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Değerli Bilim İnsanları,

İşletme Bilimi Dergisinin 9. Cilt 2. Sayısını farklı bilim dallarından dokuz makale ile sizlere sunmaktan onur ve mutluluk duyuyoruz. Dergimizin mevcut sayısında yayınlanan makaleler Yönetim ve Organizasyon, Uluslararası Ticaret, Yönetim Bilişim Sistemleri ve Muhasebe ve Finansman alanlarından gelmiştir. Dergimiz kurulduğu günden bu güne kadar İşletme Biliminin farklı disiplinlerinden çalışmalar yayınlamaya gayret göstermektedir. Bunu dergi politikası olarak benimsemiş olmamız nedeniyle bundan sonra da İşletme Biliminin farklı disiplinlerinden gelen makaleleri bilimsel etik ve yayın kalitesini göz önünde bulundurarak sizlere sunmaya gayret edeceğimizi ifade etmek isteriz.

Sayımızın ilk makalesi Eray ÇETİN ve Alpaslan YAŞAR tarafından hazırlanan "The Association Between Audit Quality And Earnings Management Using Classification Shifting" başlıklı makaledir. Bu makalenin amacı denetim firması büyüklüğü ile ölçülen denetim kalitesi ve sınıflandırma değiştirmesi yoluyla kâr yönetimi arasındaki ilişkinin ortaya konulmasıdır. Çalışmanın sonucu, şirketlerin tahakkukları yönetme fırsatlarının bağımsız denetim kalitesi ile kısıtlandığı durumda, alternatif kâr yönetimi aracı olarak sınıflandırma değiştirmesine yönelebileceklerini göstermesi açısından önem taşımaktadır.

Sayımızın ikinci makalesi Önder BÜBERKÖKÜ'nün kaleminden çıkan "Kripto Para Birimleri Arasındaki Frekans Alanı Nedensellik İlişkinin Analizi" başlıklı makaledir. Bu çalışmada günlük veriler kullanılarak Binance coin (BNB), Bitcoin cash (BCH), Stellar (XLM) ve Cardano'dan (ADA) oluşan dört kripto para birimi arasındaki nedensellik ilişkileri incelenmiştir. Günümüzde yaygın şekilde kullanılan ve önemli bir yatırım aracı olan kripto paralar üzerine yapılan bu araştırmanın literatüre katkı sağlayacağına inanmaktayız.

Sayımızda yer alan bir diğer makale "Sosyal Medyada Etkileşimi Etkileyen Faktörlerin İncelenmesi: Kuyumculuk Sektöründe Bir Örnek Olay İncelemesi" başlıklı makaledir. Makale Fatma İŞLER tarafından hazırlanmış olup, makalede bir altın ve saat firmasının Instagram'da paylaştığı içeriklerde müşteri etkileşimini etkileyen faktörlerin tespiti amaçlanmıştır. Çalışma sonuçlarının günümüzde önemli bir iletişim aracı olan sosyal medyanın pazarlama konusunda nasıl kullanılması gerektiği ile ilgili literatüre katkı sağlayacağı düşünülmektedir.

Sayımızın dördüncü makalesi Erol KÖYCÜ'nün hazırladığı "Borsa İstanbul'da Yerli Yatırımcı İle Toplam Yatırımcı Arasındaki Nedensellik İlişkisi" başlıklı makaledir. Bu makalenin amacı Borsa İstanbul'da toplam yatırımcı sayısında meydana gelebilecek bir değişikliğin toplam yerli yatırımcı sayısını etkileyip etkilemediğinin araştırılması amaçlanmıştır. Çalışma sonuçları Borsa İstanbul'da toplam yatırımcı sayısında yaşanan artışların yerli yatırımcıları cesaretlendirdiğini ve daha fazla yerli yatırımcının Borsa İstanbul'da işlem *yapmasına neden olduğunu ortaya koyması bakımından önem arz etmektedir.*

Sayımızda yer alan bir diğer makale Barış AKSOY ve Necati Alp ERİLLİ tarafından hazırlanan "Siber Suçların Siber Saldırılara Maruz Kalan Şirketlerin Hisse Senedi Fiyatları Üzerindeki Etkileri" başlıklı makaledir. Bu makale siber suç tehdidinin halka açık şirketlerin hisse senedi fiyatları üzerindeki etkisini incelemeyi araştırmaktadır. Günümüzde önemli bir tehdit olan siber suçların şirketleri mali açıdan nasıl tehdit edebileceğini ortaya koyan bu makalenin literatüre katkı sağlayacağına inanmaktayız.

Sayımızın altıncı makalesi Zekeriya DEMİR'in kaleminden çıkan "Aile Şirketlerinde Sürdürülebilirlik Açısından Muhasebe Ve Raporlamanın Önemi: Örnek Olaylar" başlıklı makaledir. Aile şirketlerinde sürdürülebilirlik açısından muhasebe ve raporlamanın önemini örnek olaylarla ortaya koymayı amaçlayan bu makalenin sonuçları etkin bir muhasebe ve raporlama sistemi olmayan şirketlerin mali dengelerini gözetmekte zorlandıklarını ve uzun vadede borçlanarak battıkalrını ortaya koymaktadır. Bu açıdan makalenin literatüre katkı sağlayacağı düşünülmektedir.

Sayımızın yedinci makalesi Hatice İLHAN KÜÇÜK ve Kahraman ÇATI'nın hazırladığı "Çevrimiçi Satın Alma Kararına Tüketici Değerlendirmelerinin Etkisi" başlıklı makaledir. Bu makale tüketicilerin çevrimiçi satın alma kararında, yorumlara verdikleri önemin ve içerik oluşturmalarının etkisini incelemek amacıyla gerçekleştirilmiştir. Tüketici değerlendirme ve yorumlarının, satın alma kararı üzerinde etkili olması nedeniyle firmaların çevrimiçi kanallarda yorum ve değerlendirme imkânı oluşturması ve bu mecraları dikkate alması gerektiği sonucuna ulaşan makalenin pazarlama yönetimi literatürüne önemli katkı sağlayacağı düşünülmektedir.

Sayımızda yer alan bir diğer makale Özen AKÇAKANAT ve Oğuzhan ÇARIKÇI tarafından kaleme alınan "Bağımsız Denetim Sürecinin İç Ve Dış Denetçi İş Birliği Açısından Değerlendirilmesi" başlıklı makaledir. Bu çalışmada, iç ve dış denetçiler arasındaki iş birliğine ve dış denetçilerin iç denetim çalışmasına olan güvenine özellikle vurgu yaparak, iç ve dış denetçiler arasındaki ilişkiyi incelemek amaçlanmıştır. Çalışmada bağımsız denetçilerin, denetçiler arası iş birliği seviyesine yönelik algılamalarının tam orta düzeyde olduğu tespit edilmiştir.

Sayımızın son makalesi "Dış Ticaret Sermaye Şirketlerinin Misyon Ve Vizyon Beyanlarına Yönelik Bir İçerik Analizi" başlıklı Ömer Faruk COŞKUN tarafından kaleme alınan makaledir. Bu araştırmanın amacı; Türkiye'de faaliyet gösteren Dış Ticaret Sermaye Şirketlerinin kurumsal internet sitelerinde yer alan vizyon ve misyon beyanlarını sistematik bir şekilde ele alarak öne çıkan kavramları tespit etmek ve bu beyanları unsurları ve özellikleri açısından değerlendirmektir. Çalışmadan elde edilen sonuçların misyon ve vizyon belirleme noktasında şirketlere fikir *verebilecek nitelikte olması çalışmanın önemini arttırdığına inanılmaktadır.*

Dergimiz yayın hayatına başladığı 2013 senesinde itibaren İşletme Biliminin farklı disiplenlerinden bir çok makaleyi siz değerli bilim insanlarının ve ilgili literatürün hizmetine sunmuştur. Mevcut sayıda da bu politikamızı devam ettirerek sizlere zengin bir içerik sunmaktan kıvanç duymaktayız. Bu sayımızda göndermiş oldukları makaleler ile dergimize katkı sağlayan tüm yazarlarımıza, dergimize gönderilen makalelerin değerlendirilmesi için kıymetli vakitlerini ayıran saygıdeğer hakemlerimize ve makalelerin dergide yayınlanmaya hazır hale gelmesi için yoğun bir gayret gösteren editör kurulumuz ve dergi sekretaryamıza teşekkürlerimi sunarım. Dergimizin okurlarımız ve bilim insanlarına faydalı olması dileklerimle sonraki sayılarımızda işletmeciliğin güncel çalışmalarını bilim dünyasının hizmetine sunmak için siz değerli bilim insanları ve araştırmacıların katkılarını bekliyoruz.

Saygılarımızla…

Prof. Dr. Mahmut AKBOLAT
Editör

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THE ASSOCIATION BETWEEN AUDIT QUALITY AND EARNINGS MANAGEMENT USING CLASSIFICATION SHIFTING*

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ABSTRACT

Aim: The aim of this paper is to analyze the association between audit quality measured by audit firm size and earnings management by classification shifting.
Method: In this paper, we used 896 firm-year observations of the publicly-traded manufacturing firms in Istanbul Stock Exchange for the period of 2009 to 2017. We used least square regression method to analyze the association between audit quality and earnings management by classification shifting.
Findings: The findings showed that when the ability of the managers to manage the profit is limited by high quality audit, it is more likely to use the classification shifting by shifting the core expenses to non-operating expenses.

*Bu makale, Doç. Dr. Alpaslan YAŞAR danışmanlığında hazırlanan "Bağımsız Denetim Kalitesi Ve Gelir Tablosu Kalemlerine İlişkin Sınıflandırmanın Değiştirilmesi Kullanılarak Kâr Yönetimi Arasındaki İlişki: BİST İmalat Sanayii Şirketleri Üzerine Bir Araştırma" başlıklı Doktora Tezinden faydalanılarak hazırlanmıştır ve 4-6 Eylül 2019 tarihlerinde İzmir-TÜRKİYE'de düzenlenen II. BOR (Business & Organization Research) Konferansı'nda özet bildiri kapsamında sözlü olarak sunulmuştur.

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Çetin, E. & Yaşar, A. (2021). The Assocıatıon Between Audıt Qualıty And Earnıngs Management Usıng Classıfıcatıon Shıftıng. İşletme *Bilimi Dergisi*, 9(1), *147-164*.

Results: The result is important to show that companies can turn to classification shifting as an alternative earnings management tool if their opportunity to manage accruals is limited by independent audit quality.

Keywords: Audit quality, classification shifting, earnings management, non-operating expenses.

BAĞIMSIZ DENETİM KALİTESİ VE SINIFLANDIRMA DEĞİŞTİRMESİ KULLANILARAK KÂR YÖNETİMİ ARASINDAKİ İLİŞKİ

ÖZ

Amaç: Bu çalışmanın amacı, denetim firması büyüklüğü ile ölçülen denetim kalitesi ve sınıflandırma değiştirmesi yoluyla kâr yönetimi arasındaki ilişkinin araştırılmasıdır.
Yöntem: Bu çalışmada, Borsa İstanbul'da işlem gören imalat sanayii sektöründe yer alan şirketlerin 2009-2017 dönemi için 896 firma-yıl gözlemleri kullanılmıştır. Denetim kalitesi ile kâr yönetimi arasındaki ilişkiyi sınıflandırma değiştirmesi yoluyla analiz etmek için en küçük kareler regresyon yöntemini kullanılmıştır.
Bulgular: Bulgular, şirket yöneticilerinin kârı yönetme kabiliyetinin yüksek kaliteli denetimle sınırlı olması durumunda esas faaliyet (çekirdek) giderlerini faaliyet dışı giderlere kaydırılması suretiyle sınıflandırma değiştirmesini kullanma ihtimallerinin arttığını göstermektedir.
Sonuç: Çalışmanın sonucu, şirketlerin tahakkukları yönetme fırsatlarının bağımsız denetim kalitesi ile kısıtlandığı durumda, alternatif kâr yönetimi aracı olarak sınıflandırma değiştirmesine yönelebileceklerini göstermesi açısından önem taşımaktadır.

Anahtar Kelimeler: Denetim kalitesi, sınıflandırma değiştirmesi, kâr yönetimi, faaliyet dışı giderler.

I.INTRODUCTION

Earnings management (hereafter, EM) can be carried out by using three tools together or separately, generally by managing accruals, real activities and changing the classification. Company managers have the capacity to use all three earnings management tools to meet their earnings targets. However, depending on costs, constraints and timing of each strategy, they can trade-off between different tools (Abernathy et al. 2014).

McVay (2006) defines classification shifting as the deliberate misclassification of expense items in the income statements. Earnings management (EM) via classification shifting is usually carried out by changing the classification of income statement and cash flow statement items. For example, classification shifting involves shifting expenses from operating expenses to non-recurring expenses in order to increase core earnings (Abernathy et al. 2014). Changing the classification of income statement implies the deliberate misclassification of the management into non-recurring items that include the cost of goods sold, special costs and discontinued operations, such as cost of goods sold, sales and general administrative expenses. This form of EM is accepted as a third tool of earnings management in recent studies in the literature (Pan, 2014). Shifting the classification of income statement items, another tool of earnings management, involves misclassification of line items in the income statement in order to increase core earnings (Barua & Zhao 2014).

In previous studies, it has provided evidence on accruals management, real earnings management and EM using classification shifting. The least investigated earnings management among these tools is EM by classification shifting. Also, it is seen that EM in the form of changing the classification of income statement items, has been examined more (Çetin & Yaşar 2020). However, in the literature has not provided evidence on the association between audit quality and EM through classification shifting within the scope of shifting main operating expenses to non-operating expenses.

Classification shifting in the income statement provides significant advantages to management compared to accrual management and real activity management (McVay, 2006; Barua et al., 2010; Pan, 2014). One of these advantages is that changing the classification is very difficult to detect. Since the net profit figure does not change in the classification shifting, the auditors' efforts to understand such practices are also limited. In the classification shifting, unlike earnings management by discretionary accruals and real activities, since the net profit does not change and the long-term firm value is not affected, detailed reviews by auditors and regulators can be limited (Malikow et al. 2018). Secondly, according to the earnings management tool in which real economic activities are managed, it will not have adverse economic consequences. Also, with the difference of accrual management, this EM does not include that need to be reversed later.

Therefore, classification shifting may be an appropriate tool for management to meet market expectations or achieve economic gains (Çetin & Yaşar 2020).

The aim of this study is to investigate the association between audit quality and earnings management (EM) by shifting the classification. In this context, least squares regression method was used in Borsa Istanbul manufacturing industry sample for years 2009-2017. The size of the audit firm measured by 4 big audit firms as an indicator of audit quality; within the scope of the classification amendment, the research hypothesis was tested on the basis of EM by shifting the main operating expenses to non-operating expenses. The findings of the study showed that there is a significant relationship between the audit quality and the implementation of EM by shifting the main operating expenses to non-operating expenses.

This empirical study which is a comprehensive study conducted in Turkey sample is expected to fill an important gap. Specifically, it is thought that it will contribute to the literature by investigating the association between audit quality and EM through classification shifting within the scope of shifting main operating expenses to non-operating expenses. Also, this study is expected to benefit investors, regulators and supervisors against the potential use of this EM technique.

The rest of the study is structured as follows. Section 2 evaluated the literature and hypothesis development. We explain the sample selection, model and variables in Section 3 within the scope of the research methodology. Section 4 presents the research findings. The conclusion is in the last part of the article.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Earnings Management by Classification Shifting

Previous earnings management (EM) literature has examined three EM tools that include accrual-based earnings management, real earnings management and recently classification shifting. McVay (2006) study is the first research providing empirical evidence for classification shifting within the scope of expenses. Mcvay (2006) examined whether the classification shifting for income statement items is used as earnings management tool. Specifically, the focus in the study is on shifting core expenses to special items. The finding of the study showed that unexpected operating profit increased due to shifting operating expenses to special items, and therefore classification shifting were made using special items. After this study, Barua et al. (2010) examined whether managers use the discontinued operations by classification shifting in order to increase the core earnings. In the study that

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McVay (2006) methodology is followed, a positive relationship was found between unexpected operating earnings and discontinued operations. Another pioneering work on this topic, Fan et al. (2010) discussed whether and when managers use classification shifting in the income statement to manage core earnings. The findings showed that classification shifting is more likely in the fourth quarter. Behn et al. (2013), in which Fan et al. (2010) model was used, showed that classification shifting was stronger in countries with weak investor protection and also find evidence that the classification shifting is made in countries with strong investor protection as well as countries with weak investor protection. Abernathy et al. (2014) provided evidence that managers apply classification shifting in cases where earnings management restricted. Zalata and Roberts (2017) findings showed that companies transfer some of their operating expenses to non-recurring expenses and thus inflate their core earnings. In addition, it was determined that companies tend to change classification just before seeking new financial resources.

2.2. Development of Hypothesis

In classification shifting, unlike EM through discretionary accruals and real activities management, bottom line earnings do not change and long-term firm value is not affected, so it may limit the detailed reviews of auditors and regulators (Malikov et al., 2018: 293). Haw et al. (2011) investigated the effects of oversight mechanism on classification shifting in East Asian countries. The findings of the study showed that in the countries with strong legal institutions, big fours played an effective oversight role in preventing this kind of cheap and soft earnings management (although there was no similar effective role in the countries with weak legal institutions). On the other hand, Francis and Wang (2008) conclude that there is no systematic difference in terms of earnings quality between the companies audited by the big four auditors and the companies audited by non-big fours in the countries where investor protection is weak. Zhao (2012) examined how different external control and monitoring mechanisms relate to use of classification shifting to manage earnings. As a result of the empirical evidence provided in the study, Zhao (2012) concluded that the companies are more likely to use classification shifting in earnings management, depending on the increase in the level of external audit or the quality of external audit. Barua and Zhao (2014) find that audit quality measured by big four auditors and industry expertise of auditors was more related to classification shifting. The results of the study show that when the ability of company managers to manage earnings is restricted by high quality auditing, they are more likely to use classification shifting. Nagar et al. (2021) examined whether big four auditors reduce classification shifting on the sample of Indian firms. They find that big four auditors in India are more likely to reduce classification shifting compared with non-big four auditors.

The classification shifting by shifting the core expenses to non-operating expenses was examined in a limited number of studies (Chae and Nakano, 2015; Adıgüzel, 2017). The results of Chae and Nakano (2015) study show that the company managers apply EM in Japan by shifting the classification of core expenses to non-operating expenses. Adıgüzel (2017) could not find any evidence that there is a classification shifting between the operating and non-operating expenses. Adıgüzel (2017), examined the classification shifting between operating expenses and non-operating expenses in Turkey and there is no evidence that there is a classification shifting between operating expenses and non-operating expenses. Adıgüzel (2017) stated that, as the majority of the operating and non-operating expenses can be managed through accruals, in case the discretionary accrual management is not taken into consideration, the classification shifting may have meaningless results and therefore it is necessary to separate how much of the expenses consists of discretionary accruals. The findings show that managers classify operating expenses as non-operating in the absence of income decreasing accrual management; while there is no evidence that classification shifting between operating and non-operating expenses.

Therefore, in countries where there are effective institutional structures and investor protection and effective oversight mechanisms for auditors, company managers audited by big fours may manage earnings by classification shifting, as earnings management may be restricted through accruals. On the other hand, in countries where institutional structures are weak and there is no effective oversight mechanism for auditors, auditors will be less likely to spend time and effort to determine the classification shifting that does not affect the bottom line earnings. Accordingly, classification shifting may be combination with accruals management or one another. In Turkey, although it is not clear that what the auditor efforts to prevent earnings management through classification shifting of companies, we expect an increase in classification shifting in companies audited by big fours. Therefore, audit quality may not limit the classification shifting. In this context, to investigate the association between audit quality and classification shifting to non-operating expenses, the hypothesis of the research is as follows:

H1: *The probability of core expenses being classified as non-operating expenses increases in companies audited by big four audit firms.*

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III. RESEARCH DESIGN

We analyzed the association between audit quality and classification shifting in the sample of Istanbul Stock Exchange manufacturing industry companies for the period of 2009 to 2017 by using the least squares regression method to test the hypothesis. First, we calculate core earnings (Sales – Cost of goods sold – Selling, General and Administrative Expenses excluding depreciation and amortization) as percentage of sales is calculated for each company in the sample. Secondly, we used Fan et al. (2010) model which developed McVay (2006) expectation model and calculated the expected core earnings for each company and year Thirdly, unexpected core earnings is calculated for each firm and year by subtracting the actual core earnings from expected core earnings. Then, the multivariate model, which was formed from the previous studies (Barua et al., 2010; Barua and Zhao, 2014; Adıgüzel, 2017), was analyzed with the Least Squares Method and the research hypothesis was tested.

3.1. Sample Selection

The regression model was applied to the companies reporting loss from continuing operations before taxes of 290 company-year data and the sample selection is given in Table 1.

Table 1.
Sample Selection

Year	Manufacturing Industry Companies on ISE	No. Obs.	Final Sample Loss from Continuing Operations before Taxes	
			No. Obs.	%
2009	167	112	46	41,1%
2010	170	107	32	29,9%
2011	174	102	34	33,3%
2012	173	100	31	31,0%
2013	178	99	33	33,3%
2014	188	97	24	24,5%
2015	188	96	24	25,0%
2016	190	95	41	43,2%
2017	179	88	25	28,4%
Total	1607	896	290	32,3%

Table 1 presents the sample selection. The initial sample of the study consists of 1607 firm-year observations in the manufacturing industry companies listed on Istanbul Stock Exchange for the years 2009 through 2017. Since net sales are used as deflators for most of the variables, net sales less than one million TL and more than one billion TL are excluded from the sample to exclude extreme values. The final sample of the study consists of 896 company-year data for the years 2009-2017, and core earnings expectation model is applied to the 896 company-year data.

3.2. Variables

We used unexpected core earnings as a dependent variable and loss from continuing operations before tax (LOSS_CONT_OP), audit firm size (BIG 4) variable as independent variables. Also, control variables which are generally used in previous studies (e.g., Barua et al. 2010; Barua & Zhao 2014; Adıgüzel 2017) are included in the model and the definitions of the variables are given in Table 2.

Table 2.
Variable Definitions

Variable	Definition
Dependent Variable	
UE_CE	Unexpected core earnings (reported core earnings – estimated core earnings)
Independent Variable	
LOSS_CONT_OP	Loss from continuing operations before tax (scaled by net sales)
BIG 4	Audit firm size (1 if Big 4 auditors; 0 otherwise)
Control Variables	
SIZE	Firm size (natural logarithm of total assets)
MB	Market to book ratio
DA	Discretionary accruals (calculated by Performance Matched Model of Kothari et al., 2005)
OCF	Net cash flow from operations
ROA	Return on assets (Income from continuing operations / Average total assets)

As can be seen in Table 2, dependent variable of this study is Unexpected Core Earnings (UE_CE) which is obtained by Fan et al. (2010) model. Therefore, similar to the previous studies (Fan et al. 2010; Barua & Zhao, 2014; Adıgüzel, 2017), the expected core earnings level in year t was estimated by the following model. Subsequently, the expected (estimated) core earnings level is subtracted from the reported (actual) core earnings and the ‘Unexpected Core Earnings’ level in year t (UE_CE) is calculated. Thus;

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UE_CEt = Reported CEt – Estimated CEt

Estimated CEt = β0 + β1 CEt-1 + β2 ATOt + β3 ACCRUALSt-1 + β4 ΔSALESt + β5 + NEG_ΔSALESt + εt (1)

Where;

CEt = core earnings is calculated as [Net Sales-Cost of Sales (Excluding Depreciation) - Sales and General and Administrative Expenses (Excluding Depreciation)] / Net Sales;

ATOt = active turnover ratio calculated as Net Sales / (NOAt + NOAt-1) / 2;

NOA = Net Operating Assets = [Total Asset - Cash and Cash Equivalents - Short Term Investments (Financial Investments)] - [Total Asset - Total Debt - Ordinary and Preferred Share - Minority Rights];

ACCRUALSt-1 = Previous year Operating Accruals are calculated as [Profit from Continued Operations - Cash Flow from Operations] / Net Sales;

ΔSALESt = Percentage change in sales, [Net Sales - Net Salest-1] / Net Sales, and

NEG_ΔSALESt = If ΔSALESt is less than zero, the percentage change in sales (ΔSALESt); 0 otherwise.

The purpose of the above core earnings expectation model is to capture the natural relationship between the core earnings (CE) and the company performance by separating the unexplained portion of the core earnings (unexpected core earnings) as a measure of abnormal performance. Since the core earnings are continuous, lagged core earnings are included in the model. The asset turnover ratio (ATO) used in the model tends to be inversely related to profit margins and the core earnings definition is closely related to profit margins. In the above core earnings expectation model, lagged operating accruals (ACCRUALSt-1) are used to control the company's operating performance in the current period (Fan et al. 2010; Sloan 1996). In addition, similar to McVay (2006), it is included percentage change in sales (ΔSALES) and NEG_ΔSALES to consider the different slopes for sales increases and decreases.

In Table 2, Loss from Continuing Operations Before Tax (LOSS_CONT_OP) variable was used as an independent variable to determine the classification shifting the core expenses to non-operating expenses. The independent variable is scaled with net sales. In addition, in order to examine the effect of audit quality (measured by audit firm size) on the relationship between unexpected core earnings and classification shifting

(LOSS_CONT_OP), similar to Barua and Zhao (2014), the interaction variable (BIG 4 * LOSS_CON_OP) is used.

Various control variables in Table 2, which were used in previous studies and which are likely to affect unexpected core earnings, were added to the research models. In this context, in order to control operating performance, similar to previous studies (Barua et al. 2010; Barua and Zhao 2014) we used control variables that 'Firm Size' (SIZE), 'Market Value / Book Value' (MB), 'Net Operating Cash Flows' (OCF), 'Return on Assets' (ROA). However, discretionary accruals (DA) control variable is used in the model to control the effects of accrual management that could potentially affect the unexpected core earnings. As with the Barua et al. (2010) study, no predictions are made regarding the sign of the control variables used in the study.

IV. Research Model

In this study, in which the association between the classification shifting and audit quality was investigated, firstly, the expected core earnings level in year t was estimated similar to previous studies (Fan et al. 2010; Barua & Zhao 2014; Adıgüzel 2017). Subsequently, expected (estimated) core earnings level is subtracted from the reported (actual) core earnings and the 'Unexpected Core Earnings' (UE_CE) level in year t is calculated as follows:

$$UE\_CEt = Reported\ CEt - Estimated\ CEt$$

$$Estimated\ CEt = \beta 0 + \beta 1CEt\text{-}1 + \beta 2ATOt + \beta 3ACCRUALSt\text{-}1 + \beta 4\Delta SALESt + \beta 5NEG\_\Delta SALESt + \varepsilon t$$

After the unexpected core earnings was estimated as above, the following Model (1) was established to test the hypothesis (H1) of the research that investigated the relationship between audit quality and classification shifting by shifting core expenses to non-operating expenses:

$$UE\_CE_t = \beta_0 + \beta_1 LOSS\_CONT\_OP_t + \beta_2 BIG4_t + \beta_3 BIG4 * LOSS\_CONT\_OP_t + \beta_4 DA_t + \beta_5 SIZE_t + \beta_6 MB_t + \beta_7 OCF_t + \beta_8 ROA_t \qquad \text{(Model 1)}$$

V. EMPIRICIAL RESULTS

In this study, which investigates the association between the earnings management by shifting the classification of income statement items, and audit quality, the hypothesis of this research is tested by OLS Multiple

Regression Model. The descriptive statistics of the research and multivariate analysis results presented in the following sections.

4.1. Descriptive Statistics

Descriptive statistics are given in two separate Panels (Panels A and B) in Table 3 for the whole sample and the samples for the loss from continuing operations before tax.

Table 3.
Descriptive Statistics

PANEL A: Descriptive Statistics for the full Sample (N= 896)					
Variables	**Mean**	**Median**	**Sd**	**Min.**	**Max.**
CE	0.083	0.092	0.172	-2.995	0.434
UE_CE	0.012	0.009	0.080	-0.418	0.679
SALES (million)	251,035	173,923	239,712	149	999,978
SIZE	18.949	19.141	1.282	12.876	21.527
MB	2.429	1.325	6.896	-13.160	109.460
OCF	0.055	0.045	0.235	-1.763	5.435
ROA	0.044	0.030	0.233	-1.193	5.715
PANEL B: Descriptive Statistics for firm-years reporting loss from continuing operations before tax (N=290)					
Variables	**Mean**	**Median**	**Sd**	**Min.**	**Max.**
CE	-0.012	0.024	0.246	-2.995	0.278
UE_CE	-0.005	-0.006	0.098	-0.418	0.469
LOSS_CONT_OP	-0.347	0.079	2.053	-32,403	-0.004
DA	0.073	0.048	0.099	0.000	0.943
SALES (million)	179,055	100,812	219,478	149	999,978
SIZE	18.584	18.546	1.269	13.435	21.527
MB	3.044	1.280	9.384	-7.410	109.460
OCF	0.000	0.006	0.143	-1.138	0.615
ROA	-0.079	-0.058	0.104	-1.193	0.060

Panel A of Table 3, the mean (median) value of core earnings (CE) of the whole sample is 0.083 (0.092). Unexpected core earnings (UE_CE) mean (median) for the full sample is 0.012 (0.009). The mean (median) annual sales of the companies for the full sample is ₺251,035 million (₺173,923 million). Panel B of Table 3, the mean (median) value of the core earnings (CE) scaled by sales for the sample of companies reporting loss from continuing operations before tax is -0.012 (0.024). In Panel B, the unexpected core earnings (UE_CE) is -0.005 (-0.006). In Panel B, the mean (median) value of annual sales is ₺179,055 million (₺100,812 million). According to Panel B; companies reporting loss from continuing operations before tax have a relatively lower firm size, lower average sales volume, and lower core earnings compared to other companies. In addition, the mean (median) value of unexpected core earnings (UE_CE) of the companies reporting loss from continuing operations before tax is 0.00 (0.00) and the mean (median) value for the full sample is lower than 0.012 (0.009).

In order to control the performance, Table 3 is compared between company-year observations reporting loss from continuing operations before tax and company-year observations in the whole sample, with variables of firm size, market value / book value (MB), cash flow from operations (OCF). Also, discretionary accruals (DA) control variable is used in the model to control the effects of accrual management that could potentially affect the unexpected core earnings. Although there are differences between the variables in Table 3, these variables controlled in the following empirical tests.

4.2. Multivariate Regression Analysis

In this study, which investigated the association between the classification shifting and audit quality, the research hypothesis is tested for classification shifting core expenses to non-operating expenses. In this context, the regression model is analyzed by least squares regression method and the regression results are given in Table 4.

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Table 4.
Regression Results

Independent Variables	Loss from Continuing Operations before Tax (LOSS_CONT_OP)
Intercept	0,101 (1,065)
LOSS_CONT_OP	-0,038 (-5,456)***
BIG4* LOSS_CONT_OP	0,315 (3,890)***
BIG 4	0,034 (2,366)**
DA	-0,158 (-1,233)
SIZE	-0,006 (-1,086)
MB	-0,003 (-1,542)
OCF	-0,126 (-1,025)
ROA	0,208 (1,916)*
Observations (N)	50
R^2	0.180
Adjusted R^2	0.156
F-test (significance)	0.000

***, ** and * significance levels of 1%, 5% and 10% respectively; The values in parentheses indicate the statistic (t).

As shown in Table 4, the F-test significance level (Sig.= 0.000) which shows the significance of the model indicate that the model is statistically significant. The adjusted R2 value of the model was 0.156. This shows that 15.6% of the difference in unexpected core earnings can be explained by the variables in the model.

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In Table 4, the coefficient for LOSS_CONT_OP variable is negative and statistically significant (β1 = -0.038; p <0.01). The high positive (or low negative) relationship with unexpected core earnings shows that more classification shifting have been made (Fan et al. 2010, 1314). Therefore, this result shows that classification shifting are made by shifting operating expenses to non-operating expenses.

The variable of interest within the scope of the research hypothesis is the interaction between LOSS_CONT_OP and BIG4. Therefore, in the Model, the interaction variable (BIG4 * LOSS_CONT_OP) is used. As shown in Table 4, the coefficient of the variable BIG4 * LOSS_CONT_OP is positive and statistically significant (β3 = 0.315; p <0.01), indicating that the audit quality measured by Big 4 auditors is related to earnings management through classification shifting. The hypothesis is accepted since BIG4 * LOSS_CONT_OP has a positive coefficient, indicating that the firms that are audited by big four audit firms are more likely to change the classification. The hypothesis is accepted since the positive coefficient of variable BIG4 * LOSS_CONT_OP indicates that it is more likely to apply a classification shifting (intentional misclassification of the core expenses in non-operating expenses for the purpose of inflating the core earnings). In other words, this result shows that when the ability of the company managers to manage the profit is limited by high quality audit, it is more likely to use the classification shifting by shifting the core expenses to non-operating expenses.

VI. CONCLUSIONS

Earnings management (EM) using classification shifting, which is considered to provide significant advantages to management compared to EM by accruals management and real activities, has been studies in a limited number of studies. In such studies, EM by classification shifting is generally examined the classification shifting of income statement items and specifically classification change by shifting operating expenses to non-recurring items (e.g, special items, extraordinary items, etc.), discontinued operations and non-operating expenses.

Previous studies have provided evidence in a small number of studies (Haw et al., 2011; Barua & Zhao, 2014) regarding the relationship between audit quality and classification shifting. In comparison with accrual management and real earnings management, it is difficult for auditors to reveal the classification shifting. In addition, as the net profit remains unchanged, auditors' efforts to comprehend such practices are limited. Thus, it is important to analyze the association between audit quality and classification shifting.

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In countries where there are effective institutional structures and investor protection and effective oversight mechanisms for auditors, company managers audited by big fours may manage earnings by classification shifting, as earnings management may be restricted through accruals. On the other hand, in countries where institutional structures are weak and there is no effective oversight mechanism for auditors, auditors will be less likely to spend time and effort to determine the classification shifting that does not affect the bottom line earnings. In Turkey, although it is not clear that what the auditor efforts to prevent earnings management through classification shifting of companies, we expect an increase in classification shifting in companies audited by big fours. Therefore, audit quality may not limit the classification shifting. In this context, we investigate the association between audit quality and classification shifting to non-operating expenses.

In this study, the association between audit quality and EM through classification shifting is analyzed by using least squares regression method in Istanbul Stock Exchange manufacturing industry sample for years 2009-2017. Testing the research hypothesis, audit firm size measured by Big 4 auditors are used as an indicator of audit quality and shifting the core expenses to non-operating expenses are used to determine the classification shifting.

The findings of this research show that there is a significant association between the audit quality and the EM by shifting the core expenses to non-operating expenses. Therefore, the results of the research show that the audit quality measured by big four auditors is related to classification shifting. This result is important as it shows that companies can turn to classification shifting as an alternative EM tool when their opportunities to manage accruals are limited by audit quality. Thus, it is thought that this study will benefit investors, regulators and auditors against the potential use of this EM technique, which is considered to be less costly in the literature and is less studied. Furthermore, this study, unlike other studies, is expected to contribute to the literature as it investigates the association between audit quality and classification shifting by core expenses to non-operating expenses.

As in each study, this study has some limitations. The first is the size of the audit firm, which is a frequently used criterion in the literature as an audit quality indicator. Therefore, it is possible to investigate the association between audit quality and classification shifting by using different audit quality indicators. Another limitation of the study is that McVay (2006) revised the model of Fan et al., (2010) model is used in the estimation of the core earnings expectation model. Since earnings management through classification shifting is a relatively new area of research, the development of different classification techniques and different models for predicting the expected core earnings in future research will make significant contributions to the literature. In addition, it is considered that it would be beneficial to perform studies for the use of revenues within the scope of classification shifting in future researches.

MAKALE BİLGİ FORMU

Yazar Katkıları

Fikir/Kavram: Eray ÇETİN

Araştırma Tasarımı: Alpaslan YAŞAR

Makale Yazımı: Eray ÇETİN

Veri Toplama: Eray ÇETİN

Analiz: Eray ÇETİN ve Alpaslan YAŞAR

Eleştirel Okuma: Alpaslan YAŞAR

Çıkar Çatışması Bildirimi

Bu araştırma için herhangi bir kamu kuruluşundan, özel veya kâr amacı gütmeyen sektörlerden hibe alınmamıştır.

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