



## Characteristics of Audit Committee and Earning Management in Developing and Developed Countries Meta-Analysis Approach

**Shahpour Ghorbani**

PhD student, Department of Accounting, Karaj Branch Islamic Azad University, Karaj, Iran  
shahpour.ghorbani@gmail.com

**Azam Shokri**

Assistant Professor, Department of Accounting, Karaj Branch Islamic Azad University, Karaj, Iran  
(Corresponding author)  
azam\_shokri@yahoo.com

**Seyed Hossein Hosseini**

Assistant Professor, Department of Accounting, Karaj Branch Islamic Azad University, Karaj, Iran  
h.hosseini@yahoo.com

**Abrahim Ali Razini Rahmani**

Assistant Professor, Department of Accounting, Karaj Branch Islamic Azad University, Karaj, Iran  
A\_razini@yahoo.com

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### ABSTRACT

The aim of this study is integrating the incompatible and contradictory conclusions of the past empirical studies made on the impacts of Audit Committee on Earnings Management in developing and developed countries as well as the main evidence of the contradictions existing in above-mentioned studies. For more precisely collecting the incompatible conclusions of numerous completed studies, meta-analysis technique and Garcia-Meca and Sanchez-Ballesta research plan have been used. The technique was applied to a sample consisting of 30 independent studies made in during 2000-2019. The results of examining the relation of the characteristics of the Audit Committee and the Earnings Management indicate that while in developing countries the independence and financial expertise characteristics are negatively related to Earnings Management, and the size and number of the meetings of the Audit Committee is not significantly related to Earnings Management; in developed countries, the independence and the size of the Audit Committee characteristics are negatively and significantly related to Earnings Management, and the financial expertise and number of the meetings of the Audit Committee have no significantly related to Earnings Management. Examining the relation of financial expertise and Earnings Management suggests that the studies are heterogeneous. For finding out the factors of this heterogeneity, the criteria and indices of Earnings Management were grouped based on the quality of financial reporting, total accruals, Jones Models, and other models used in the studies made in respect of developed countries and calculation of intragroup chi-square statistics. We found out that Jones Models play an adjusting role in the relation of financial expertise and Earnings Management

### Keywords:

Effect size, Meta-analysis, Earnings Management and characteristics of Audit Committee

## 1. Introduction

This research studies the relation between the characteristics of Audit Committee and Earning Management in developed and developing countries. The numerous studies made on the impacts of the characteristics of Audit Committee on Earning Management (Masmoudi & Fourati, 2020; Enny & Yahn, 2020; Kibiya et al., 2011; Mehrani et al., 2020 and Gord & Alaei, 2019) are accompanied by incompatible and contradictory conclusions. For instance, researchers such as Masmoudi & Fourati, (2020), Mollik et al., (2020), Bajra & Cadez, (2018), Mehrani et al., (2020), and Nassirzadeh et al., (2017), concluded significant relation between these two variables. This conclusion is contrary to the findings of the researches made by Lin et al. (2006) and Xie et al. (2003) which show no significant relation between those two variables. For gaining more precise recapitulation of the findings of the studies and recognizing the factors which adjust the relations of Audit Committee and Earning Management variables, meta-analysis technique has been used. In recent years, legislators have passed several laws for providing controlling mechanisms and promoting the quality of financial reporting. The *Sarbanes–Oxley* Act is one of the laws that obligate companies to form Audit Committee to supervise internal controls and ensuring the achievement of the aims of controls. Since the shareholders may not continuously supervise the management, the board of directors of the company has assigned the task of supervising financial reporting process to the Audit Committee. The Audit Committee is one of the boards of director's committee that plays important role in financial reporting process (Farber et al., 2016). The Committee was formed in twentieth century with the aim of developing co-action of management and independent auditor. Administering bodies of business units have tendency to use some mechanisms to exert influence over independent auditors. The findings of researches indicate that existing auditing manager leads to promotion of earnings quality (Mehrani et al., 2020; Bilal & Komal, 2018; Bajra & Cadez, 2018 and Williams, 2002), lesser Earning Management (Masmoudi & Fourati, 2020; Enny & Yahn, 2020; Gord & Mir Alaei, 2019; Inaam & Khamoussi, 2016 and Zarowin & Cohen, 2008), and improved auditing quality (Alareeni, 2017 and Lin & Hwang, 2010). Members of the Audit Committee are mostly the non-paid directors who

coordinate the activities of independent auditor and internal auditor (Hassas Yeganeh & Pakizeh, 2005). The responsibility of the Audit Committee include supervising the important issues of financial reporting, controlling the observance of accounting standards, and ensuring that all information needed for decision making have been disclosed (Bagherzadeh, 2010). Presence of an efficient audit committee is capable to promote supervision of financial statements and lead to improved financial reporting through better internal controls. Further, an efficient, high-quality Audit Committee will yield higher-quality accruals and lower Earning Management through more suitable supervision on preparation of financial standards (Ghaemi et al., 2010). Through decreasing opportunistic activities such as Earning Management, audit committee has led to proper and sincere presentation of financial information and the higher-quality financial reporting.

Keeping pace with scientific explosion and effective application of Internet in researches, studies and researches in different scientific fields, and sometimes in similar issues, have been increased eye-catchingly. Researchers conducted on different issues of accounting and auditing, such as audit quality, financial reporting quality, Audit Committee, Earning Management, and . . . are not exempted from this fact.

Incompatible and contradictory conclusions have caused confusion in readers and users of the research reports. Similarly, the findings of the researches related to impacts of Audit Committee on Earning Management are disordered and not yielding clear findings (Juhmani, 2017). For overcoming the contradictions and for giving single reply to the inconsistencies existing in different research works, resorting to meta-analysis approach is necessary.

The main aim of this study is better and more precise collecting of the findings to reach a single result concerning the relations of the principal variables with each other. For achieving this aim, thirty studies dealing with the intended issue were examined and scrutinized thoroughly meta-analytically. In this study, the independent variable, that is, Audit Committee has been divided in subgroups such as independence, financial expertise, committee administration, and number of the meetings, all in two groups, developing countries and developed countries.

Relevant literatures are presented in Part 2 and methodology in Part 3. Research guidelines are the object of 4<sup>th</sup> part and finally, conclusions are presented in Part 5 along with recommendations.

## **2. Theoretical Foundations and Reviewing the History of the Research**

### **2.1. Reviewing the History of Empirical Researches**

Recent years witness that a lot of researches have been conducted on the role of Audit Committee; the researches mostly deal with the characteristics and dimensions of the Audit Committee and its impacts on Earning Management and quality of financial reporting. Findings of the empirical studies made on the impacts of the characteristics of Audit Committee (independent variable) on the specific characteristics of dependent variables of the research (Earning Management, discretionary accruals, quality of financial reporting, earning quality) show that many of those findings do not possess heterogeneity and integration in developing and developed countries. Pointing to some empirical researches focused on the relation of Audit Committee with Earning Management follows these lines.

In a study made on 186 industrial companies selected from Malaysian Stock Exchange,

Enny & Yahn (2020) showed that a vast spectrum of the skills of the Audit Committee members is highly effective in supervising the management; and independence of the Committee members, their accounting and financial expertise, bigger number of the Committee members, and supporting accounting conservatism play essential role in restricting the opportunistic behaviors of the management.

Masmoudi and Fourati (2020) studied the impact of Audit Committee characteristic on real Earning Management in the Netherlands. Their sample was 80 non-financial companies listed on Amsterdam Stock Exchange in period between 2010 and 2017. For measuring the characteristics of Audit Committee, four characteristics of independence of the Committee, financial expertise, gender diversity, and number of the meetings of the Audit Committee were studied. Their analysis yields evidence that independence of Audit Committee and gender diversity restrict the real Earning Management. The findings suggest that financial expertise of Audit Committee lowers the

possibilities of participation in real Earning Management.

Alarussi et al. (2019) carried out a research on the relation of the characteristics of Audit Committee, characteristics of the board of directors, and independent auditing with financial reporting disclosure quality. In their research, they used discretionary accruals as a criterion of Earning Management and used independence, expertise, and size of Audit Committee as the characteristics of the Committee. The findings of their research suggest that the characteristics of Audit Committee have led to improvement of financial reporting and of disclosure quality.

Florencea & Kurnia (2018) selected 246 companies amongst the companies listed on Indonesian Stock Exchange in period 2013-2016 and studied the impacts of Audit Committee characteristics on the levels of Earning Management. In the research, the discretionary accruals were chosen as a criterion of Earning Management and variables of expertise and number of Audit Committee meetings were used as characteristics of the Committee. The findings of the research showed no significant relation between the characteristics of Audit Committee and Earning Management.

In a research carried out by Zalata et al. (2018), in the United States of America in years 2007 to 2013, they studied the relation of financial expertise of the members of the Audit Committee, with due regard to the sex of the members, with Earning Management. They found out that the attendance of female financial experts in the Audit Committee has relation considerably with lesser Earning Management while the attendance of male financial experts has not been effective on Earning Management. Concerning the previously made studies, they express the opinion that those studies principally had been affected by experts whose sexes were female.

In their study, Appuhami and Tashakor (2017) examined the impacts of Audit Committee characteristics on voluntary disclosure of the company's social responsibility in annual statements of Australian companies. The findings of their study indicate that the characteristics such as size, number of meetings, independence of members and the gender of Audit Committee members have had positive impacts on the level of social responsibility disclosure. In the meanwhile, the financial expertise of the Audit

Committee members had no effect on social responsibility disclosure in Australian companies.

Juhmani (2017) has studied the relation of the independency, expertise, size, and the number of Committee meetings characteristics with the accruals-based Earning Management of the listed Bahraini companies. The findings of the research show that just the size of the Audit Committee impacts negatively on Earning Management and other characteristics have no significant relation with Earning Management. Oliver and Grace (2017) as well as Juhmani (2017) have studied the impacts of Audit Committee quality on the quality of financial reporting. They too have used two variables of independence and financial expertise of the Audit Committee. Contrary to the findings of Juhmani's study (2017), they have reported that independence and financial expertise of Audit Committee have promoted the quality of financial reporting.

Ghafran and O'sullivan (2017) have carried out a research by which the impact of financial expertise of the Audit Committee on Earning Management in the United Kingdom. In this research, they used discretionary accruals as criterion of Earning Management and used independence, expertise, size and number of the meetings of Audit Committee variables as characteristics of the Committee. The findings of the research showed that there was no significant relation between the variables of Audit Committee and Earning Management.

Mehrani et al. (2020) have carried out a research on the impacts of Audit Committee characteristics and presentation of internal controls report on earning quality. They conclude that the higher independence and members' expertise as well as the better presentation of internal controls, the increased earning quality; and vice versa. However, the number of the members of the Committee (size) has not led a significant result in respect of earning quality.

Gord & Mir Alaei (2019) carried out a research on the impacts of financial expertise of the members of Audit Committee of 95 companies listed on Tehran Exchange. They have reported negative significant relation between financial expertise of the Audit Committee members and accruals-based Earning Management. According to them, they said financial expertise has promoted accruals-based management.

Nassirzadeh, Oradi, and Rajabalizadeh (2017) have studied the impacts of the characteristic of Audit

Committee on Earning Management via accruals. The findings have showed that in period 2011-2014 there had been negative relation between the financial expertise of Audit Committee members and accrual Earning Management, but positive and significant relation between experience character of Audit Committee and accrual Earning Management.

Jamei and Rostamian (2016) in their research titled "Impacts of Financial Expertise of Audit Committee Members on the Characteristics of Projected Earning" found out that the financial expertise of Audit Committee had positive relation with accuracy of Earning Management. In other words, one may say that presence of members with financial expertise in Audit Committee will promote the quality of financial reporting and will make the more reliable information available to management and earning can be estimated more precisely.

Mollazadeh et al. (2016) studied the impact of the financial knowledge of the managing director on Earning Management. The findings of their study indicate that the financial knowledge of the managing director has no effect on real events and discretionary accruals. On the other hand, there is no significant difference between companies with a managing director having financial knowledge and other companies in respect of discretionary accruals-based Earning Management and real activity-based Earning Management.

## **2.2. A Review of Meta-Analysis in Accounting**

The researches done in different fields of accounting, in most parts show inharmoniousness, incompatibility, and contradictory conclusions. These incompatible and contradictory conclusions have caused confusion in readers and users of the research reports (Patrick Velta, 2018). For overcoming the contradictions and for giving single reply to the inconsistencies existing in different research works, resorting to meta-analysis approach is a must.

Special attention to the nature of the matter and the aim of this study is one of the main reasons for using meta-analysis technique in this study. It is expected that the relation of the Audit Committee and accruals-based Earning Management be a negative significant relation in all countries. However, the findings of the empirical studies that are around this matter include

inharmonious, incompatible, and sometimes contradictory points. An example is given below. Collecting the inharmonious conclusions of past studies around one axis, in the frame of common statistics, and converting them (i.e. the statistics of empirical studies) into a unit with single criteria is a relatively complex and time-consuming process, a process that meta-analysis technique, accompanied by effect size statistics, is capable to complete well. In meta-analysis methodology, effect size is a key concept that is originated from processing the common statistic by different statistical calculations. Presenting this section and introducing sample investigations may present to the audience and interesting reader's suitable comprehension and understanding about the subject study of this methodology.

In a research, Ranjitha and Madhumathi (2019) meta-analyzed 30 empirical studies that were about the relationship of corporate governance index and Earning Management. In their research, the corporate governance has been measured by using governance indices such as Audit Committee, institutional ownership, family ownership, size of the board of directors, and duality of managing director. The findings of this meta-analysis showed that governance indices have negative significant relationship with Earning Management and decrease the value of Earning Management.

Bilal and Kumal (2018) analyzed the relationship between the audit committee's financial expertise and earnings quality through the results of 90 empirical studies. The conclusion of their research shows that financial expertise of Audit Committee has positive relation with the quality of earning and the financial experts of accounting have stronger relation with the quality of earning than non-accounting experts have. Further, they noticed that corporate governance systems, IFRS, and Sarbanes–Oxley Act adjust the relation between the financial expertise of Audit Committee and the quality of earning. In addition to that, financial expertise regarding the Anglo-American corporate governance has stronger relation to the quality of earning after IFRS and Sarbanes–Oxley Act.

Alareeni (2017) collected and meta-analyzed 51 empirical studies, published in years 1992 to 2016, the studies that were about the relationship between the characteristics of auditing firms (for instance, auditing fee, size of the auditing firm, non-auditing services, Tenure) and audit quality. The findings indicate that

there is positive significant relation between the Tenure, auditing fee, and audit quality; while non-auditing services and the size of the auditing firm have negative significant relation with audit quality.

Inaam and Khamoussi (2016) meta-analyzed 58 studies made on the impacts of Audit Committee and the variables of audit quality on decreasing the value of Earning Management. They acknowledge that empirical evidence is almost contradictory and there is difference in the findings of empirical studies. The findings of their meta-analytical studies have been reported as follows: First, meta-analytical methodology identifies most of considerable relations. Second, the independence of Audit Committee, its size, expertise of members, and the number of Committee meetings have negative relation with Earning Management. Similar negative relation exists between the size of independent auditors and their expertise.

Lin and Hwang (2010), in their meta-analysis acknowledged that Earning Management is considered great concern for the beneficiaries of the company. 2) While different impacts of corporate governance and the variables of audit quality on Earning Management have been dealt with in numerous studies, their resulted empirical evidence is completely contradictory. 3) Meta-analysis based on integration of the findings of 48 previous empirical studies has identified 12 important relations. 4) The findings of the meta-analytical study on corporate governance have showed negative relation of the independence of the board of directors and their expertise with Earning Management. 5) Further, similar negative relation exists between Earning Management and independence of Audit Committee, its size, expertise, and the number of meetings. 6) The ownership of the shares in Audit Committee has positive impact on Earning Management. 7) Ultimately, the relation of audit quality, Tenure, size and expertise of Audit Committee with Earning Management has been a negative relation.

### 2.3. Research Hypothesis

As it was stated, there are contradictory findings around the relation of Audit Committee and accruals-based Earning Management in developing and developed countries. Considering the four characteristics of Audit Committee, including independence, financial expertise, size of the

Committee, and number of Committee meetings in respect of above mentioned countries, the research hypotheses were developed as follows and were tested in meta-analysis technique based on Garcia-Meca and Sanchez-Ballesta plan:

**First Principal Hypothesis** - There is significant relation between characteristics of Audit Committee and Earning Management in developing countries.

Based on the characteristics of Audit Committee, the following sub-hypotheses are developed:

- 1) There is significant relation between independence of the members of Audit Committee and Earning Management in developing countries.
- 2) There is significant relation between financial expertise of the members of Audit Committee and Earning Management in developing countries.
- 3) There is significant relation between the size of Audit Committee and earning management in developing countries.
- 4) There is significant relation between number of meetings of Audit Committee and Earning Management in developing countries.

**Second Principal Hypothesis** - There is significant relation between characteristics of Audit Committee and Earning Management in developed countries.

Based on the characteristics of Audit Committee, the following sub-hypotheses are developed:

- 1) There is significant relation between independence of the members of the Audit Committee and Earning Management in developed countries.
- 2) There is significant relation between financial expertise of the members of Audit Committee and Earning Management in developed countries.

3) There is significant relation between the size of Audit Committee and Earning Management in developed countries.

4) There is significant relation between number of meetings of Audit Committee and Earning Management in developed countries.

### 3. Research Methodology

Considering the aim of this study, that is based on examining, combining, and integrating the incompatible, inharmonious, and contradictory conclusions of numerous past studies made on the relation of Audit Committee and Earning Management, in this study meta-analysis method has been used to consolidate and integrate the conclusions of past empirical studies and consequently attain a single result and identify variables that adjust the relations of variables of the research. For analysing the results achieved from application of meta-analysis technique, Garcia-Meca and Sanchez-Ballesta (2009) plan has been used. Further, Second version of Comprehensive Meta-Analysis Software (2009), which perhaps is one of the most famous, most professional, and most perfect computer software programs for combined and meta-analytical studies, has been used.

#### 3.1. Identify developing and developed countries

In this study, according to the International Monetary Fund, countries are classified into two groups: developed countries and developing countries. Thus, 20 countries in the group of countries with high GDP are considered as developed countries and other countries are considered as developing countries Table 1 shows the list of countries by GDP.

**Table 1 List of countries based on GDP as estimated by the International Monetary Fund in 2019**

Countries Developed					Developing Countries				
Rank	country	Rank	country	Rank	country	Rank	country	Rank	country
1	USA	8	Italy	10	Mexico	21	Egypt	28	Tunisia
2	China	9	Brazil	16	Indonesia	22	Bahrain	29	Hong Kong
3	Japan	10	Canada	17	Turkey	23	Jordan	30	Iraq
4	Germany	11	Russia	18	Saudi Arabia	24	Iran		
5	India	12	Korea	19	Netherlands	25	Nigeria		
6	British	13	Spain	20	Switzerland	26	Africa		
7	France	14	Austria			27	Malaysia		

Therefore, out of 30 experimental studies collected, 20 studies were assigned to developing countries and the remaining 10 studies were assigned to developed countries (Wikipedia, 2020).

### 3.2. Independent and Dependent Variables of the Research

The published studies must be archive of empirical studies so that include all following criteria that are needed for entering into meta-analysis:

- 1) 1).The dependent variable shall include all discretionary accruals, earning quality, and quality of financial reporting as measurable index of Earning Management.
- 2) 2).The independent variable shall include the characteristics of Audit Committee such as independence, financial expertise, the size and number of Committee meetings, and
- 3) 3).Test statistics with the P needed for calculation of effect size shall be reported.

### 3.3. Effect Size and Measuring

For giving a meaningful reply, there must be consensus (that is, unanimous agreement) on definition of terms such as "degree of difference", "power of relation", or generally speaking, on what are called "effect size". In addition to that, when the concepts are defined, still some methods of quantitative expressing are needed. In meta-analysis literature, one of the most essential concepts is the concept of effect size. Effect size is the quantity which shows attendance of the intended phenomenon in an intended population; or is a measure which expresses the inaccuracy of the null hypothesis. In the science of statistics, null hypothesis always means that the size of the effect is zero. Effect size is defined as the value of the impact of independent variable on dependant variable. Effect size is divided into two groups: d effect size and r effect size. In all meta-analytically made accounting studies, the correlation indices of effect size have been used (Khlif & Chalmers, 2015). For achieving the principal aim of the research and for following the meta-analysis method, the correlation index of effect size ( r ) has been taken as the principal tool in implementation of meta-analysis and has been calculated and assessed for studying relations between the variables.

Attention must be devoted to the fact that the data needed for empirical studies (quantitative) in accounting area are mostly extracted from the financial statements of companies. But, in researches based on meta-analysis technique, the needed data are taken from empirical studies in frame of t,  $x^2$ , Z or F statistics. Therefore, in meta-analysis methodology, measuring the variables is not as important as it is in empirical studies. In meta-analysis, the manner of converting the statistical data resulted from empirical studies into effect size is highly important. The aim of using effect size is giving single shape in form of a numeric data and common metrologies. Thus, when you have values of mean, variance, and standard deviation of groups, you can calculate the effect size.

If t,  $x^2$ , Z or F have been reported in a study, they can be transformed into effect size through using formulae as shown in Table 2.

**Table 2 Relations of Statistical Index**

1)	$ES_r = \frac{t}{\sqrt{t^2+df}}$	Statistics t
2)	$ ES_r  = \frac{\sqrt{F}}{\sqrt{F+n_1+n_2-2}}$	Statistics F
3)	$ES_r = \sqrt{\frac{Z}{N}}$	Statistics Z
4)	$ES_r = \sqrt{\frac{N^2}{N}}$	Statistics chi2
This statistic is first converted to t, then to the effect size. *		p-value

\* For converting p-value to effect size, the t which is corresponding to p-value be determined based on the volume of sample study, degree of freedom, and t student table or normal table and then be converted to effect size by using Relation 1.

### 3.4. Data Collection Method

In meta-analysis, the first step is collecting the relevant studies by using manual and computer searches. For finding the relevant empirical studies (the archive), it was necessary to consider the words combined with Earning Management. Consequently, all studies completed on the object of the research were recognized and collected as statistical population of the research by using the key words such as " Earning

Management ", "independence of audit committee", "accruals", "financial expertise", "size and number of Audit Committee meetings", "revenue quality" as well as through retrieval of financial statements published in websites of foreign magazines (the essays published in 2000-2019 period) and in the website of domestic scientific-research journals (essays published in 2001-2020 period).

For gaining access to additional studies, the sources found by internet surfing too were scanned. For including the collected published essays in meta-analysis process, they shall bear empirical features and

in addition to that, they shall satisfy following conditions:

- 1) The dependent variable shall be based on discretionary accruals (Earning Management), financial reporting quality, or earning quality;
- 2) The independent variables in empirical multivariate model shall bear criteria of the characters of Audit Committee;
- 3) The geographical area or target country to which the empirical studies relate shall be defined;
- 4) Test statistics or p-value, needed for calculating effect size, and must be reported.

**Table 3 Essays Published Around the Subject Matter of the Research**

No	Researcher	Year	Independent variable	Dependent variable	Data- year & countries
1	Mohammad	2018	Charac. of Audit C.*	Financial reporting quality	MYS 2008- 09
2	Nawafly	2019	Charac. of Audit C.	Financial reporting quality	MYS 2014
3	Nelwan	2019	Charac. of Audit C.	Financial reporting quality	IDN 15-2009
4	Oliver	2017	Charac. of Audit C.	Financial reporting quality	NGA 16-2013
5	Oussii	2018	Charac. of Audit C.	Earning management	TUN 13-2011
6	Sanjaya	2006	Charac. of Audit C.	Earning management	USA 02-2001
7	Ifeoma	2018	Charac. of Audit C.	Earning management	TUN 16-2012
8	Shaer	2017	Charac. of Audit C.	Financial reporting quality	GBR 11-2007
9	Rapani	2015	Charac. of Audit C.	Earning management	MYS 11-2002
10	Metawee	2013	Charac. of Audit C.	Earning management	EGY 10-2008
11	Baxter	2009	Charac. of Audit C.	Discretionary accruals	GBR 05-2001
12	Xie	2003	Charac. of Audit C.	Earning management	USA 02-2000
13	Mishra	2016	Charac. of Audit C.	Earning management	IND 15-2013
14	kusumaningtyas	2016	Charac. of Audit C.	Earning management	IDN 13-2007
15	Salleh	2014	Charac. of Audit C.	Earning management	MYS 09-2005
16	Bukit	2009	Charac. of Audit C.	Earning management	MYS 2000
17	Juhmani	2017	Charac. of Audit C.	Earning management	BHR 14-2012
18	Florencea	2018	Charac. of Audit C.	Earning management	IDN 16-2013
19	Al-Absy	2017	Charac. of Audit C.	Earning management	MYS 15-2013
20	BALA	2014	Charac. of Audit C.	Earning management	NGA 13-2007
21	Ayemere	2015	Charac. of Audit C.	Earning management	NGA 13-2006
22	Bamahros	2016	Charac. of Audit C.	Earning management	MYS 2009
23	Fakhari	2017	Charac. of Audit C.	Earning management	IRN 15-2008
24	Ghafran	2017	Charac. of Audit C.	Financial reporting quality	GBR 11-2007
25	Hamdan	2013	Charac. of Audit C.	Discretionary accruals	ARE 09-2004
26	Elfeky	2019	Charac. of Audit C.	Earning management	EGY 2012
27	Kibiya	2016	Charac. of Audit C.	Earning management	NGA 14-2010
28	Aderemy	2016	Charac. of Audit C.	Earning management	FRA 12-2006
29	Kuang	2007	Charac. of Audit C.	Earning management	NZL 05-2004
30	Teng	2015	Charac. of Audit C.	Earning management	CHN 08-2004

\* Characteristics of Audit Committee

The result of data searching, related to research variables, was 78 empirical studies. Out of them, 30 studies were realized to be relevant to this research. Those relevant studies have been meta-analysed in Table 3. The table presents information related to sample companies about dependent and independent variables, the country and year of data that have been considered in the studies. Further, for ensuring that none of the studies use same data presented in previous studies, the effect size, year of data, and countries which have been used in studies, have been examined. Forty-eight studies of entire empirical studies were put aside because they did not satisfy the above-mentioned criteria and so were not sufficiently qualified.

### 3.5. Stages of Meta-Analysis Implementation

After collecting the data of research, the statistical data which were used in studies, such as p-values, t and F or chi-square, were classified in library manner. The steps taken for meta-analysis implementation are as follows:

- A. The area related to incompatible and contradictory conclusions were recognized and the aim and problem of the research were defined commensurately.
- B. The independent and dependent variables were recognized agreeable with the subject matter of the research.
- C. The completed studies relevant to the aim and object of the research were identified and collected.
- D. The reported p-values; chi-square or F statistics were extracted from the relations of independent and dependent variables of every single study and were transformed into effect sizes through the relations presented by Lipsey and Wilson as shown in Table 2.  
In this research, Pearson linear coefficient of correlation ( $r$ ) between the characteristics of Audit Committee and Earning Management has been used as effect size. The effect size, in fact, shows the degree of effects of each independent variable on dependent one.
- E. Concerning non-normality of the calculated effect size (the same Pearson coefficient of correlation,  $r$ ), in this stage, the Z Fisher ( $Z_r$ )

equivalent to each of these coefficients is calculated with assistant of Relation 1; and then their weighted averages  $\bar{Z}_r$  is determined from Relation 2.

$$\text{Relation 1) } Z_r = 0.5 \times \ln\left(\frac{1+r}{1-r}\right)$$

$$\text{Relation 2) } \bar{Z}_r = \frac{\sum_{i=1}^k (n_i - 3) \times z_{ri}}{\sum_{i=1}^k (n_i - 3)}$$

Where:

K is the volume of the studies related to each variable and  $n_i$  is the volume of  $i^{\text{th}}$  study.

- F. By determining the weighted average of correlation coefficient between the variables, the type and direction of the relations of variables are estimated within appropriate confidence interval (relation 3).

Relation 3)

$$\bar{Z}_r = z_{\frac{\alpha}{2}} \times \sigma(\bar{Z}_r) \leq z_p \leq \bar{Z}_r + z_{\frac{\alpha}{2}} \times \sigma(\bar{Z}_r)$$

- G. When the resulted figure is zero, no significant relation is shown between independent variable and dependent one. However, if the result is not zero, significant positive or negative relation between variables exists. The important point is that with the aim of determining the possibility of integrating the examined studies to achieve a single result, homogeneity test is carried on studies through Relation 4.

Relation 4)

$$H = \sum_{i=1}^k (n_i - 3) \times (z_{ri} - \bar{Z}_r)^2$$

- H. In determining the homogeneity degree of correlation coefficients, the steps are as follows: First, the figure H, earned from Relation 4, is compared with critical value of chi-square table with  $(k-1)$  degree of freedom. If the figure of H is smaller than the critical value in the table, the assumption that the correlations are homogeneous has been confirmed.
- I. If the resulted figure of H is bigger than the critical value in the table, the assumption that the correlations are homogeneous, has been disproved, rejected. In this case, based on the key variables which may cause the variance of

sample effect sizes, the studies are divided into subgroups (if moderator variables exist); and above-mentioned steps are taken for every single of them. This procedure goes on and on till homogeneity is created amongst the studies. For testing the hypotheses of the research and determining the variables which moderate the relations of the independent and dependent variables of the research, following steps are taken in compliance with Garcia-Meca and Sanchez-Ballesta (2009) Research Plan. The estimated confidence interval of the relations of each independent variable of the research with Earning Management in general level of the studies is compared with the confidence interval which has been estimated for each subgroup. When the confidence

interval of a subgroup changes the direction of the relation determined by the confidence interval estimated for general level of studies, that subgroup is considered to be moderator of the relation of independent variable with dependent variable of the research.

#### 4. Findings of the Research

The results of implementation of meta-analysis over entire of 80member statistical sample have been shown in Table 4. Further, the results of the meta-analysis carried on in developing countries and in developed countries as well as the results of studies in classes related to existing variables have been reported altogether and commensurate with each hypothesis.

**Table 4** The average effect size in 30 statistical samples in accordance with the characteristics of the audit committee

Characteristics of the audit committee	Average effect size	Low limit	High limit	Statistics	Meaningful
Independence	-0.048	-0.076	-0.028	-4.858	0
Financial expertise	-0.023	-0.04	-0.003	-2.358	0.0183
Size of committee	-0.016	-0.035	0.002	1.662	0.0966
Number of mitting	-0.005	-0.024	0.014	-5.416	0.5881

#### 4.1. Sub-Hypotheses Related to Independence of the Members of the Audit Committee and to Earning Management

1.1 Sub-Hypothesis: In developing countries, there is a significant relation between the independence of the Members of the Audit Committee and Earning Management.

1.2 Sub-Hypothesis: In developed countries, there is a significant relation between the independence of the Members of the Audit Committee and Earning Management.

In most of the previous studies, the impact of independence of the Members of the Audit Committee on Earning Management has been examined. The common expectation is that a more independent Audit Committee have more effective supervision on financial reporting process and will assure the company reasonably in respect of limiting the Earning Management (BRC, 1999; SEC, 1999). In the meanwhile, while it is true such an expectation is easily comprehensible and the positive impact of

independence of Audit Committee is obviously observed in previous studies, but, for instance, Ayemere and Elijah (2015) concluded in a research that there was a negative significant relation between independence of the Audit Committee and Earning Management. The findings of the research carried out by Alarussi, et al. (2019) showed that independence of the Audit Committee would lead to improved financial reporting and disclosure quality. The findings of research carried out by Enny and Yahn (2020) too showed that there had been negative relation between independence of the Audit Committee and Earning Management. In the studies, Klein (2002) and Abbott et al. (2004) found that the independence of the Audit Committee holds negative relation with Earning Management. Lin et al. (2006) and Xie et al. (2003) did not find such an important relation. The conclusions of meta-analysis which are reported at row 1 of column 1 of Table 4 shows that effect size is -0.031 and the negative confidence interval, reported in the same column is .0055 and -0.006. Combination of above-mentioned results may be interpreted that in developing countries, independence of the Audit

Committee has negative and significant relation with Earning Management. Likewise, according to row 1 of column 5 of Table 5, the average effect size is -0.078 and the confidence interval which is reported in the same column is negative (-0.046 and -0.110). Combination of above-mentioned results may be interpreted that in developing countries too independence of the Audit Committee has negative and significant relation with Earning Management. Further, as far as concerning the group homogeneity is concerned since according to the explanations of analytical tests presented in "Research Methodology" section, the chi-square value in developing countries and in developed countries are 87.854 and 59.055, respectively, that is, lesser than the critical values (156.428 and 87.760), therefore the intragroup studies enjoy homogeneity and the researcher has done properly in selecting key variables.

**4.2 Sub-Hypotheses Related to Financial Expertise of the Members of the Audit Committee and to Earning Management**

1.1 Sub-Hypothesis: In developing countries, there is a significant relation between financial expertise of the members of Audit Committee and Earning Management.

1.2 Sub-Hypothesis: In developed countries, there is a significant relation between the financial expertise of the Members of the Audit Committee and Earning Management.

U.S. Securities and Exchange Commission (1999) has recommended that all members of the Audit

Committee be literate in financial subjects and at least one of the members be qualified as "financial experts". This commission passed the final definition for financial expert of Audit Committee; a definition which include knowledge and experience in financial accounting, financial reporting, auditing, and similar activities. Oliver and Grace (2017) in their study in Nigeria conclude that when the members of the Audit Committee enjoy financial expertise, the quality of financial reporting will be higher; and this is indicator of decreased Earning Management.

Dezort and Salterio (2001) concluded that financial expertise of Audit Committee members (specifically, auditing knowledge) promotes the possibility of recognizing important mistakes and notifying the mistakes to Audit Committee for being corrected on time. However, apart from the definition given by U.S. Securities and Exchange Commission, there is no agreement on precise definition of "financial expertise" or the manner of measuring that expertise. Abbott et al. (2004) and Bedard et al. (2004) reported negative relation between financial expertise of Audit Committee and occurrence of Earning Management. However, many other studies did not find such significant relation (Lin et al., 2006). Ghafran and O'Sullivan (2017) carried out a research on the impact of financial expertise of Audit Committee and Earning Management in the United Kingdom. In this research, they found no significant relation between Earning Management and the financial expertise of Audit Committee, as one of the characteristics of the Committee.

**Table 5 Summary of All Hypotheses Tests**

		Characteristics of the Audit Committee in developing countries				Characteristics of the Audit Committee in developed countries			
No	Des.	ι	ϒ	ϓ	ε	ο	ϛ	Ϝ	⊗
		Independence	expertise	Size	Mattings	Independence	expertise	Size	Mattings
ι	Effect size	-0.031	-0.032	-0.009	-0.018	-0.078	-0.008	-0.029	0.016
ϒ	Low limit	-0.055	-0.056	-0.034	-0.042	0.11	-0.04	-0.061	-0.016
ϓ	High limit	-0.006	-0.008	0.015	0.007	-0.046	0.024	0.003	0.048
ε	Chi 2	87.854	91.428	88.585	89.42	59.055	113.057	83.698	82.27
ο	Critical value	156.428	221.643	166.452	179.583	84.76	92.039	89.247	89.06

As expected, the relation between Earning Management and financial expertise of the members of Audit Committee is considerably negative. The result of meta-analysis of the relation of financial expertise

of the members of the Audit Committee with Earning Management in developing countries has been given in row 1 of column 2 of Table 5. The average effect size is -0.032 and, as shown in the same column, the

confidence interval has been reported to be negative (-0.008 and -0.056). This suggests that in developing countries, the relation of financial expertise of the members of the Audit Committee with Earning Management is negative and significant. Further, as far as the group homogeneity is concerned, since according to the explanations of analytical tests presented in "Research Methodology" section, the chi-square value (91.428) is less than critical value (221.643), therefore the intragroup studies in developing countries enjoy homogeneity and the researcher has done properly in selecting key variables.

Ten studies out of entirely 30 sample studies are about the relation of Audit Committee with Earning Management in developed countries. Row 1 of column 6 of Table 5 shows the results of meta-analysis of relation of financial expertise of the members of Audit Committee with Earning Management in developed countries. The average effect size is -0.008 and negative confidence interval, reported in the same column, is 0.024 and -0.040.

Combination of these results may be interpreted that in developed countries, financial expertise of the members of the Audit Committee has weak negative relation (but, not significant) with Earning Management. Further, as far as the group homogeneity is concerned, since according to the explanations of meta-analytical tests presented in "Research Methodology" section, the chi-square value is 113.057, that is, bigger than the critical values (92.039), therefore the intragroup studies in developed countries are not homogeneous. In other words, in developed countries, the intragroup studies in respect

of impact of financial expertise of the Committee on Earning Management are heterogeneous.

In case those intragroup studies are heterogeneous, it will get necessary the studies be divided into subgroups in term of the key variables which may have caused variance in the effect sizes of the population. This procedure goes on and on till homogeneity is created amongst the intragroup and no variance of effect size remains unexplained. Therefore, it is necessary that the criteria of Earning Management such as quality of financial reporting, entire accruals, Jones Models and other models involved in the studies made in relation to developed countries be used. Applying different criteria can be one of the reasons of contradictory conclusions. In classification made as shown in Table 6, the confidence interval resulted from the quality of financial reporting is -0.018 and -0.036, total accruals -0.077 and -0.189; and other models used in calculations of these items (-0.111 and -0.089), and there is significant negative relation. And Jones Models with confidence interval (0.008 and -0.045) includes zero and reports weak negative relation between financial expertise of the members of Audit Committee and discretionary accruals in developed countries. Comparison of confidence interval of model type (Jones Models) of accruals with the estimated confidence interval of general level of the studies concerning financial expertise of Audit Committee in developed countries indicate that the models selected by the researcher are a type of adjusting variables. Thus, one can infer that the Jones Models used in empirical studies concerning developed countries adjusts the relation between financial expertise of Audit Committee and earning management.

**Table 6 The results of Meta-Analytical Studies Concerning Financial Expertise of Audit Committee and Earning Management in Developed Countries**

Financial expertise	Sample size	Number of studies	Confidence interval 95%		Z average	Homogeneity test	Critical value
	N	K	High limit	Low limit	$\bar{z}_r$	H	
Total studies	3741	10	0.024	-0.04	-0.479	113.572	92.394
Earning management criteria:							
Financial reporting quality	2061	4	-0.018	-0.062	-0.036	51.132	63.081
Discretionary subgroups:							
Total accrual	3407	8	-0.077	-0.189	-0.126	74.801	79.003
Jones models	2480	8	0.008	-0.045	-0.018	65.247	44.078
Other models	1210	3	-0.089	-0.111	-0.051	17.417	18.056

### **4.3. Sub-Hypotheses Related to Size of the Audit Committee and Earning Management**

3.1 Sub-Hypothesis: In developing countries, there is a significant relation between size of Audit Committee and Earning Management.

3.2 Sub-Hypothesis: In developed countries, there is a significant relation between the size the Audit Committee and Earning Management.

U.S. Securities and Exchange Commission (1999), encouraged by Blue Ribbon Committee (1999), made mandatory the formation of Audit Committee comprising at least four managers. The Commission also gave an opinion that the bigger Audit Committee indicates using more resources and talents in supervising financial reporting process. Empirical studies have offered different evidence related to the effects of Audit Committee on Earning Management. Ifeoma et al. (2018) noticed that the size of Audit Committee has negative impact on Earning Management. On the other hand, the findings of the research conducted by Florencea and Kurnia (2018) shows that the number of the meetings of Audit Committee has no significant relation with Earning Management. Xie et al. (2003) acknowledged lack of significant relation between the number of managers in the Audit Committee and Earning Management. Likewise, Abbott et al. (2004) and Lin et al. (2006) could not report any evidence denoting relation of the number of managers in the Audit Committee and Earning Management. However, Yang and Krishnan (2005) found out the negative relation of the size of Audit Committee with Earning Management.

In agreement with the findings of majority of the past studies -- studies that some of them were mentioned -- present research too does not show significant relation between the size of the Audit Committee in developing countries and Earning Management. However, in developed countries the relationship is negative and significant. In other words, the present research shows that contrary to developing countries, in developed countries, the bigger the number of the Audit Committee's members, the lesser the value of earning management. As row 1 of columns 3 and 7 of Table 4, the columns related to developing countries and developed ones respectively, their average effect size is -0.009 and -0.029, and the negative confidence interval, reported at same

columns, are (-0.034 and 0.015) and (-0.061 -0and 0,0030). Therefore, there is no significant relation between the size of the Audit Committee and Earning Management in developing countries. Since confidence interval includes the value of zero, it is indicator of the lack of relation between above-mentioned two variables. On the other hand, in developed countries the size of Audit Committee has negative and significant relation with Earning Management with 90 percent reliability. Furthermore, comparison of chi-square in both levels, which are 88.585 and 83,698 respectively, with critical values (166.452 and 89.247), indicates existence of homogeneity within levels.

### **4.4. Sub-Hypotheses Related to the Number of the Meetings of the Audit Committee and Earning Management**

3.1 Sub-Hypothesis: In developing countries, there is a significant relation between the number of the meetings of the members of Audit Committee and Earning Management.

3.2 Sub-Hypothesis: In developed countries, there is a significant relation between the meetings of the members of Audit Committee and Earning Management.

Allocating sufficient time by Audit Committee to fulfil the duties toward supervision on financial reporting process is one of the principal aims of the Audit Committee. Though U.S. Securities and Exchange Commission has not stipulated requirements in this respect, but Blue Ribbon Committee recommends that the Audit Committee hold meeting at least once every quarter and talk to independent auditor about the quality of financial reporting. Previous studies have provided conflicting evidence on this issue. For instance, Juhmani (2017) has studied the relation between the number of Audit Committee meetings and Earning Management and has noticed no significant relation between these two. Florencea and Kurnia (2018) too studied the impact of the number of Audit Committee meetings on Earning Management levels. They found out that this characteristic of Audit Committee has no significant relation with Earning Management. Likewise, Yang and Krishnan (2005) and Bedard et al. (2004) too were unable to find any relation between these two. Differently, the findings of Ayemere and Elijah (2015) indicate that any increase

in the number of Audit Committee meetings will lead to decreased Earning Management. Lin et al. (2006) and Xie et al. (2003) have reported negative relation between Earning Management and the number of Audit Committee meetings.

As reported in row 1 of Column 4 of Table 5 with average effect size of -0.018 for developing countries and with negative confidence interval reported in the same column (-0.042 and 0.007), present meta-analysis shows that, generally speaking, the number of Audit Committee meetings in developing countries has not significant relation with Earning Management. Further, as far as the group homogeneity is concerned since according to the explanations of analytical tests presented in "Research Methodology" section, the chi-square value (89.420) in developing countries is less than critical value (179.583), therefore the intragroup studies enjoy homogeneity and the researcher has done properly in selecting key variables.

The results of meta-analytical study of the relation of the number of Audit Committee meetings with Earning Management have been reported in row 1 of column 8 of Table 5. Average effect size (0.016) and reported negative confidence interval (0.048 and -0.016) show that the number of Audit Committee meetings in developed countries too has no significant relation with Earning Management. Further, since the chi-square static (82.270) is less than critical value (89.060), therefore the intragroup studies enjoy homogeneity.

#### **4.5. Summary of the Findings Resulted from Meta-Analysis**

The Results of meta-analytical study of relation between the characteristics of Audit Committee and Earning Management have been presented in three Tables, separately for developing countries and developed ones. For showing the findings resulted from using meta-analytical technique, summary of the findings is reported in Table 7, separately for each characteristic and each country.

### **5. Discussion and Conclusion**

Earning management is one of the principal concerns of those who are beneficiaries of the company. Audit Committee, as one of the mechanisms of corporate governance, has always been looked upon as a factor

affecting Earning Management and so, the relation of these two variables has been object of numerous studies. In spite of the fame and reputation of the subject, the empirical studies made on the matter around the impact of the characteristics of Audit Committee on Earning Management have yielded incompatible and contradictory conclusions.

The aim of present research is presenting a response to the incompatibilities and contradictions of the studies about the relation of the characteristics of Audit Committee and Earning Management. Present research has dealt with many earning-management studies and has meta-analytically examined 30 studies. Other studies were put out of meta-analysis process because they had used irrelevant variables. In accounting and financial literature, Audit Committee, as part of corporate governance structure, is a tool for lowering the agency costs as well as a means to supervise effectively with aim of achieving improved agency relation. Existence of Audit Committee not only has promoted the qualitative level of corporate governance, but also has strengthened the quality of financial reporting. Reviewing the studies show that existence of Audit Committee decreases Earning Management compared to that which used to be before formation of Audit Committee in companies. Despite what is expected from Audit Committee, reviewing the literature of researches shows that there has been no homogeneous and agreeable findings in this matter in different countries. That is why this present research intended to study with meta-analysis approach the relation of the characteristics of Audit Committee and Earning Management in developing and developed countries. The conclusions of meta-analytical review of the empirical studies related the first sub-hypothesis showed that independence of members of the Audit Committee in developing countries, as well as in developed ones, had negative and significant relation with Earning Management. Likewise, the conclusions of meta-analytical review of the studies related the second sub-hypothesis indicates that the financial expertise of the members of the Audit Committee in developing countries has negative and significant relation with Earning Management, but, in developed countries there is no significant relation between financial expertises of the members of the Audit Committee with Earning Management

**Table 7 Summary of the Findings Resulted from Meta-Analysis Based on Table 4**

Independent variables	Corresponding to dependent variables			
	Developing countries		Developed countries	
	Rows and columns	Relation	Rows and columns	Relation
Independence	1	Nag. & Meaningful	ο	Neg. & Meaningful
Financial Expert	2	Not related	ϛ	Neg. & Meaningful
Size	3	Nag. & Meaningful	Ϝ	Not related
Meetings	4	Not related	ϝ	Not related

As it was stated, homogeneity test of effect sizes (intarclass homogeneity) shall be carried out for each of the hypotheses. Therefore, the results of homogeneity test of the effect sizes (intraclass correlation coefficient) concerning the relation financial expertise of the members of the Audit Committee with Earning Management in developed countries, showed according to Table 4 that H (chi-square statistic), which is 113.0572, is bigger than the critical value (92.0394). Thus, it was necessary that the criteria of Earning Management such as financial reporting, entire accruals, Jones Models, and other models being considered in completed studies concerning developed countries be used (because one of the causes of contradictions in the findings may be applying different criteria). Jones Models with confidence interval (0.008 and 0.045-) became liable to zero and showed weak negative relation between financial expertise of Audit Committee and discretionary accruals in developing countries. Comparison of confidence interval of the model type (Jones Models) of the accruals with the confidence interval estimated from the general level of the studies concerning financial expertise of Audit Committee in developed countries is indicator of the fact that the optional models of researchers in empirical studies are somehow adjusting variables, and adjust the relation between financial expertise of Audit Committee and Earning Management.

Based on the results of the meta-analysis, in developing countries there is no significant relation between the size of Audit Committee and Earning Management; while in developed countries the size of Audit Committee has negative and significant relation with Earning Management with 90 percent reliability. The results of the meta-analytic study of the number of the meetings showed that neither in developing countries nor in developed ones this characteristic of the Audit Committee had significant relation with

Earning Management. Broadly speaking, according to Table 6, the results of the carried-out meta-analysis show that in developing countries both independence character and financial expertise character of Audit Committee have negative and significant relation with Earning Management, but the size and number of meeting of the Audit Committee in those countries have no significant relation with Earning Management. Conversely, in developed countries, the independence and size characteristics of Audit Committee have negative and significant relation with Earning Management, but in those countries there is no significant relation of financial expertise and the number of meetings characteristic with Earning Management.

### 5.1. Recommendations Originated from Research Conclusions

Regarding the sporadic and contradictory conclusions that are seen in respect of relation of Audit Committee with Earning Management, the managers and the auditors may resort to meta-analysis technique to use the findings of this research with the aim of assessing Earning Management, an assessment that might be affected by characteristics of Audit Committee. As a result, if the findings of this research indicate the effectiveness of Audit Committee on Earning Management, the companies will be inclined to improve the quality of their audit committees.

The legislators may use the reliable findings of meta-analysis process concerning determination of importance of Audit Committee characters and their impacts on Earning Management when they enact suitable laws. The investor, too, when making decision for buying and selling security, may enjoy the reliable findings of meta-analysis researches for assessing the inherent risk of accounting data. This research not only provides clear insight into the reasons of

contradictions around Audit Committee but also provides integrated point of view for its audience.

## 5.2. Recommendation for Future Studies

For recapitulating the impact of the mechanisms of corporate governance on Earning Management, it is recommended that the results of the impact of other corporate governance mechanisms such as the dimensions of internal control system, characteristics of internal auditing and the board of directors on Earning Management be examined through using meta-analysis technique. Furthermore, for future studies, implementation of meta-analysis on the studies that have already been made about the subject of present research is recommended in two different levels such as intra-organizational model and extra-organizational model of corporate governance and comparing their findings. Regarding the fact that not too many studies on these two important issues have been published, there is sufficient opportunity for carrying out more research on effectiveness of corporate governance and quality of auditing on Earning Management; and findings related to developing countries and developed ones have not yet compared. Lastly, contemplating the literature of Audit Committee indicate that in the course of time as a result of researches carried out about the impact of corporate governance, especially Audit Committee, the negative results of corporate governance and consequently, the relation of the characteristics of Audit Committee on Earning Management get more highlighted. Since this matter of supreme importance has not dealt with sufficiently in empirical studies, it seems that for verification of this claim, comparative studies yet must be done. Therefore, researchers are recommended to carry out researches on this issue.

## References

- 1) Abbott, L. J. S, Parker, & G. F. Peters. (2004), *Audit committee characteristics and restatements*. Auditing; A Journal of Practice & Theory, 23(1), 69-87. <https://doi.org/10.2308/aud.2004.23.1.69>
- 2) Al-Absy, M. S. M., Ku Ismail, K. N. I., & Chandren, S. (2017). Board chairmen's involvement in audit committees and earnings management practices. Available at SSRN: <https://ssrn.com/abstract=3063845>, 1-26.
- 3) Alareeni, B. (2017). The association between audit firm characteristics and audit quality: A meta-analysis, available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2952836](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2952836) (accessed 28 June 2017).
- 4) Alarussi, Ali Salleh & Nawafly, Ali Thamer. 2019. Impact of Board Characteristics, Audit Committee Characteristics and External Auditor on Disclosure Quality of Financial Reporting. Journal of Management and Economic Studies 2019, 1(1): 48-65 DOI: 10.26677/TR1010.2019.60 Journal Homepage: <https://www.jomaes.org>
- 5) Appuhami, R and Tashakor, S. (2017). The Impact of Audit Committee Characteristics on CSR Disclosure: An Analysis of Australian Firms. Australian Accounting Review No. 83 Vol. 27 Issue 4.
- 6) Ayemere, I. L., & Elijah, A. (2015) Audit committee attributes and earnings management: evidence from Nigeria. International Journal of Business and Social Research, 5(4), 14-23
- 7) Bagherzadeh, Saied (2010), Factors Affecting Stock Returns on Tehran Stock Exchange, Financial Research, 19, 25-64. (In Persian)
- 8) Bajra, U., & Čadež, S. (2018). Audit committees and financial reporting quality: The 8th EU Company Law Directive perspective. Economic Systems, 42 (1), 151-163.
- 9) Bazrafshan Ameneh, Hejazi Rezvan, Rahmani Ali and Bastani Susan, Meta-Analysis of the Independence of the Audit Committee and the Quality of Financial Reporting, Quarterly Journal of Management Accounting, 2015, Year 8, No. 28, (17), 101-117. (In Persian)
- 10) Bedard, J., Chtourou S. M., and Courteau, L., 'The Effect of Audit Committee Expertise, Independence and Activity on Aggressive Earnings Management,' Auditing: A Journal of Practice & Theory, Vol. 23, 155-17, 2004.
- 11) Bilal, Song sheng Chen, Bushra Komal, 'Audit committee financial expertise and earnings quality: A meta- analysis,' Journal of Business Research, 84 (2018), 253-270.
- 12) Blue Ribbon Committee (BRC) (1999): Report and recommendations of the blue ribbon committee on improving the effectiveness of corporate audit committees. NYSE: New York Stock Exchange and National Association of Securities Dealers. New York, NY.

- 13) Dezoort, F.T and Salterio, S.E (2001). The effects of corporate governance experience and financial reporting and audit knowledge on audit committee member judgments. *A journal of auditing practice and theory* 20(2)31-47
- 14) Enny, S. M., & Yahn-Shir, C. (2020) "EARNING MANAGEMENT AND THE EFFECT CHARACTERISTICS OF AUDIT COMMITTEE, INDEPENDENT COMMISSIONERS: EVIDENCE FROM INDONESIA", *International Journal of Business and Society*, Vol. 21 No. 2, 569-587.
- 15) Farber, David B. and Huang, Shawn X. and Mauldin, Elaine, Audit Committee Accounting expertise, Analyst Following, and Market Liquidity (July 11, 2016). *Journal of Accounting, Auditing and Finance*, Vol. 33, No. 2, April 2018, pp. 174-199 , Available at SSRN: <https://ssrn.com/abstract=2988070>
- 16) Florencea, N; & Kurnia, S, Y. (2018). 5th Annual International Conference on Accounting Research (AICAR 2018). <http://creativecommons.org/licenses/by-nc/4.0/>. Advances in Economics, Business and Management Research, volume 73.
- 17) Garcia-Meca, E., & Sanchez-Ballesta, J. P. (2009). Corporate governance and earnings management: A meta-analysis. *Corporate Governance: An International Review*, 17(5), 594-610.
- 18) Ghaemi, Fatemeh. Morad, Zahra and Alavi. Gholamhossein, (2020). The effect of the of the audit committee's characteristics on internal controls and earnings management. *Journal of Financial Accounting and Auditing Research* No. 12, No. 64, pp. 259-280. (In Persian)
- 19) Ghafran, C., O'Sullivan, N., The impact of audit committee expertise on audit quality: Evidence from UK audit fees, *The British Accounting Review* (2017), doi: 10.1016/j.bar.2017.09.008.
- 20) Gord, Aziz and Seyed Hamid Mir Alaei (2019), Financial Expertise of the Audit Committee and Earning Management of Companies Listed in Tehran Stock Exchange, *Quarterly Journal of New Approaches in Management and Accounting*, No. 11, Third Year, pp. 68- 84. (In Persian)
- 21) Hamdan, A & Mushtaha, S 2017, 'The Relationship between Audit Committee Characteristics and Type of Auditor's Report: An Empirical Study on the Public Shareholding Industrial Companies Listed at Amman Bourse' *The Arab Journal of Accounting*, vol. 14, no. 1, pp.109-163.
- 22) Ifeoma,H. O; Onuora,V. & Nonye,A. (2018). Audit Committee and Classification Shifting of Earnings Management: Evidence from Sub-Saharan African Firms. *Scientific Research Journal (SCIRJ)*, Volume VI, Issue X, October 2018 77 ISSN 2201-2796
- 23) Inaam, Z. & Khamoussi. H. (2016). Audit committee effectiveness, audit quality and earnings management: Ameta-analysis. *International journal of low and management*, 58(2): 179- 196.
- 24) Jamei, Reza and Azadeh Rostamian, (2016), "The effect of financial expertise of members of the audit committee on the characteristics of projected profits", *Quarterly Journal of Financial Accounting and Auditing Research*, Volume 8, Number 29, pp. 1-17. (In Persian)
- 25) Juhmani, "Audit Committee Characteristics and Earning Management: The Case of Bahrain," *International Journal of Accounting and Financial Reporting*, Vol. 7 No. 1, 2017.
- 26) Khlif, H., and Chalmers, K.,A review of meta analytic research in accounting, *Journal of Accounting Literature* (2015), <http://dx.doi.org/10.1016/j.acclit.2015.09.001>
- 27) Kibiya, M.U., Ayoib, C.A., Amran, N.A. (2016), Audit committee independence, financial expertise, share ownership and financial reporting quality: Further evidence from Nigeria. *International Journal of Economics and Financial Issues*, 6, 7S.
- 28) Klein, A. (2002). "Audit Committee, board of director characteristic and earning management", *Journal of Accounting and Economic*, 33, 375-400.
- 29) Lin, J., & Hwang, M. (2010). Audit quality, corporate governance, and earnings management: A meta-analysis. *International Journal of Auditing*, 14(1), 57-77.
- 30) Lin, JW, Li, JF & Yang, JS (2006), "the effect of audit committee performance on earnings quality", *manage. Auditing J.* 21(9), 921-933.
- 31) Lipsey, W., & Wilson, D. (2001). *Practical Meta-analysis*. Thousand Oaks, CA: Sage Publications
- 32) Masmoudi, S.M. & Fourati, Y.M. (2020), " The impact of audit committee on real earnings management: Evidence from Netherlands", *Journal*

- of Corporate Governance and Sustainability Review, № 1, p. 33-46
- 33) Mehrani, Sasan, Roya Ebadi Naqroloo and Sohrab Hosseinzadeh, (2016), Investigating the Impact of Audit Committee Characteristics and Reporting Internal Controls on Earnings Management, Accounting Advances, Issue, Pages (Accepted: July 21, 2016). (In Persian)
- 34) Mollazadeh, Mohammad, Mohammad Lari Dasht Bayaz and Mohammad Javad Saei, (2016), "The Impact of CEO Financial Knowledge on Earnings Management" Quarterly Journal of Financial Accounting and Auditing Research, Volume 8, Number 30, pp. 37-59. (In Persian)
- 35) Mollik, Abu T.; Mir, Monir; McIver, Ron; and Bepari, Md. Khokan, Effects of Audit Quality and Audit Committee Characteristics on Earnings Management During the Global Financial Crisis – Evidence from Australia, Australasian Accounting, Business and Finance Journal, 14(4), 2020,
- 36) Nassirzadeh, Farzaneh; Oradi, Javad; Rajabalizadeh, Javad (2017) Investigating the effect of audit committee characteristics on earnings management through accruals. Journal of Accounting and Auditing Studies, 4 (24), 39- 52. (In Persian)
- 37) Oliver, O., & Grace, N. O. (2017). Effect of audit committee qualities on financial reporting of listed companies in Nigeria: A perspective study. International Journal of Scientific and Research Publications, 7(10), 278-290.
- 38) Patrick Velte, (2018) "What do we know about meta-analyses in accounting, auditing, and corporate governance?", Meditari Accountancy Research, <https://doi.org/10.1108/MEDAR-03-2018-0317>
- 39) Ranjitha, Ajay and Madhumathi, R (2019) Relationship between firm valuation, business practices and earnings management: a meta-analysis / Ajay Ranjitha and R Madhumathi. Asia-Pacific Management Accounting Journal (APMAJ), 14 (1). pp. 115-134. ISSN 2550-1631
- 40) Sarbanes-Oxley Act 2002 (SOX). Public Law No. 107-204, 116 Stat. 745, Sec 1-1107.
- 41) Wang, K. T., & Shailer, G. (2018). Does Ownership Identity Matter? A Meta-analysis of Research on Firm Financial Performance in Relation to Government versus Private Ownership. Abacus, 54(1), 1-35.
- 42) [Wikipedia.org/wiki/%D9%81%D9%87%D8%B1%D8%B3%D8%AA\\_%DA%A9%D8%B4%D9%88%D8%B1%D9%87%D8%A7\\_%D8%A8%D8%B1\\_%D9%BE%D8%A7%DB%8C%D9%87\\_%D8%AA%D9%88%D9%84%DB%8C%D8%AF\\_%D9%86%D8%A7%D8%AE%D8%A7%D9%84%D8%B5\\_%D8%AF%D8%A7%D8%AE%D9%84%DB%8C](https://www.wikipedia.org/wiki/%D9%81%D9%87%D8%B1%D8%B3%D8%AA_%DA%A9%D8%B4%D9%88%D8%B1%D9%87%D8%A7_%D8%A8%D8%B1_%D9%BE%D8%A7%DB%8C%D9%87_%D8%AA%D9%88%D9%84%DB%8C%D8%AF_%D9%86%D8%A7%D8%AE%D8%A7%D9%84%D8%B5_%D8%AF%D8%A7%D8%AE%D9%84%DB%8C)
- 43) Williams, S. (2002), Association between earnings management and properties of independent audit committee members, Working Paper, Singapore Management University.
- 44) Xie, B., Davidson, W., and DaDalt, P., 'Earnings Management and Corporate Governance: The Roles of the Board and the Audit Committee', Journal of Corporate Finance, Vol. 9, 295-317, March 2003.
- 45) Yang, J., and Krishnan, J., (2005), Audit committees and quarterly earnings management, International Journal of Auditing, 9, pp. 201–219.
- 46) Zalata, A. M., Taurigana, V., & Tingbani, I. (2018). Audit committee financial expertise, gender, and earningsmanagement: Does gender of the financial expert matter? International Review of Financial Analysis, 55,170-183.
- 47) Zarowin, P. and Cohen, D. (2008). Accrual-Based and Real Earnings Management Activities around Seasoned Equity Offerings. Working Paper. Stern School of Business, New York University