



Factors Affecting the Effectiveness of Internal Control System Implemented in Public Institutions: A Sample Research on Diyarbakır Province

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Keywords

Internal Control, Effectiveness of Internal Control, Public Financial Management and Control Law No. 5018.

Abstract

Since the emergence of internal control in the field of accounting and auditing, there has been a protracted disagreement over its content and definition. Today, in general; is defined as the process by which both the management and other employees of an organization work towards and provide assurance that the objectives of the organization are achieved. The internal control system in Turkish public administration is shaped by the Public Financial Management and Control Law No. 5018. The purpose of this study is to assess the internal control system; To comprehend the definition and purpose of the public internal control system, to discuss the public internal control system within the framework of the Public Financial Management and Control Law No. 5018 and to test the impact of the factors affecting the effectiveness of the public internal control system on public administration employees. Within the scope of this research, a 7-point Likert scale questionnaire was applied to the staff of Diyarbakır General Directorate of Water and Sewerage Administration. The study concluded; There is a statistically significant and positive relationship between the effectiveness of the internal control system and the competence of public employees, effective public internal audit system, top management support for the public internal control system and the use of information technologies in the public internal control system.

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1. Introduction

It is of utmost importance for institutions to establish internal control systems and internal audit units in order to prevent errors that may occur within the boundaries of the institution, to reveal the risks that may arise and to take measures against these risks in order to provide competitive advantage and to maintain their existence (Özşahin, 2011).

With the formation of the idea of establishing an internal control system in public administration in Turkey, radical reforms in the field of public administration have

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started to be carried out. The most important of these reforms, the Public Financial Management and Control Law, was adopted by the Turkish Grand National Assembly on 10/12/2003. Purpose of the law; To reform the public financial management system in Turkey and to ensure the establishment of an effective internal control system.

In this study, firstly, the definition and purpose of internal control is emphasized and the Public Financial Management and Control Law No. 5018 is mentioned. Then, a literature review is given. Finally, answers to the following questions were sought with the survey application prepared within the scope of the survey scale applied in the master's thesis written by Çınar (2019) and the survey results were statistically analyzed.

2. Internal Control

2.1. Definition of Internal Control

Internal control is one of the main functions of management in an organization and is a discipline that examines whether the work performed in an organization is as it should be. It also determines the extent to which institutions achieve their predetermined objectives. Furthermore, the adoption and implementation of an established internal control model has an important role in achieving the company's objectives.

In the COSO report, which is a basic framework in line with the concept of internal control, the concept of internal control is influenced by the board of directors, staff and managers of the enterprise; It is a process developed to provide reasonable assurance on the reliability of financial reporting, efficiency and effectiveness of operations and compliance with applicable laws and regulations (Yaman, 2008;1).

According to COSO's definition of internal control (Yaman, 2008;1):

- It is not an event but a complementary process,
- That the institution aims to achieve its objectives,
- It provides reasonable assurance, not definitive results,
- It is understood that it is also influenced by the staff of the institution, particularly the board of directors and managers.

Even if the senior management of the institution delegates internal control activities to another unit or units within the institution, the responsibility for the internal control process belongs to the senior management of the institution. Thus, the managers of the institution should monitor the effectiveness of internal control activities to ensure that the goals and objectives of the institution are achieved. Internal control assists managers in the correct and successful performance of management activities and thus plays an important role in the management of institutions (Güner, 2009; 190).

2.2. Purpose of Internal Control

The main purpose of internal control is to ensure the effectiveness of the management of the institution as well as the executive activities in the institution. It aims to identify and prevent risks that management may face. More broadly,

internal control is the process of reviewing activities for compliance with rules established by management; It is a discipline that aims to protect and effectively use the assets and resources of the institution, to prevent waste, to ensure the reliability of financial records, and to minimize as much as possible the risks that may create obstacles to the achievement of the objectives set by the institutions in the light of their objectives.

Internal control aims to ensure that activities are carried out in accordance with predetermined objectives and necessary legal regulations. At the same time, while internal control ensures compliance with the laws on the one hand, on the other hand, it strives for high performance in order for the enterprise to reach the set targets (Kılınç, 2010;36).

2.3. Law No. 5018

After 1927, there have been changes in the field of public financial management in Turkey and in the world. The most important of these changes in Turkey is the Public Financial Management and Control Law No. 5018, which aims to bring the financial management and control system in line with European Union norms and international standards.

With the enactment of the Public Financial Management and Control Law No. 5018, which was adopted on 10.12.2003 and published in the Official Gazette on 24.12.2003, Turkey's financial management system was reconsidered in accordance with international standards and European Union practices and the establishment of an internal control system in public institutions has become mandatory. Thus, a new understanding of public financial management emerged in Turkey.

Purpose of Law No. 5018; "public resources in the light of the policies and objectives set out in the institution's programmes and development plans; to be achieved effectively, economically and efficiently. The other purpose of public budgets; to regulate the functioning and structure of public financial management, the reporting, accounting and financial control of all financial transactions in order to ensure the preparation, implementation, accountability and financial reliability" (Yüksel, 2020; 49).

3. Literature Review

Kılınç (2010) aimed to analyze the factors affecting the implementation of internal control system in public administrations. The study concluded; It has been determined that the most important body for the establishment, implementation and development of an effective internal control system in public institutions is the top managers, but the top manager exercises this responsibility with the support of expenditure authorities, internal auditors, strategy development units and other officials. Therefore, it is concluded that top managers should determine strategies and policies in the field of internal control and ensure that they are implemented within the framework of certain rules.

The study by Emmanuel et al. (2013) draws conclusions about the Nigerian public perception of the effectiveness of internal audit accountability and focuses on the use of the audit system for public sector improvement. The study concludes that

the internal control system in the state is very weak and that audit procedures and accountability are ineffective for political reasons. According to the findings, an effective internal control system free from interference is necessary.

In their study, Özer et al. (2019) identified the factors affecting the effectiveness of the public internal control system, proposed a model to test the impact of these factors on the public internal control system, and tested this model on state university employees. According to the findings of the study, it is concluded that top management support to the public internal control system, competence of public employees, effective public internal audit system and the use of information technologies in the public internal control system have a significant positive effect on the effectiveness of the internal control system in public institutions.

Güner (2009) examined the role of internal control practices in the effectiveness of the management of public institutions, the realization of management functions, and the relationship between internal control, internal audit and management. As a result, it is concluded that the internal control system is affected by the management process. It is concluded that the internal control system is shaped by the decisions of the management and that the continuous improvement of management processes takes place by benefiting from internal control practices.

In their study, Dormán et al. (2013) have argued that "the system of internal control is effective when combined with the activities of the organization and is an important factor for the organization." It concluded that for this to happen, it is necessary to have management support, effective risk management, effective monitoring system and supportive internal audit activities.

In his study Çınar (2019), he questioned the factors affecting the effectiveness of the internal control system in public institutions and stated that the public internal control system; It was concluded that the support of senior management to the public internal control system, the competence of public employees, the effective public internal audit system and the use of information technologies in the public internal control system were directly affected by the factors.

Verovska (2012) mentioned in her study that the effectiveness of the internal control system requires a balance and that this balance is between the financial part of internal control and the risks associated with it. It was emphasized that unnecessary excessive internal control activities increase costs and reduce efficiency. Therefore, he emphasized the importance of the existence of this balance in order to ensure effectiveness in internal control activities.

As a result of his study, Ağmaz (2018) emphasized that management bodies should monitor the effectiveness of internal control activities in a stable manner and mentioned that internal audit has a great role in the healthy progress of internal control activities. Apart from these, he mentioned that another factor contributing to the effectiveness of the internal control system is the capacity of the financial services units.

As a result of his study (2019), Sağlam concluded that internal auditors do not encounter any restrictions that will affect independence in the internal audit process in the institutions they work in. Apart from this, it was concluded that the

internal auditors determined that the senior management in the university supported the internal audit practices.

4. Application

4.1. Aim of the Study

The aim of this research; to test on employees how top management support for the internal control system, an effective public internal audit system, the competence of public employees and the use of information technologies in the public internal control system affect the effectiveness of the internal control system in public institutions.

4.2. Scope of the Study

This study was conducted on the employees of Diyarbakır General Directorate of Water and Sewerage Administration. The survey was conducted between 13.03.2022 and 25.03.2022. The questionnaire was administered to public internal auditors, heads of departments, branch managers, financial services specialists, chiefs, computer operators and some other employees working in the institution. A total of 117 personnel were surveyed. As a result of incomplete or incorrect coding during the answering of the questionnaire forms, 10 questionnaires were excluded from the scope of the research. As a result, 107 survey data were analyzed within the scope of the study.

4.3. Method and Analysis of the Study

For the questionnaire form used in the study, the study of Çınar (2019) was used. The questionnaire included 5 demographic questions and 51 questions answered using a 7-point Likert scale (Strongly Disagree, Disagree, Partly Agree, No Opinion, Agree, Partly Agree, Strongly Agree). These questions consist of 5 different scale headings. The scale of top management support to the public internal control system consists of 9 questions, the scale of public internal audit system effectiveness consists of 15 questions, the scale of competence of public employees consists of 10 questions, the scale of use of information technologies in the public internal control system consists of 7 questions, and finally the dependent variable of the study, public internal control system effectiveness, consists of 10 questions. In the study, Cronbach's alpha value was determined as (.885) to determine the reliability of the questionnaire form. This ratio shows that the questionnaire has acceptable reliability.

The results of the frequency analysis of the statements in which demographic characteristics and independent variables were formed in the research are presented in tables. Before determining the hypothesis tests in the study, normality test was applied. The results of the frequency analysis of the statements in which demographic characteristics and independent variables were formed in the research are presented in tables. Before determining the hypothesis tests in the study, normality test was applied.

4.4. Study Model and Hypotheses

The main question this study seeks to answer: What are the factors affecting the effectiveness of the public internal control system? Based on this question, specific

questions are sought to be answered; "How does senior management support for the public internal control system, effective public internal audit system, competence of public employees and the use of information technologies in the public internal control system affect the effectiveness of the public internal control system?"

The conceptual model developed to test the relationship between the dependent and independent variables to be used in the research based on the theoretical prediction is shown in Figure 1 below.

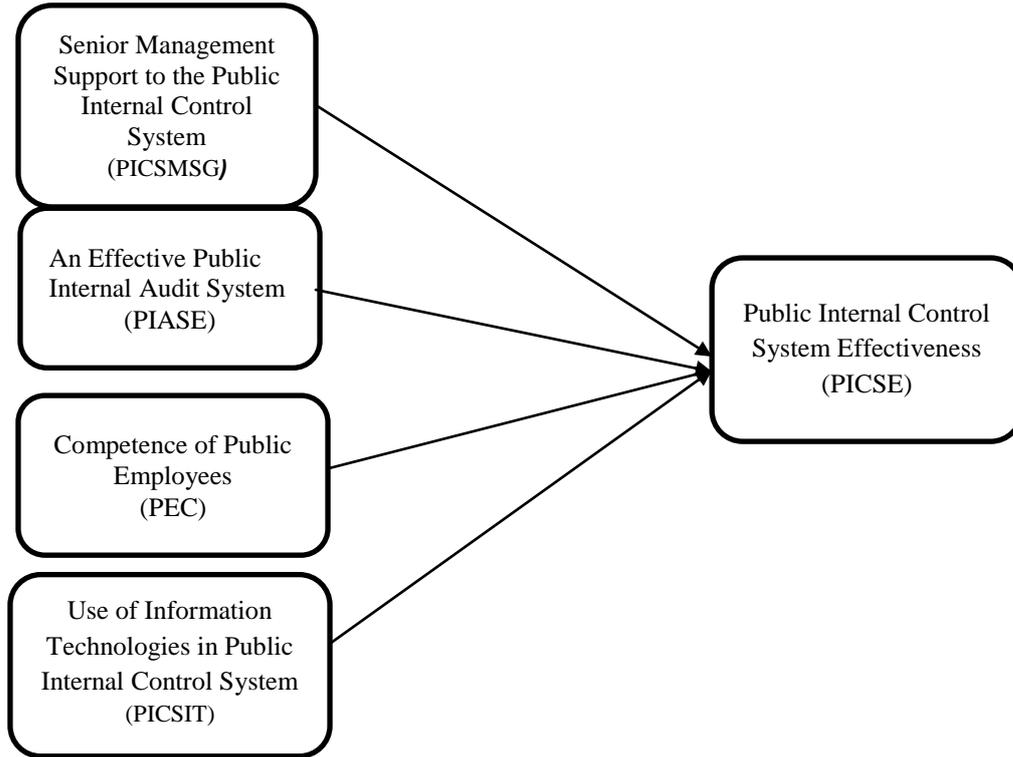


Figure 1: Study Model

Four hypotheses were developed in accordance with the scope of the study. These hypotheses;

H₁. Top management support to the public internal control system positively affects the effectiveness of the public internal control system.

H₂. An effective public internal audit system positively affects the effectiveness of the public internal control system.

H₃. The competence of public employees positively affects the effectiveness of the public internal control system.

H₄. The use of information technologies in the public internal control system positively affects the effectiveness of the public internal control system.

5. Findings

Within the scope of the study, frequency analyses were first conducted to determine the demographic characteristics of the participants. Secondly, in order to test the hypotheses determined within the scope of the study, firstly correlation analysis was performed and then regression analysis was used.

5.1. Demographic Findings

In this section, frequency analysis was performed to determine the demographic characteristics of the personnel participating in the study. The results are shown in Table 1.

Table 1: Demographic Characteristics of Participants

		n	%			n	%
Age	20-30	14	13,1	Education Degree	Primary education	2	1,9
	31-40	41	38,3		High school,	9	8,4
	41-50	37	34,6		Associate Degree	23	21,5
	51 and above	15	14,0		Undergraduate	63	58,9
	Total	107	100,0		Graduate	10	9,3
Professional Experience	0 - 10 year	33	30,8	Total		100,0	
	11-20 year	31	29,0	Gender	Woman	36	33,6
	21-30 year	37	34,6	Man	71	66,4	
	31 year and above	6	5,6	Total	107	100	
	Total	107	100,0				

66% of the participants were male and 34% were female. It is seen that 38% of the participants are between the ages of 31 and 40, while 35% are between the ages of 41 and 50. This result shows that the majority of the participants are in the middle age group. It is seen that 60% of the participants have a bachelor's degree. It was found that 35% of the participants had between 21 and 30 years of professional experience.

5.2. Findings Related to the Hypotheses of the Study

In this section of the study, the hypotheses determined in accordance with the scope of the study were tested. For hypothesis testing, correlation analysis was conducted first. The results are shown in Table 2. Regression analysis was then conducted. The results are shown in Table 3. Tables were analyzed and interpreted.

Table 2: Descriptive Statistics and Pearson Correlation Coefficients

Variable	M	Std. Er.	1	2	3	4	5	6	7	8	9
1. Age	36	,894	1	,029	,829	,463	-,099	-,086	,080	,148	,063
2. Education Degree	-	,836		1	,043	-,034	,106	,212	,261	,137	,263**
3. Pro. Experience	12	,929			1	,414	-,008	-,033	,111	,091	,020
4. Gender	-	,474				1	-,049	-,087	,152	,081	,013
5. PEC	5,747	1,244					1	,246*	,213*	,032*	,138*
6. PICMSG	4,271	1,645						1	,530**	,604**	,590**
7. PIASE	5,383	1,545							1	,548**	,638**
8. PICSIT	4,289	1,827								1	,685**
9. PICSE	4,588	1,806									1

Not: *p<0.05; **p<0.01;

There is a positive and significant correlation between the competence of public employees and the effectiveness of the government internal control system ($r = 0.138$, $p < 0.05$). There is a positive and significant correlation between top management support for the government internal control system and the effectiveness of the government internal control system ($r = 0.590$, $p < 0.01$). There is a positive and significant correlation between an effective government internal audit system and government internal control system effectiveness ($r = 0.638$, $p < 0.01$). There is a positive and significant correlation between the use of information technologies in the government internal control system and the effectiveness of the government internal control system ($r = 0.685$, $p < 0.01$). In addition, there is a negative and significant correlation ($r = 0.263$, $p < 0.05$) between the level of education and the effectiveness of the government internal control system.

Table 3: Hypothesis Testing (Regression Analysis Results)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Hata	Beta		
(Constant)	2,974	,106		4,963	,002
5. PEC	,370	,099	,317	3,742	,001
6. PICMSG	,188	,094	,171	1,989	,039
7. PIASE	,377	,095	,323	3,990	,000
8. PICSIT	,400	,086	,404	4,669	,000
R	R Square		Adjusted R Square		
,777	,603		,571		

As seen in Table 3, it shows that there is a statistically significant and positive relationship between the independent variables and the effectiveness of the public internal control system. Therefore, all of the hypotheses of the study were accepted. In addition, the variations of the independent variables in the model explain 58% of the variation of the dependent variable ($R^2=0.603$). However, all of the hypotheses determined within the scope of the study were accepted.

5. Conclusions and Recommendations

As a result of the study, it was concluded that senior management support to the public internal control system, effective public internal audit system, public employees competence and the use of information technologies in the public

internal control system positively and significantly affect the effectiveness of the public internal control system, which is our dependent variable.

In terms of senior management support to the public internal control system, senior management; It has been concluded that ensuring the allocation of a sufficient number of personnel in internal control departments, providing the encouragement of activities such as training for personnel, ensuring the allocation of sufficient budget to internal control studies, improving the opportunities of the internal control department, motivating the employees, and finding awareness of employee needs will positively affect the effectiveness of the public internal control system.

In terms of an effective public internal audit system, competent internal auditors appointed will contribute to the effectiveness of the public internal control system by evaluating the accuracy and reliability of financial reporting, the effectiveness and efficiency of activities, and compliance with internal and external regulations.

In terms of the competence of public employees, in addition to professional competence in public administrations, the employment of personnel who can think analytically in critical processes related to their duties, solve problems and produce alternative solutions is an important issue in terms of the effectiveness of the public internal control system as it will have a direct impact on the understanding of the internal control system and in identifying the deficiencies that may arise.

In terms of the use of information technologies in the public internal control system, it was concluded that the use (integration) of the information technology investments of the institutions, the employment of competent personnel in the field of information technologies and the use (integration) of information technology activities with the internal control system applications will positively affect the effectiveness of the public internal control system, especially in terms of the cost-benefit balance of the internal control system.

In short, the attitudes and behaviors of the senior managers of the institution have an effective role in ensuring the effectiveness of the internal control systems in public institutions. Giving importance to the opinions and thoughts of the personnel and the existence of a reward system that will increase the internal effectiveness of the personnel positively affect the effectiveness of the internal control system. In particular, the experience and competence of the public personnel responsible for the audit is another important issue that affects the internal control system. In-house training programs are of great importance to ensure the efficiency and effectiveness of the personnel responsible for the audit. Therefore, care should be taken to increase the duration and number of in-service training programs in public institutions. In this way, the competence of both the audit personnel and the in-house personnel will be increased. As a result, the effectiveness of the internal control system will be increased. Finally, the integration of the use of developing information technologies into public institutions is very important. In-house work programs should be developed in parallel with information technologies. Keeping up to date will increase the effectiveness of the internal control system.

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