

# INTERNAL CONTROL ACTIVITIES IN SMALL TURKISH COMPANIES

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## ABSTRACT

*The purpose of this paper is to present major outcomes from an empirical study concerning internal control activities in small Turkish companies, as to propose the improvement guidelines. Methods of analysis and synthesis, descriptive statistics, and statistical comparison were used. The collected data was processed with the help of the SPSS software. The study is limited to organizations based in the European part of Turkey. Most of them operate in areas around large cities, such as Istanbul, Edirne, Kirklareli, and Tekirdağ. They employ on average 19-20 peo-*

*ple and have a turnover of about TRY 3 million ( $\approx$ €715,000, <https://sdw.ecb.europa.eu>) on average. The survey concentrates mainly on small family businesses, which have been present on the market for more than ten years, with managers of good education and other characteristics that presuppose availability of internal control systems. The research results were used to compile main points of a SWOT analysis, as a part of the broader effort to help modernizing the internal control system in Turkish small businesses.*

**Keywords:** *Internal control, SMEs, Management analysis*

## 1. INTRODUCTION

An adequate internal control is normally based on the ability of managers to delegate responsibilities with a reasonable assurance that what they expect to happen will actually happen.

The modern understanding of internal control in business is system-oriented. In practice, it is the responsibility of all employees – from the management, who design, implement, and maintain controls, to the staff, who execute various control activities, including accounting, financial and other re-

porting. However, managers play a leading role. They must develop internal controls for each activity in the organisation, which they are responsible for. Thus, the internal control appears a process, integrated with all other processes, and is established, maintained, and monitored by people at all levels of the enterprise (Bilgi et al., 2015).

The internal control coordinates the enterprise's policies and procedures connected with safeguarding its assets, checking the accuracy and reliability of data, promoting operational efficiency, and encouraging adherence

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to sound management practice. The most important is the assurance provided by the internal control in enterprise, which is linked to the effectiveness and efficiency of operations, reliability of financial reporting, compliance with applicable laws and regulations (Curtis et al., 2000; Dumitrascu & Savulescu, 2012; Jokipii, 2010; Dziawgo, 2014).

Nowadays, the ability of corporate management to carry out its financial and management reporting responsibilities depends, on the one hand, on the design and effectiveness of the processes, and, on the other, on the safeguards it has introduced on accounting, financial and other reporting (Filipova, 2012; Keasy & Wright, 1997; Lambovska, 2016). The preparation of timely and reliable financial and other reports for the management, lenders, investors and other users without such an internal control would otherwise be extremely difficult for most business organizations, for example those with numerous locations, operations, and processes.

In practice, no control system can absolutely guarantee that accounting, financial and managerial reporting will never contain material errors or are influenced by negligence. The effective system of internal control over financial and managerial reporting can reduce the risk of such inaccuracies and mistakes in company's financial statements. Nowadays, the aim of management is to analyse some of the challenges staying in the way of a modern effective internal management control system.

The analysis shows that internal control increases the possibility of an enterprise to achieve its strategic goals and objectives (Papazov & Mihaylova, 2012a; Papazov & Mihaylova, 2012b; Papazov & Mihaylova, 2016). A major requirement for the control system is to be cost-effective, i.e. the costs of its implementation should not exceed the benefits derived from having control. There are opinions that lower managerial levels

also focus on controlling as they give direction to the personnel of the enterprise (Arwinge, 2013; Chand, 2015; Kirova, 2012).

The modern internal control in organizations under the COSO framework (Committee of Sponsoring Organizations of the Treadway Commission) consists of the following main components: control environment, risk assessment, control activities, information and communication, and monitoring activities (www.coso.org, 2013; COSO, 2013). Some specifics of the above-mentioned components can be briefly analysed for the study purposes because of their importance for the main idea – to modernise internal control in small Turkish enterprises.

The results presented in this paper can be considered a part of broader efforts to introduce and modernise internal control systems in Turkish enterprises.

## 2. EMPIRICAL RESEARCH ON INTERNAL CONTROL ACTIVITIES

### 2.1. Characteristics of research sample and methods

The research sample covers the main areas of the European part of Turkey. Most of the studied enterprises are located near big cities like Istanbul and Edirne. The companies employ around 19 people and have a turnover of about TRY 3 million (≈€715,000, <https://sdw.ecb.europa.eu>) on average. The investigated companies are mostly family businesses and have been on the market for more than 10 years. Their managers as a rule have a good education and possess other essential abilities that presuppose the existence of an internal control system in their companies.

The study was conducted using a detailed questionnaire designed using a specialized website (surveymonkey.com). After designing it, the questionnaire was sent to managers and financial experts. The period of study was April–December 2016.

The sections of the questionnaire follow the requirements on the COSO model and its interrelated components. They comprise control environment, risk management, control procedures, IT structure, monitoring, and general evaluations. The questions are formulated in a way that allows later evaluation of the internal control effectiveness and the needs for its modernization. They follow the logic of how the management runs a business. The responses to the questions are Likert-scaled.

The questionnaire was emailed to companies making products or providing services in four different provinces in the Eu-

ropean part of Turkey. Managers, directors or authorized personnel of each organization were informed of the purpose and the significance of the study by talking with them in person. Valid answers were received from 177 addressees.

Having analysed the collected data, the results regarding demographic variables were presented by frequency and by percentage ratio. Before analysing the responses to Likert-scaled questions, the survey's validity test was carried out. The validity analysis aimed to find out whether the scales used in the survey were good enough.

*Table 1. Description of the analytical tools used in the empirical research*

Questions	Analyses				
	Descriptive Analysis	Importance Performance Analysis (SPSS)	Exploratory Factor Analysis (SPSS)	Multi-dimensional Scaling (XLSTAT)	Test of Hypothesis I-Test (SPSS)
D1. Where do you live?	X				
D2. The size of your enterprise: .....	X				
D3. Is your enterprise a family business?	X				
D4. Is there a department in your enterprise responsible for internal audit?	X				
D5. Your total working period in the institution: ..... (years)	X				
D6. What is your education background?	X				
D7. What is your position in the enterprise you work for?	X				
D8. What is the field of operation of the enterprise you work for?	X				
D9. Is there a social media management in the enterprise you work for?	X				
Q1. Is internal control system actively used in your enterprise?	X				
Q2. Could you please rate (on a 1 to 5 scale) the following statements?	X	X			X
Q3. Thinking about your institution, could you please rate the following statements (1 to 5) regarding the internal control system?	X	X	X	X	X
Q4. Could you please rate the following statements on a 1 to 5 scale ?	X		X	X	X
Q6. How do you rate the following statements regarding the environment on a 1 to 5 scale?	X		X	X	

A high level of validation normally depends on the representability of the measured concept(s) by the observed variables. Normally, the validity of a direct survey should be greater than that of an indirect one.

To evaluate the effectiveness of the internal control activities, different statistical tests were used and different analyses were conducted. The methods included in the data analysis are summarised in Table 1.

It is important to stress that the results described below are only an excerpt of a larger and an ongoing investigation project. The emphasis is put on the evaluation of the elements of the internal control system found in part of the statements.

### 2.2. Analysis of the research results

The study sample covers four provinces in the European part of Turkey – Kırklareli, Edirne, Istanbul and Tekirdağ. The survey is based on a total of 177 answers received. The percentage distribution of the respondents by province is as follows: Kırklareli – 18.6%, Edirne – 28.2%, İstanbul – 46.3%, and Tekirdağ – 6.8%.

The capacity of the studied firms shows interesting differences. It can be easily noticed that in the İstanbul region the interviewed companies have on average 31.66 employees, in Kırklareli 19.76, in Tekirdağ 15.67, and in Edirne only 11.70. The average number of employees in companies based in İstanbul is not a surprise, because the city is the financial and economic metropolis of Turkey. İstanbul's companies with a revenues of around TRY 200 million ( $\approx$ €47,601,000, <https://sdw.ecb.europa.eu>) on average hold understandably the highest position. In contrast, the indicators for Edirne are surprisingly low.

As for the socio-economic background of the investigated companies, half of them

are family businesses. The highest percentage (75%) of family enterprises is in the Tekirdağ province; the lowest in the region of Kırklareli – 36.4%.

Regarding the concrete results related to the subject of the research, 67.8% of the studied firms have not set up an internal control department. They rely on informal rules and practices. The last finding is reasonable for most of the interviewed managers, because they have been working in their firms for more than 10 years (with the longest period in Edirne – 13.14 years and the shortest in İstanbul – only 9.84 years on average), i.e. they have good experience. The educational status of the interviewed participants is also a specific factor pushing forward internal control activities (the investigated companies employ 64.4% university graduates, among whom 13.6% have a master's and 1.7% a PhD degree). With respect to their position in the company, 28.8% are company owners, 23.7% work for the accounting department, 15.3% are managers, 11.9% are independent financial advisors and financial managers, and only 1.7% are internal auditors.

In the following table, the investigated companies are sorted by field of activity and region (Table 2).

Most of the companies belong to the service sector, which corresponds to the country- and worldwide tendencies concerning the structuring of the economy.

Having in mind the purpose of the study, a more detailed analysis of some specific Likert-scaled questions will be presented. The question "Could you please evaluate the following statements on a 1-5 point scale?" was prepared in six different subscales. These subscales are: control environment, risk management, control procedures, IT structure, monitoring, and general evaluation.

Table 2. Field of the Activity of the Studied Enterprises

Field of the activity	Region									
	Kırklareli		Edirne		Istanbul		Tekirdağ		Total	
	n	%	n	%	n	%	n	%	n	%
Control, Accounting & Finance	18	54.5	28	56.0	26	31.7	0	0.0	72	40.7
Merchandising	0	0.0	2	4.0	4	4.9	0	0.0	6	3.4
Manufacturing	0	0.0	4	8.0	11	13.4	12	100.0	27	15.3
Research & Development	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Information Technologies	3	9.1	0	0.0	3	3.7	0	0.0	6	3.4
Logistics	3	9.1	0	0.0	6	7.3	0	0.0	9	5.1
Sales	0	0.0	7	14.0	20	24.4	0	0.0	27	15.3
Marketing	3	9.1	0	0.0	3	3.7	0	0.0	6	3.4
Corporate Communication & PR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Human Resources	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Quality Management	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other	6	18.2	9	18.0	9	11.0	0	0.0	24	13.6

Figure 1. Analysis of the control environment . Analysis of the control environment

		Q1. Is internal control system actively used in your enterprise?						Top2 Bottom 2	Mean	
		Yes		No		Total				
		n	%	n	%	n	%			
Control Environment	The management support effective operation of the internal control system for ensuring the approach which is adopted by the company's employees.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	8,5%	4,10
		Disagree	3	3,8%	12	12,1%	15	8,5%		
		Neither agree ...	0	0,0%	9	9,1%	9	5,1%	5,1%	
		Agree	39	50,0%	57	57,6%	96	54,2%	86,4%	
		Strongly agree	36	46,2%	21	21,2%	57	32,2%		
	The internal control system is in compliance with the company's policies and objectives.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	8,5%	4,02
		Disagree	3	3,8%	12	12,1%	15	8,5%		
		Neither agree ...	3	3,8%	12	12,1%	15	8,5%	8,5%	
		Agree	45	57,7%	54	54,5%	99	55,9%	83,1%	
		Strongly agree	27	34,5%	21	21,2%	48	27,1%		
	There is an effective coordination between units on the purpose of realising internal control objectives.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	8,5%	4,03
		Disagree	0	0,0%	15	15,2%	15	8,5%		
Neither agree ...		6	7,7%	9	9,1%	15	8,5%	8,5%		
Agree		42	53,8%	54	54,5%	96	54,2%	83,1%		
	Strongly agree	30	38,5%	21	21,2%	51	28,8%			
The audit committee allocates enough resources and time for observing business risks which could affect the internal control system.	Strongly disagree	0	0,0%	3	3,0%	3	1,7%	10,2%	3,95	
	Disagree	3	3,8%	12	12,1%	15	8,5%			
	Neither agree ...	9	11,5%	12	12,1%	21	11,9%	11,9%		
	Agree	39	50,0%	48	48,5%	87	49,2%	78,0%		
	Strongly agree	27	34,5%	24	24,2%	51	28,8%			
Employees' tasks, authority and responsibilities are clearly and explicitly identified and constantly updated.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	5,1%	4,20	
	Disagree	0	0,0%	9	9,1%	9	5,1%			
	Neither agree ...	6	7,7%	9	9,1%	15	8,5%	8,5%		
	Agree	33	42,3%	51	51,5%	84	47,5%	86,4%		
	Strongly agree	39	50,0%	30	30,3%	69	39,0%			

There are five optional statements under the subscale “Control environment”, which appear first. The first assertion “The management support effective operation of the internal control system for ensuring the approach, adopted by the company’s employees” receives 4.10 (out of the maximum 5) points. The second one, “The internal control system is in compliance with the company’s policies and objectives”, gets 4.02 points. The third one, “There is an effective coordination between units on the purpose of realizing internal control objectives”, gets 4.03 points. The fourth one, “The audit committee allocate enough resources and time for observing business risks which could

There are four different statements under the second subscale “Risk Management”. It can be seen that the assertion “The risk assessment has been made by department in the company” gets 4.02 (out of 5) points. The statement “There is an action plan, which is adequate and constantly updated for managing the risk and minimize its effects” gets 3.90 points and the statement “The management and employees have fully understood the type of risks which is acceptable by the management” – 3.95 points. Finally, the statement “Processes and controls are constantly updated according to changing risks” gets 4.00 points. Detailed results are shown in Figure 2.

Figure 2. Analysis of the risk management

		Q1. Is internal control system actively used in your enterprise?						Top2 Bottom 2	Mean	
		Yes		No		Total				
		n	%	n	%	n	%			
Risk Management	The risk assessment has been made based on department in the company.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	8,6%	4,02
		Disagree	3	3,8%	12	12,5%	15	8,6%		
		Neither agree ...	3	3,8%	21	21,9%	24	13,8%		
		Agree	33	42,3%	45	46,9%	78	44,8%		
	There is an action plan, w hich is adequately and constantly updated for managing risk and minimising its effects.	Strongly agree	39	50,0%	18	18,8%	57	32,8%	77,6%	3,90
		Strongly disagree	0	0,0%	6	6,1%	6	3,4%		
		Disagree	0	0,0%	9	9,1%	9	5,1%		
		Neither agree ...	12	15,4%	18	18,2%	30	16,9%		
	The management and employees have fully understood the type of risk w hich is acceptable by the management.	Agree	33	42,3%	51	51,5%	84	47,5%	74,6%	3,95
		Strongly agree	33	42,3%	15	15,2%	48	27,1%		
		Strongly disagree	0	0,0%	3	3,0%	3	1,7%		
		Disagree	0	0,0%	12	12,1%	12	6,8%		
Processes and controls are constantly updated according to changing risks.	Neither agree ...	9	11,5%	9	9,1%	18	10,2%	10,2%	4,00	
	Agree	42	53,8%	60	60,6%	102	57,6%			
	Strongly agree	27	34,6%	15	15,2%	42	23,7%			
	Strongly disagree	0	0,0%	6	6,1%	6	3,4%			
	Disagree	0	0,0%	6	6,1%	6	3,4%	6,8%	4,00	
	Neither agree ...	0	0,0%	15	15,2%	15	8,5%			
	Agree	48	61,5%	57	57,6%	105	59,3%			
	Strongly agree	30	38,5%	15	15,2%	45	25,4%			

affect the internal control system,” collects 3.95 points. The last one “Employees’ tasks, authority and responsibilities are clearly and explicitly identified and constantly updated”, obtains 4.20 points. Detailed results are shown in Pp. 25-53

The subscale “Control procedures” has been characterized by the following details: The first statement “There are identified written standards, based on business process analysis for every process and units” receives 3.97 (out of 5) points. The second

one, “There are types of control systems, which are anti-tampering and limiting to disappearing of assets and archives (like physical controls and segregation of duties)”, gathers the same number of points. The third one “There are procedures which make accounting true and fair” gets 4.15 points. The fourth one “Procedures done are recorded and approved separately by the controller”, is evaluated with 4.10 points. The fifth statement “Identified controls in the guidelines of procedure and politics are carried out in practice as intended” gets 3.95 points. Finally, the statement “Changes in the legal acts are transferred to internal control system completely and timely by the management” gets 4.08 points.

It can be concluded that if certain control procedures are applied adequately, internal controls will be effective and efficient. Detailed results are shown in Figure 3.

The results for the subscale “IT Structure”, which is another element of the internal control system, can be systematized as follows: The first statement “There is an internal understandable control structure which is supported and understood by all employees” receives 3.90 (out of 5) points. The second one “There are procedures ensuring the accuracy of information, which provide a basis for financial reporting” gets 4.00 points. The third one “There are types of control systems, which analyse properly flowing dates between systems that are independent of each other” gets 3.97 points. And, finally, the statement “There is a constantly updated emergency plan, which is created in view of any significant malfunction that could occur on the IT infrastructure” obtains 3.76 points.

It can be concluded that the participation rate decreases. Although “IT Structure”

Figure 3. Analysis of the control procedures

		Q1. Is internal control system actively used in your enterprise?						Top2 Bottom 2	Mean
		Yes		No		Total			
		n	%	n	%	n	%		
There are identified w ritten standards, based on business process analysis for every process and units.	Strongly disagree	0	0,0%	3	3,0%	3	1,7%	10,2%	3,97
	Disagree	3	3,8%	12	12,1%	15	8,5%		
	Neither agree ...	3	3,8%	9	9,1%	12	6,8%		
	Agree	48	61,5%	54	54,5%	102	57,6%		
	Strongly agree	24	30,8%	21	21,2%	45	25,4%		
There are types of control systems, w hich are anti-tampering and limiting to disappearing of assets and archives (like physical controls and segregation of duties).	Strongly disagree	0	0,0%	3	3,0%	3	1,7%	6,8%	3,97
	Disagree	0	0,0%	9	9,1%	9	5,1%		
	Neither agree ...	6	7,7%	15	15,2%	21	11,9%		
	Agree	45	57,7%	57	57,6%	102	57,6%		
	Strongly agree	27	34,6%	15	15,2%	42	23,7%		
There are procedures w hich make accounting true and fair.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	5,1%	4,15
	Disagree	0	0,0%	9	9,1%	9	5,1%		
	Neither agree ...	0	0,0%	12	12,1%	12	6,8%		
	Agree	48	61,5%	51	51,5%	99	55,9%		
	Strongly agree	30	38,5%	27	27,3%	57	32,2%		
Procedures done are recorded and approved separately by the controller.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	5,2%	4,10
	Disagree	0	0,0%	9	9,4%	9	5,2%		
	Neither agree ...	0	0,0%	12	12,5%	12	6,9%		
	Agree	51	65,4%	54	56,3%	105	60,3%		
	Strongly agree	27	34,6%	21	21,9%	48	27,6%		
Identified controls in the guidelines of procedure and politics are carried out in practice as intended.	Strongly disagree	0	0,0%	6	6,1%	6	3,4%	8,5%	3,95
	Disagree	0	0,0%	9	9,1%	9	5,1%		
	Neither agree ...	3	3,8%	18	18,2%	21	11,9%		
	Agree	51	65,4%	42	42,4%	93	52,5%		
	Strongly agree	24	30,8%	24	24,2%	48	27,1%		
Changes in the legal acts are transferred to internal control system completely and timely by the management.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	8,5%	4,08
	Disagree	0	0,0%	15	15,2%	15	8,5%		
	Neither agree ...	0	0,0%	12	12,1%	12	6,8%		
	Agree	39	50,0%	54	54,5%	93	52,5%		
	Strongly agree	39	50,0%	18	18,2%	57	32,2%		

Figure 4. Analysis of the IT structure

		Q1. Is internal control system actively used in your enterprise?						Top2 Bottom 2	Mean
		Yes		No		Total			
		n	%	n	%	n	%		
IT Structure	There is an internal understandable control structure w hich is supported and understood by all employees	Strongly disagree	0	0,0%	3	3,0%	3	1,7%	3,90
		Disagree	0	0,0%	12	12,1%	12	6,8%	
		Neither agree ...	6	7,7%	24	24,2%	30	16,9%	
		Agree	45	57,7%	42	42,4%	87	49,2%	
		Strongly agree	27	34,6%	18	18,2%	45	25,4%	
	There are procedures ensuring the accuracy of information, w hich provide a basis for financial reporting.	Strongly disagree	0	0,0%	3	3,0%	3	1,7%	4,00
		Disagree	0	0,0%	9	9,1%	9	5,2%	
		Neither agree ...	6	8,0%	15	15,2%	21	12,1%	
		Agree	45	60,0%	48	48,5%	93	53,4%	
	There are types of control systems, w hich analyse properly flowing dates between systems that are independent of each other.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	3,97
		Disagree	0	0,0%	18	18,2%	18	10,2%	
		Neither agree ...	6	7,7%	6	6,1%	12	6,8%	
		Agree	48	61,5%	57	57,6%	105	59,3%	
		Strongly agree	24	30,8%	18	18,2%	42	23,7%	
	There is a constantly updated emergency plan w hich created against of a significant malfunction that could be occurred on infrastructure of IT.	Strongly disagree	0	0,0%	6	6,1%	6	3,4%	3,76
Disagree		3	3,8%	15	15,2%	18	10,2%		
Neither agree ...		15	19,2%	15	15,2%	30	16,9%		
Agree		36	46,2%	45	45,5%	81	45,8%		
	Strongly agree	24	30,8%	18	18,2%	42	23,7%		

receives tentative estimates, it has a development potential. Detailed results can be found in Figure 4.

The subscale “Monitoring” is the next element of the internal control system. Different statements for it have been studied

and the results can be summarized as follows: The first statement, “Activities of the internal control system are observed and evaluated by the management constantly”, gets 3.92 (out of 5) points. The second one, “It’s prevented from taking operational

Figure 5. Analysis of the subscale “Monitoring”

		Q1. Is internal control system actively used in your enterprise?						Top2 Bottom 2	Mean
		Yes		No		Total			
		n	%	n	%	n	%		
Monitoring	Activities of the internal control system is observed and evaluated by the management constantly.	Strongly disagree	0	0,0%	3	3,0%	3	1,7%	3,92
		Disagree	0	0,0%	21	21,2%	21	11,9%	
		Neither agree ...	6	7,7%	6	6,1%	12	6,8%	
		Agree	45	57,7%	48	48,5%	93	52,5%	
		Strongly agree	27	34,6%	21	21,2%	48	27,1%	
It's prevented to take operational responsibilities, w hich conflict w ith roles of observer to the squad w ho conducts an inspection to internal control system.	Strongly disagree	0	0,0%	3	3,0%	3	1,7%	3,98	
	Disagree	0	0,0%	15	15,2%	15	8,5%		
	Neither agree ...	6	7,7%	12	12,1%	18	10,2%		
	Agree	36	46,2%	51	51,5%	87	49,2%		
Performance criteria are used w hich formed in the light of organizations' goals and plans.	Strongly disagree	0	0,0%	6	6,1%	6	3,4%	3,93	
	Disagree	3	3,8%	9	9,1%	12	6,8%		
	Neither agree ...	3	3,8%	15	15,2%	18	10,2%		
	Agree	42	53,8%	51	51,5%	93	52,5%		
	Strongly agree	30	38,5%	18	18,2%	48	27,1%		



Figure 6. Analysis of the “General evaluation”

		Q1. Is internal control system actively used in your enterprise?						Top2 Bottom2	Mean	
		Yes		No		Total				
		n	%	n	%	n	%			
General Evaluations	Operations in the institution are made effectively and efficiently	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	6,8%	4,02
		Disagree	0	0,0%	12	12,1%	12	6,8%		
		Neither agree ...	3	3,8%	18	18,2%	21	11,9%		
		Agree	45	57,7%	51	51,5%	96	54,2%		
		Strongly agree	30	38,5%	18	18,2%	48	27,1%		
	Financial reporting is done safely.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	5,2%	4,12
		Disagree	0	0,0%	9	9,1%	9	5,2%		
		Neither agree ...	0	0,0%	15	15,2%	15	8,6%		
		Agree	39	52,0%	57	57,6%	96	55,2%		
		Strongly agree	36	48,0%	18	18,2%	54	31,0%		
	Operations in the institution are carried out in the accordance with the laws and regulations.	Strongly disagree	0	0,0%	0	0,0%	0	0,0%	3,4%	4,21
		Disagree	0	0,0%	6	6,3%	6	3,4%		
		Neither agree ...	0	0,0%	15	15,6%	15	8,6%		
		Agree	36	48,2%	54	56,3%	90	51,7%		
		Strongly agree	42	53,8%	21	21,9%	63	36,2%		

responsibilities, which conflict with roles of observer to the division who conducts an inspection to internal control system”, receives 3.98 points. Finally, the statement “Performance criteria are used which highlight organizations’ goals and plans” is scored with 3.93 points. Detailed results are shown in Figure 5.

The last subscale concerns “General evaluation” of internal control systems. The first statement, “Operations in the institution are made effectively and efficiently”, receives 4.02 (out of 5) points; the second one, “Financial reporting is done safely”, gets 4.12 points; and, finally, the statement “Operations in the institution are carried out in the accordance with the laws and regulations” gets 4.21 points. Detailed results are shown in Figure 6.

According to the interviewed participants, “Control Environment” and “Risk Management” hold the highest position in the modelling of a control system in enterprises. “Monitoring”, “General Evaluations” and “IT Structure” come second and “Control Procedures” is placed on the third position. There are strong correlations between these elements.

### 2.3. Testing Study Hypothesis

The responses linked to the COSO framework which have been received from the survey have been tested using the T-test. The results are as follows: three of the statements in the subscale “Control Environment” have a homogeneous distribution (the first, second and fifth), while two of them (the third and fourth) do not have. There is no variation among the groups with regard to the answers given to all five statements.

One of the four statements in the subscale “Risk Management” (in the second row) shows a homogeneous distribution, whereas the rest do not possess such a property. It follows that according to the results of all four T-tests, there is no variation among the groups.

Two out of the six statements in the subscale “Control Procedures” (in the third row) show a homogeneous distribution, whereas the rest do not possess such a property. It follows that according to the results of all four T-tests there is no variation among the groups.

Concerning the four statements in the subscale “IT structure” (the fourth row), they do not show a homogeneous distribution.

*Figure 7. Independent samples test for control environment*

Independent Samples Test			Levene's Test for Equality of Variance		t-test for Equality of Means		
			F	Sig.	T	df	Sig.
Control	The management support effective operation of the internal control system for ensuring the approach, adopted by the company's employees.	Equal variances as.*	.338	.562	4.158	175	.000
		Equal variances n.as.**			4.281	174.981	.000
	The internal control system is in compliance with the company's policies and objectives.	Equal variances as	2.154	.144	3.094	175	.002
		Equal variances n.as.			3.184	174.994	.002
Environment	There is an effective coordination between units on the purpose of realising internal control objectives.	Equal variances as.	4.768	.030	3.983	175	.000
		Equal variances n.as.			4.182	169.149	.000
	The audit committee allocates enough resources and time for observing business risks which could affect the internal control system.	Equal variances as.	5.172	.024	2.588	175	.010
		Equal variances n.as.			2.679	174.432	.008
Monitoring	Employees' tasks, authority and responsibilities are clearly and explicitly identified and constantly updated.	Equal variances as.	.019	.890	3.334	175	.001
		Equal variances n.as			3.460	173.924	.001

\* as. = assumed; \*\* n.as. = not assumed

*Figure 8. Independent samples test for risk management*

Independent Samples Test			Levene's Test for Equality of Variances		t-test for Equality of Means		
			F	Sig.	T	df	Sig. (2-tailed)
Risk	The risk assessment has been made based on department in the company.	Equal variances assumed	3.133	.079	5.189	172	.000
		Equal variances not assumed			5.301	172.000	.000
Management	There is an action plan, which is adequate and constantly updated for managing the risk and minimise its effects.	Equal variances assumed	6.834	.010	4.780	175	.000
		Equal variances not assumed			4.992	171.708	.000
Monitoring	The management and employees have fully understood the type of risks which is acceptable by the management.	Equal variances assumed	5.095	.025	3.959	175	.000
		Equal variances not assumed			4.146	170.520	.000
Monitoring	Processes and controls are constantly updated according to changing risks.	Equal variances assumed	12.374	.001	5.546	175	.000
		Equal variances not assumed			5.970	148.790	.000

Likewise, according to the results of T-tests for all four statements, there is no variation among the answers of the groups. There are chances to implement internal controls, based on a systematic strategy and use of advanced software tools for evaluation of data, as this was done in other countries (Hilker & Zajko, 2015).

All three statements in the subscale “Monitoring” (the fifth row) show no homogeneous distribution. Likewise, in conse-

quence of all three statements’ T-tests, there is no variation among the answers of the groups.

As far as the subscale “General evaluation” is concerned, two (in green) out of three statements show a homogeneous variance distribution, whereas the rest do not possess such a property. Based on the results of T-tests for all three statements, one can say that there is no variation among the answers of the groups.

Figure 9. Independent samples test for control procedures

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	T	df	Sig. (2-tailed)	
C o n t r o l  P r o c e d u r e s	There are identified written standards which are based on business process analyse for every process and units.	Equal variances assumed	7.568	.007	3.023	175	.003
		Equal variances not assumed			3.160	171.314	.002
	There are types of control systems, which are anti-tampering and limiting to disappearing of assets and archives (like physical controls and segregation of duties).	Equal variances assumed	6.438	.012	4.455	175	.000
		Equal variances not assumed			4.685	168.214	.000
	There are procedures which make accounting true and plenitude.	Equal variances assumed	2.670	.104	3.752	175	.000
		Equal variances not assumed			3.994	159.407	.000
	Procedures done are recording and approved separately by the controller.	Equal variances assumed	3.442	.065	4.086	172	.000
		Equal variances not assumed			4.311	154.868	.000
	Identified controls in the guidelines of procedure and politics are carried out in practice as intended.	Equal variances assumed	29.301	.000	4.163	175	.000
		Equal variances not assumed			4.493	146.069	.000
	Changes in the legal acts are transferred to internal control system completely and timely by the management.	Equal variances assumed	10.692	.001	6.371	175	.000
		Equal variances not assumed			6.799	157.072	.000

Figure 10. Independent samples test for IT structure

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	T	df	Sig. (2-tailed)	
I T  S t r u c t u r e	There is an internal common language structure which is supported and understood by whole employees.	Equal variances assumed	22.013	.000	5.102	175	.000
		Equal variances not assumed			5.410	162.606	.000
	There are procedures ensuring the accuracy of information, which providing a basis to financial reporting.	Equal variances assumed	9.933	.002	3.240	172	.001
		Equal variances not assumed			3.467	162.806	.001
	There are types of control systems, which analyse properly flowing dates between systems that independent of each other.	Equal variances assumed	11.094	.001	3.838	175	.000
		Equal variances not assumed			4.058	164.793	.000
	There is a constantly updated emergency plan which created against of a significant malfunction that could be occurred on infrastructure of IT.	Equal variances assumed	15.063	.000	3.234	175	.001
		Equal variances not assumed			3.361	173.496	.001

Figure 11. Independent samples test for monitoring

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	T	df	Sig. (2-tailed)	
M O N I T O R I N G	Activities of the internal control system is observed and evaluated by the management constantly.	Equal variances assumed	29.713	.000	4.482	175	.000
		Equal variances not assumed			4.794	154.914	.000
	It's prevented to take operational responsibilities, which conflict with roles of observer to the squad who conducts an inspection to internal control system.	Equal variances assumed	11.921	.001	5.370	175	.000
		Equal variances not assumed			5.676	164.883	.000
Performance criteria are used which formed in the light of organizations' goals and plans.	Equal variances assumed	9.201	.003	4.280	175	.000	
	Equal variances not assumed			4.479	170.787	.000	

*Figure 12. Independent samples test for general evaluations*

Independent Samples Test			Levene's Test for Equality of Variances		t-test for Equality of Means		
			F	Sig.	t	df	Sig. (2-tailed)
General evaluation	Operations in the institution are made effectively and efficiently.	Equal variances assumed	9.022	.003	5.096	175	.000
		Equal variances not assumed			5.374	166.564	.000
	Financial reporting is done safely.	Equal variances assumed	2.032	.156	5.853	172	.000
		Equal variances not assumed			6.237	165.104	.000
Usage	Operations in the institution are carried out in the accordance with the laws and regulations.	Equal variances assumed	.333	.564	5.817	172	.000
		Equal variances not assumed			6.081	162.953	.000

**3. CONCLUSION**

The study results show that participants typically rate higher the topics of control environment, risk management, control procedures, IT structure, monitoring, and general evaluations, which are the six sub-components of COSO’s internal control system.

The collected information about internal control developments and its systematization provide an opportunity for the researcher to construct a SWOT analysis of the internal control system, and thus find typical features of the complete small business sector in Turkey. The results of the SWOT analysis are as follows:

**Strengths**

- Availability of procedures making accounting true and fair.
- Recognised corporate culture due to the family business characteristics of the studied enterprises.
- High level of employees’ adaptation to modern IT developments.
- Effective coordination between the units of the enterprises with view of realising the internal control objectives.

- Complete and timely transfer of changes in the internal control legislation to the management.

**Weaknesses**

- Limited number of employees involved in internal control activities.
- There is often no in-depth information about internal control systems and their application in SMEs.
- Non-differentiation of special internal control departments in the structure of most enterprises.
- Accent of the internal control mostly on financial reporting.
- Non-existence of written standards based on the analysis of important business processes and units in most of the enterprises.
- Sporadic observation and evaluation of activities related to internal control by the management.
- Non-availability of adequate and constantly updated action plans for minimising risks and their effects on the enterprise.

**Opportunities**

- Growth of the national economy and chances to expand enterprises and develop their control systems.
- Renewal of the fiscal legislation and harmonization process(es) according to the good international practice.
- Increasing of communication opportunities and development of information technologies in the country.
- Availability of important common guidelines for procedure, politics and practice of internal control as a prerequisite for establishing of internal control systems.
- Chances to revitalize private investments and develop internal control systems, following modern tendencies, especially in SMEs.

**Threats:**

- No homogenous evaluation methodology of the control environment of enterprises.
- Frequent changes in the legislation hindering the adaptation of the internal control of companies.
- Risk of turbulences in the industry environment, which could have a negative impact on control activities in SMEs.

A SWOT-based strategy for the designing of a better internal control system in small enterprises should be developed. The principles underlining the strategic thinking in this direction can be a matter of future research.

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## AKTIVNOSTI INTERNE KONTROLE U MALIM TURSKIM PODUZEĆIMA

### Sažetak

*Cilj ovog rada je prikazati rezultate empirijskog istraživanja, koje se odnosi na internu kontrolu u malim turskim poduzećima, kako bi se predložile smjernice za njezino unapređenje. Pritom su korištene metode analize, sinteze, deskriptivne statistike i statističke usporedbe. Prikupljeni su podaci obrađeni uz pomoć softverskog paketa SPSS. Rad se ograničava na poduzeća smještena u europskom dijelu Turske, koja većinom posluju u okolini velikih gradova, poput Istanbula, Edirne, Kirklareli i Tekirdağa. U prosjeku zapošlja-*

*vaju 19,2 zaposlenika i godišnje prodaje robu prosječne vrijednosti 3 milijuna turskih lira (približno 715.000 eura). Istraživanje je usmjereno uglavnom na mala obiteljska poduzeća prisutna na tržištu više od deset godina koja imaju dobro obrazovane menadžere i neke druge karakteristike koje pretpostavljaju prisutnost internih sustava kontrole. Rezultati istraživanja se koriste za izradu SWOT analize, kao dijela širih napora za unapređenje internih sustava kontrole u malim turskim poduzećima.*

**Ključne riječi:** *interna kontrola, mala i srednja poduzeća (MSP), menadžerska analiza*