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The Growth of Research in Earnings Management Phenomenon

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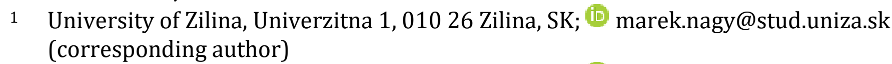
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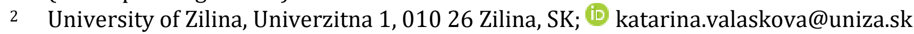
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Abstract: The practice of earning management is the use of accounting methods to create financial statements that favourably portray a company's operations and financial standing. The issue of earnings management is theoretically defined in the paper from two angles - theoretical and visual analysis. The paper offers various sources and different earnings management-related elements at the theoretical level. The objective of the paper is to outline the most recent developments in the research field of earnings management, which is a subset of a larger collection of ideas, including financial fraud, employee incentives, and governmental laws to reveal the effects and consequences these practices may have on. The stakeholders and capital market. By expressing the publishing activity in the scientific section of Web of Science over the span of 67 years, the visual portion is also presented using bibliometric analysis- a method for exploring and analysing large amounts of scientific data. The accepted outputs are also particular instances of companies with a history of deception, understood in terms of their revenue report. The theoretical level for the idea of earnings management, as well as a visual comprehension of the significance of this earnings management issue, are presented in a long-term horizon to declare and underline the importance of the research issue in corporate practice.

Keywords: earnings management; profit; accruals; bibliometric analysis.

Introduction

All businesses are thought to be primarily focused on making money, and this idea forms the basis of all economic classes and subcategories (Durana et al., 2022). Businesses need and want their operations to function smoothly, which entails consistently making a profit above break-even. However, it should be highlighted that this is not always the main objective; instead, companies must concentrate on increasing their market value (Cao & Zhang, 2020). For other industries, profit also serves as a powerful barometer and signifier that may be applied, for example, to decision-making. As declared by Gajdosikova, Valaskova and Durana (2022), the primary goal of earnings management is to demonstrate that the chosen firm is doing well, even if this may not always be true.

Earning management is mostly based on the calculation of accruals, both discretionary and non-discretionary, and economic performance metrics (Michalkova et al., 2021). As stated by the authors, the negative impact of tax sub-points must also be considered when discussing earnings management. The topic of financial fraud as a whole, as well as earnings management specifically, is of great interest to both the general public and specialists (e.g. Svabova et al., 2020; Kliestik et al., 2022)Particularly towards the start of 2000, with the major financial scandals involving Enron, WorldCom, Parmalat, Adelphia, and others, interest in this topic intensified. Financial crime is once again receiving more attention at the moment, mostly for two reasons. The first is the fading global economic crisis, as off-cycle times are when there is a higher danger of results manipulation and other types of financial crime. Secondly, earnings management, as previously said, may be

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thought of as the use of numerous accounting procedures, the main goal of which is to create financial statements that show the company's operations and financial status in the best possible light. Financial statements are made to raise or decrease business income, and since many accounting policies require business managers to make decisions, for this reason, the operational result keeps track of how accounting policies might be applied (Kovacova et al., 2022). Although determining an ideal capital structure is challenging, it is essential for corporate success when paired with earnings management (Belas et al., 2018).

With a focus on the historical evolution, this paper examines key ideas connected to the issue of earnings management. It also informs about the most recent outputs that define and interpret this research phenomenon. To comprehend the purpose of executing earning management as well as its potential drawbacks, it is also necessary to have a fundamental understanding of various areas of earnings management, particularly at the criminal and legal levels.

The content of the paper is an overview of information gathered from the most important academic articles and monographs, with a particular emphasis on the journals indexed in the Web of Science database using bibliometric analysis. By looking at all the publications associated with a certain topic or field, bibliometric analysis is a scientific computer-assisted review process that may find key authors or pieces of research as well as their relationships. It is a useful approach to gauge the impact of publications on the scientific community. Building bibliometric networks using information from a variety of open data sources are supported by VOSviewer, which was used to analyse the data in this study.

The paper is divided into two sections. The first part employs conventional deductive, synthesis, and comparing procedures to achieve the intended theoretical result. The second section presents analytical methods that include a graphical comparison of provided data from accessible scientific sources. The reader will comprehend the expanding significance of earnings management and receive an outline of the majority of publishing nations on this subject in this section, along with keywords that describe the complexity of the entire issue.

Literature review

The aim of the first part, dubbed theoretical analysis, is to theoretically explain the notion of earnings management and chronologically arrange the most pertinent sources for this subject. As was already indicated, the paper is divided into two hypothetical sections. This section's information is drawn from a number of earnings management angles, including criminal, inspirational, and legal ones. Only the most pertinent sources and information are used in all theoretical analyses. The second section consists of a fictitious visual study. This section of the study provides a visual representation of the volume of earnings management publications, especially in the Web of Science scientific database. It also provides an example of how to use the VosViewer programme to track the complexity of all keywords that are fundamental to the earnings management issue and are strongly linked to it.

The work by Hepworth (1953) which dealt with the cyclical equalisation of salaries, can be regarded as the historical first reference of earnings management. He addressed several equalisation techniques that may be used to carry over net profit to a subsequent period, but he paid little attention to how to detect profit shifting in the first place. The use of graphical plugins to express time series is one of the first techniques for earnings management detection. In his line of work, Gordon (1964) watched how management chose their accounting practises as well as the reporting guidelines that ensured the

reported profit was equalised. The result was a curve that displayed the calculated profit using both methods—one that excludes the dependent variables and one that includes them. The profit adjustment was a result of transactions on the account when the variances during the observation in the second example reached lesser amounts. The author Archibald's (1967) aim was to determine how and why a group of 55 businesses departed from the approach of accelerated depreciation in favour of equal depreciation due to money and taxes. To evaluate the equalisation of profit, the author Meyer (1966) dedicated himself to identifying the idea of earnings management from the perspective of mathematical modeling. The chosen variable, investment credit, served as both the technique and the test subject for the firms' attempts to control earnings management. They also developed a double-exponential equaliser, which they used to verify the selected criteria; however, this technique produced more mistakes than it removed, leaving open the issue of whether to accept or reject their hypothesis. When examining the presence of earnings management, the author Copeland (1968) adopted an empirical perspective, employing more than one variable that he discovered via further research into financial accounts and reports. He took into account three successive periods, defining the overall break-even profit for each as the accumulation of the net profits from the preceding periods.

The first author to demonstrate the actual reality of profit equalisation was Beidleman (1973). This balance occurred in the circumstances of American businesses. He asserted that the trend component may be distinguished from the cyclical and random components of the time series using classical decomposition.

Healy (1999) addressed the issue of detecting earnings management from the perspective of mathematical modelling of total discretionary accruals (temporary differentiation of the economic outcome), which employs ordered data in time series. the author carried out his comprehensive research as an estimation of discretionary accruals, which included an estimation of earnings management. This model does not account for non-discretionary accruals occurring during the estimation period, or the time frame in which earnings management is not anticipated to happen. DeAngelo (1986) added an accrual from the prior quarter to Healy's model. The presence and estimation of non-discretionary accruals in the normal period are not presupposed by this approach. DeAngelo's model was enhanced by McNichols et al. (1988) who used discretionary accruals as a measure of earnings management behaviour rather than total accruals. Jones (1991) utilised accounting statements to quantify normal total accruals, also known as non-discretionary accruals, in the estimation period and then used those figures to compute coefficients. She calculated the anticipated non-discretionary accruals using the computed coefficients in the same model during the event period, or during the time when earnings management is anticipated to occur. According to Graham, Harvey and Rajgopal (2005), the earnings management approach for handling discretionary accruals is the most popular type of earnings management since it is among the easiest, least expensive, and hardest for receivers of financial statements to understand. According to Gunny (2010) who coined the phrase actual earnings management, it entails modifications to a company's core functions and activities to boost profits during regular business times. Eldenburg (2011) conducted their earnings management study in non-profit settings, where they were able to establish the reality of actual operational choices made with the intention of manipulating profit. In response to the poor performance of pre-existing linear regression-based models, Hoglund (2012) developed a different approach to earnings management detection based on non-linear accrual principles. Self-organizing map models, multilayer networks, and generic regression are primarily neural networks. Due to the study findings, he views models based on linear regression as the poorest models (Kliestik et al., 2020). Businesses manage their earnings with the intention of managing potential profit fluctuations and presenting the greatest economic performance within the monitored time (Siekelova et al., 2020). Profit fluctuations can be seen as a normal aspect of business management; nevertheless, excessive, and frequent variations should be taken into consideration because they may unnerve investors who prefer a consistent approach to business (Khanh & Thu, 2019). Earnings management may be classified into two

categories: real and accrual. Both include employing the right operational decisions to manage earnings in a way that affects cash flow from operating operations. Real earnings management, also known as economic earnings management (REM) (Qizam, 2021; Virglerova et al., 2020) is the term we use to describe this type of earnings management. The second option is the accrual adjustment made as a result of reaching the chosen profit level. This strategy, which may be interpreted as accounting management of profit, is known as accrual-based earnings management (AEM) or accounting earnings management. This form's sources include accounting laws, principles, and standards (Kramarova et al., 2014).

Real earnings management, which is often impacted by the company's cash flow (Grofcikova, 2020) is another distinction made in the professional literature in addition to accrual revenue management. Earnings management has a key role, particularly in terms of how well businesses function economically, avoid insolvency, or maintain overall financial health (Fialova et al., 2020; Beuselinck et al., 2018). In their works, Beyer, Guttman and Marinovic (2018) examined earnings management and made forecasts about the time series of earnings characteristics and reporting bias. They conclude from their findings that the model empirically distinguishes two aspects of investor uncertainty (Bin et al., 2018). The manager and investors have an information imbalance owing to reporting, which is fundamental economic uncertainty. Bilan, Mishchuk, Samoliuk, and Mishchuk (2020) suggest that when anti-takeover laws are adopted, the information environment will improve, as seen by a reduction in information asymmetry and a rise in the formality of financial statements, which will have an exogenous impact on the company's control of the market (Skalicka et al., 2018).

The study makes the assumption that firm managers have a low degree of engagement in earnings management procedures but a high level of involvement in earnings manipulations, which managers view as more urgent (Salaga et al., 2015; Tulyakova et al., 2019).

Crime side of earnings management

As was already noted, financial fraud or financial crime, in general, includes earnings management practices. This type of criminal activity is frequently referred to as white-collar crime. As it may seem from the most publicised fraud instances from this period, financial crime did not emerge until the turn of the century. Edwin Sutherland (1939) began researching financial crime around the end of the first half of the 20th century. He also coined the phrase white-collar crime for it. Because it is not a crime connected to poverty or other social, physical, or psychological disorders, financial crime is a highly unique type of crime. Most of the time, it is not even an affective or passionate crime, it is typically more deliberate and lasts longer. Agustia, Muhammad and Permatasari (2020) defined white-collar crime as a crime committed by a person who enjoys a high position and reputation within their trade. Due to the intricacies of financial crime and how it differs from regular crime, there are three key factors that influence whether someone commits fraud or a crime. The so-called fraud triangle has these elements. The graphic on the next page displays the fraud triangle (Figure 1).

All three of the elements—opportunity, pressure (or incentive), and rationalization—are crucial parts of any fraud or financial crime. It is essential that the third component, rationalisation, exist since this activity is often done by persons of high standing (i.e., not pathological criminals), and it is also premeditated. Here, rationalisation is seen as a component of the analyst's justification and defence of the action. Because those who perpetrate this kind of crime are not pathological criminals and must rationalise their acts and persuade themselves that there is no fundamental wrong with them because they would not have done anything wrong, fraud seldom happens without rationalisation. Another factor is the opportunity, which typically results from a person's standing in the organisation or in society at large as well as the sort of work they do (Agustia et al., 2020). The final component is the pressure or drive to conduct fraud or criminal activity. Basic

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motivational theories include: the interplay theory, rational decision-making theory, the doctrine of self-control; the theory of loss or breach of trust, the theory of the American dream, and the theory of the culture of rivalry or competition. These ideas, which are broader in nature, explain the pressure placed on managers or workers as well as what drives them to engage in financial crime and fraud.

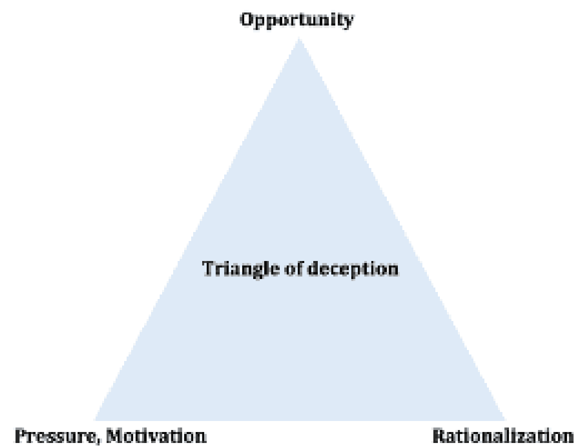

Figure 1. Fraud triangle diagram
Source: own processing

The most significant business examples of financial fraud and profit manipulation will be discussed and scrutinised in this subsection. The case of financial crime that has received the greatest attention and charting is Enron.

Enron is arguably the most well-known instance of financial crime and deception. In order to make itself more appealing to investors, according to material from Altman (1968) Enron initially started to smooth results. Managers eventually developed fresh and inventive methods for modifying and smoothing out earnings. All traders now have to make and exceed profits as their primary objective.

Even though they did not provide actual cash flow, individual traders were encouraged and pushed to conduct deals that were designed to generate paper profit. However, such transactions might be exceedingly harmful and come with a high degree of long-term danger (Balasubramnian et al., 2019). The corporation set a very high-profit bar for itself as it earned more and more. Furthermore, this level kept rising since it was a level that everyone would eventually reach and surpass. At the same time, the market's (or, more specifically, analysts') expectations climbed at the same rate, and each stated result had to surpass them. An even more extreme variation of adjustment of earnings and accounting books started as the market condition deteriorated and the firm could no longer develop realistically. Enron established a network of dummy companies to guarantee higher profitability and lower debt levels. Special purpose entities (SPEs), or businesses established for a particular purpose, were employed. The three most notable ones were LJM (Lea Jeffrey Matthew – wife of *Enron* CEO), limited partnership CHEWCO (Chewbacca – Star Wars character), and JEDI (Joint Energy Development Investment). The second section of the process is determining the extent of earnings management used by the firm, particularly in relation to specifically constituted companies. In the end, the Enron case turned out to be one of the worst corporate financial frauds ever as a result of the inevitable fall (which was exacerbated by covenants and equity-backed bonds that automatically became payable when prices fell below a particular threshold). Balasubramnian, Pavlia and Patro (2019) emphasised the intriguing fact that there is a relationship between Enron's unethical business practises. Enron not only participated in widespread illegal earnings management, but it also instructed and coached other businesses to follow its lead. The declared values of both parties were adjusted through the employment of shell firms in swap activities. Even personnel who was solely in charge of these activities worked for the company.

The telecoms business *WorldCom* is just another instance of earnings management resulting in blatant financial fraud (Charitou et al., 2007). The way the problem has evolved is strikingly similar to how Enron operated. To increase its investor appeal, WorldCom first used a minimal type of earnings management (i.e., merely a minor and harmless smoothing of results). However, the business's management subsequently established a distinct and excessively ambitious goal: to become the biggest corporation listed on the American stock exchange. The corporation then developed a profit obsession and started using more aggressive techniques for modifying and smoothing out earnings. Similar to Enron, WorldCom engaged in extensive financial fraud as the market and industry experienced a slump, and it grew to be one of the greatest instances of corporate financial fraud. In the part that follows, further concrete motivations relating to the problem of earnings management are covered.

Motivation side of earnings management

The motive behind earnings management is a crucial component. The inference made above from several definitions of earnings management implies that it is an intentional action taken by managers or other internal employees. Therefore, a clear reason for engaging in such an action is required. Dattam Iskandar-Datta and Singh (2013) stated that one of the primary factors preventing reductions in reported profits is the company's own annual reports' overemphasis on profit growth. The remarks from the annual reports of many international corporations that highlight that raising profits is the primary yearly aim or that all operations and actions are judged against the primary goal, i.e., increasing profits, provide support for this viewpoint. According to Gavurova, Ivankova, Rigelsky and Privarova (2020), one reason for the motives behind executing earnings management is the notion of transaction costs with stakeholders. The notion of transaction costs with stakeholders is based on the observation that the expenses of negotiating with stakeholders vary in magnitude depending on how much profit the organisation generates. Companies that are highly profitable have reduced stakeholder interaction, dealing, and dealing expenses; if there is a decline in earnings or even a loss, these costs will climb fast. There are reasons for not changing the results in this situation as well, but overall, the reasons for doing so are stronger. The quantity of profit and, more importantly, the emphasis on its growth, are the shared elements of these two strategies. Therefore, a decline in profit is seen adversely. In a similar vein, it may be claimed that even a wide range in the growth of profit is not very ideal; it is preferable for the company's profit to increase steadily over time.

Hussain, Akbar, Kaleem Khan, Akbar, Panait and Catalin Voica (2020) provided a different take on the motive for doing earnings management. Their perspective is based on the varying degrees of investor and manager information. Investors only attempt to infer this information from recorded and publicised data, economic outcomes, and managers' accurate and true knowledge of profits and the type of business (low or high-value firm). The authors further draw the conclusion that managers are prepared to alter results in order to boost company value because of the structure of payment plans. Therefore, the goal in this instance is to alter how reported profits, which are generally adjusted upward, are seen by investors as representing the worth of the company. The last stated motivation (Susanto et al., 2019) is mostly analysed from the managers' or investors' perspective of investor protection. According to this viewpoint, motivation is largely driven by the conflicting interests of insiders and outsiders (investors or managers). Managers attempt to utilise earnings management as a technique solely to safeguard their personal benefits. In this situation, managers smooth out or modify earnings and their growth to avoid outside investors' interference and putting their benefits and pleasures at risk (Svabova et al., 2020). Given that it mostly includes several earlier motives, the most recently stated motivation may be seen as being the widest and most appropriate. It includes interactions with stakeholders, an implied focus on the growth of the firm's profit, and an effort to mislead investors by altering how much the company is valued in the eyes of investors via earnings. Examining the distribution of earnings, profit, and other surprises is another strategy for assessing the existence of earnings management. The existence of a skewed,

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disordered, or abnormal distribution of these numbers is examined (Tbalvandani & Nashtei, 2017). Distribution testing has seen some evolution in recent years. When it is discovered that profit distributions are skewed or disrupted, it is first important to address this issue. Firms with low losses are less prevalent than anticipated, but companies with low earnings are more prevalent. Profits are being smoothed because of the spread (distribution) of such profits as well as their non-standard shift. It allows businesses that had low losses before the adjustment to migrate into the region of zero losses or low profits, leading to an unnatural or irregular distribution of businesses based on their profit margins (Vrbka et al., 2019).

There is a very distinct difference between genuine and just accounting activities changing results, as was already mentioned in the first part. The distinction between justified, less forceful eradication and typical extermination is difficult to draw, though. Whether someone is being injured is a crucial clue that might show whether a boundary has already been crossed. This criterion appears to be a good place to start, but it is not accurate since hurt or damage may be experienced on many different levels and because each person has a distinct vision of the world, it might become problematic if the harm did not immediately result in monetary loss.

The legal side of earnings management

Regulation and legislation are crucial in preventing and lowering management earnings. Investor protection is a crucial factor in determining how earnings are managed globally, according to research by Xu et al. (2021). They investigate whether the prevalence of earnings management diminishes as investor rights and safeguards and legal enforceability rise through a survey of 8,000 enterprises from 31 countries utilising 9 years of data. They categorise the societies of the assessed nations into a range of levels: development of capital markets, investor rights, and legal enforceability. The lowest amount of earnings management is found in nations with significant capital markets, robust investor protections, and robust legal systems, according to a later review of specific groups and the disparities between them. Additionally, it is determined via the study of empirical data that the external protection of investors is largely to blame for the regional heterogeneity in the occurrence of earnings management. In this context, it is important to note that, despite the study's conclusion that the most developed nations with the strongest legal systems are the best at preventing the occurrence of earnings management, the most well-known instances of financial fraud are from the United States of America (Ahmadpour & Shahsavari, 2016). Therefore, rather than interpreting the research's findings in terms of the absolute frequency of earnings management, consider them in terms of how many firms are listed on the capital markets.

Since 2002, a unique legislation (the Public Company Accounting Reform and Investor Protection Act of 2002) has been in force in the United States of America that primarily addresses the problem of earnings management and financial fraud in general. After Enron, WorldCom, Adelphia, and other big financial scandals and scams, this statute was created and implemented. This comprehensive piece of legislation should improve investors' protection. This statute, among other things, creates the Public Company Accounting Oversight Board, which, as its name implies, controls, and oversees accounting firms. Due to its broad application, the legislation covers not just accounting but also corporate governance and the disclosure of financial information (Argawal & Chatterjee, 2015). It only applies to publicly trade corporations. Although the implementation of this regulation increased investor rights and protection—which was mentioned above as a crucial element in the avoidance of EM—it also has some unfavourable consequences. In their analysis, Beneish et al. (2012) found that the law's strictness prevented smaller international businesses from issuing their new shares on US marketplaces, particularly NASDAQ. Listed on exchanges outside of the American market, particularly in Great Britain, these shares have seen a certain shift in the listing.

There is an additional relationship between earnings management and the legal environment in addition to direct regulation and laws. Campa and Camacho-Minano (2015) specifically cite the regulation published by the SEC regarding auditor independence, Final rule S7-13-00, Revision of the Commission's Auditor Independence Requirements. It relates to the auditing legislation in the United States of America. This regulation specifies the auditor's remuneration for audit and non-audit services as well as the auditor's independence from the audited firms. The rule states that investors must have unfettered access to information on costs for non-audit services. The authors also look at the connection between non-audit fees and earnings adjustments and discover evidence of a pertinent connection between fees, accruals, and minor earnings shocks. Based on this, it is reasonable to conclude that laws or rules that are not specifically connected to the problem of earnings management can yet have a big impact on it (Lazaroiu et al., 2020).

Methodology

The graphic portion of the research was created using the VosViewer application, and bibliometric analyses were created using it to track the most popular terms. The Web of Science database, one of the best databases for scientific literature, served as the source for the keywords.

Table 1. Overview of analysed articles

Name	Number of articles	Years	Source database
Earnings Management	12,810	1955-2022	Web of Science

Source: own research

The VOS Viewer was used to create the bibliometric maps based on the co-occurrence frequencies of terms, which is a generally used measure of the relatedness of words, once all of the considered articles had been retrieved from the journals. According to Van Eck et al. (2010), the VOSViewer is particularly helpful for easily understanding big bibliometric maps. Therefore, understanding the results depends greatly on how the map is interpreted. A software program called VOS Viewer may be used to see and explore maps made from network data. The VOS Viewer may be used to build networks of researchers, research institutions, nations, keywords, or concepts as well as scientific articles, journals, and researchers. These networks' elements can be linked together through co-authorship, cooccurrence, citation, bibliographic coupling, or any other method (van Eck and Waltman, 2020).

The citation attribute is used when dealing with co-authorship, citation, or bibliographic coupling linkages. It shows the number of citations a certain document has, or the total number of citations received by all documents published by a source, an author, an organization, or a nation. The number of citations made to a cited reference, cited source, or the cited author is shown via the citations attribute when dealing with co-citation links. When using keywords, the occurrences property shows how many pages include a certain term (van Eck and Waltman 2020). In VOS Viewer, items may have a variety of properties. Cluster numbers are an example of an attribute when objects are assigned to clusters. The weight is very significant. Numerical numbers are used to represent these characteristics. Only non-negative values are allowed for weight characteristics (van Eck and Waltman, 2020). The size of the label and the item's circle increase in proportion to the factor's weight, while the distance between the words on the map decreases the greater the association between them. Objects having a greater weight are displayed more prominently in a map's representation than items with a lower weight. The links property and the overall link strength attribute are the two standard weight attributes. The links

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and total link strength properties for a specific object show, respectively, how many links that item has with other items and how strong those relationships are overall.

The clusters of the terms are identified using various colours; the same colour indicates that the terms inside the cluster are more closely connected than those in other clusters. We utilized the normalization approach and the map-creation method based on bibliographic data to create the map. The association strength approach is used to normalize the strength of the relationships between items if this option is chosen. We chose and confirmed the keywords with the highest overall link strength.

Results

The phrase earnings management is become increasingly common, particularly in the scientific community. This is further supported by the over 12,810 works that were produced in 67 years as publications and citations on the subject. The greater participation of well-known corporations, particularly Enron, which popularised this word, might be cited as the cause. The globe map of publications on the topic is shown in the following figure (Figure 2). It is easy to observe the global interest in publications on this topic, with the USA (4,884), China (2,021), Great Britain (867), Australia (856), Canada (702), and Taiwan among the most influential countries (521).

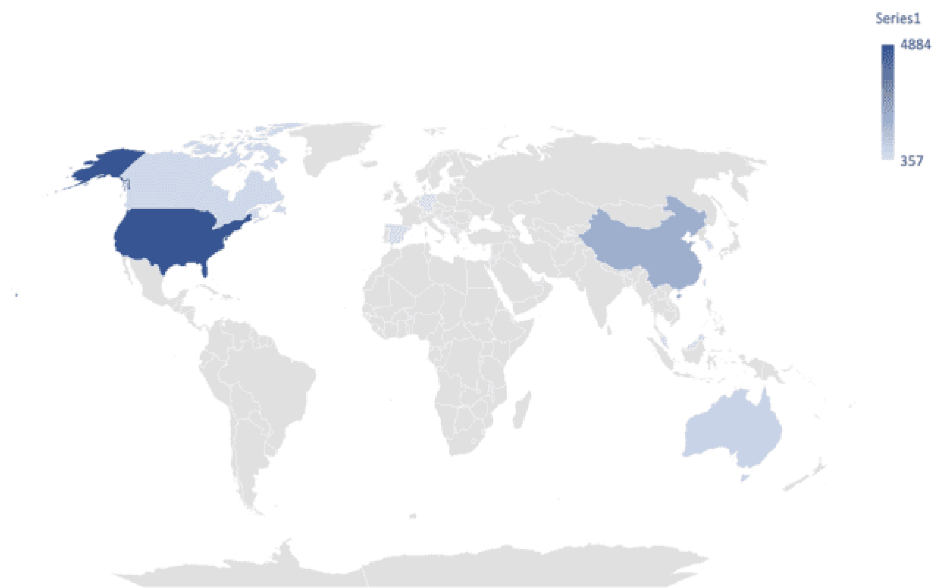

Figure 2. Overview of the most frequently publishing countries (EM concept - first 10 countries)
Source: own calculations

Earnings management is a topic that is discussed all over the globe, however, it should be mentioned that Slovak authors Valaskova et al. (2021), Kliestik et al. (2020), Durana et al. (2022), Svabova et al. (2020), and others are among the most significant writers on the subject of earnings management. The study offers a bibliometric analysis since earnings management is composed of other words that constitute its essential components (Figure 3). The term earnings management has been in use since around 1969, and since that time, more than 12,500 (according to the Web of Science) publications have been written on the subject. Every year, there are an additional 11% of papers written on this subject, on average.

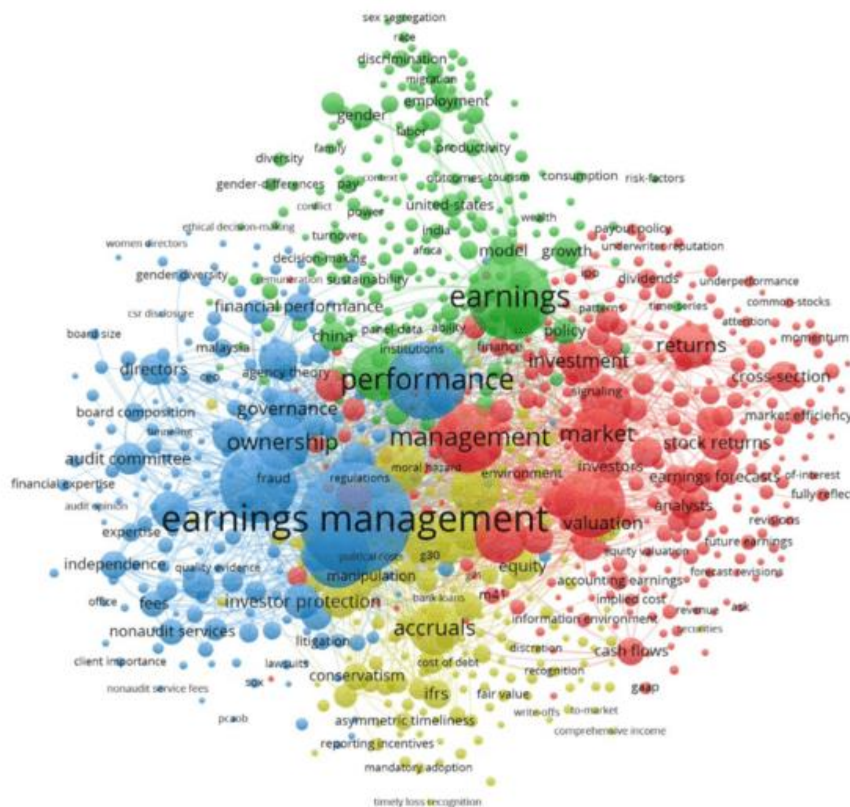

Figure 3. Bibliometric analysis capturing the most representative concepts of earnings management
Source: own calculations

It can be seen that several important terms help to complete the core of the notion of earnings management. The phrases earnings management, profits, earnings manipulation, and accruals are mostly used here. It is evident that four main clusters were identified: i) earnings management determinants (blue) focusing mostly on the investors' protection, audit committee, the board size, quality evidence, or ownership; ii) corporate features (red) devoted to the valuation, market efficiency, dividends, earnings forecasts, cash flow or IPO; iii) performance efficiency (green) where the keywords such as turnover, decision-making processes, consumption, risk-factors are considered; and finally iv) accounting standards (yellow-green) declaring the importance of accruals, equity, reporting, manipulation practices and IFRS standards in the research field of earnings management practices. These phrases make up the entire concept of earnings management. The management of any firm necessitates such management of earnings when the economic outcome will be treated as the intended condition, which can be inferred from the preceding study. It is essential to clearly and precisely establish these goals and pay attention to their fulfilment over the full monitored period if the goals and quotas are to be met.

Nonetheless, the authors worldwide (e.g., Tachinakis, 2022; Martinez-Martinez et al., 2021; Valaskova et al., 2021; Vagner et al., 2021; Montenegro & Rodrigues, 2020; Ibrani et al., 2019) focus on the identification of crucial determinants that may influence the manipulative behaviour of enterprises (Figure 4). Several clusters can be identified highlighting the importance of some earnings management determinants, ownership structure, corporate governance, investor protection, corporate performance, quality of reporting, incentives, or corporate behaviour.

Figure 4. Bibliometric analysis capturing the most important determinants of earnings management
Source: own calculations

Discussion

We attempted to define the phrase earnings management and the main terms that constitute its core in the paper that was given. It is possible to verify a large number of publications and the interest in writing on this topic, but it should also be remembered that earnings management has a variety of synonyms, including creative accounting, fraudulent accounting, and other terms of a similar kind. Because of this, it is essential to carefully understand each notion before evaluating and contrasting them. Since 1953, there have been articles written regarding earnings management, and the number of publications is still rising. It's crucial to note, however, that quality is rising more rapidly than quantity. The most well-known Slovak authors who have made a significant impact on this problem are also mentioned in the book. Asymmetry in the distribution of articles based on the specified keywords was one of the research's other drawbacks (each term began to be used in a different year). This does not, however, play a significant part in the expression of the outcome, which is the validation of the identification of crucial phrases for earnings management.

Determining if earnings management is present also indicates the manipulation's goals. It is obvious that the political climate and national policy are important. According to Ronen and Yaari (2008), elements incorporated into the internal or external contract of businesses might be anticipated to affect the motivation of earnings management. Because they choose a distinct accounting system, data disclosure preference, tax position, company policy preference and execution, and profit management strategy preference, various managers have varied management styles (Aviantara, 2021). Taxation is one of the most significant motivations. Businesses artificially lower earnings to lower tax costs that are based on the volume of overall income. According to Chang, Liang and Yu (2019), taxes reduce aggressive earnings management since the appropriate authorities may

quickly identify significant disparities between accounting and tax income. Additionally, the ability to manage earnings is made possible by the flexibility of tax laws. For instance, the ability to adjust income for tax purposes encourages businesses to manage profits downward while the ability to reduce taxes for certain future periods encourages businesses to manage earnings upward.

A significant influence is also played by industry. Businesses operating in the same sector have comparable financial and legal objectives, and often take their rivals' actions into account when making choices. According to Vrbka, Nica and Podhorska (2019), the industry can have an impact on discretionary accruals and the phenomena of earnings management. The findings of several researchers show that there are disparities across industries in the context of managing earnings in various national economies. For a variety of administrative, financial, or legal reasons, businesses distort their earnings. The majority of the new laws instruct companies to control discretionary accruals downward to discourage regulators from passing stringent rules that would hurt market-active companies (Jones, 1991). Companies manage their earnings by minimising corporate reserves and contributions to prevent government action that might result in the suspension of their company operations. Contrarily, the lack of laws drives businesses to manage earnings higher because there is no market protection (Tbalvandani & Nashtei, 2017). The effectiveness of earnings management may also be impacted by the introduction of International Financial Reporting Standards (IFRS). According to empirical data, not all nations are required to implement IFRS. Some writers also illustrate how market rivalry affects the manipulation of earnings. Businesses in the same sector take their rivals' success into account when they manipulate profitability. As a result, managers put pressure on themselves to outperform their rivals and increase the number of incentives for managing earnings. In the time before receiving foreign money, managers are compelled to manage earnings to raise share prices, boost capital value, and improve their trustworthiness and credibility (Gavurova et al., 2020).

Conclusions

The outcomes of the executed bibliometric mapping revealed factors and involved indicators, providing data on the most significant areas of innovation in recent years, including corporate performance, product development, knowledge and science, research and development, and new technologies. The findings may be helpful for professionals to get new information and generate fresh ideas while making a variety of company decisions, as well as for academics to decide the path of their study in innovation management.

However, the study has some limitations – the use of the Web of Science database only and the exclusive use of keywords (not authors or countries), which may be perceived as a challenge for future research.

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