

# THE EFFECT OF PROFESSIONAL SKEPTICISM AND ETHICS ON THE ABILITY TO DETECT CREATIVE ACCOUNTING

**Kürşad ÇAVUŞOĞLU**

Mersin University, Anamur Vocational School, Anamur,  
Mersin, Turkey, kursatcavusoglu@mersin.edu.tr

**Filiz ANGAYKUTLUK**

Akdeniz University, Faculty of Applied Sciences,  
Department of Banking and Finance, Antalya, Turkey, angay@akdeniz.edu.tr

## ABSTRACT

*The purpose of this study is to investigate the effect of professional skepticism, ethical sensitivity and ethics position of independent auditors on their ability to detect the practices of creative accounting. Data were collected by applying a questionnaire to 340 independent auditors. This study is limited to independent auditors working in an independent audit firm authorized by the Turkish Public Oversight, Accounting and Auditing Standards Authority. The validity and reliability analysis of the variables were performed. Descriptive statistics of the variables were presented. Path analysis, one of the statistical techniques included in the structural equation model, was used to test hypotheses. It was observed that ethical sensitivity and idealism besides interpersonal understanding and questioning mind characteristics, which are the subdimensions of professional skepticism, have a significant effect on independent auditors' ability to detect creative accounting practices. The results imply that in addition to professional skepticism, ethical sensitivity can be emphasized in accounting-independent audit education at universities and in in-service training of independent auditing firms. This study tried to contribute to the literature by explaining the relationship between ethical sensitivity and the ability to detect creative accounting practices, the relationship between professional skepticism and ethical sensitivity, and the relationship between ethics position and the ability to detect creative accounting practices, which are less researched in accounting and auditing literature.*

**Keywords:** Professional Skepticism, Ethics, Sensitivity, Creative Accounting, Auditing

---

<sup>1</sup>This study is produced from the thesis named 'Ethics in Audit and Creative Accounting'. This work was supported by Research Fund of Akdeniz University/ Antalya/Turkey [Project Number: SDK-2018-2903].

## INTRODUCTION

Unfortunately, in recent years, in business world there have been some company scandals related to accounting and auditing which led to discussions within the ethical framework.

After the accounting and audit scandals, the issue of ethics in auditing has become questionable and professional skepticism and ethical principles are overemphasized in independent auditing standards and other legislations. For that reason, the research of the effect of professional skepticism, ethical sensitivity and ethical position is gaining importance in the ability to detect the creative accounting practices related to ethics.

Ocak and Güçlü (2014) examine 'Creative Accounting' under three perspectives. According to first perspective, creative accounting is a very broad concept that comprises presenting unrealized economic events in the financial statements and includes fraud. From second perspective, creative accounting has been seen as accounting and reporting of a realized economic event, creating accounting practices in accordance with specific interests with taking advantage of gaps in accounting, and according to third perspective, creative accounting is defined as accounting and reporting of a realized economic event with different interpretation of accounting and reporting rules by taking advantage of flexibilities in accounting (Ocak and Güçlü, 2014). In this paper, creative accounting is defined as a fraudulent financial reporting type that takes the financial statements away from the actual and correct presentation, occurs on existing economic events, by violating accounting rules, or by taking advantage of the gaps and flexibilities in accounting.

The first findings of ethical ideologies were obtained by Schlenker and Forsyth (1977) in their study of the ethics of psychological research; then Forsyth (1980) made a classification of ethical ideologies. Relativism (RLT) and idealism (IDE) are the basis of the two dimensions of individual differences in moral judgments (Forsyth, 1980). Relativism is the degree to which individuals refuse universal ethics (Forsyth, 1980). Idealism is the degree to which individuals worry about other people's well-being (Forsyth, 1992).

Hurtt (2010) defines professional skepticism within the neutral framework as a multidimensional structure that characterizes the deferment tendency of a concluding person until the evidences provide adequate support for an alternative opposite to other alternatives. In this framework, six character traits that constitute professional skepticism, including *Questioning Mind (QM)*, *Suspension of Judgment (SJ)*, *Search for Knowledge (SK)*, *Interpersonal Understanding (IU)*, *Self-Confidence (SC)* and *Self-Determining (SD)* have been defined (Hurtt, 2010).

Shaub et al. (1993, p. 146) described ethical sensitivity “as the ability to recognize the ethical nature of a situation in a professional context”. In this study, ethical sensitivity is defined as “being able to recognize / realize an ethical problem in an existing situation”.

The purpose of this research is to investigate the effect of independent auditors' professional skepticism, ethical sensitivities and ethical position on their ability to detect the practices of creative accounting.

This study aims to make a contribution to preparation of future legal regulations, standards and theoretical knowledge by investigating effect of professional skepticism, ethical sensitivity and ethics position on detecting creative accounting practices.

## **LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

In his study, Shaub (1989) found that ethical orientation (idealism and relativism) had no effect on ethical sensitivity.

In the study, which investigated the effect of the ethical orientations of the auditors, their organizational commitment and their professional commitment on their ethical sensitivity; Shaub et al. (1993) found that relativism is negatively associated with ethical sensitivity, however, they found that there was a negative relationship between idealism and ethical sensitivity as they did not expect.

In a study which examined the factors affecting the ethical sensitivities of tax consultants, Yetmar and Eastman (2000) could not find a significant relationship between relativism and ethical sensitivity. In their study on the ethical sensitivities of accounting students; Chan and Leung (2006) found no significant relationship between ethical sensitivity and idealism and relativism.

The study of the effect of moral philosophy (idealism and relativism) on the ethical considerations of the auditors; Kung and Huang (2013) found that idealism has a positive relationship with auditors' sensitivity to suspicious behavior of their customers, while corresponding relativism was negatively related to the sensitivity of auditors to their customers' involvement in illegal activities. In their work investigating the effects of ethical orientation (idealism and relativism) and threats to auditor independence on the decision making process of auditors; Johari et al. (2017) found a positive relationship between idealism and ethical sensitivity and negative relationship between relativism and ethical sensitivity. Research hypotheses between ethics position and ES are:

*H1: IDE has a significant positive effect on ES of independent auditors.*

*H2: RLT has a significant negative effect on ES of independent auditors.*

In their study they did with industry professionals, which emphasizes importance of ethics in financial reporting and the factors that cause unethical creative accounting practices; Tassadaq and Malik (2015) concluded that ethics plays a positive and important role in financial reporting, as the more ethical values, so the less fraudulent behavior.

In his study on public economic organizations that investigates whether corporate ethical values moderate the effect of good corporate governance on creative accounting practices, Lestari (2017) found that corporate ethical values moderate the effect of good corporate governance on creative accounting practices and that corporate ethical values are important determinants in detecting creative accounting practices. In their study on undergraduate business students about the impact of individual ethical ideology (idealism and relativism) on profit management decisions, Greenfield et al. (2008) found a positive relationship between relativism and profit management behavior, whereas a negative relationship was found between idealism and profit management behavior.

Research hypotheses between ethics position and the ability to detect creative accounting practices (ACA) are:

*H3: IDE has a significant positive effect on ACA of independent auditors.*

*H4: RLT has a significant negative effect on ACA of independent auditors.*

Abdolmohammadi and Owoso (2000) investigated the ethical sensitivity of auditors in assessing fraud risk in financial reporting. It was concluded that auditors were sensitive to ethical knowledge in evaluating the probability of fraud, whereas audit managers were not sensitive. In their study on the effect of professional ethics sensitivity on auditor performance, Afifah et al. (2015) found that the sensitivity of professional ethics had a positive effect on auditor performance. Ashari et al. (2013) examined the multiple relationships between public internal auditors' awareness of corruption, supporting anti-corruption program, ethical sensitivity, professional skepticism and corruption risk assessment and did not find any significant relationship between ethical sensitivity and corruption risk assessment.

In their work, which investigated the effect of audit ethics on the ability of auditors to detect the practices of creative accounting; Al Momani and Obeidat (2013) found that the rules of audit ethics, such as the wage payable, the right to use the advertising, the use of form and name of the company, independence, honesty and impartiality, individually and together, affect the ability to detect the practices of creative accounting. Research hypotheses between ES and ACA are:

*H5: ES of independent auditors have a significant positive effect on their ACA.*

In their study, which investigates the effect of auditor ethics on audit quality together with professional skepticism, which is moderating variable, Zarefar et al. (2016) found that auditor ethics together with professional skepticism, which is the moderating variable, influence the quality of auditing. Farag and Elias (2012) investigated the relationship between the students' professional skepticism and the ethical perceptions of profit management activities; students who are more skeptical have found the profit management actions more unethical than students who are less skeptical. Ashari et al. (2013) did not find a significant relationship between professional skepticism and ethical sensitivity in the study in which they examined multiple relationships between public internal auditors' awareness of corruption, supporting anti-corruption program, ethical sensitivity, professional skepticism and corruption risk assessment. Research hypotheses between professional skepticism and ES are:

*H6: IU has a significant positive effect on ES of independent auditors.*

*H7: QM has a significant positive effect on ES of independent auditors.*

*H8: SK has a significant positive effect on ES of independent auditors.*

*H9: SC has a significant positive effect on ES of independent auditors.*

*H10: SD has a significant positive effect on ES of independent auditors.*

*H11: SJ has a significant positive effect on ES of independent auditors.*

Popova (2012), in the study that is applied on audit students, investigated the effect of professional skepticism character level and different experiences with hypothetical customer on the audit judgment and found that more skeptical participants have come to the conclusion that the evidence is more sensitive to the evidence of fraud during the evaluation phase. Hurtt et al. (2008), examining the effect of the level of skepticism of the auditors on the alternative creation and evaluation and of evidence in both ordinary and suspicious conditions; found that more skeptical auditors in the normal audit conditions found more incongruity and partially more alternative explanations than the less skeptical auditors, whereas they found fewer errors, and they investigated relatively less material accuracy tests. In case of doubtful audit conditions, Hurtt et al. (2008) found that there was more focus on material accuracy tests for those with high suspicion, and that the number of discrepancies and errors was higher.

Rose (2007), in the study on auditors investigating the effect of induced skepticism on paying attention to aggressive financial reporting practices; found that more induced skepticism increases attention to evidence related to aggressive financial reporting. Pramana et al. (2016), in their study about the effect of professional skepticism on the ability of auditors to recognize fraud; they found that professional skepticism had a partial impact on the ability to recognize fraud. In their studies investigating the relationship between the skepticism and decision making of the auditors; Royae et al. (2013) found a significant and positive relationship between the skepticism of the auditors and their decision

making. Research hypotheses between professional skepticism and ACA are expressed as follows:

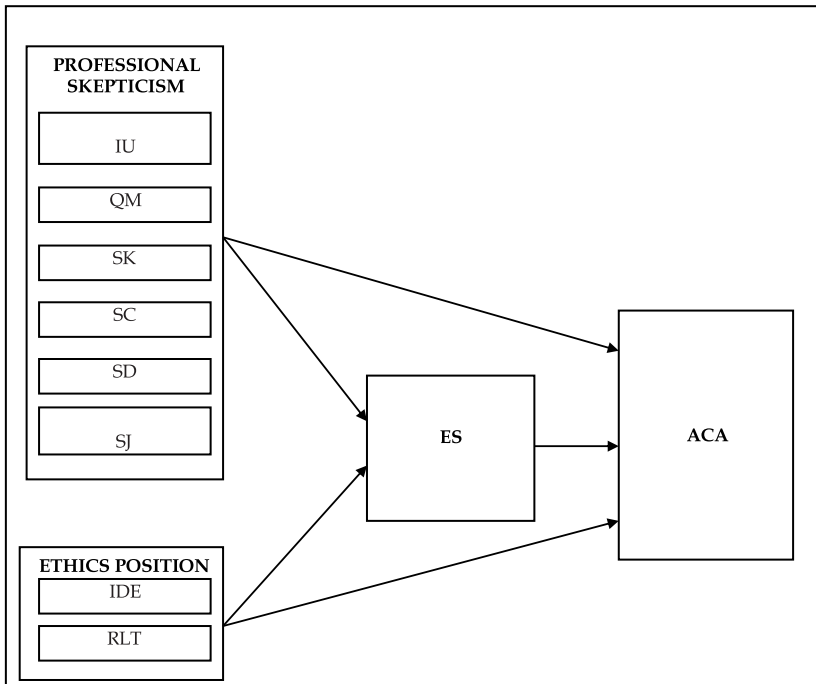
- H12: IU has a significant positive effect on ACA of independent auditors.
- H13: QM has a significant positive effect on ACA of independent auditors.
- H14: SK has a significant positive effect on ACA of independent auditors.
- H15: SC has a significant positive effect on ACA of independent auditors.
- H16: SD has a significant positive effect on ACA of independent auditors.
- H17: SJ has a significant positive effect on ACA of independent auditors.

### 3. RESEARCH METHOD

#### RESEARCH MODEL

A causal model was used in this study which investigate effect of professional skepticism, ethical sensitivity and ethics position of independent auditors on their ACA. Research model based on hypotheses developed in research is shown in Figure 1:

Figure 1: Research model



While professional skepticism and ethics position are included as independent variables in research model, ACA is as dependent variable. ES is both dependent and independent variable (mediator variable).

## POPULATION AND SAMPLE OF RESEARCH

The research includes independent auditors working in independent audit firms authorized by (Turkish Public Oversight Accounting and Auditing Standards Authority) POA. In this context, 249 independent auditing firms that were authorized by POA have been determined on the website of POA (as of 8 March 2018) and 2,701 independent auditors working in these 249 independent auditing firms have been determined, again by searching the website of POA. The population of the study is accepted as 2,701. The table in the study of Yazıcıoğlu and Erdoğan (2007, p. 72) is utilized in order to determine the sample size.

According to this table, when sampling error is  $d = 0.05$  and significance level  $\alpha = 0.05$  and when it is considered that the participants in the research have different ideas, namely heterogeneous, so  $p = 0.5$  and  $q = 0.5$ ; if the population of 2,500 people is taken whose size is the closest to size of population that is accepted to be 2,701 people, it has been revealed that a sample size of 333 people should be researched. In the light of these data, a sample size of 340 people was found sufficient for this research.

Convenience sampling method has been chosen as a sampling method in order to reach an adequate number of independent auditors in the appropriate time interval with appropriate budget possibility in this study.

## RESEARCH INSTRUMENT

Data were collected by survey in this research. A Scientific Research Project (SRP) was prepared (project no: SDK-2018-2903) and within the framework of SRP, service procurement was carried out to collect data by a research company. Research company conducted surveys by face to face and by telephone.

Ethics Position Scale of Forsyth (1980) which was adapted to Turkish by Yazıcı and Yazıcı (2010) was used to measure ethics positions. The Ethics Position Scale includes a total of 20 items, 10 of which are related to idealism and 10 are related to relativism. In the original case of the Ethics Position Scale, the degree of participation in the statements is given in the nine-point Likert type (Forsyth, 1980). The degree of participation in the statements of this research is prepared in the form of a five-point Likert type, as in the study of Yazıcı and Yazıcı (2010).

In this study, professional skepticism characteristics/trait was tried to be measured by *Professional Skepticism Scale*, which was developed by Hurtt (2010). In order to translate the scale into Turkish and to use it in research, the necessary permission was obtained by e-mail from Hurtt. Professional skepticism scale consists of 30 items and six dimensions, six of which are in the dimension of SK, five of which are in the dimension of SJ, six of which are in the dimension of SD, five of which are in



the dimension of *IU*, five of which are in the dimension of *SC* and three of which are in the dimension of *QM* (Hurt, 2010). Hurt (2010) stated the degree of participation in the statements of his scale in six-likert type; also in this study, the degree of participation in the statements is prepared in the form of six-type Likert.

In many studies investigating ethical sensitivity (Dickerson, 2009; Karcher, 1992; Shaub, 1989; Ziegenfuss and Singhapakdi, 1994), scenarios were used to measure ES. In this study, three scenarios from Shaub (1989), Ziegenfuss and Singhapakdi (1994) and Cohen et al. (1995)'s studies were used to measure ethical sensitivity. In each scenario, a situation encountered and an action taken against this situation are indicated. For each scenario, the degrees of participation in the phrase of "There is an ethical problem in this scenario" are displayed in the form of a five likert-type.

To measure ACA, 10 items were used from Al Momani and Obeidat (2013)'s studies. Items were selected by taking opinions from experts. The respondents were asked to indicate the degree of participation in each item in the form of a five likert-type.

In order to determine the demographic characteristics of the independent auditors participating in the study, four questions were asked about 'Gender', 'Age', 'Experience period passed as an auditor' and 'Educational status'.

## **VALIDITY AND RELIABILITY ANALYSIS OF RESEARCH INSTRUMENT**

Exploratory factor analysis was performed to determine the factor structure of the professional skepticism scale. In factor analysis, principal component analysis was used as factorization technique and varimax was used as rotation technique. The number of eigenvalues whose value is greater than one is taken into consideration in determining the factor number. Low common variance (communality) value, the fact that the factor is composed of one question, overlapping item and the low factor load value are taken into consideration as item extraction criteria. KMO (Kaiser-Meyer-Olkin) value and Bartlett's test of sphericity were investigated to determine whether the data set is suitable for factor analysis.

The KMO value was found to be 0.784 and the p value of Bartlett's test was 0.000. These findings indicate that the data set is suitable for factor analysis. As a result of the exploratory factor analysis, four factors (dimension) were obtained as *IU*, *SD*, *SK*, and *QM*. The cronbach's alpha values of these four factors are 0.918, 0.835, 0.834 and 0.694, respectively, and the cronbach alpha value of all factors together is 0.748. These results indicate that reliability is acceptable.

An exploratory factor analysis was conducted to determine the factor structure of the ethics position scale. Same technique of factorization and rotation, same criteria of item extraction and determining factor number were used. The KMO value was found to be 0.515 and the p value of Bartlett's test was 0.000. These findings indicate



that the data set is suitable for factor analysis. As a result of the exploratory factor analysis, two factors (dimension) were obtained as IDE and RLT. The cronbach's alpha values of these two factors are 0.661 and 0.540, respectively, and the cronbach alpha value of all factors together is 0.491. These results indicate that reliability is acceptable.

As one of the reasons for applying factor analysis was to reduce the number of variables (Durmuş et al., 2011), exploratory factor analysis was performed to simplify the number of items related to creative accounting practices. Same technique of factorization and rotation, same criteria of item extraction and determining factor number were used. The KMO value was found to be 0.682 and the p value of Bartlett's test was 0.000. These findings indicate that the data set is suitable for factor analysis. As a result of exploratory factor analysis, a single factor as ACA consisting of three items was obtained. The cronbach's alpha values of this factor is 0.738. This result indicates that reliability is acceptable.

As in the studies conducted by Ziegenfuss and Singhapakdi (1994), Singhapakdi et al. (1996) and Dickerson (2009), manipulation control of the scenarios was performed. The fact that the average of responses to ethical sensitivity was significantly higher than the degree of participation stated as "Neutral" or "Neither agree nor disagree", shows that the situations used in the scenarios are suitable for empirical work (Singhapakdi et al., 1996). Therefore, the averages and frequency distributions of all three scenarios were examined. In order to determine whether the averages are above the degree of participation, which is expressed as "Neither agree nor disagree", 'Range / Number of Groups' formula and group value ranges (Beydoğan and Beydoğan, 2017) for each degree of participation were determined. According to this, group value ranges were between 1.00-1.79 for 'Strongly disagree', 1.80-2.59 for 'Disagree', 2.60-3.39 for 'Neither agree nor disagree', 3.40-4.19 for 'I agree' and 4.20-5.00 for 'Strongly agree' (Beydoğan and Beydoğan, 2017).

**Table 1:** Frequency distributions, means and standard deviations of scenarios

Senaryolar	Strongly Disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	Mean	Standard Deviation
Scenario 1	%11.2	%5.3	%59.1	%7.4	%17.1	3.13	1.113
Scenario 2	%9.1	%3.2	%50.0	%17.1	%20.6	3.36	1.122
Scenario 3	%15.0	%6.5	%19.4	%37.6	%21.5	3.44	1.307

When the frequency distributions in Table 1 were examined, only 24.5% of respondents for scenario 1 and only 37.7% of respondents for scenario 2 stated that the scenarios included an ethical problem; it can be stated that 59.1% of respondents for scenario 1 and 50.0% of respondents for scenario 2 are neutral about whether the scenarios contain ethical problems. 59.1% of respondents stated that the scenarios contained an ethical problem for Scenario 3.

When the averages of the scenarios are examined, it is seen that the 3.13 average values of Scenario 1 and the 3.36 average values of Scenario 2 are included in the 'Neither agree nor disagree' group and the 3.44 average value of Scenario 3 is included in the 'I Agree' group in terms of group value ranges. In light of these findings, it can be stated that only the situation in Scenario 3 is suitable for this study because it is above the degree of participation which is expressed as 'Neither agree nor disagree'. For this reason only scenario 3 is taken into account as the ethical sensitivity variable.

## FINDINGS OF DEMOGRAPHIC CHARACTERISTICS

The findings of the demographic characteristics of 340 independent auditors are presented in Table 2 as frequency and percentage distributions.

**Table 2 : Demographic Characteristics of The Sample**

Variable	Demographic Characteristics	Frequency	Percentage (%)
<i>Gender</i>	Male	222	65.3
	Female	118	34.7
	<i>Total</i>	340	100.0
<i>Age</i>	≤30	77	22.6
	31-40	203	59.7
	41-50	55	16.2
	51-60	4	1.2
	≥61	1	0.3
	<i>Total</i>	340	100.0
<i>Experience as Auditor</i>	0-5 years	137	40.3
	6-10 years	82	24.1
	11-15 years	86	25.3
	16-20 years	34	10.0
	20 years	1	0.3
	<i>Total</i>	340	100.0
<i>Education Status</i>	Bachelor degree	270	79.4
	<b>Master's degree</b>	67	19.7
	PhD degree	3	0.9
	<i>Total</i>	340	100.0

## TESTING OF HYPOTHESES WITH PATH ANALYSIS

In order to test hypotheses, path analysis has been utilized. The path analysis was performed with the observed variables in this study.

Before evaluating univariate normality, univariate outlier was examined. Nounivariate outlier could be found. If skewness and kurtosis values are between -2 and +2, the distribution of variables can be considered normal (Civelek, 2018; Eroğlu, 2010; Muzaffar, 2016). It was found that only the skewness and kurtosis values of the SD variable were not between -2 and +2. In this case, it can be said that SD does not show univariate normality. Therefore, SD variable was not used in the analysis of the following sections of the study. The remaining seven variables were continued to be analyzed.

When the Mahalanobis distance for seven variables was examined, it was found that the three data were multivariate outlier. These three data were extracted and the analysis was continued with the remaining 337 data.

Correlation analysis can be used to examine linearity (Durmuş et al., 2011). As seen in Table 3, a significant relationship was found between ACA dependent variable and IU, SK, QM, IDE, RLT and ES independent variables. Again, there is a significant relationship between the ES dependent variable and the independent variables of IU, SK, QM, IDE and RLT.

**Table 3:** Pearson correlation coefficients of variables

Variable	IU	SK	QM	IDE	RLT	ACA	ES
IU	1						
SK	0.327**	1					
QM	0.062	0.145**	1				
IDE	0.401**	0.122*	0.068	1			
RLT	0.342**	0.456**	0.182**	0.078	1		
ACA	0.450**	0.251**	0.242**	0.565**	0.198**	1	
ES	0.491**	0.196**	0.182**	0.241**	0.137*	0.363**	1

\*\*Correlation is significant at p <0.01 level (2-tailed)  
\*Correlation is significant at p <0.05 level (2-tailed)

Table 4 presents some descriptive statistics of variables before testing hypotheses with path analysis.

**Table 4:** Descriptive statistics of variables

Variable	n	Minimum	Maximum	Mean	Standard Deviation	Skewness Value	Kurtosis Value
IU	337	1.60	6.00	4.58	1.218	-1.349	0.413
SK	337	1.00	6.00	4.61	1.094	-1.168	0.674
QM	337	1.00	6.00	4.60	1.066	-1.101	1.264
IDE	337	1.00	5.00	3.80	1.048	-1.087	0.647
RLT	337	1.00	5.00	3.79	0.987	-1.050	0.841
ACA	337	1.00	5.00	3.56	1.006	-0.780	-0.287
ES	337	1.00	5.00	3.45	1.306	-0.694	-0.596

In order to make an evaluation about the means, the Range / Number of Groups formula and the group value ranges for each degree of participation (Beydoğan and Beydoğan, 2017) were determined. In this context, when the means are examined, it can be stated that the independent auditors involved in the sample generally have interpersonal understanding, questioning mind and in search of knowledge. Again, when the means are examined, it can be inferred that independent auditors are generally idealist and relativist, and have ethical sensitivity and the ability to detect creative accounting practices.

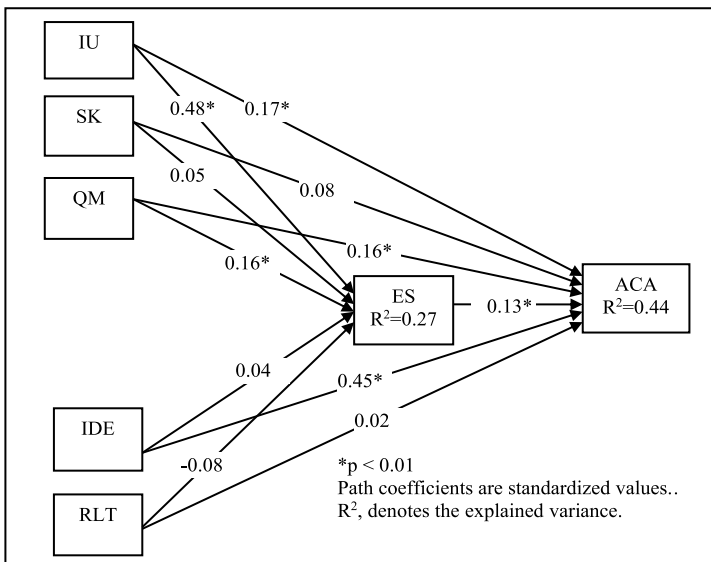
The research model was continued with the remaining variables IU, SK, QM, IDE, RLT, ES and ACA.

The fit indices were examined before testing the hypotheses by Path analysis. The chi-square value was 0.00, the degree of freedom was 0, the chi-square p value was 1.00 and the RMSEA was 0.000. In addition, when the model fit indexes in the output file are examined, the message,

“The Model is saturated, the Fit is Perfect!” is seen. This message means that the model has reached saturation and fit is perfect; this shows that the model is a saturated model, a fully defined model is built (Aksu et al., 2017; Çokluk et al., 2016). In a saturated model, the model is perfectly fitted with the data (Civelek, 2018). In such models where the chi-square value, the degree of freedom are zero, the hypotheses for certain paths can be tested (Tabachnick and Fidell, 2015).

After evaluating the fit indices, the results of the Path analysis related to the research model built in Figure 2 are presented.

**Figure 2: Path Analysis Results of the Research Model**



Path coefficient, standard error, t and R<sup>2</sup> values obtained from Path analysis are presented in Table 5.

**Table 5:** Path coefficient, standard error, t and r<sup>2</sup> values obtained from path analysis

Interrelations of Variables	Direction	Path Coefficient (Standardized $\beta$ )	t value	Standard Error
IU → ACA	+	0.17	3.07*	0.045
IU → ES	+	0.48	8.59*	0.059
SK → ACA	+	0.08	1.78	0.044
SK → ES	+	0.05	0.92	0.064
QM → ACA	+	0.16	3.80*	0.040
QM → ES	+	0.16	3.28*	0.059
IDE → CA	+	0.45	9.84*	0.043
IDE → ES	+	0.04	0.77	0.064
RLT → ACA	+	0.02	0.43	0.049
RLT → ES	-	- 0.08	-1.46	0.073
ES → ACA	+	0.13	2.61*	0.037
* p < 0,01				
<b>Structural Equations</b>				<b>R<sup>2</sup></b>
ACA = 0.097xES + 0.14xIU + 0.078xSK + 0.15xQM + 0.43xIDE + 0.021xRLT				0.44
ES = 0.51xIU + 0.06xSK + 0.19xQM + 0.049xIDE + 0.11xRLT				0.27

Also the effect levels were evaluated during the examination of hypotheses. If the standardized path coefficients are less than 0.10 as an absolute value, a low or a weak effect; if they are approximately 0.30, that is, between 0.11 and 0.49, a moderate effect; and if they are higher than 0.50, a high or a strong effect can be mentioned (Aksu et al., 2017; Suhr, 2008). The results of testing hypotheses are as follows:

- It was found that IU had a significant, positive and moderate effect on ACA ( $\beta = 0.17, p < 0.01$ ). According to this finding, H<sub>12</sub> hypothesis is supported.
- It was found that SK did not have a significant effect on ACA ( $\beta = 0.08, p > 0.05$ ). According to this finding, hypothesis H<sub>14</sub> is not supported.
- It was found that QM had a significant, positive and moderate effect on ACA ( $\beta = 0.16, p < 0.01$ ). According to this finding, H<sub>13</sub> hypothesis is supported.
- It was found that IDE had a significant, positive and moderate effect on ACA ( $\beta = 0.45, p < 0.01$ ). According to this finding, H<sub>3</sub> hypothesis is supported.
- It was found that RLT did not have a significant effect on ACA ( $\beta = 0.02, p > 0.05$ ). According to this finding, hypothesis H<sub>4</sub> is not supported.

- It was found that *ES* had a significant, positive and moderate effect on *ACA* ( $\beta = 0.13, p < 0.01$ ). According to this finding,  $H_5$  hypothesis is supported.  
  
44% of the variance related to *ACA* ( $R^2 = 0.44$ ) is explained by *IU*, *SK*, *QM*, *IDE*, *RLT* and *ES*.
- It was found that *IU* had a significant, positive and moderate effect on *ES* ( $\beta = 0.48, p < 0.01$ ). According to this finding,  $H_6$  hypothesis is supported.
- It was found that *SK* did not have a significant effect on *ES* ( $\beta = 0.05, p > 0.05$ ). According to this finding, hypothesis  $H_8$  is not supported.
- It was found that *QM* had a significant, positive and moderate effect on *ES* ( $\beta = 0.16, p < 0.01$ ). According to this finding,  $H_7$  hypothesis is supported.
- It was found that *IDE* did not have a significant effect on *ES* ( $\beta = 0.04, p > 0.05$ ). According to this finding, hypothesis  $H_1$  is not supported.
- It was found that *RLT* did not have a significant effect on *ES* ( $\beta = -0.08, p > 0.05$ ). According to this finding, hypothesis  $H_2$  is not supported.
- 27% of the variance related to *ES* ( $R^2 = 0.27$ ) is explained by *IU*, *SK*, *QM*, *IDE* and *RLT*.  $H_9$ ,  $H_{11}$ ,  $H_{15}$ ,  $H_{17}$ ,  $H_{10}$  and  $H_{16}$  hypothesis could not be tested because the dimensions of *SC* and *SJ* could not be obtained in exploratory factor analysis and *SD* variable doesn't show univariate normality.

Indirect effects as well as direct effects can be measured in Path analysis (Civelek, 2018). Indirect effects include one or more mediator variable, which are assumed to transfer some of the causal effects of previous variables to the next variables (Kline, 2011). Therefore, it may be necessary to determine mediation to talk about the indirect impact. Baron and Kenny (1986) stated that certain conditions should be provided to determine mediation.

Even if the conditions proposed by Baron and Kenny (1986) are examined and mediation is detected, statistical significance cannot be tested (Aksu et al., 2017). The Sobel test can be used to determine the statistical significance of the indirect effect of the independent variable on the dependent variable through mediator variable, namely to determine the statistical significance (Aksu et al., 2017; Koç et al., 2014; Tabachnick and Fidell, 2015).

Three models were built to examine the conditions proposed by Baron and Kenny. Table 6 shows the Path coefficients for these three models.

**Table 6:** Path coefficients for model 1, model 2 and model 3

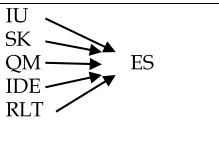
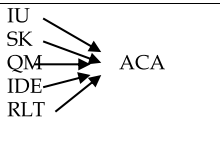
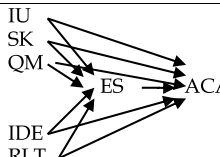
Interrelations of Variables	Model 1	Model 2	Model 3
	Path Coefficient (Standardized $\beta$ )	Path Coefficient (Standardized $\beta$ )	Path Coefficient (Standardized $\beta$ )
IU → ACA		0.23*	0.17*
IU → ES	0.48*		0.48*
SK → ACA		0.09	0.08
SK → ES	0.05		0.05
QM → ACA		0.18*	0.16*
QM → ES	0.16*		0.16*
IDE → ACA		0.45*	0.45*
IDE → ES	0.04		0.04
RLT → ACA		0.01	0.02
RLT → ES	-0.08		-0.08
ES → ACA			0.13*
*p< 0.01			
All models are saturated model.			
			

Table 6 shows that only the IU and QM variables meet the conditions of Baron and Kenny. The IU variable ( $\beta = 0.48, p < 0.01$ ) and the QM variable ( $\beta = 0.16, p < 0.01$ ) had a significant effect on the ES mediator variable. The IU variable ( $\beta = 0.23, p < 0.01$ ) and the QM variable ( $\beta = 0.18, p < 0.01$ ) have a significant effect on the ACA dependent variable; when the ES mediator variable is included in the model, a decrease is observed in the significant effects of the IU variable ( $\beta = 0.17, p < 0.01$ ) and the QM variable ( $\beta = 0.16, p < 0.01$ ) on the ACA dependent variable and it can be seen that the effect of ES mediator variable ( $\beta = 0.13, p < 0.01$ ) on ACA dependent variable is significant.

Indirect effects were calculated and Sobel test was used to determine the significance of indirect effects. The indirect effect is found by multiplying the path coefficient which shows the direct effect of the independent variable on the mediator variable and the path coefficient showing the direct effect of the mediator variable on the dependent variable (Aksu et al., 2017). Indirect effect and Sobel test results are presented in Table 7.

**Table 7:** Results for indirect effect and sobel test

Interrelations of Variables	Indirect Effect	Sobel Test
IU → ES → ACA	$0.48 \times 0.13 = 0.0624$	2.50*
SK → ES → ACA	$0.05 \times 0.13 = 0.0065$	0.88
QM → ES → ACA	$0.16 \times 0.13 = 0.0208$	2.03*
IDE → ES → ACA	$0.04 \times 0.13 = 0.0052$	0.73
RLT → ES → ACA	$-0.08 \times 0.13 = -0.0104$	-1.30
*p< 0.05		



As shown in Table 7, the indirect effects of IU and QMonAC through ES were 0.0624 and 0.0208 respectively and it was found to be significant ( $p < 0.05$ ). As shown in Table 5, the direct effects of IU and QM on ACA were 0.17 and 0.16, respectively and it was found to be significant. The total effects of IU and QM on ACA were 0.2324 ( $0.17 + 0.0624$ ) and 0.1808 ( $0.16 + 0.0208$ ), respectively. When Table 5 and 7 were examined, only direct effect of IDE on ACA was found to be significant ( $p < 0.01$ ) and direct effect was measured as 0.45. According to Table 5, the direct effect of ES on ACA was found to be significant ( $p < 0.01$ ) and the direct effect was measured as 0.13. When Table 5 and 7 were examined, there was no significant effect of SK and RLT on ACA ( $p > 0.05$ ). It can be stated that relatively the most important variable for ACA was IDE ( $\beta = 0.45, p < 0.01$ ).

According to Table 5, the direct effects of IU and QM on ES were found to be significant ( $p < 0.01$ ) and their direct effects were 0.48 and 0.16, respectively. There was no significant effect of IDE, RLT and SK on ES ( $p > 0.05$ ). It can be stated that relatively the most important variable for ES is IU ( $\beta = 0.48, p < 0.01$ ).

## CONCLUSION

It was understood that idealism and relativism did not have a significant effect on ethical sensitivity of independent auditors. Idealism and relativism are two dimensions that underlie individual differences in moral judgments (Forsyth, 1980). In the four-component model of Rest, moral sensitivity, moral judgment, moral motivation / intention and moral character components do not follow each other in a fixed temporal order (Rest et al., 1999). However, if it is assumed that moral sensitivity precedes moral judgment (Rest et al., 1999) logically, it is reasonable that idealism and relativism, which form the basis of individual differences in moral judgments, do not affect the ethical sensitivity.

It has been observed that idealism has a significant and positive effect on ACA of independent auditors. In fact, as the idealism of independent auditors increases, ACA is expected to increase. As the idealism of independent auditors increases, the degree of concern about others' well-being increases and they are more convinced that harm to others can be avoided. Creative accounting practices, in essence, have deceptive presentations and have the potential to affect the financial statement users in such a way that leads them to make wrong decisions. Therefore, as the idealism of the independent auditors increases, they will be expected to focus more on the creative accounting practices as they will be more concerned about the mistaking of the users of the financial statements and they will be more convinced that harm to the users of the financial statements should be avoided by the creative accounting practices. As a result of the analyzes, the fact that relatively the most important variable for ACA is the idealism and it is also supporting these results. Relativism has no significant effect on ACA of independent auditors.

It was found in this study that IU and QM have a significant positive effect on the ethical sensitivity of independent auditors. On the other hand, no significant effect of SK has been found. As QM characteristic of the independent auditors increases, their ethical sensitivity is expected to increase. As also Hurtt (2010) stated, as QM characteristic of independent auditors reflecting a certain degree of disbelief and suspicion increases, independent auditors may be expected to make further inquiries about the ethical nature of the situations they encounter, as they will have more disbelief and suspicion.

The fact, that SK characteristic, as Hurtt (2010) stated, reflecting the general sense of curiosity and interest, does not have an effect on the ethical sensitivity of the independent auditors, can be interpreted as the general sense of curiosity and interest of independent auditors is not reflected in the ethical nature of the events and situations they encounter. As IU characteristic of the independent auditors increases, their ethical sensitivity is also expected to increase. IU, as Hurtt (2010) states, can be expressed as the understanding of motivation and honesty of those who provide proof. Therefore, as U characteristic increases, independent auditors will try to further analyze the motivation and honesty behind the decisions, behaviors and representations of the financial statements preparers and the employees, independent auditors may be expected to make more efforts to resolve the ethical nature of the behaviors, representations or decisions taken by the financial statements preparers and the employees.

It has been observed that IU and QM have a significant and positive effect on ACA of independent auditors. As QM and IU characteristic of independent auditors increases, their ACA is expected to increase. As QM increases, independent auditors may be expected to be more aware of the creative accounting practices by making more inquiries and working more rigorously in the audit work, as they will have more disbelief and suspicion. As IU increases, it may be expected that the auditors' awareness of the creative accounting practices in the financial statements will increase. This may be due to the fact that the independent auditors' efforts to solve the motivation and honesty behind their behaviors, representations or decisions taken by the financial statements preparers and the employees. It was observed that SK has no significant effect on ACA of the independent auditors. This situation can be interpreted as the general sense of curiosity and interest of the independent auditors is not reflected in the creative accounting practices.

It has been observed that ethical sensitivity has a significant and positive effect on ACA of independent auditors. Creative accounting practices may mislead the users of financial statements by taking the financial statements away from the actual and correct presentation. In this respect, as Archer (1996) states, the creative accounting practices performed in order to deliberately mislead the users of the financial statements can be considered as a form of lying.

Therefore, as the ethical sensitivity of the independent auditors increases, their ACA increases; it can be interpreted that creative accounting practices have an ethical nature.

In this study, it was found that IU and QM characteristic indirectly affect ACA through ethical sensitivity. In other words, the ethical sensitivity of the independent auditors increases as their IU and QM characteristic increase, and the increased ethical sensitivity of the auditors raises the awareness of independent auditors' creative accounting practices. The fact that ethical sensitivity has a direct effect on ACA and, IU and QM have indirect effect on ACA through ethical sensitivity, may necessitate an emphasis on ethical sensitivity in independent auditing standard of the auditor's responsibilities relating to fraud laying emphasis on the importance of professional skepticism. While ethical rules are mentioned in the audit standards, ethical rules can be taken into consideration from a view of ethical sensitivity instead of a view of normative point. There may be more coverage of case studies that emphasize and improve ethical sensitivity by the independent auditing firms in their in-service training. Also, in addition to professional skepticism, ethical sensitivity can be emphasized in accounting-independent audit education at universities.

Research has some limitations. It is limited to independent auditors working in an independent audit firm authorized by Turkish Public Oversight Accounting and Auditing Standards Authority (POA). Creative accounting practices related to recognition of income, capitalization of expenses, accounting estimates, assumptions, valuation, classification and off-balance sheet finance are included in research, while creative accounting practices related to tax practices are not included. Creative accounting practices related to hedge accounting are not included in study.

As a result, it was seen that IU and QM characteristics, as well as ethical sensitivity and idealism, are effective on ACA of independent auditors.

## REFERENCES

- Abdolmohammadi, M. J., & Owoso, V. D. (2000). Auditors' ethical sensitivity and the assessment of the likelihood of fraud. *Managerial Finance*, 26(11), 21-32.
- Afifah, U., Sari, R. N., Anugerah, R., & Sanusi, Z. M. (2015). The effect of role conflict, self-efficacy, professional ethical sensitivity on auditor performance with emotional quotient as moderating variable. *Procedia Economics and Finance*, 31, 206-212.
- Aksu, G., Eser, M. T., & Güzeller, C. O. (2017). *Açımlayıcı ve doğrulayıcı faktör analizi ile yapısal eşitlik modeli uygulamaları*. Ankara: Detay Yayıncılık.

- Al Momani, M. A., & Obeidat, M. I. (2013). The effect of auditors' ethics on their detection of creative accounting practices: a field study. *International Journal of Business and Management*, 8(13), 118-136.
- Archer, S. (1996). The ethics of creative accounting. *Science and Engineering Ethics*, 2(1), 55-70.
- Ashari, A., Masruri, M., & Zahro, N.I. (2013, February). Corruption Awareness, Ethical Sensitivity, Professional Skepticism and Risk of Corruption Assessment: Exploring the Multiple Relationship in Indonesian Case. Proceedings of 3rd Asia-Pacific Business Research Conference, Kuala Lumpur.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Beydođan, G. Ő., & Beydođan, H. Ö. (2017). Öđrenci üniversite imaj ölçeđi. *The Journal of Academic Social Science*, (44), 74-88.
- Chan, S. Y., & Leung, P. (2006). The effects of accounting students' ethical reasoning and personal factors on their ethical sensitivity. *Managerial Auditing Journal*, 21(4), 436-457.
- Civelek, M. E. (2018). *Yapısal eşitlik modellemesi metodolojisi*. İstanbul: Beta Basım Yayım Dađıtım A.Ő.
- Cohen, J. R., Pant, L. W., & Sharp, D. J. (1995). An exploratory examination of international differences in auditors' ethical perceptions. *Behavioral Research in Accounting*, 7(1), 37-64.
- Çokluk, Ö., Őekerciođlu, G., & Büyüköztürk, Ő. (2016). *Sosyal bilimler için çok deđişkenli istatistik SPSS ve LISREL uygulamaları*. (4th ed.). Ankara: Pegem Akademi.
- Dickerson, C. (2009). *Ethical decision-making in public accounting: Investigating factors that influence auditors' ethical sensitivity* (Unpublished doctoral dissertation). Claremont Graduate University the Graduate Faculty of Education, Claremont.
- Durmuş, B., Yurtkoru, E. S., & Çinko, M. (2011). *Sosyal bilimlerde SPSS'le veri analizi*. (4th ed.). İstanbul: Beta Basım Yayım Dađıtım A.Ő.
- Erođlu, A. (2010). Çok deđişkenli istatistik tekniklerin varsayımları. In Ő. Kalaycı (Ed.), *SPSS uygulamalı çok deđişkenli istatistik teknikleri* (5th ed., pp. 207-233). Ankara: Asil Yayın Dađıtım Ltd. Őti..
- Farag, M. S., & Elias, R. Z. (2012). The impact of accounting students' professional skepticism on their ethical perception of earnings management. In C. Jeffrey (Ed.), *Research on professional responsibility and ethics in accounting volume 16* (pp. 185-200). Bingley: Emerald Group Publishing Limited.

- Forsyth, D. R. (1980). A taxonomy of ethical ideologies. *Journal of Personality and Social Psychology*, 39(1), 175-184.
- Forsyth, D. R. (1992). Judging the morality of business practices: the influence of personal moral philosophies. *Journal of Business Ethics*, 11(5-6), 461-470.
- Greenfield, A. C., Norman, C. S., & Wier, B. (2008). The effect of ethical orientation and professional commitment on earnings management behavior. *Journal of Business Ethics*, 83(3), 419-434.
- Hurtt, K., Eining, M., and Plumlee, R. D. (2008). *An Experimental examination of professional skepticism*. <https://poseidon01.ssrn.com/delivery.php?ID=028106081081004102100009006005024103027078085060074049089003077112004064126105101074045057059045033007034068084029021084003100013055005029015112112121022114090093037089081100113079088116072005118076095072079023098006113098094082026064065089003098031&EXT=pdf> Accessed 19 June 2019
- Hurtt, R. K. (2010). Development of a scale to measure professional skepticism. *Auditing: A Journal of Practice & Theory*, 29(1), 149-171.
- Johari, R. J., Mohd-Sanusi, Z., & Chong, V. K. (2017). Effects of auditors' ethical orientation and self-interest independence threat on the mediating role of moral intensity and ethical decision-making process. *International Journal of Auditing*, 21 (1), 38-58.
- Karcher, J.N. (1992). *Auditors' ability to discern the presence of ethical problems* (Unpublished doctoral dissertation). The Florida State University College of Business Department of Accounting, Tallahassee.
- Kline, R. B. (2011). *Principles and practice of structural equation modeling*. (3rd ed.). New York: The Guilford Press.
- Koç, F., Kaya, N., Özbek, V., & Akkılıç, M. E. (2014). Algılanan fiyat ile tüketici güveni arasında algılanan hizmet kalitesinin aracı etkisi: bankacılık ve gsm sektörlerinin karşılaştırılmasına yönelik bir araştırma. *Pazarlama ve Pazarlama Araştırmaları Dergisi*, 7(13), 1-26.
- Kung, F.-H., & Huang, C. L. (2013). Auditors' moral philosophies and ethical beliefs. *Management Decision*, 51(3), 479-500.
- Lestari, P. (2017). Good corporate governance, corporate ethical value and creative accounting: the case of the state-owned enterprise in Indonesia. *International Journal of Economic Research*, 14(3), 43-53.
- Muzaffar, B. (2016). The development and validation of a scale to measure training culture: the TC scale. *Journal of Culture, Society and Development*, 23, 49-58.

- Ocak, M., & Güçlü, F. Ç. (2014). Muhasebe manipülasyonu: hile, yaratıcı muhasebe, kâr ve izlenim yönetimine ilişkin kavramsal çerçeve. *Uluslararası Alanya İşletme Fakültesi Dergisi*, 6(3), 123-135.
- Popova, V. (2012). Exploration of skepticism, client-specific experiences, and audit judgments. *Managerial Auditing Journal*, 28(2), 140-160.
- Pramana, A. C., Irianto, G., & Nurkholis. (2016). The influence of professional skepticism, experience and auditors independence on the ability to detect fraud. *Imperial Journal of Interdisciplinary Research*, 2(11), 1438-1447.
- Rest, J., Narvaez, D., Bebeau, M. J., & Thoma, S. J. (1999). *Postconventional moral thinking a neo-kohlbergian approach*. Mahwah: Lawrence Erlbaum Associates.
- Rose, J. M. (2007). Attention to evidence of aggressive financial reporting and intentional misstatement judgments: effects of experience and trust. *Behavioral Research in Accounting*, 19(1), 215-229.
- Royaee, R. A., Nezhad, A. Y., & Azinfar, K. (2013). Relationship between skepticism and decision making in audit. *World Applied Sciences Journal*, 28(11), 1609-1617.
- Schlenker, B. R., & Forsyth, D. R. (1977). On the ethics of psychological research. *Journal of Experimental Social Psychology*, 13(4), 369-396.
- Shaub, M.K. (1989). *An empirical examination of the determinants of auditors' ethical sensitivity* (Unpublished doctoral dissertation). Texas Tech University The Graduate Faculty of Texas Tech University, Lubbock.
- Shaub, M. K., Finn, D. W., & Munter, P. (1993). The effects of auditors' ethical orientation on commitment and ethical sensitivity. *Behavioral Research in Accounting*, 5(1), 145-169.
- Singhapakdi, A., Vitell, S. J., & Kraft, K. L. (1996). Moral intensity and ethical decision making of marketing professionals. *Journal of Business Research*, 36(3), 245-255.
- Suhr, D. (2008, November). Step your Way through Path Analysis. SAS Conference Proceedings: Western Users of SAS Software 2008, California Universal City.
- Tabachnick, B. G., & Fidell, L. S. (2015). *Çok değişkenli istatistiklerin kullanımı*. (M. Baloğlu, Trans.Ed.). Ankara: Nobel Akademik Yayıncılık Eğitim Danışmanlık Tic. Ltd. Şti..
- Tassadaq, F., & Malik, Q. A. (2015). Creative accounting and financial reporting: model development and empirical testing. *International Journal of Economics and Financial Issues*, 5(2), 544-551.
- Yazıcı, A., & Yazıcı, S. (2010). Etik durum ölçeği'nin geçerlilik ve güvenirlik çalışması. *Türk Eğitim Bilimleri Dergisi*, 8(4), 1001-1017.

- Yazıcıoğlu, Y., & Erdoğan, S. (2007). *SPSS uygulamalı bilimsel araştırma yöntemleri*. Ankara: Detay Yayıncılık.
- Yetmar, S. A., & Eastman, K. K. (2000). Tax practitioners' ethical sensitivity: a model and empirical examination. *Journal of Business Ethics*, 26(4), 271-288.
- Zarefar, A., Andreas, & Zarefar, A. (2016). The influence of ethics, experience and competency toward the quality of auditing with professional auditor scepticism as a moderating variable. *Procedia - Social and Behavioral Sciences*, 219, 828-832.
- Ziegenfuss, D. E., & Singhapakdi, A. (1994). Professional values and the ethical perceptions of internal auditors. *Managerial Auditing Journal*, 9(1), 34-44.