. (Antipova & Bourmistrov, 2013) in a study examined "how accrual accounting improves accountability." The results indicate that accrual accounting in the public sector leads to increased government accountability to its clients, better financial management of public service managers, and comparability of management performance in various domains, which ultimately improves the quality of reported information. In a study, (Jones & Dugdale, 2001) investigated the "reversal of accrual accounting system and budgeting and the reconfiguration of public sector accountants' identity." The results of their research represent that different groups of accountants have different challenges in coordinating accrual-based budgeting and have made many efforts to implement accrual accounting. (Christians et al, 2013) in a study, examined "The reasons for not applying international public sector accounting standards in accounting information systems in Finland". In their view, the current laws, especially those related to budget accounting and the significance of budget accounting, comparing with the general purpose of financial reporting are reasons for not adopting international standards. (Oulasvirta, 2014), in an interventional research, through applying accrual accounting system in public sector organizations, represented that the implementation of accrual accounting system motivates and promotes public services and auditors' satisfaction. (McPhee, 2006), in a study, examined the use of accrual accounting in Australian municipalities. The findings show that the effectiveness of this system was influential in the performance of municipalities. Additionally, the complexities of the system and the dangers of fraud, corruption and endangered domestic capital have been less observed. (Chan Jams, 2008) in a study on " Analysis of the quality of implementing accounting in local offices of Indonesia" in which the quality of accrual accounting is calculated based on five types of accrual transactions including: Converting assets to expense transactions, collecting illegal transaction costs, collecting illegal asset transactions, collecting illegal income transactions and converting debt into income transactions The results of this study indicate that: there is no quality priority of implementing accrual accounting in Indonesia and the quality of implementing accrual accounting in the local government with unacceptable and vague comments. (Figure 1) represents the conceptual pattern of the research.



**Figure 1.** Conceptual pattern of the research

# Research Questions

## The main question

What are the auditors' most important administrative, motivational, and individual challenges and obstacles of associated with the financial supervision of the country's executive systems regarding the optimal implementation of the public sector financial reporting system (Karbassi Yazdi, 2012)? The main question is subdivided into sub-questions as follows:

# Subsidiary Questions

A. What are the most important administrative challenges and obstacles associated with the auditors' financial supervision of the country's executive systems regarding the optimal implementation of the public sector financial reporting system?

- B. What are the most important motivational challenges and obstacles associated with the auditors' financial supervision of the country's executive systems regarding the optimal implementation of the public sector financial reporting system?
- C- What are the most important individual challenges and obstacles associated with the auditors' financial supervision of the country's executive systems regarding the optimal implementation of the public sector financial reporting system?

#### Research hypotheses

## The main research hypothesis

The administrative, motivational, and individual challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system (Amini Mehr et al, 2015). Ultimately, it is subdivided into three sub-hypotheses.



# Subsidiary hypotheses

Hypothesis 1: The administrative challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system.

Hypothesis 2: The motivational challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system.

Hypothesis 3: The individual challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system.

#### 2. RESEARCH METHODS

In fact, in terms of purpose, the present study is applied, and in terms of the method of measuring variables and collecting data, it can be considered as a descriptive and survey research. In this research, the combined approach of library or documentary methods as well as interview, questionnaire and data mining methods have been used. In this method, the researcher has used tools like note taking from library resources and also designed tools such as specialized checklists designed to collect the required information, as well as interviews and questionnaires (Ghadirian Arani et al, 2017).

## Data collection tools and methods

As this research will be a descriptive research, demographic information and descriptive statistical indices about the collected data were extracted in the first part, and in the second part, through data mining and analyzing the relevant information, and inductive reasoning, the required data were collected to answer each research question, and the research process has been done (Kordestani et al, 2016).

#### Definition of research variables

Dependent variable: Optimal financial supervision with the approach of implementing public sector accounting system

Independent variables: 1- Administrative factors 2- Motivational factors 2- Personal

## Characteristics factors

## Statistical Population

The statistical population of the study was 742 auditors in all the executive systems of the country. Cochran formula was used to select the statistical sample. According to the above formula, the sample size has been calculated to be 253 people:

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N} \left[ \frac{z^2 pq}{d^2} - 1 \right]}$$

The value n represents the sample size . The values of p and q are the success and failure ratios, which are considered to be 0.5 . The value of Z is the percentage of acceptable standard error at the 0.05 level which equals 1.96 . The value of error d is the



degree of confidence or probable optimal accuracy of 0.05 .The value N represents the intended population size.

# Sampling

According to the volume calculated by Cochran formula, at least 253 questionnaires should be distributed among the auditors of executive systems of the country. Accordingly, 320 questionnaires were distributed among the statistical population. These questionnaires were distributed throughout 12 provinces of the country (Kartiko et al, 2018). Considering this issue that the topic under the study is the challenges and barriers of the financial auditors, and the main task of auditors is to monitor expenditure and costs of government credits and financial resources and the overall budget of the country, accordingly, the provinces of the country considering their average share of the total budgetary credits extracted from the statistical yearbook of the country in the last 5 years of (2013-2017) were ranked, and then were divided into three groups, the first group up to 2%, the second group up from 2% to 4% and the third group over 4%. The total budget of the country was divided, and finally, from each group, four provinces were randomly selected, and the questionnaire was distributed among the auditors of those provinces as follows:

Group 1: The provinces of Qazvin, Ardebil, South Khorasan and Hamadan as shown in (Table 1).

Group 2: The provinces of Kurdistan, Golestan, Hormozgan and East Azarbaijan as shown in (Table 2).

Group 3: The provinces of Sistan and Baluchestan, Kerman, Fars and Tehran as shown in (Table 3).

Afterwards, 260 questionnaires were received from 10 provinces and the research was continued.

**Table 1.** Provinces of the country using up to 2% of the total budget of the country, the average in years (2013-2017)

Row	Name of Province	Percent
1	Alborz	1.5
2	Zanjan	1.5
3	Qazvin	1.6
4	Semnan	1.6
5	Chahar Mahal Bakhtiari	1.8
6	Ilam	1.9
7	Ardebil	1.9
8	Yazd	1.9
9	south Khorasan	2
10	Markazi	2
11	Hamedan	2



<b>Table 2.</b> Provinces of the country using 2% to 4% of the total budget of the country, the
average in years (2013-2017)

Row	Name of Province	Percent
1	Kohgiluyeh and Boyer-Ahmad	2.1
2	Kurdistan	2.5
3	Golestan	2.5
4	North Khorasan	2.5
5	Lorestan	2.8
6	Qom	3
7	Hormozgan	3.5
8	West Azerbaijan	3.5
9	East Azarbaijan	5.7
10	Kermanshah	4
11	Gilan	4

Table 3. Provinces of the country using over 4% of the total budget of the country, the average in years (2013-2017)

Darus	Name of Duarings	Domaont
Row	Name of Province	Percent
1	Bushehr	4.1
2	Sistan and Baluchestan	4.3
3	Kerman	4.3
4	Mazandaran	4.8
5	Esfahan	4.9
6	Khorasan Razavi	5.4
7	Fars	5.7
8	Tehran	5.8
9	Khuzestan	6.7

# Reliability of the research

In the present study, a questionnaire based on Likert scales (Figure 2) was used. Firstly, after selecting the subject and specifying the research hypotheses, for accessing the information on the obstacles and challenges of administrative, motivational and individual characteristics of the auditors in the public sector of accounting system, through referring the papers and books written in related fields as well as translation of articles and theses that were available outside of Iran through internet and accessible publications as well as referring to auditors, university professors and elites in the field of research, the affective factors and components were identified and extracted, then the relevant questionnaire was developed.



Figure 2. Likert Scale

To obtain reliability, Cronbach's alpha was used as described in (Table 4), and the obtained value has been acceptable for the research purposes (greater than 0.7).



Table 4. Cronbach's alpha

Questionnaire	Cronbach's alpha	Number of questions	Number of samples
Administrative factors	0.749	7	260
Motivational factors	0.728	5	260
Individual factors	0.722	10	260
The whole questionnaire	0.852	22	260

#### 3. RESULTS

Descriptive Statistics

The results of the descriptive statistics have been shown in (Tables 5-9) that were obtained from 260 questionnaires.

Table 5. Frequency distribution of data based on gender

Gender	Frequency	Percentage Frequency
Male	228	87.7
Female	32	12.3
Total	260	100

Table 6. Frequency distribution of data based on age

Age	Frequency	Percentage Frequency
31-40	61	23.5
41-50	168	64.5
Older than 50	31	11.9
Total	260	100

Table 7. Frequency distribution based on the degree of relevance

Relevant	Frequency	Percentage Frequency	
Financial	168	64.6	
Non-financial	92	35.4	
Total	260	100	

Table 8. Frequency distribution of data based on education

Education	Frequency	Frequency Percentage
Diploma	6	2.3
Bachelor	86	33.1
Master	160	61.5
Ph. D	8	3.1
Total	260	100

Table 9. Frequency distribution of data based on background

Background	Frequency	Frequency Percentage
Under 15 years	42	16.2
Between 15-20	76	29.2
Between 21 and 25	92	35.4
Between 26 and 30	39	15
Above 30	11	4.2
Total	260	100



# Descriptive statistics of the research variables

Based on the data collected from the questionnaire, the statistics of minimum, maximum mean, standard deviation, skewness and kurtosis have been calculated for each of the research variables. (Table 10) shows the descriptive indices of the research variables. As can be seen, the mean of the variables of administrative, motivational, and individual characteristics are 1.72, 1.79, and 1.79, respectively. The standard deviation values for the research variables; administrative, motivational, and individual factors were 0.54, 0.64, and 0.43, respectively.

standard Research variables Minimum maximum Skewness kurtosis mean deviation Administrative 1 3.86 1.72 0.54 0.81 0.65 factors Motivational factors 1 4.40 1.79 0.64 0.93 0.60 Individual factors 1.90 1.79 0.43 -0.16 -0.61

**Table 10. Descriptive statistics of research variables** 

# Inferential statistics

In this section, we will first use the Kolmogorov-Smirnov normality test to determine the types of parametric or nonparametric tests to test the hypotheses. If the data are normal, one-sample t-test parametric tests will be used, and if the data are not normal, Wilcoxon nonparametric test will be used. Kolmogorov-Smirnov test for checking the normality of research variables

For this purpose, the validated Kolmogorov-Smirnov test is used in this study to check the normality of the distribution of the main variables. This single-sample test compares the observed cumulative distribution function with the expected cumulative distribution function in a variable at the distance measurement level. For interpreting the test results, if the observed error level is greater than 0.05, then the observed distribution is the same as the theoretical distribution and there is no difference between the two. That is, the distribution obtained is the normal distribution. But if the value is less than 0.05, then the observed distribution is different from the expected distribution and the distribution is not normal. This test examines the normality of the data according to the following hypotheses.

 $H_0$ : Data distribution is normal . $H_1$ : Data distribution is not normal .The results of the normality test of the examined variables have been shown in (Table 11).

Research variables	Test statistics	The significance level
Administrative factors	0.112	0.000
Motivational factors	0.144	0.000
Individual factors	0.106	0.000

Table 11. Kolmogorov-Smirnov test results

According to the results of the above table, the significance level of Kolmogorov-Smirnov test is less than 0.05 for all the research variables, thus it is concluded that the distribution of all research variables is not normal. Since the research variables were not normal, then we use Wilcoxon test to test the hypotheses. The hypothesis test in the Wilcoxon method is as follows:



H<sub>0</sub>: The intended factor is ineffective in the optimal implementation of the public sector accounting system. (There is no significant difference between the median of the observations and the number 3).

H1: The intended factor hinders or does not the optimal implementation of the public sector accounting system. (There is a significant difference between the median and the number 3).

So in examining research hypotheses, if the hypothesis is zero, it means that the median of the tested variable or indicator is not significantly different from the number 3 or in other words, the intended variable is not effective in the optimal implementation of the public sector accounting, but if the null hypothesis is rejected, and the median of three observations is more than 3, it means that the intended factor does not hinder the optimal implementation of the public sector accounting system. Finally, if the null hypothesis is rejected and the median of the observations is less than 3, the intended factor hinders the optimal implementation of the establishment of the public sector accounting system. It is noteworthy that because in the 5 scale Likert, the mean and median are 3, this number is considered as the criterion and the average situation. *Testing hypotheses* 

Hypothesis One: The administrative challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system. The questions have been given in a table as the appendix to the questionnaire. The answers are as completely agree, agree, neutral, disagree, completely disagree. The results of the Wilcoxon test for this hypothesis have been given in (Table 12).

Table 12. The results of the Wilcoxon test for the first test hypothesis

Index	Median	Test statistics	The significance level
Administrative factor	1.65	-13.95	0.000

According to the above table, the significance level is zero which is less than 0.05, so the null hypothesis is rejected. In other words, as explained above, the administrative factor is not ineffective in the optimal implementation of the public sector accounting system. Also, because the median of this factor is less than 3, it can be stated that the administrative challenges and obstacles of the financial auditors hinder the optimal implementation of the public sector accounting system. Ranking of the Items of Administrative Challenges: (Table 13) shows the results of the ranking of this challenge.

Table 13. Results of ranking administrative challenges

Challenge items	Average rank	Rank
First item	3.81	second
Second item	4.27	sixth
Third item	4.20	fifth
Fourth item	3.89	third
Fifth item	3.37	first
Sixth item	4.18	fourth
Seventh item	4.30	seventh

According to the ranking table: The fifth item is the most important administrative challenge item. The rank of the other items is written in the column corresponding to the



rank in front of each item. (It is noteworthy that the items with lower mean have been considered as being in superior ranks, because the numbers one to five in the questionnaire have been listed as completely agree and completely disagree; respectively). Hypothesis 2: The motivational challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system. The questions have been given in a table as the appendix to the questionnaire. The answers are as completely agree, agree, neutral, disagree, completely disagree. The results of the Wilcoxon test for this hypothesis have been given in (Table 14).

Table 14. The results of the Wilcoxon test for the second test hypothesis

Index	Median	Test statistic	Significance level
Motivational factor	1.60	-13.61	0.000

According to the above table, the significance level is zero which is less than 0.05, so the null hypothesis is rejected. In other words, as explained above, the motivational factor is not ineffective in the optimal implementation of the public sector accounting system. As the median of this factor is less than 3, it can be stated that the motivational challenges and obstacles of the financial auditors hinder the optimal implementation of the public sector accounting system. Ranking of the Items of Administrative Challenges: (Table 15) shows the results of the ranking of this challenge.

**Table 15. Results of ranking motivational challenges** 

Challenge items	Average rank	rank
First item	2.62	First
Second item	2.87	Second
Third item	3.08	Third
Fourth item	3.09	Fourth
Fifth item	3.34	Fifth

According to the ranking table: The first item is the most important motivational challenge item. The rank of the other items is written in the column corresponding to the rank in front of each item. Hypothesis 3: The individual characteristics challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system. The questions have been given in a table as the appendix to the questionnaire. The answers are as completely agree, agree, neutral, disagree, and completely disagree .The results of the Wilcoxon test for this hypothesis have been given in (Table 16).

Table 16. The results of the Wilcoxon test for the third test hypothesis

Index	Median	Test statistic	Significance level
Motivational factor	1.89	-13.98	0.000

According to the above table, the significance level is zero which is less than 0.05, so the null hypothesis is rejected. In other words, as explained above, the individual characteristics factor is not ineffective in the optimal implementation of the public sector accounting system. As the median of this factor is less than 3, it can be stated that the individual characteristics challenges and obstacles of the financial auditors hinder the optimal implementation of the public sector accounting system. Ranking of the items of



individual characteristics challenges :(Table 17) shows the results of the ranking of this challenge.

Challenge items | rank mean rank First item 5.17 fifth Second item 6.95 eighth Third item 5.21 sixth Fourth item 5.34 seventh Fifth item 4.49 second Sixth item 6.98 tenth

6.94

4.45

4.53

4.89

ninth

first

third

fourth

Seventh item

Eighth item

Ninth item

Tenth item

Table 17. Results of ranking individual characteristics challenges

According to the ranking table: The eighth item is the most important individual characteristics challenge item. The rank of the other items is written in the column corresponding to the rank in front of each item. The Main Hypothesis: The administrative, motivational and individual challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system. Based on the results of the first, second, and third hypotheses, we came into this conclusion that the administrative, motivational, and individual challenges and obstacles of the auditors hinder the optimal implementation of the public sector accounting system. As a result, the main hypothesis is confirmed. In the following, three administrative, motivational, and individual characteristics challenges are compared using the Friedman test, the results have been shown in (Table 18):

**Table 18.** Results of ranking administrative, motivational and individual characteristics challenges

Challenges	Rank mean	Rank
Administrative	1.91	third
Motivational	1.93	second
Individual characteristics	2.16	first

Based on the results of the table above, the challenge of individual characteristics is in the first place, motivational challenges are in the second place, and administrative challenges are in the third place.

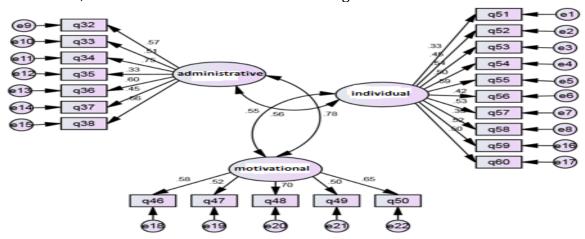
# Modeling Structural Equations

The structural equation model is a specific causal structure between a set of unobservable structures. A structural equation model consists of two components: a structural model that defines the causal structure between hidden variables and a measurement model that defines the relationships between hidden variables and observed variables. Structural equation models can be analyzed using EMOS software. Using this technique, different types of conceptual models of various research studies can be examined and analyzed.

In structural equation modeling, when the model has sufficient fit, the model estimates can be trusted. Fitting the model means that the observed variance-covariance matrix and the predicted variance-covariance matrix by the model should have close



values or so-called fits. The closer the values in the two matrices, the more fit the model has. EMOS indicates a good fit index (the ratio of the sum of squares determined by the model to the total sum of matrix squares estimated in the population). This index is similar to the correlation coefficient in terms of utility. Both of these criteria range from zero to one, although they may be theoretically negative (which should not occur, since in that case, the model does not fit the data definitely). The closer the goodness of fit index and the adjusted fit index to the number one, the better the fit of the model with the observed data. (Figure 3) illustrates the mutual relationship between administrative, motivational, and individual characteristics challenges.



**Figure 3.** Diagram of the model of mutual relationships between administrative, motivational, and individual characteristics challenges

(Table 19) shows the results of the above model:

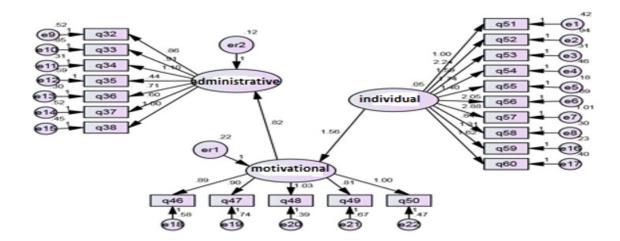
**Table 19.** Results of mutual fit model between administrative, motivational, and individual characteristics challenges

Relationships between challenges	Correlation	Significance level
Administrative <-> Individual characteristic	0.56	0.000
Administrative <-> Motivational	0.78	0.000
Motivational <-> Individual characteristic	0.55	0.000

According to the table above, the correlation between administrative and individual characteristics challenges is 0.56, between administrative and motivational challenges is 0.78, and between motivational and individual characteristics challenge is 0.55. The significance level for each of these relationships is lower than that of the test level. Therefore, it can be stated that all three administrative, motivational and individual challenges have a mutual impact on each other and this impact is significant.

In the following, considering the ranking among the variables, the impact of the first component on the second component and the impact of the second component on the third component, the model showing the impact of administrative challenge on motivational challenge, and that of motivational challenge on individual characteristics challenge has been illustrated in (Figure 4).





**Figure 4.** Model diagram of the impact of administrative challenge on motivational challenge and that on individual characteristics challenge

In (Figure 4), er1 and er2 have been considered as the criterion variables with the standard coefficient of 1 .(Table 20) represents the results of the above model:

**Table 20.** The results of the fitting model of the impact of administrative challenge on motivational challenge and motivational challenge on individual characteristics challenge

Relationships between challenges	Effectiveness	Significance level
Individual characteristics -> Motivational	1.56	0.000
Motivational -> Administrative	0.82	0.000

According to (Figure 4), the impact of the individual characteristics challenge on the motivational challenge is 1.56 and the impact of the motivational challenge on administrative challenge is 0.82, indicating that these impacts are direct and positive. Also, the level of significance of these impacts is lower than the test level, thus the impact of the individual characteristics challenge on motivational challenge, and that of motivational challenge on administrative challenge is significant.

#### 4. DISCUSSION

As explained in the reliability section of the research study, the questionnaire was prepared and extracted after reviewing and processing articles, publications, theses, consulting with auditors, elites and university professors (McPhee, 2015). The results obtained in this study emphasize that the expectations of the researcher, who is a member of the statistical population, the administrative, motivational, and individual characteristics challenges and obstacles of the financial auditors have a significant impact on the optimal implementation of the public sector accounting system (Becke et al, 2014). Consequently, according to the current results, lack of support from the authorities and the lack of a single auditor in the executive systems is one of the most important administrative problems of financial supervision of auditors in the implementation of the public sector accounting system (Bruns, 2014). Incompatibility of auditors' salaries and benefits relative to the burden of duties and the differences between the salaries and benefits of executive agents with the salaries and benefits of auditors in the system are main obstacles and motivational problems of financial auditors' supervision, and final, the



familiarity level of the auditors with rules and guidelines of the public sector accounting system, and the amount of experience and background related to the financial sector of the system they are working in, were assessed as the most important obstacles to the individual characteristics associated with the financial supervision of auditors in the optimal implementation of the public sector accounting system (Caperchione, 2015).

#### 5. SUMMARY

Considering the first hypothesis that the administrative challenges and obstacles associated with the auditors' financial supervision hinder the implementation of the public sector accounting system, the following suggestions are made:

- A) Developing new rules and providing the space for appointing contracting staff for the auditing position;
- B) Determining the minimum amount of time for being an auditor in the executive systems;
- C) Providing constant training courses related to the objectives and guidelines of the public sector accounting system;
- D) Developing rules for protecting the auditors at the time of arising problems and challenges in the executive systems;
- E) Establishing provincial, regional and national specialized committees for exchanging information and providing advisory views on eliminating uncertainties and obstacles and problems to the implementation of the public sector accounting system.

Given the second hypothesis that the motivational challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system, the following suggestions are made:

- A) Developing a system of paying constant or non-constant salaries and benefits according to the burden of auditing operations;
- B) Developing of promotion and appointment system for the reliable auditors who are committed in implementing of the rules and regulations;
- C) Ranking the auditors annually based on the burden of operations and providing motivational rewards such as facilities and amenities.

Finally, considering the third hypothesis that the individual characteristics challenges and obstacles associated with the auditors' financial supervision hinder the optimal implementation of the public sector accounting system; the following suggestions are made:

- A) Conducting a written test and interview before entering the auditing profession;
- B) Appointing the position of auditing in the executive systems based on the capability, readiness and expertise of the auditor in the system working for.

#### REFERENCES

1. Kordestani G. & Iranshahi A. (2009), Investigating the Factors Affecting the Application of Accrual Accounting in the Public Sector, Journal of Auditing Knowledge, 28(1): 44-57.



- 2. Arabian A. (2011), Judicial Accountability in the State Accounting Court, Quarterly Audit Knowledge, 11(4): 185-199.
- 3. Hedayati Zafar M. (2016), The Role and Function of the Court of Auditors in Implementing Financial Supervision, United Nations Research Quarterly, 2(18): 36-45.
- 4. Bahman A. (2015), Review of Financial Oversight Charges of the Ministry of Economic Affairs and Finance, Fifth National Conference and Third International Conference on Accounting and Management with New Approaches and Research, 2(18): 36-45.
- 5. Mohammadian Savari M. & Taghi Pourkazemi R. (2016), Performance Evaluation of Baldrige Organizational Excellence Model (Case Study: General Accounting Office of the Ministry of Economic Affairs and Finance), Public Accounting, Second Year, 4(1): 47-54.
- 6. Rabiee Mandin Jane M. & Gholizadeh Nargessi S. (2017), Investigating the Impact of Empowerment by Improving the Level of Motivation on Accounting Job Performance (Case Study: Ministry of Economic Affairs and Finance), Public Accounting, Third Year, 19(2): 59-70.
- 7. Akhavan Alavi H. & Mohammad H. & Ghanbari A. (2014), Investigating the Impact of Motivational Factors (Job, Organizational, Individual) on the Quality of Financial Supervision of Accountants and Financial Managers of Executive Organizations, Journal of Organizational Culture Management, 34(6): 657-664.
- 8. Raudla R. & Taro K. & Agu C. & Douglas J. (2015), The Impact of Performance Audit on Public Sector Organizations: The Case of Estonia. Public Organiz Rev, 6(2): 151-170.
- 9. Oyebisi O. & Wisdom O. & Lawrence I. & Bibiana N. & Dorcas A. (2017), Impact of Public Sector Auditing in Promoting Accountability And Trasparency in Nigeria. Quest Journals Journal of Research in Business and Management, 5(5): 28-36.
- 10. Alwardat Y. & Basheikh A. (2017), The Impact of Performance Audit on Public Administrations in Saudi Arabia: An Exploratory Study, International Journal of Business and Management, 12(2): 74-88.
- 11. Antipova T. & Bourmistrov A. (2013). Is Russian public sector accounting in the process of modernization? An analysis of accounting reforms in Russia. Financial Accountability & Management, 29(4): 442-478.
- 12. Jones T. & Dugdale D. (2001), The concept of an accounting regime. Critical Perspectives on Accounting, 12(1): 35-63.
- 13. Christians J. & Reyniers B. & Rolle C. (2013), "Impact of IPSAS on Reforming Governmental Financial Information Systems: a Comparative Study", International Review of Administrative Sciences, 76(5): 37-54.
- 14. Oulasvirta L. (2014), The reluctance of a developed country to choose International Public Sector Accounting Standards of the IFAC. A critical case study. Critical Perspectives on Accounting, 25(3): 96-110.
- 15. McPhee I. (2006), "How Accrual Accounting Enhances Governance and Accountability". CPA Australia Public Sector Finance and Management Conference, 16(4): 1-11.
- 16. Chan Jams L. (2008), "international public sector accounting standards: conceptual and institutional issues", university of Illinois at chicago, 13(5): 24-39.
- 17. Karbassi Yazdi H. (2012), Challenges of Establishing a Accounting-Based Reporting System (with Emphasis on Accountability) in Iranian Public Sector, Auditing Knowledge, 12(4): 23-48.
- 18. Amini Mehr A. & Hejazi R. & Shahim Permah Z. (2015), "The Benefits of Accrual Accounting Basis on Reporting Transparency and Accountability in Universities Affiliated



- to the Ministry of Science, Research and Technology (Case Study of Kharazmi University of Tehran)". Government Accounting Quarterly, 2(2): 55-66.
- 19. Ghadirian Arani M. & Hossein-Akrami R. & Qayyum Activist A. (2017), Transition from Cash to Accrual Accounting in the Public Sector: The Time Requirement, Public Accounting, 2(6): 18-29.
- 20. Kordestani G. & Rahimian N. & Shahrabi S. (2016), Identifying Barriers to Transition to Accredited Accounting in the Public Sector (Based on International Public Sector Standards Board Studies), Auditing Knowledge, 16(6): 47-55.
- 21. Kartiko S. & Rossieta S. & Martani D. & Wahyuni T. (2018), Measuring accrual-based IPSAS implementation and its relationship to central government fiscal transparency. BAR, Braz. Adm. Rev, 15(4): 110-119.
- 22. McPhee I. (2015), "How Accrual Accounting Enhances Governance and Accountability". CPA Australian Public Sector Finance and Management Conference, 17(6): 95-107.
- 23. Becke S. & Jagalla T. & Skærbæk P. (2014), "The Translation of Accrual Accounting and Budgeting and the Reconfiguration of Public Sector Accountants' Identities Critical Perspectives on Accounting", 8(1): 285-291.
- 24. Bruns H. (2014), "HR Development in Local Government: How and Why does HR Strategy Matter in Organizational Change and Development?". Business Research, 7(1): 35-49.
- 25. Caperchione E. (2015), "Standard Setting in the Public Sector: State of the Art". In Public Sector Accounting and Auditing in Europe, Palgrave Macmillan UK, 9(8): 234-340.

