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Earnings Management: Still an Issue?

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Abstract

Background: This paper provides an overview of the literature in earnings management (EM), focusing on the last ten years of literature dealing with companies. **Objectives:** The paper's primary purpose is to determine whether there is still room for research in a field with extensive literature. **Methods/Approach:** The literature search was conducted via Web of Science (WoS) and Scopus. Search considered articles published 2013-2022 on both databases. The search aimed to research trends in the field by focusing on the last decade. **Results:** The results suggest a need to focus more on examining the determinants and consequences of real earnings management (REM). Much work examines the relationship between EM and the various stakeholders. In addition, different cultural, legal, and accounting systems, geographical factors, and the distance of the institutional environment are among the factors that influence EM. **Conclusions:** The influence of various factors on EM has been analysed in detail in the literature, and there is still a need for research in measuring the impact of EM. Despite 20 years of intensive research, EM remains under-researched in its real-activities form.

Keywords: earnings management; earnings quality; financial statements; corporate governance

JEL classification: M41
Paper type: Research article

Received: 2 Dec 2023
Accepted: 4 April 2024

Citation: Galek, I., & Čičak, J. (2025). Earnings Management: Still an Issue? *Business Systems Research, 16*(1), 152-175.
DOI: https://doi.org/10.2478/bsrj-2025-0008

Introduction

Earnings as a measure of the impact of a company's performance indicators are increasingly valued by all of the company's stakeholders, not just the shareholders, as the primary users of the financial statements. The quality of the profit generated, whether measured as net profit or profit after interest and tax, demonstrates the ability to further increase the company's profitability. The most important decision-making factor is reported profit (Schipper & Vincent, 2003). However, there may be opportunities to influence accounting information using various methods and techniques, causing financial statements to lose their function and accounting data to be misrepresented, leading to profit manipulation (Strakova & Adamko, 2019; Strakova, 2020). Indeed, maximising the bottom line leads to an increase in share prices, which ultimately leads to an increase in value/assets, i.e. an increase in enterprise value (the goal of a company's long-term operations), which can be measured by the quality of cash flows, an increase in market share and a low risk of potential investments. Therefore, the quality of earnings, i.e., high-quality profit, is a key factor for successful company management in the future and for reducing the risk of potential investments by future investors on the capital market. The quality of earnings is closely related to the issue of EM, as earnings management is likely to reduce their quality (Duarte et al., 2020). Financial performance metrics show whether the company's strategy, implementation, and execution contribute to a final improvement. Typical financial goals relate to profitability, growth, and shareholder value (Kaplan & Norton, 1992).

In essence, one could say that earnings quality is a measure that can estimate future cash flows or is highly correlated with future cash flows. For example, An (2017) defines earnings quality in terms of decision usefulness and importance, stating that earnings quality is high when the values presented are helpful for managers and investors in making decisions. According to Dechow and Schrand (2004), high-quality earnings reflect the impact of the current business and can indicate its future impact. Kirschenheiter and Melumad (2004) conclude that earnings are of good quality if they are informative and indicate the company's long-term value. Penman (2003) considers earnings to be of good quality if they are a reliable predictor of future earnings. Cohen (2003) considers earnings of good quality if they are strongly correlated with future operating cash flows. Penman (2003) assumes that investors invest in future earnings when buying stocks, from which it can be concluded that earnings are an important input for the valuation of stocks and that the higher the quality of earnings, the more accurate and reliable the estimate of future earnings. Alsufy et al. (2020) and Malik et al. (2020) suggest defining the quality of earnings through a cash approach. Their research confirmed that close book profit and cash flow values reflect high earnings quality.

Although no consensus has been reached on an explicit definition of earnings management, there are several definitions of the concept of earnings management. Among the first is the term EM, which Schipper (1989) defines as a purposeful intervention in external financial reporting to achieve some private gain. According to Healy and Wahlen (1999), EM occurs when managers use their judgment in financial reporting and transaction structuring to alter financial statements to mislead some stakeholders about the underlying performance of the company's operations, i.e., to influence the outcome of the contract that depends on the accounting data presented. Leuz et al. (2003) Managing profits implies altering the results presented by insiders either to mislead some stakeholders or to influence the outcome of the contract. Indeed, it can be said that without managerial intention, whether discretionary or opportunistic, there is no EM. Since managers have incentives to manipulate a company's earnings, it is unsurprising that they use their discretion to manage earnings. Some authors confirm this in their work on EM, where they use the term "managerial discretion" instead of "opportunistic" (Dechow & Skinner, 2000 and Scott, 2003). The ability of managers to use their judgment and discretion in accounting gives them the power to choose any permissible accounting method and any estimate in the accounting method (Dechow & Skinner, 2000).

EM can be legitimate or illegitimate, depending on the intention and method. Legitimate EM means that accounting decisions are made within the boundaries of generally accepted accounting principles (US GAAP) or international financial reporting standards (IFRS). For example, companies can make discretionary decisions when measuring specific provisions or reserves, applying revenue recognition principles, or determining the useful life of assets. Such discretion is acceptable if it is based on reasonable assumptions and follows established accounting principles. On the other hand, Improper EM involves incorrect or unethical practices distorting earnings data, such as aggressive accounting methods, income equalisation and misrepresentation of financial information. If the practices are within the bounds of GAAP, it is categorised as legitimate EM, but if the practice exceeds the GAAP bounds, it is illegitimate EM (Al-Khabash & Al-Thuneibat, 2008). EM could be illegitimate if managers violate IFRS (Toumeh & Yahya, 2019). Actions intended to deceive or misrepresent the company's resources or assets through the premature recognition of income, the deferral of recognition of expenses, and the recognition and misuse of measurements are financially fraudulent and illegitimate (Nia et al., 2015).

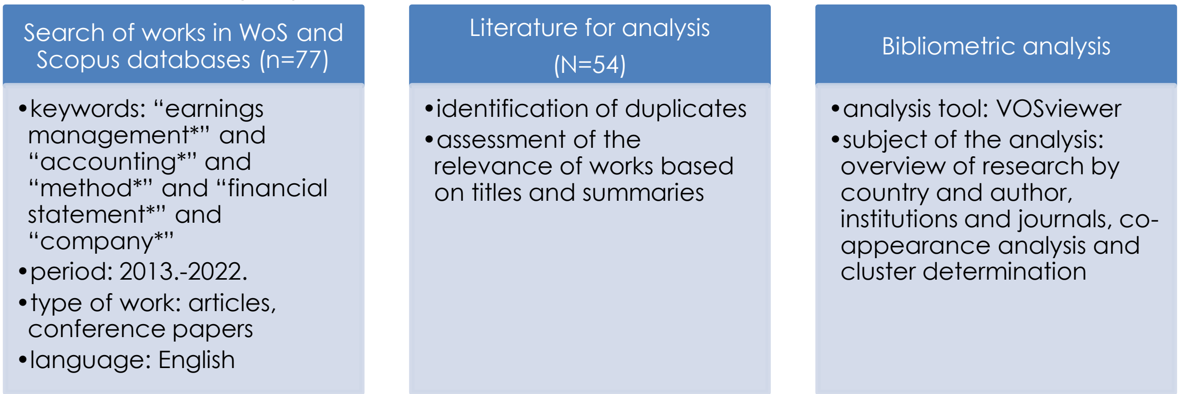
Regarding EM techniques, Levitt (1998) lists five standard methods managers use to disguise the actual financial volatility of earnings. These are the "big bath" of restructuring costs, creative acquisition accounting, "cookie jar reserves", the "intangible" misapplication of accounting principles, and earnings pre-recognition techniques. Ratsula (2010) suggests the following four EM techniques: – the aforementioned "big bath" technique, then minimisation techniques, i.e. maximising revenues, and the "income smoothing" technique. For example, companies with high profits use the revenue minimisation technique to avoid political pressure and corporate tax (Ratsula, 2010; Ghazali et al., 2015). The income maximisation technique is mainly applied for the benefit of individuals (managers) rather than shareholders (Ratsula, 2010 and Ghazali et al., 2015), while the income smoothing technique refers to the technique of deliberately reducing the volatility of reported income (Ghazali et al., 2015).

Although EM remains a central topic in financial accounting research, the literature mainly focuses on manipulating event-based earnings. At the same time, less attention has been paid to the actual management of earnings, which is hidden and much more complex than the accrual-based earnings management related to one-off events. Based on previous research (e.g. Dechow et al., 2010; Francis et al., 2004; Gaio, 2010; Šodan, 2015), earnings attributes such as persistence, predictability, smoothness, accounting quality, value relevance, timeliness and conditional conservatism can be identified.

Methodology

In line with the literature review, this paper aims to answer how research on EM in companies has developed over the last ten years, its focus, what research methods have been used, and where research on EM has moved over the last ten years. Finally, based on the existing research literature, possibilities for future research will be identified. The detailed bibliometric analysis procedure is shown in Figure 1.

Figure 1
Bibliometric analysis procedure



Source: Author's illustration

First, we searched for works to be included in the literature review (Pejic Bach & Cerpa, 2019). Web of Science (WoS) and Scopus databases were selected as data sources. The search was launched on July 19, 2023. The review of research papers was limited to articles (articles and papers published in conference proceedings – published in English from 2013 to 2022) that were included in the WoS categories Business Finance, Economics and Business as well as in the Business, Management and Accounting and Economics, Econometrics and Finance sections in the Scopus Subject area. Books, chapters in books, editorials, reviews, reports and other works are excluded from this study.

The study was conducted over the last ten years, focusing on more recent works. The following keywords were used: "earnings management*" and "accounting*" and "method*" and "financial statement*" and "company*". In the first step, 57 works were found in the WoS database and 20 in the Scopus database, i.e., 77. A manual examination identified 10 duplicates.

The second step concerned the evaluation of relevance, i.e., the contribution. The search results were filtered by the title and abstract of the paper to exclude irrelevant papers. Papers related to banks, mutual funds and other financial institutions are excluded from this research, which deals with the differences in the asset structure of financial institutions and companies, due to the specific asset structure and regulatory framework that significantly impact EM patterns. Papers related to the contribution to other research areas are also excluded from this paper. After the review, 13 papers were excluded. Finally, a sample of 54 papers analysed in this paper was drawn to find a gap and guidelines for future research (Table 1).

Table 1
Identification of a sample of selected papers

Description	Number of papers
WoS	57
Scopus	20
Duplicates	(10)
Papers relating to other research areas	(13)
TOTAL	54

Source: Author's work

VOSviewer (v 1.6.10) was used to visually analyse the institution's network of co-authors, authors/journals/references, journal citation, and keyword co-occurrence (v

1.6.10). It is widely used in various literature review research, such as Pejic-Bach et al. (2024), Barišić (2025), Varona Silva et al. (2024) and Grosu et al. (2022).

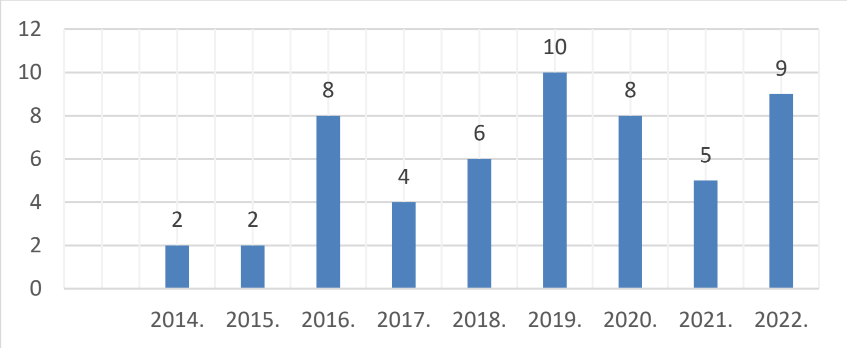
Results

Bibliometric analysis

Between 2013 and 2022, 54 publications (articles and conference papers) on EM in companies were found in the WoS and Scopus databases.

Figure 2 shows the development of annual publications on corporate EM. Before 2016, there were a few papers on EM (2 per year). After 2017, the number of publications grew faster and maintained the trend from 4 to 10 publications per year. Over the last 5 years, the cumulative number of published papers accounts for 70.4% of all publications in the observed period. Given the recurrence of the topic and in line with the trend analysed for the period studied, it is assumed that the number of research papers will continue to increase in the future.

Figure 2
Trend of published works per year on the topic of earnings management in companies



Source: Author's illustration

Research on corporate EM was highlighted in 28 countries worldwide (Table 2). Each country is labelled according to the number of publications. This analysis revealed that Indonesia, China, and Slovakia (6) are the most productive. Followed by Vietnam (5), Iran (4) and Tunisia (3). The importance of the individual articles was determined based on the number of citations from the WoS and Scopus databases on October 31, 2022. Tables 3 and 4 show the top three (3) articles according to the number of citations from WoS and Scopus. The top three countries by total number of WoS citations are Iran (147), Saudi Arabia (126) and Slovakia (118). According to the most significant number of citations in the Scopus database, most works are cited by authors from Australia (32) and China (9 and 6). In the case of several authors from different countries, the work's country of origin is determined based on the corresponding author. The author's interconnectedness (according to 2 or more impressions in published works) is shown in 2 clusters (Figure 3) – one refers to the author Tarighi et al. (2022) and the other to Salehi et al. (2018).

Table 2
Overview of the number of papers published by country

State	Number of papers
Indonesia	6
China	6
Slovakia	6
Vietnam	5

Iran*	4
Tunisia	3
Australia	2
Malaysia* **	2
Portugal	2
USA	2
Saudi Arabia* **	2
Bangladesh	1
Bosnia and Herzegovina	1
Brazil	1
Czechia	1
Chile	1
Egypt	1
France** **	1
Iraq	1
Italy	1
Hungary	1
New Zealand	1
Romania	1
Serbia	1
Taiwan	1
Total	**54**

Note: * Iran – in 1 work, one of the authors from Poland, ** Malaysia – for one work, one of the authors from the UK, *** Saudi Arabia – for one work, one of the authors from Yemen, **** France – one author from Tunisia, another from Saudi Arabia
Source: Author's work

Table 3
The most cited papers in WoS

Authors (Year)	Paper title	Citations in WoS	States of the authors
Tarighi et al. (2022)	How Do Financial Distress Risk and Related Party Transactions Affect Financial Reporting Quality? Empirical Evidence from Iran	147	Iran, Poland
Mgammal, M.H. (2019).	Corporate tax planning and corporate tax disclosure	126	Saudi Arabia and Yemen
Durana et al. (2021).	Does the life cycle affect earnings management and bankruptcy?	118	Slovakia

Note: * one author from Poland, ** one author from Yemen
Source: Author's work

Table 4
The most cited papers in Scopus

Authors (Year)	Paper title	Citations in Scopus	State of the authors
Capalbo et al. (2014)	Accrual-based earnings management in state-owned companies: Implications for transnational accounting regulation	32	Australia
Hu et al. (2015)	Listed companies' income tax planning and earnings management: Based on China's Capital Market	9	China
Liu & Lyu (2016).	Research on methods of IPO earnings management: case of Guirenniao	6	China

Source: Author's work

Figure 3
Clusters identified according to the association of authors

Source: Author's illustration

A total of 57 institutions from various countries represented in published papers on earnings management were included in this analysis. According to affiliation, the top three institutions by number of publications were identified as the University of Žilina (3), Université de Sfax and Imam Mohammad Ibn Saud Islamic University (2) and Ferdowsi University of Mashhad (2). The top-ranked institutions in terms of the number of citations (WoS: Cited Reference Count) are Panjab University (207), Ferdowsi University Mashhad, Rzeszow University of Technology, Islamic Azad (147) and the N8 Research Partnership, the University of Manchester (129), according to the Scopus basis (Cited by) the Seconda Universita di Napoli, Naples, Italy, the Macquarie Graduate School of Management, North Ryde, Australia, the Università "G. d'Annunzio" di Chieti-Pescara, Italy (32), China University of Mining and Technology, Beijing, China; Central University of Finance and Economics, China (9) and School of Management, Fudan University, Shanghai, China (6).

Table 5 lists the most important journals in which the published papers (more than 2) were analysed.

Table 5
Overview of the number of papers published by journals

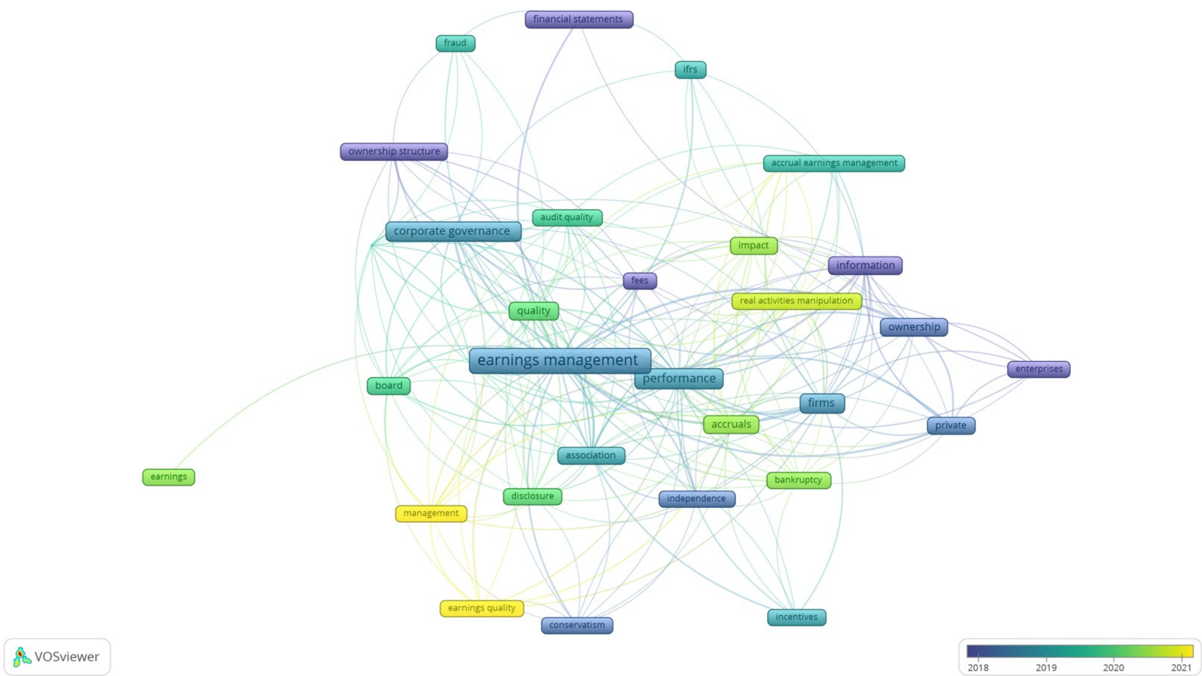
Journal	Papers published
Journal of financial reporting and accounting	4
Equilibrium-quarterly: journal of economics and economic policy	3
Journal of Applied Accounting Research	3
Accounting Research Journal	2
Pacific Accounting Review	2

Source: Author's work

Keywords-based trends – co-appearance analysis

The purpose of keyword analysis is to examine the relationship between keywords in a set of sample papers analysed to discover the themes under investigation and to identify gaps in previous research that could be the subject of future research. Figure 4 shows the visual map of the co-occurrence of the keyword network of the analysed papers. The larger the circle, the more frequently the keywords occur. Of the total 323 keywords, 32 keywords occurred more than three times. The first three most frequent keywords are "earnings management" with 38 entries, "performance" with 15 and "corporate governance" with 12 entries. Table 6 shows the number of keyword impressions and the link's overall strength. According to the results of the cluster analysis, the keywords are divided into six clusters (Table 7): Cluster (1) includes keywords related to the interplay of corporate governance mechanisms and audit quality, Cluster (2) includes keywords related to the impact of earnings management practices on financial stability and audit challenges, Cluster (3) includes keywords related to ownership structure and information transparency, Cluster (4) includes keywords related to earnings management and the reliability of financial statements, Cluster (5) includes keywords related to accruals, accounting conservatism, and the role of management in earnings quality and Cluster (6) includes keywords related to incentives in earnings management (Table 6 and Table 7).

Figure 4
Clusters based on the most common keyword



Source: Author's illustration

The reviewed literature can be thematically divided into two main categories, forming this research's analytical foundation.

Understanding the impact of EM is essential for investors, regulators and other stakeholders to make informed decisions and ensure the transparency and integrity of financial reporting (Category 1 of this research - The influence of accounting and the ability to manipulate financial statements and their impact on performance). On the other hand, effective corporate governance structures are key to maintaining transparency, accountability, and ethical behaviour in the company. Corporate governance can be defined as "...the totality of relationships between the board, management, shareholders and other stakeholders..." (OECD, 2004, p.11), "...the system by which the company is directed and controlled..." (Cadbury, 1992, article 2.5), "...the process by which the organisation's owners and creditors control and demand accountability for the resources they have entrusted to the organisation..." (Ritenberg & Schwieger, 2000), i.e. procedures employed by representatives of the organisation's stakeholders before all management to ensure the monitoring of risks and the process of control (Gramling & Ramamoorti, 2003). Considering the preceding definitions of corporate governance, it could be loosely stated that it means participants or users of financial statements who achieve the organisation's objectives and maintain its values through risk monitoring and assurance activities. A sound corporate governance framework can safeguard against opportunistic behaviour, such as earnings-only management, affecting the accuracy and reliability of the financial information in a particular company's financial statements. Management and audit committees and an integrated system of internal controls within the company play a key role in establishing, maintaining and improving the integrity of the company's financial process. Examining the relationship between corporate governance and the quality of reported earnings shows how companies can promote a culture of reliability and confidence in the disclosure of financial information in their financial statements (Category 2 of this research - The impact of corporate governance on the quality of earnings).

The third category encompasses additional contributions relevant to the research that do not fall strictly within the first two areas but offer complementary explanations or contextual insights.

Table 6
Number of impressions and keyword connection strength

Keyword	Number of impressions	Total connection power
earnings management	38	111
performance	15	81
corporate governance	12	46
firms	10	46
quality	8	41
accruals	8	37
association	5	34
information	6	29
ownership	7	29
private	5	25
audit committee	4	24
board	4	23
internal control	3	22
management	3	22
impact	5	21
audit quality	3	19
bankruptcy	3	19
disclosure	3	19
ownership structure	4	19
real activities manipulation	3	16
earnings quality	3	15
fees	3	14
independence	3	14
enterprises	3	13
conservatism	3	12
accrual earnings management	3	11
incentives	3	11
real earnings management	3	10
ifrs	5	9
financial statements	5	7
fraud	3	7
earnings	3	2

Source: Author's work

Table 7
Identified clusters

Cluster	Keywords
Cluster 1 (9 items)	association, audit committee, audit quality, board, corporate governance, disclosure, internal control, ownership structure, quality
Cluster 2 (7 items)	accrual earnings management, bankruptcy, fees, impact, independence, real activities manipulation, real earnings management
Cluster 3 (6 items)	enterprises, firms, information, ownership, performance, private
Cluster 4 (5 items)	earnings, earnings management, financial statements, fraud, IFRS
Cluster 5 (4 items)	accruals, conservatism, earnings quality, management
Cluster 6 (1 item)	incentives

Source: Author's work

Discussion

Summary of findings

According to Leuz et al. (2003), continental European companies are more inclined to manipulate profits than Anglo-American companies. The trend identified relates to the last 10 years, i.e., 70.4% of the published papers relate to the last 5 years (2018-2022) of the decade examined. Nevertheless, the number of publications on this topic is still lower than, for example, research on applying the concept of fair value in financial reporting, which indicates that more attention should be paid to this area, and researchers from several countries should be included in future research. As mentioned earlier, Indonesia and China are characterised by the most significant publications on EM in the last decade. In contrast, as a general indicator of professional recognition of published papers, the number of citations distinguishes India and Iran. This shows that Asia has been at the forefront of the continent in the last ten years, currently occupying a leading position in this area of research. A few publications and citations from Europe and the USA show that these regions have room for research. This could also be related to a later start of EM research in Asia. It was found that the keywords "earnings management", "performance," and "corporate governance" are the most important keywords in which further research topics can be updated in the future. The research focus areas for each identified cluster are discussed below.

Accounting and manipulation of financial statements

Kothari et al. (2005) propose ROA-compliant models for estimating discretionary accruals for samples biased toward firms with good or poor performance to reduce the incidence of Type I errors. Chen, Chi, and Wang (2015) attempt to diagnose the detection of EM in the biotech industry to determine whether the firm's earnings have been seriously manipulated and find that firms' prior period discretionary accruals play an important role in influencing the serious degree of EM based on accounting accruals. Islam and Ahmad (2011) conclude that information users such as investors, shareholders, creditors, etc., could apply a modified Jones model to reveal EM in Vietnamese listed companies. The study by Cardan et al. (2016) aims to investigate the impact of external financing (equity and debt financing) on the quality of financial reporting in Iran. Using multiple linear regressions on the data of 152 companies listed on the Tehran Stock Exchange for the period 2010-2013, it was shown that there is a positive relationship between the quality of financial reporting based on the principles of the Iranian Board of Financial Reporting Standards and external financing and a negative relationship between the quality of financial reporting and external financing. In addition, there is a negative correlation between the quality of financial reporting and capital financing. In examining cases of false financial reporting that were the subject of published enforcement actions by the Malaysian Securities Regulatory Commission between 1998 and 2012, Lau and Ooi (2016) found that the most common attempts by companies to falsify financial reporting were to exaggerate reported revenues through fictitious sales to fake buyers. The motives for manipulating financial statements include raising capital, unpaid debt and maintaining inflated capital levels. Nica and Ionita (2016) investigate the detection of negative accounting practices in Romanian companies. Reviewing various articles, they identified and described the practice of creative accounting and the impact of creative accounting on the quality and reliability of financial information, as well as possible solutions to reduce the negative impact of creative accounting. An investigation of the relationship between balance sheet values on the balance sheets of Chinese listed companies and susceptibility to fraudulent activities found that other receivables, prepaid expenses, employee benefits payable, and long-term debt are important indicators of false financial statements (Wei et al., 2017). These findings suggest that manipulation is often carried out in the financial statements. Milić et al. (2018), who analysed 1,983 annual company observations in 2009-2013, found that agricultural companies apply EM strategies. Furthermore, they find that profitability and leverage significantly impact the extent and direction of earnings management. They found that reducing profits is observed in firms with higher profitability, while increasing profits is expressed in firms with high leverage and better profitability. The study by Gabrić and Miljko (2018) investigates incentives for accounting manipulation in the financial statements of listed companies in the Federation of Bosnia and Herzegovina (FBiH). By analysing data from 2010 to 2014 using descriptive and inferential statistics, the study results show that incentive contracts are the most common motive for manipulation in financial statements. Mgammal (2019) examines the impact of corporate tax planning (TP) on tax disclosure (TD). Using a sample of 286 non-financial companies listed on the Malaysian Stock Exchange from 2010 to 2012, the results show that TP has a strong positive impact on TD. This indicates that TP is associated with a lower TD of the company. Whether a company can convert inputs into outputs and make a profit is a fundamental question in determining its performance. However, in practice, there may be opportunities for various methods and techniques to influence accounting information, resulting in financial statements losing their function, misrepresenting accounting data, and manipulating profits (Strakova & Adamko, 2019). EM in the Slovak Republic had not been examined in detail before this work. The analysis focused particularly on accrual-based revenue management models, since applying the accrual principle in accounting is at the core of financial accounting. Analysis of the probability of false financial reporting using diamond fraud analysis is done by Yendrawati et al. (2019). Diamond fraud is a concept that explains the factors that lead someone to commit fraud, namely pressure, opportunity, rationalisation and ability (Yendrawati et al., 2019). This research was used to manage earnings and detect the likelihood of fraud in financial statements. Data from manufacturing companies listed on the Indonesian Stock Exchange (IDX) from 2014 to 2016 showed that only the possibility variable approximated by industrial nature has an impact on the detection of the probability of false financial reporting, while other variables have no impact on the detection of the likelihood of false financial reporting. Strakova (2020) explores the choice of the profit model best suited to the V4 countries' conditions. The Visegrad Group (a.k.a.

Visegrad Four, V4 or European Quartet) is a cultural and political alliance of four Central European countries: the Czech Republic, Hungary, Poland and Slovakia. In terms of income management, the selection of profitable models led to the identification of the most suitable models in V4 countries according to the form of income management and the variables of individual profit models. In the context of the issue of EM, the work of authors Poradova and Kollar (2020) pays greater attention to techniques such as “cookie jars reserve”, “big bathing”, “big bet for the future”, “washing out”, “delete problematic child”, “change accounting” and “operational about non-operational income”. The relationship between profit and cash flow is analysed for a Slovakian company. The result of this work is a comprehensive overview of the possibilities of using alternative EM techniques.

The quality of earnings is linked to the issue of EM, as earnings management is likely to reduce their quality (Duarte et al., 2020). This research concludes that high earnings quality usually positively affects a company's operations, as investment and financing decisions are based on accurate information. Similarly, using EM practices or other techniques that reduce the quality of earnings increases the likelihood of financial difficulties, as future decisions may not be accurate, and the company's financial picture may differ from that presented in the financial statements themselves. Errors in accounting may be intentional or unintentional. They can also impact the quality of earnings and, therefore, the ability to manage earnings. Unintentional errors may appear less serious but can have a similar impact on the financial statements as fraudulent activities, i.e. intentional accounting activities. Papik and Papikova (2021), using the classification method, regression tree (decision tree) and correlation analysis between variables in a sample of 80 selected international companies, have demonstrated that intentional accounting errors can be detected with high accuracy based on financial ratios. In creative accounting, the primary goal of any company is to increase and strengthen its market position (Durana et al., 2022).. "Revenue management and creative accounting are closely interrelated, and revenue management can be considered as a component of creative accounting."

While EM focuses on manipulating earnings through timing and delays, creative accounting often involves non-existent, i.e. apparent, transactions in addition to income management. In essence, the practice of EM can be applied in creative accounting. In contrast, creative accounting encompasses a broader range of practices that may involve manipulating various aspects of financial statements beyond the actual earnings. However, regardless of the differences, since the inception of standard accounting practices and the lack of a code of ethics, both practices can undermine transparency and stakeholder confidence in financial reporting, which is intended to reflect a company's financial situation, which often does not reflect accurate economic reality. This paper aims to uncover creative accounting practices in a sample of Slovak companies from the agriculture, forestry and fisheries sectors by using the Beneish model to calculate the manipulation of company financial statements. It has been shown that the companies in the analysed sector use the possibilities of manipulating financial statements. Tarighi et al. (2022) look at the impact of risks of financial distress and related party transactions on the quality of financial reporting in emerging markets such as Iran. They conclude that companies in financial distress have a poorer quality of financial reporting as they try to manipulate other stakeholders regarding the actual business of the company in order to attract a larger number of investors and lenders. Sánchez et al. (2022), using a sample of companies from 19 European countries over the period 2000-2012, use the regression method to analyse companies that were required to adopt IFRS and a control sample that includes companies that voluntarily adopted IFRS before 2005.

They find that the mandatory adoption of IFRS has increased the absolute value of accruals. Capalbo et al. (2014) examine EM for a large sample of unlisted state-owned and public Italian companies. The authors use a regression analysis to estimate variables that predict irregular accruals, including company size, debt and profitability. The study finds no evidence that the extent of state ownership is positively correlated with imputed profit management. Hu et al. (2015) examine the relationship between corporate tax planning and EM in Chinese listed companies. When a company is motivated to turn losses into profits and avoid the criminal costs associated with fraud detection, the company prefers to adopt more coordinated EM strategies. The EM signs that exist in GRN through the analysis of its financial statements compared to others from the same industry are tested by Liu and Lyu (2016). Guirenniao (China) Co. Ltd. (abbreviated GRN) is one of the companies in the group of listed companies that suffered a decline in impact in 2014, taken as an example to analyse how it managed earnings before the IPO (re-launch of new IPOs). The paper uses a modified Jones model to detect accounting EM and build three models: abnormal levels of corporate cash flows, abnormal production costs, and abnormal discretionary costs, all to detect actual EM. This paper finds that GRN has managed earnings through accounting and actual activities. Suryani (2016) makes an important contribution to developing the theory of conservatism of financial statements. The study aims to determine the impact of conservative financial reporting on the response coefficient on earnings and EM in manufacturing companies in Indonesia for the period 2007-2011. The research results showed that the conservatism of financial reporting has a significant positive effect on the coefficients of response on earnings and a negative effect on EM. Foreign exchange losses can be a significant burden for companies whose liabilities are denominated in foreign currencies. Using a sample of 200 listed companies on the Indonesian stock exchange, Christiawan and Rahmiati (2017) examine the actions of the foreign exchange losses model (FEL), which provides a method for detecting EM. The results show that the FEL model can detect the management of transaction earnings in exchange rate losses.

Although EM is one of the fundamental problems in financial accounting research, previous literature focuses on the management of earnings based on the occurrence of events. It pays less attention to the management of actual earnings, which is more hidden and complex than the management of earnings based on the occurrence of events (Bin et al., 2019). This paper emphasises that listed companies often use the existing literature on the management of actual earnings as the research subject, which relies on analysing consolidated financial statements. This approach potentially assumes homogeneity between parent companies and their subsidiaries within listed companies. It thus neglects geographical and institutional differences between the parent and subsidiaries that may lead to the management of actual earnings. Using a sample of Chinese listed companies from 1998 to 2013, this study's results show a significant positive relationship between the distance between the parent company and the subsidiaries and the management of actual earnings, while good corporate governance hurts this relationship. Furthermore, the distance between parent and subsidiary was shown to hurt firm values, and there is a sizeable intermediate effect of management of actual earnings on the relationship between the distance between the companies – parent and subsidiary - and firm values. This study confirms the influence of the geographical distance between parent and subsidiary and the distance of the institutional environment between parent and subsidiary on the management of actual earnings.

Corporate governance and earnings

Lode and Napier (2014) conclude that managers are likely to be more motivated to make an accounting choice to equalise income when firm size and interest coverage are large, while a more variable full accounting policy is more likely to be chosen when firm size and interest rates are small. These findings support the argument that the retention of options in IFRS may work to the detriment of key stakeholders, particularly investors, by providing opportunities for EM. The aim of the study (Al-Thuneibat et al., 2016) is to investigate how Saudi public companies comply with the corporate governance guidelines set by the Capital Market Board and how this affects their EM. A questionnaire was used to collect data on Saudi public companies' compliance with corporate governance guidelines. At the same time, discretionary accruals (DA) were calculated based on the financial statements of these companies using a modification of the Jones model. A multiple regression was then performed to examine the relationship between the different variables. The study results show no statistically significant linear relationship between the mean discretionary accrual (DA) and corporate governance. In addition, the influence of internal audits, audit committees, and the board of directors on EM was not statistically significant. Nevertheless, the results indicated a slightly negative impact on the scope and independence of internal audits and the independence of the audit committee on discretionary accruals. The authors point out that this research is applied to Saudi Arabia, a Middle Eastern country with specific characteristics and context, so it is crucial to interpret the results in this specific framework. Neifar et al. (2016) investigated the motivation for EM and the degree of financial aggression in 100 large, publicly listed companies in the NASDAQ-100 following the 2007 financial crisis. The authors use a panel data model to analyse the effects of four variables (corporate governance structure, CEO remuneration, Executive Director characteristics and audit fees) on EM and levels of financial aggression. Research findings indicate a significant impact of corporate governance structure, CEO remuneration, personal characteristics of CEOs, and audit fees in reducing EM and financial aggression. The authors suggest that more experienced (older) executives use fewer EM strategies and financial aggression. The purpose of the study (Muttakin et al., 2017) is to analyse the moderation role of audit quality in the relationship between corporate membership and EM in the South Asian emerging economy – Bangladesh. The methodology involves using a sample of 917 observations of companies listed on the Dhaka stock exchange between 2005 and 2013. The results reveal a positive link between the level of discretionary demarcation and the status of belonging to a business group. However, this link decreases in the presence of a good audit. This indicates that environments with less investor protection and complex ownership structure allow controlling shareholders to take advantage of the situation towards minority shareholders.

Previous literature on income management indicates managers are motivated to adjust the reported income to serve their interests and influence capital markets. However, previous research failed to provide adequate theoretical support and ignored the impact of cultural and environmental factors on shaping managers' motivation (Makhaiel & Sherer, 2017). Therefore, this research aims to apply interpretative methodology and the theory of new institutional sociology (NIS) to analyse external factors that encourage managers of Egyptian companies to apply EM to manipulate financial reports. The paper empirically confirms the spectrum of external determinants that encourage Egyptian corporate executives to adjust the displayed earnings in their financial statements. These external influences include the expectations of investors, lenders and employees, the impact of listing rules on the stock exchange, exceeding the target profit and privatisation of key state-owned enterprises. Including socially responsible activities in annual reports will improve the reliability of financial information for users of these reports. A company providing more comprehensive information about its activities will be less prone to manipulation of EM (Christina & Alexander, 2019). The study's results on 94 non-financial corporations listed on the Indonesian stock exchange from 2014 to 2016 show that corporate governance has no impact on EM, and corporate social reporting hurts EM.

Given the critical importance of net profit to the various stakeholders, management resorts to deliberately influencing and manipulating reported profits through actual or accounting methods. This can be done within or outside the accounting standards and policies framework to achieve specific goals and desired outcomes. Jabbar (2018) examines the extent of EM practices in Iraqi companies and the risks associated with them by identifying the nature of these processes and their indicators, the methods used in practice and their effects, and highlighting the effective role of the accounting profession in reducing EM practices, which contributes to improving performance and reduces EM practices. The research results have shown no significant correlation between the presence of institutional ownership and the performance of Iranian companies. Salehi et al. (2018) analysed the relationship between the characteristics of the audit committee and the board of directors and the profitability of companies listed on the Tehran Stock Exchange in Iran. Although there is no significant correlation between the audit committee's size and the company's financial impact, the study results show a positive and significant relationship between the expertise of the audit committee in financial matters and profitability. However, the results indicate a positive and significant correlation between the presence of outside directors on the board (indicating board independence) and profitability at a 99% confidence level. A seasoned equity offering (SEO) may be one of the motivations for managing returns. Jerbi Maatougui and Halioui (2019) review in their study how the presence of outside blockholders affects EM in the context of a seasoned equity offering. Considering that seasoned equity offerings can promote EM, the researchers analysed the role of external blockholders in monitoring managers' opportunistic behaviour across about 50 SEOs conducted by 45 French companies between 2005 and 2009 using a panel data model. The results show that firms preparing for a seasoned equity offering adopt EM strategies to enhance returns during pre-issuance. Discretionary accruals fluctuated continuously in the three years before the seasoned equity offering and peaked in the year before the offering itself. According to De Morais et al. (2019), when considering the absolute value of discretionary accruals as a proxy for EM, the results suggest a positive relationship between the regulatory environment and earnings manipulation. It is hypothesised that the regulatory environment in which firms operate impacts the information quality of published financial statements, as regulators increase incentives to produce high-quality financial statements by monitoring information. Deng (2019) finds a new perspective for external users of financial statements to observe goodwill impairment and helps them better understand managers' opportunistic motivations to accumulate goodwill impairment. Evidence shows a correlation between a higher proportion of forfeited incentive compensation, a higher probability of goodwill impairment, and a higher amount of such impairment. In situations where companies experience market pressure on return on capital and financial pressure from debt, the signalling effect of the obligation to compensate for the effect on goodwill impairment is weakened.

Factors such as board independence, board experience and profitability have a positive relationship with the timeliness of the financial statements, while the type of financial statements, duality of the CEO (which refers to the situation when the Chief Executive Officer also holds the position of Chairman of the Board of Directors), foreign ownership and leverage have a negative relationship with the timeliness of the financial statements (Tri et al., 2018). Homolo and Pasekov's (2020) research shows that managerial pressure influences the quality of accounting information, as in other studies. This paper aims to identify factors that contribute to the occurrence of misstatements in the preparation of financial statements under IFRS. It has been shown that IFRS alone does not influence the occurrence of misstatements in financial statements, which is contrary to previous studies. The results show that although misstatements in financial reporting do not occur regularly, a statistical dependency between the occurrence of misstatements and the average extent of misstatements can be demonstrated. A study by Firmansyah and Saksessia (2020), which examined a sample of non-financial companies listed on the Indonesian stock exchange for the period 2012-2016, suggests that bonuses are negatively related to the quality of earnings. Debt financing is positively related to the quality of earnings. Tax avoidance is negatively related to the quality of earnings. Corporate governance is unrelated to earnings quality and does not mitigate the impact of bonuses on earnings quality. The study's results (Ben Ahmed et al., 2021) show that companies with a considerable audit committee size have a significant degree of accuracy in profit forecasting. Using a sample of 33 initial public offerings (IPOs) of companies in Tunisia conducted between 2011 and 2015, the corporate governance mechanisms and their impact on the accuracy of profit forecasts were examined. In addition, the auditor's brand name positively influences the accuracy of profit forecasts in IPOs. Denich (2021) measures earnings quality using the change in total accruals divided by total assets, considering a sample of companies in Baranja for four years between 2016 and 2019. The quality of earnings is assessed based on the change in total discretionary accruals relative to total assets, considering the four years between 2016 and 2019. A negative value of the total discretionary accruals can be observed during this period. These results suggest that managers have made decisions that have progressively reduced the impact on company profits.

The passage of the Sarbanes-Oxley Act (SOX) in 2002 in the United States is a response to a series of accounting scandals, including Enron in 2001 and WorldCom in 2002. Researchers initially examined the determinants of EM based on calculations following the core work of Jones (1991). However, after the passage of SOX in 2002, research on the determinants and consequences of real earnings management (REM) has multiplied (Habib et al., 2022). According to Roychowdhury (2006), REM is defined as a deviation from standard operating practice motivated by managers' desire to keep at least some stakeholders believing that specific financial reporting objectives are being met in the normal course of business. Examples of REM include overproduction to reduce the cost of goods sold and cutting back on research and development investment to increase profits in the current period. Managers increasingly use REM, especially in the post-SOX era, as auditors and regulators have more opportunities to detect accrual earnings management (AEM) (Cohen et al., 2008). The study by Purba et al. (2022) aims to test the propensity for EM strategies versus business strategies. The results of a sample of 262 manufacturing and service sector companies listed on the Indonesian stock exchange for 2019 show that business strategy significantly impacts EM strategy preferences. Companies pursuing the cost leadership strategy tend to use the AEM rather than a tangible form of earnings management (REM). Companies pursuing a differentiation strategy, on the other hand, tend to use the REM. This study helps auditors and financial analysts assess the quality of financial statements and the risk of misstatement based on the company's business strategy.

Nguyen et al. (2022) examine how board characteristics influence the reliability of financial reporting. Using a sample of 747 listed companies between 2008 and 2020, hypotheses are tested using quantitative methods. The results show that the frequency of board meetings, the competence of management and the independence of management positively influence the reliability of financial statements. On the other hand, board duality hurts the accuracy of the financial statements. Based on these findings, the study recommends developing an appropriate corporate governance system to improve the accuracy of financial statements of companies listed on the Vietnam Stock Exchange. Research findings (Nguyen, Ngo & Le, 2020) have shown that company characteristics, stakeholder pressure and economic environment have a positive relationship with the risk assessment of material misstatements. In particular, the company's characteristics and the information system, which are elements of internal control, have the most significant influence on risk assessment. On the other hand, the assessment of internal control plays an important role not only in the audit plan phase, but also in all phases of the performance and completion of the audit. Therefore, appropriate solutions are proposed for implementing all phases of the audit. The objective of the work of Rashid (2020) is to investigate how the presence of professional auditors in the top management team affects the quality of financial reporting in public joint stock companies, using Bangladesh as a context since it is a developing economy. The study shows that professional accountants in the top management team are positively and significantly associated with the quality of financial reporting. The results also show that the companies in the sample disclosed better information regarding improvements in qualitative characteristics than in the category of essential qualitative characteristics.

Other contributions

Evidence from the study by Xu et al. (2018) shows that auditors report more conservatively in response to aggressive manipulation of real-world activities (RAM). This study finds a significant and positive association between RAM and the likelihood of obtaining a going-concern opinion in a sample of companies in financial distress, suggesting that the client's unusual business activity influences the conservatism of the audit report. The advent of IFRS has triggered several streams of accounting research that can be summarised into four main categories: (1) comparison of ratios based on IFRS and national GAAP, (2) whether IFRS are implemented similarly in countries with different cultural, legal and accounting systems, (3) measurement of the (intended/unintended) consequences of mandatory IFRS adoption, and finally (4) IFRS issues such as EM and differences in accounting quality (adapted from Zeller et al., 2019). Based on an analysis of IFRS-based financial statements from 84 countries in 2011-2015, taxonomies of financial attributes covered by IFRS-based financial measures were discovered. This study confirmed that IFRS-based measures are consistent and comparable despite the differences between countries that have been shown to affect the application, interpretation and use of IFRS (Zeller et al., 2019). In financial accounting and analysis, absolute abnormal accruals refer to excesses or deviations from normal accruals that a company reports in its financial statements for a given accounting period. Accounting adjustments are made to recognise income and expenses when they occur rather than when the cash flows occur; they are a fundamental part of accrual accounting and are used to reconcile income and expenses to the periods in which they were earned or incurred. Li et al. (2019) set out to investigate the impact of changes in audit reporting on audit quality and audit fees in New Zealand. The authors examined audit quality, measured by absolute abnormal accounting accruals and audit fees for listed New Zealand companies. The results suggest that improved audit reporting was associated with improved audit quality, as approximated by a decrease in absolute abnormal accruals following new audit reporting requirements.

There is a growing need to promote information sharing in financial statements, support regulatory policy reforms, audit industry quality development and capital markets. Yu (2020) examines the relationship between earnings management and audit costs, analyses audit pricing as a function of the extent of EM, and further addresses the role of audit firms in adjusting this relationship. The results show a significant positive correlation between the extent of EM in listed companies and audit costs. The research subject (Ben Ahmed et al., 2021) analyses how audit quality affects managers' preferences between actual and AEM in oil and gas companies in the Gulf Cooperation Council member countries. The results emphasise that firms in the sample can substitute EM strategies and tend to shift from AEM to REM when audited by an industry expert. Regulators and users of financial reports should be informed that oil and gas companies use the REM strategy even if a high-quality auditor has carefully audited the financial statements. This shows that additional caution is needed when conducting audits or analyses of financial information in this sector. Serra Coelho (2022) examines the EM practices of Portuguese municipal firms (MF), a special type of public sector company. The results show how Portuguese MFs manage their earnings to report small and positive net earnings and avoid disclosing losses. Abdi and Soroushyar's (2025) research aims to analyse how anti-money laundering regulations affect both accrual-based earnings management (AEM) and real earnings management (REM) in Iran's emerging capital market. The results show that compliance with AML regulations leads to a decrease in AEM and REM, i.e., firms that engage in money laundering have a more challenging time managing their earnings, which is consistent with agency theory. The earnings covenant in the acquisition agreement is a financial covenant often used to bridge the gap between the buyer's and seller's valuation of the business being acquired. It is usually used when the two parties disagree on the company's future impact or potential value. According to Prencipe and Viarengo (2022), the level of management of the acquirer's past earnings is negatively related to the likelihood of including earnings in takeover agreements. This link is stronger when the bidder has no prior acquisition history and is resilient to other external oversight mechanisms with different EM and control measures. In their work, Nguyen et al. (2022) examine the correlation between conditional conservatism and the deviation of the first digits of financial statement items from what is expected according to Benford's law. Benford's law is, at first glance, an illogical rule and consequence of logarithmic data distribution. Essentially shows that the probability of a digit appearing in a set of different numbers is not the same for each digit; thus, approximately one third of the data will start with digit 1, while the probability of other digits appearing will be the smaller the higher the value of the digit (Kovačić and Matejaš,2018). The results show that conditional conservatism positively correlates with deviations from Benford's law. The authors find that the association between deviations from Benford's Law and conditional conservatism is more potent for firms issuing debt and for firms experiencing financial difficulties. This is the first study to provide empirical evidence that contingent conservatism may be a source of deviations from Benford's Law. The results have important implications for auditors, who should be aware of the possibility of false identification of significant misrepresentation when applying Benford's Law as a risk assessment tool. While conditional conservatism and EM are also associated with deviations from Benford's Law, conservative tendencies may indicate lower audit risk.

Conclusion

This article provides a comprehensive overview of the most important research work of the last ten years in corporate EM. Based on an analysis of the available work, the following conclusions can be drawn.

First, although the legal framework for accrual EM has brought significant changes to accrual EM, such as the introduction of SOX in 2002, there is still insufficient academic focus on researching the factors that shape real earnings management and the consequences of this management. Second, managers are increasingly motivated to implement real income management in corporate practice, which represents a shift towards this strategy compared to the traditional accounting approach. Third, a large body of research examines the complex relationships between EM and various key stakeholders in corporate governance, including investors, internal auditors and board members. Fourth, various factors, including cultural, legal, accounting, geographical, and institutional variables, have significantly impacted the EM process. Fifth, it is noted that over the past decade, more significant research has been conducted on analysing the consequences of EM and the factors that shape the EM process itself.

Unlike accrual earnings management, accurately measuring and gaining a deeper understanding of actual EM remains difficult. These challenges are partly due to the stricter regulatory restrictions associated with accrual earnings management, favouring the increasing use of actual EM in practice. In light of these conclusions, prospects for future empirical research are opened to help fill gaps in existing research on EM in the corporate context. This paper's conclusions suggest that EM remains a topic worth exploring.

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